Agrarian Reform and Rural Development

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Acronyms

ABP	AREA-BASED PLAN
ADA	AGRICULTURAL DEVELOPMENT AGENCY
AFF	AGRICULTURE, FORESTRY AND FISHERIES
AFRA	ASSOCIATION FOR RURAL ADVANCEMENT
AMP	AGRICULTURAL MASTER PLAN
ANC	AFRICAN NATIONAL CONGRESS
ARC	AGRICULTURAL RESEARCH COUNCIL
BEUP	BUSINESS ENTERPRISES AT UNIVERSITY OF PRETORIA
BFA	BESTERS FARMERS ASSOCIATION
CASP	COMPREHENSIVE AGRICULTURAL SUPPORT PROGRAMME
CMA	CATCHMENT MANAGEMENT AGENCY
CRDP	COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME
CRLR	COMMISSION ON RESTITUTION OF LAND RIGHTS
CSS	CENTRAL STATISTICAL SERVICE
DAFF	DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES
DBSA	DEVELOPMENT BANK OF SOUTHERN AFRICA
DLA	DEPARTMENT OF LAND AFFAIRS
DLRC	DISTRICT LAND REFORM COMMITTEE
DOA	DEPARTMENT OF AGRICULTURE
DPLG	DEPARTMENT OF PROVINCIAL AND LOCAL GOVERNMENT
DRDLR	DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM
DTS	DISPLAY TECHNOLOGY SYSTEM
DWAF	DEPARTMENT OF WATER AFFAIRS AND FORESTRY
EPRI	ECONOMIC POLICY RESEARCH INSTITUTE
ERP	EXTENSION RECOVERY PROGRAMME
FSP	FARMER SUPPORT PROGRAMMES
GHS	GENERAL HOUSEHOLD SURVEY
GSA	GRAIN SOUTH AFRICA
GWK	GRIEKWALAND-WES KORPORATIEF (PTY) (LTD)
IB	IRRIGATION BOARD
ICT	INFORMATION AND COMMUNICATION TECHNOLOGY
IDP	INTEGRATED DEVELOPMENT PLAN
IFSS	INTEGRATED FOOD SECURITY STRATEGY
LAPC	LAND AND AGRICULTURE POLICY CENTRE
LRAD	LAND REDISTRIBUTION FOR AGRICULTURAL DEVELOPMENT
LRSP	LAND REFORM SUPPORT PROGRAMME
MAFISA	MICRO AGRICULTURAL FINANCIAL INSTITUTIONS OF SOUTH AFRICA
MIS	MARKET INFORMATION SYSTEM
MTSF	MEDIUM TERM STRATEGIC FRAMEWORK
NAMC	NATIONAL AGRICULTURAL MARKETING COUNCIL
NDA	NATIONAL DEPARTMENT OF AGRICULTURE
NGO	NON-GOVERNMENTAL ORGANISATION
NDP	NATIONAL DEVELOPMENT PLAN
NTK	NTK (PTY) (LTD)
NWA	NATIONAL WATER ACT
NWGA	NATIONAL WOOLGROWERS' ASSOCIATION OF SA
NWK	NWK (PTY) (LTD)
PDA	PROVINCIAL DEPARTMENT OF AGRICULTURE
PLAS	PROACTIVE LAND ACQUISITION STRATEGY

QoL	QUALITY OF LIFE
R&D	RESEARCH AND DEVELOPMENT
RDP	RECONSTRUCTION AND DEVELOPMENT PROGRAMME
RDP	RURAL DEVELOPMENT PLAN
RECAP	RECAPITALISATION AND DEVELOPMENT PROGRAMME
RLCC	REGIONAL LAND CLAIMS COMMISSION
SACN	SOUTH AFRICAN CITIES NETWORK
SDF	SPATIAL DEVELOPMENT FRAMEWORK
SLAG	SETTLEMENT AND LAND ACQUISITION GRANT
SLL	STRATEGICALLY LOCATED LAND
SPG	SETTLEMENT PLANNING GRANT
SPLUMA	SPATIAL PLANNING AND LAND USE MANAGEMENT ACT
SPSS	STRATEGIC PLAN FOR SMALLHOLDER SUPPORT
STATS SA	STATISTICS SOUTH AFRICA
TAU	TRANSVAAL AGRICULTURAL UNION
VKB	VKB GROUP
WMA	WATER MANAGEMENT AREAS
WUA	WATER USER ASSOCIATION

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1 Changes in South Africa's agricultural sector since 1994 and before

Overview

South Africa's farming sector is highly dualistic, in that it comprises a relatively small number of large-scale, mostly white-owned commercial farms, occupying the majority of the country's agricultural land, and a large number of small-scale black farmers largely confined to the ex-bantustans. This stark division, and the historical circumstances that led to it, is why transformation of the sector is a burning issue in South Africa. As for secondary agriculture – i.e. 'agri-business' – a similar division exists, thus a similar impetus to effect transformation applies. However, it is important to appreciate that as much as there is dualism, at the same time it is true that both the commercial and small-scale subsectors are themselves quite diverse. In statistical terms, one could speak of a continuum between small and large but with a bi-modal distribution.

Table 1 reports estimates of the numbers, changes in numbers, and remuneration of different types of livelihoods related to agriculture, including the different types of primary production and secondary (upstream and downstream) activities. It illustrates the duality mentioned above, i.e. between large-scale and small-scale farmers. However, it also suggests the relative unimportance of land reform, in the sense that land reform beneficiaries are few relative to black farmers in the ex-bantustans and coloured reserves, and appear to produce relatively little value.

Table 1: Overview of the composition of livelihoods in the agricultural sector[1]

Subsector	Approximate number (year)	Absolute/percent changes (period)	Average/total remuneration p.a. in Rand (year)
Large-scale commercial farm sector[2]			
Farmers	30 000 (2015)	−28 000 / −48% (1993–2015)	R1 000 000 / 32.0 bn (2015)
Employees	800 000 (2015)	−600 000 / −43% (1994–2015)	R24 000 / 21.0 bn (2015)
Agriculture in ex-bantustans and coloured reserves[3]			
Commercially-oriented black smallholder HHs	150 000 (2010)	+34 000 / +29% (2002–2010)	R35 000 / 5.3 bn (2010)
Subsistence-oriented black HHs	2 600 000 (2010)	+510 000 / +24% (2002–2010)	R1 000 / 2.6 bn (2010)
Agricultural employees	90 000 (2010)	Not available	R9 000 / 0.8 bn (2010)
Land reform[4]			
Agric-active redistribution beneficiary HHs	33 000 (2015)	+33 000 (1995–2015)	R20 000 / 0.7 bn (2015)
Agric-active restitution beneficiary HHs	85 000 (2015)	+85 000 (1995–2015)	R8 000 / 0.7 bn (2015)
Agro-processing[5]			

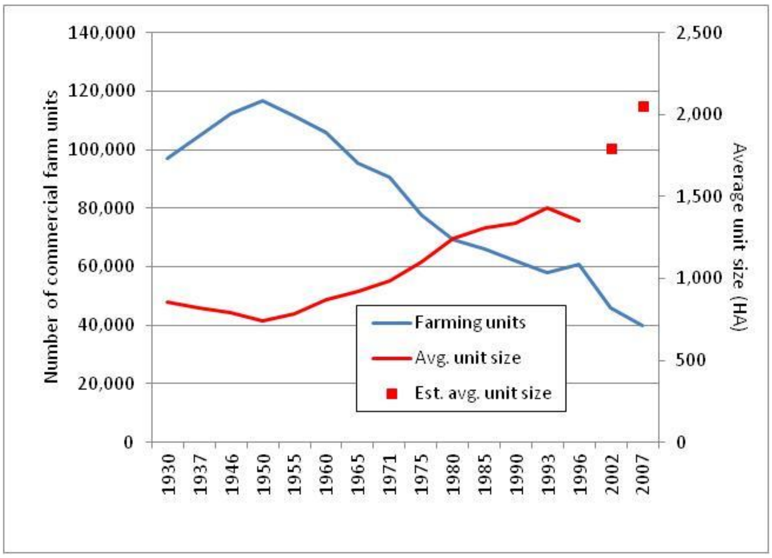
Agro-processing (food, bevs, tobacco) – formal	220 000 (2015)	−68 000 / −24% (1994–2015)	R160 000 / R35 bn
Agro-processing (food, bevs, tobacco) – informal	46 400 (2015)	+20 000 / +73% (1994–2015)	Not available

It is vital to put these recent changes in perspective by moving further back in time, particularly in respect of the large-scale commercial farm sector. Figure 1 shows that the number of commercial farm units in South Africa has been in decline since 1950, in fact there are only about 30% as many farm units as there were then. As importantly, this trend appears fairly steady – it is unclear whether the apparent upward blip in 1996 was real or whether it rather reflects some kind or survey or statistical error, in any case the predominant downward trajectory quickly resumed.

More or less commensurate with the decline in the number of farm units is an increase in average farm size, because the overall stock of commercial farmland has diminished very little in the last half century. (Unfortunately, the last two agricultural censuses had no figures for the total amount of farmland in use, so the average sizes for these two years are merely estimates.) The process by which the exit of some farmers results in the expansion of others is known as 'consolidation'; agriculture may have new entrants but they are outnumbered by those leaving.

Because an agricultural census has not been conducted since 2007, the present number of commercial farmers is speculation. There is also a concern about how 'commercial farmers' are defined; for instance, Statistics South Africa is reportedly inconsistent in who it regards as a commercial farmer; for the last two agricultural censuses (2002 and 2007), a farmer qualified as commercial if their turnover was such as to oblige them to register for tax, which on the one hand is arbitrary, and on the other hand probably excluded a number of farmers who should have registered for tax but who did not.[6] On the basis of the General Household Survey (GHS), this would appear to exclude approximately 10 000 to 15 000 white-owned farms and perhaps as many black-owned farms.

Figure 1: Numbers of commercial farm units and average farm size, 1930-2007[7]



In any case, the trend observed since 1994 in terms of declining numbers of farm units and increasing average farm size, is a continuation of a well-established, longer-term trend. This in turn suggests that the forces at play are robust; it also suggests that the liberalisation of agricultural markets, is almost certainly not the critical factor in driving this trend over the past two decades, though liberalisation might possibly have exacerbated it.[8]

The long-term changes through which South African agriculture has been going are not unique to South Africa. The process according to which a country's agricultural sector shrinks relative to other sectors (even while it continues to grow in absolute terms), encouraging the widespread shift of people out of farming and thus the consolidation of farming units, is a stereotypical pattern referred to as the 'agricultural transformation',[9] not to be confused with the term 'agrarian transformation' as presently used in South Africa. The agricultural transformation is thus in large measure reflective of what is happening in a country's economy more broadly. But another key ingredient is the growing 'efficiency' of agriculture itself, driven by the adoption of new technologies, which in turn is promoted through state-sponsored and private sector R&D.[10]

The flip-side of the agricultural transformation is the 'agricultural treadmill'. Farmers must expand and become more efficient merely to survive; those who fail to do so exit, leaving a bit of space for expansion to those remaining behind. The problem is that as each individual farmer heeds the urge and opportunity to become more productive, agricultural production expands more quickly than demand, and farm-gate prices tend to decline, pushing margins lower. Declining agricultural commodity prices characterised much of the 20th century for exactly this reason.[11] The recent surges in food prices to some extent appear to be a reversal of this trend, but even now it is the case that high prices faced by consumers do not necessarily imply high prices received by primary producers. In fact, as much as primary agriculture has consolidated over the last 60 years, it must be emphasised that with rare exceptions, farmers remain price-takers.

This process of farms being driven to expand is often understood to mean that farmers are seeking to reap 'economies of scale', however this is not necessarily the case, at least not in the strict sense in which economists understand the term. In fact, there is a fierce debate on the question of the optimal scale of farming units. One view is that agriculture has little or no economies of scale except under specific circumstances (e.g. certain kinds of packaging), and increasingly in terms of marketing,[12] and that on both efficiency and equity grounds, large numbers of smaller farms are preferable to smaller numbers of larger farms.[13] What is certainly true is that the margins in farming tend to be squeezed, such that in order to maintain farming as an attractive career choice relative to non-farm opportunities, one tends to expand one's enterprise, which in many instances implies more land.

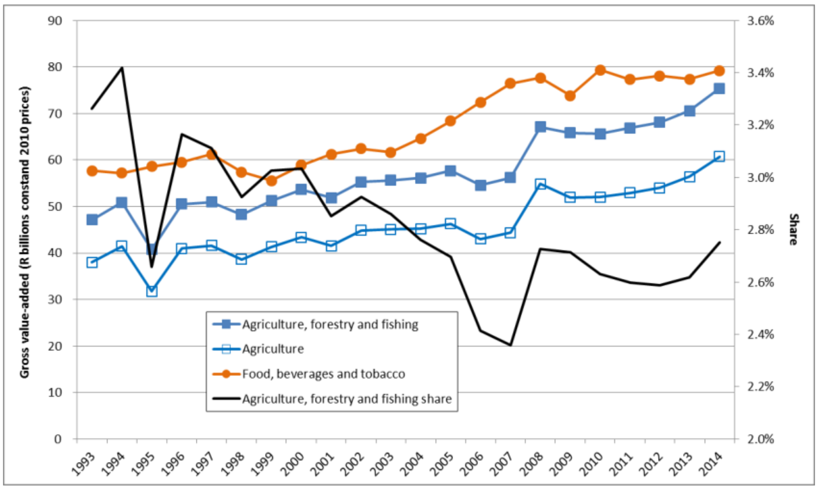
With the process of consolidation, there tends to come a change in how farmers farm, the general tendency being to increase capital intensity at the expense of labour. One of the key drivers is the so-called 'supervision problem': as the physical area of a farm increases, the ability to supervise workers diminishes,[14] thus the inclination to shift towards mechanisation, greater use of chemical controls, etc. In a country such as the USA, this process tends to be benign or even positive; farmers struggle to compete for unskilled workers to work on farms, because these workers have better opportunities elsewhere. In South Africa however it is problematic because unemployment is already at crisis proportions, particularly in rural areas.

This unrelenting process of long-term change implies *inter alia* that the agricultural dualism noted above is tending to become starker, the reason being that the commercial sector is rapidly adopting new and more sophisticated technologies, operating more complex enterprises at ever larger scales, etc., while small scale farming tends to remain fairly static. This in turn implies that for previously disadvantaged individuals to get into the large-scale commercial farming sector involves an ever greater leap; and/or that the pool of candidates who have a reasonable chance of making it is smaller than it would be otherwise.

Commercial agriculture's contribution to the economy

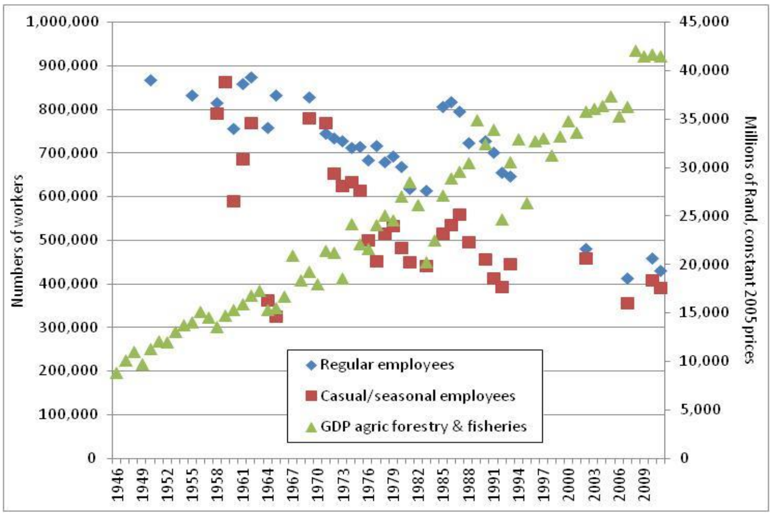
Between 1993 and 2014, the contribution of 'agriculture, forestry and fisheries' ('AFF') to the economy, as measured in its 'value added', increased in real (inflation-adjusted) terms by 60%; the same is true of agriculture on its own. This is impressive growth for a mature agricultural sector such as South Africa's. Of course, being agriculture, which is subject to both extreme production risk and increasingly price risk as well, the upward trend abstracts from significant year-to-year fluctuations. Also, AFF's share of the economy has tended to decrease, albeit with significant year-on-year fluctuations. Interestingly, the gross value-added of 'food, beverages and tobacco', which comprises the bulk of the agro-processing sector, is greater than that of AFF. However, although 'food, beverages and tobacco' has tended to grow at the same rate as AFF, its short-term ups and downs do not appear to correspond to those of AFF.

Figure 2: Trends in real value added and sectoral share[15]



The figure below goes back further in time while also drawing in the employment issue. The point being made here is that the growth of the agricultural sector in no way implies expansion of agricultural employment; on the contrary, real agricultural growth has coincided with the shedding of farm jobs over a sustained period. This tendency of commercial farms to be capital-intensive rather than labour-intensive was one of the original rationales for South Africa's land reform, as will be elaborated upon below.

Figure 3: Trends in farm jobs and AFF value added, 1946-2011[16]



Agricultural employment

In South Africa, the process of consolidation can be statistically linked to job shedding. For instance, in comparing the district data from the 1993 and 2002 agricultural censuses, there is a significant correlation whereby the greater the decline in the number of farm units, the greater the decline in farm jobs. Another indicator is that, comparing agricultural census data from 1971 up to now, what is conspicuous is that the average number of farmworkers per farm has remained remarkably stable at around 17 to 20, despite the fact that average farm size has doubled over this period. A further way of appreciating the link is by noting that to the extent large-scale commercial farms do in fact differ in size, the smaller ones tend to be more labour-using than those that are larger; from the 2002 census of commercial agriculture, one finds that farms with a gross income of less than R1 million accounted for only a quarter of all income earned by commercial farms, but at the same time for 40% of farm jobs. However, it is especially these smaller farms that are under threat as they either heed the call to expand or exit. On the other hand, it is also these smaller commercial farms on which labour conditions tend to be worse.[17]

Although the tendency of the agricultural sector to shed jobs over the longer term can be largely explained in terms of long-term processes of structural change, it is also important to mention the implications of labour legislation, in particular the minimum wage. The sectoral determination for agriculture was announced in late 2002 and put into effect in March 2003. The wage was set to R800 per month for local municipalities belonging to 'Area A' – generally those municipalities regarded as stronger farming areas – and to R650 per month for local municipalities belonging to 'Area B'. What was the impact? According to the most recent, technically-sophisticated study regarding the impact of the minimum wage by Bhorat et al.:

> 'Our results suggest that the sectoral minimum wage law in Agriculture in South Africa had significant effects, as farmworker wages rose by approximately 17 percent as a result of the law…. [I]t was also clear that wages rose by more in districts where the wage gap, between farmworker wages and control group wages, was higher. In other words, districts where

farmworker wages were far below the median wages of similar workers, experienced greater wage increases. This was evident despite the fact that approximately 60 percent of farmworkers still received sub-minimum wages in 2007. Regarding non-pecuniary benefits, the law also substantially increased contract coverage for farmworkers in South Africa. The number of workers with a written employment contract increased to reach 57 percent in 2007…. In examining the effect that the minimum wage had on employment, this paper shows that …employment fell significantly in response to the law.'[18]

The overall message conforms to expectations: the minimum wage improved pay for farmworkers but discouraged employment. Beyond this are a number of other insights, such as: i) the fact that this impact was despite the apparently weak level of compliance with the law, and ii) there were significant non-monetary benefits associated with the introduction of the minimum wage, for instance the use of proper contracts.

However, Bhorat et al.'s analysis, understandably, may have understated the longer-term impact of the sectoral determination. Figure 4 below shows trends since 1970 of formal and informal employment in agricultural, using a 5-year moving average. Up until around 2000, formal employment in agriculture declined steadily (with no evidence of an acceleration due to the liberalisation in the early and mid-1990s), however from 2002-2006 there began a steep decline, which carried on for several years.[19] The figure does not prove that the sectoral determination was the precipitating event, but it is plausible, also that the full implications took some time to manifest themselves.

Figure 4: Long-term employment trends in formal and informal sector agricultural employment[20]

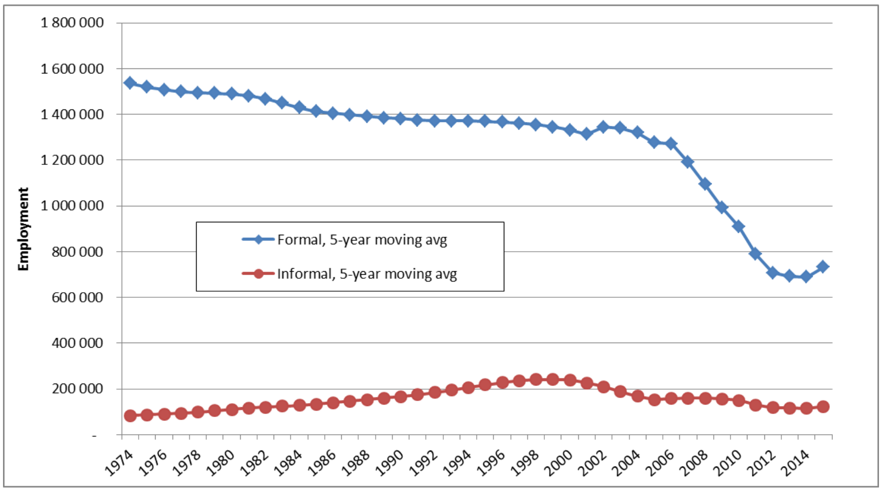
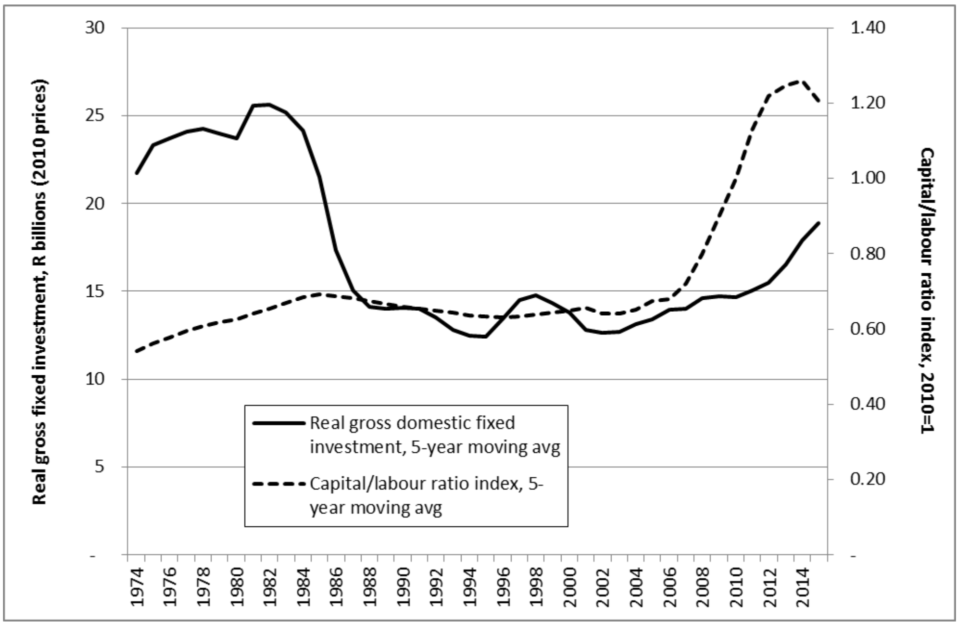


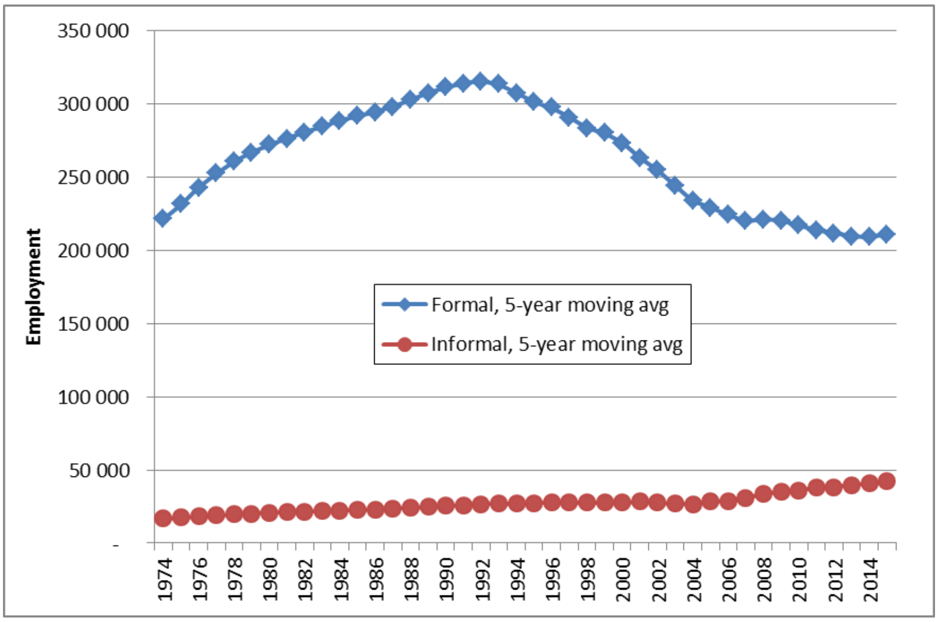
Figure 5 provides a bit more depth. The dotted line represents an index of the ratio of capital to labour, whereby a higher index value signifies greater capital-intensity in primary agriculture. Interestingly, capital intensity grew gradually from the mid-1970s to the mid-1980s, after which it plateaued and stayed static for the next 20 years. From 2002-2006 or so, capital-intensity started to rise rapidly for about a decade. This capital/labour ratio obviously rose because it was also over this period that employment dropped so precipitously, but it also rose because farmers had begun to accelerate capitalising their farms, as shown by the solid line; in fact this solid line only partially captures this capitalisation process, because it refers only to fixed investments, and not to, say, machinery and equipment.

Figure 5: Long-term trends in real gross fixed investment and the capital/labour ratio in agriculture[21]



Employment in agro-processing shows a somewhat different pattern, with a significant increase up to the early 1990s, and thereafter a decrease of similar proportions. Why the decline in agro-processing jobs started early is perhaps on account of the tighter effective labour regulation affecting the manufacturing sector generally at around that time. It is noteworthy, however, that employment in informal agro-processing has tended to increase continuously, though it remains well below employment in formal sector agro-processing.

Figure 6: Long-term employment trends in formal and informal sector agro-processing[22]



2 Farm/project-level planning in land reform contexts

The economic rationale for redistributive land reform

Government has never stated a clear economic rationale for land reform, however the ANC's Reconstruction and Development Programme (RDP) of 1994 did provide a fairly clear and coherent view, as captured in these two excerpts:

> 'A national land reform programme is the central and driving force of a programme of rural development. Such a programme aims to address effectively the injustices of forced removals and the historical denial of access to land…. In implementing the national land reform programme, and through the provision of support services, the democratic government will build the economy by generating large-scale employment, increasing rural incomes and eliminating overcrowding.'[23]

> '[The improved quality of rural life] must entail a dramatic land reform programme to transfer land from the inefficient, debt-ridden, ecologically-damaging and white-dominated large farm sector to all those who wish to produce incomes through farming in a more sustainable agricultural system.'[24]

The underlying principle is that small farmers tend to be less capital-intensive and more labour-intensive, which is more appropriate in a labour-abundant (e.g. unemployment-plagued) environment. This principle is otherwise known as the 'inverse farm-size productivity relationship', or sometimes the 'inverse farm-size productivity relationship hypothesis', about which much has been written, both in favour and against.[25] The inverse farm-size productivity relationship contends that, in the absence of various market distortions, small-scale farmers use land more intensively and thus productively, and moreover use more labour (per unit area) in doing so. The key mechanism underlying the relationship is the same 'supervision problem' mentioned above; the larger the farm, the more difficult is supervision (especially given that more workers typically implies more hired workers relative to family members), compelling farmers to introduce machinery and other labour-replacing technologies, i.e. to resemble South Africa's typical, large-scale white commercial farm. While the impetus to increase one's farm size is to earn a higher income, this results in a collective ('social') inefficiency, as the second-best solution of tractors and pesticides implies the lower overall use of labour; in a context of high unemployment such as that which characterises most of southern Africa, this is especially unfortunate.

Although it is not explicit, the idea that land reform will drive rural development can also be interpreted as meaning that through land reform there will be a stimulus to the local economy via consumption and production linkages. There is a similar line of thinking in the National Development Plan, wherein of the '1 million new jobs in agriculture' proposed, one third are not in primary agriculture but arise due to 'multiplier effects'.[26]

In terms of consumption linkages, the argument is that when income streams are diverted from well-off people (e.g. a large-scale commercial farmer) to poorer people (e.g. to the new small-scale farmers to whom the commercial farmer's land is redistributed), then the local or even domestic economy is likely to benefit because the pattern of spending of the poor favours domestically if not locally produced goods and services. The argument is based on the generally convincing observation that people with high incomes spend a larger share of their incomes on imported goods, and/or goods with a high import-content.[27] On the production side, the general idea is that large-scale, capital-intensive agriculture tends to be dissociated from the local economy in terms of sourcing inputs or marketing (or processing) outputs, relative to smaller-scale agriculture.[28]

Beyond the stated intentions of the RDP, it is evident that at least part of government's incipient land reform programme was indeed geared towards helping small-scale farmers. Thus the original funding modality for the redistribution programme consisted of a grant of R15 000 per household, whereas the average price of land on the market at the time was about R900 per hectare. Apart from the fact that this sum conveniently matched the new grant for subsidised housing, it was informed (or justified?) by background work undertaken on behalf of the Department of Land Affairs, which sought to arrive at an appropriate grant size based on the assumption of small-scale farming.[29]

The evolution of the land redistribution programme

Land redistribution is that part of land reform whereby people apply for financial and other assistance with which to acquire land for farming, and sometimes settlement purposes. Whereas tenure reform is mainly effected through legislation and associated processes regarded as 'rights-based' interventions, and the explicit function of restitution is to provide for restorative justice, the purpose of land redistribution is primarily economic, namely to reduce poverty and/or promote opportunities for economic advancement through agriculture. However, in contrast to restitution, the approach to land redistribution has changed significantly since 1994; it is important to understand these changes in order to appreciate the planning frameworks associated with land reform generally and redistribution specifically.

As articulated in the *White Paper on Land Policy*:

> 'The purpose of the land redistribution programme is to provide the poor with access to land for residential and productive uses, in order to improve their income and quality of life.... Although the scale of the proposed redistribution is not yet quantifiable, it must achieve the following outputs: a more equitable distribution of land and therefore contribute to national reconciliation and stability; substantially reduce land-related conflict in areas where land disputes are endemic; help solve the problem of landlessness and pave the way for an improvement in settlement conditions in urban and rural areas; enhance household income security, employment and economic growth throughout the country.'[30]

Until around 2009, the main approach to land redistribution was demand-led, meaning that people applied to the then Department of Land Affairs for grants with which to purchase land that they identified. Applicants usually pooled grants from multiple households or adult members of the same household in order to do so. Where land purchases involved multiple households, some kind of legal entity was formed, for example, a communal property association or a trust. Apart from a relatively small number of redistribution projects involving the disposal of state land (which itself mainly targeted erstwhile lessees), land acquisition was through the open market, i.e. the 'willing-buyer/willing-seller approach'. The main piece of enabling legislation for redistribution was and remains the Provision of Land and Assistance Act, 126 of 1993, which provides for the making of financial grants for settlement and production purposes in order to assist historically disadvantaged people.

From 1995 to 2000, the main financing vehicle for redistribution projects was the Settlement and Land Acquisition Grant (SLAG), which was awarded to households. As mentioned above, the SLAG was linked to the housing grant in that the maximum amount was the same as for the housing grant, but also in the sense that a given household could not access both grants in full measure, though it could in principle access a certain amount from each totaling not more than R15 000.

The SLAG was complemented by a planning grant to be used to engage the services of facilitators and/or consultants to conduct feasibility studies, prepare business plans, conduct valuations, and meet certain transfer costs. For reasons that will be explained below, in 2001 a new redistribution 'sub-programme' was introduced called Land Redistribution for Agricultural Development (LRAD), which largely superseded SLAG. LRAD came with its own grant formula. Grants were now available in a range from R20 000 up to R100 000 per adult, depending on an own contribution requirement which rose disproportionately according to the grant level (that is from R5 000 to R400 000). Because the LRAD grant was awarded to adults rather than to households, adult members of the same household could apply for LRAD grants and then pool them, making possible what was relatively rare under the SLAG, namely projects consisting of a single household or extended family. (About a third of all LRAD projects were single-household projects; two thirds involved three or fewer beneficiary households.) The other, strategic objective of LRAD, was to enhance the role of provincial agriculture departments in supporting land redistribution, in part by ensuring more clarity about respective roles and introducing mechanisms for promoting inter-departmental co-ordination. In terms of finances, Land Affairs paid for the initial land acquisition and whatever else could be afforded from the initial grant awarded to a project, while for some projects additional support for on-farm infrastructure came through the Comprehensive Agricultural Support Programme (CASP) of the national Department of Agriculture (of which more is said below).

Due to the relatively expensive nature of LRAD, there were few beneficiaries. Between 2001/02 and 2005/06, there were only about 3900 households benefiting per year, while between 2006/07 and 2008/09 there were fewer than 2000 households benefiting per year, despite annual expenditure in excess of R1 billion. In 2008, the LRAD policy was amended to allow for grants in a range from R111 000 per adult to R431 000. This latter shift was ostensibly to catch up with rising land prices, but in reality it represented a leap far greater than land prices over the intervening period.

To complement the dominant demand-led approach, around 2006 the Department of Land Affairs launched the Proactive Land Acquisition Strategy (PLAS), the idea of which was to acquire land that appeared suitable and strategic for redistribution. This land would be 'warehoused' until such time as appropriate beneficiaries were identified. (In some if not many cases, however, the intended beneficiaries were already known.) In principle, PLAS was meant to focus on the poor, and beneficiaries were expected to initially lease the land, obtaining ownership later on if they demonstrated that they could use it successfully.[31]

Around 2009, LRAD was cancelled in favour of PLAS, while PLAS was modified in various ways. While the reasons for cancelling LRAD have never been publicly articulated, one could infer that there was a growing concern that it did not make sense to give beneficiaries private ownership of land when such a high proportion of them failed to make use of it, and some even chose to sell it. Maintaining this land as state land via PLAS would allow government more control and manoeuvrability, because beneficiaries would begin on a short-term lease, following which successful beneficiaries would be given an opportunity to shift to a long-term lease, while the state would remain the owner; this policy was later amended, at least cosmetically, such that beneficiaries were immediately granted a 30-year lease, of which the first three years were ‘probationary’. In any case, the post-2009 version of PLAS was in contrast to the earlier policy position whereby the government would seek to alienate appropriate existing state land to land reform beneficiaries, ultimately reducing the amount of land owned by the state. However, at least on paper, PLAS underwent further changes around 2012 or 2013, whereby some beneficiaries closer to the large-scale, commercial end of the spectrum, would be given an option to purchase at the successful conclusion of the initial probationary period of their lease.

Aside from the shift from a demand-led to a supply-led approach, and changes in various other modalities, there is an important pattern of change running through the history of the redistribution programme, namely where more land and other assistance is concentrated on ever fewer beneficiaries. The shift from SLAG to LRAD around 2000-01 was the first instance of such a shift. The increase in the LRAD grants in 2008 was the second. Under PLAS, there is in fact no limit to how much can be spent to acquire a farm, perhaps because in any case the farm does not become the property of a beneficiary (at least not initially), but instead belongs to the state.

The rationale for this trajectory is straightforward: it is a direct response to the concerns that had accumulated over the years about redistribution beneficiaries not being given a good enough start and not being adequately supported. In terms of how it has been implemented since 2009 especially, PLAS aspires to the ideal that beneficiaries should be afforded the same opportunities as the farmers whose going concerns are being purchased, meaning among other things that there is a move away from acquiring farms which might appear to be ‘unviable’. Table 2 below estimates the hectarage and cost per beneficiary under the three main redistribution programmes to date.[32] The changes form SLAG to LRAD, and LRAD to PLAS, are quite stark.

Table 2: Estimated delivery ratios for different redistribution programmes[33]

Programme (years)	Hectares / household	Hectares / individual	Cost / individual
SLAG (1994-2000)	5.8	3.3	R5 240
LRAD (2001-2009)	34	18	R90 665
PLAS (2006-present)	618	214	R1 481 145

However, in late 2015, DRDRL launched a new initiative known as the “One household, one hectare programme”, about which little information is publicly available. Apparently, the programme makes use of land acquired via PLAS, which is subdivided into more or less one hectare plots; these plots are then allocated to households, who are granted a 'certificate of use'.[34] The intention is that each district will have at least one such project per year.[35] The intended overall size of the programme is not clear, but in any case it does represent some kind of deviation from the trajectory sketched above.

Project planning – overview

As mentioned above, from the early days of land redistribution, provision was made for planning, specifically for money to be set aside (the 'Settlement Planning Grant') to hire professional planners in order to assist redistribution applicants develop a business plan. The size of the planning grant was usually determined as a share of the overall grant money which the applicants were seeking. Having a business plan was a requirement for project approval, moreover business plans were to some extent scrutinised by DLA staff in order to ensure that they were adequate.

Over time the details changed and changed again in terms of who drafted business plans, what they were meant to contain, and who signed off on them. In some cases the provincial department of agriculture was requested to assess the suitability of the land as a separate exercise from the drafting of the business plan.

Under LRAD, there was an expectation that some applicants would draft their own business plans, since one of the general principles of LRAD was that more responsibility would be placed on applicants for doing the footwork associated with applying. However, LRAD also provided for a planning grant, which was meant to be paid out to the 'design agent' in a particular way:

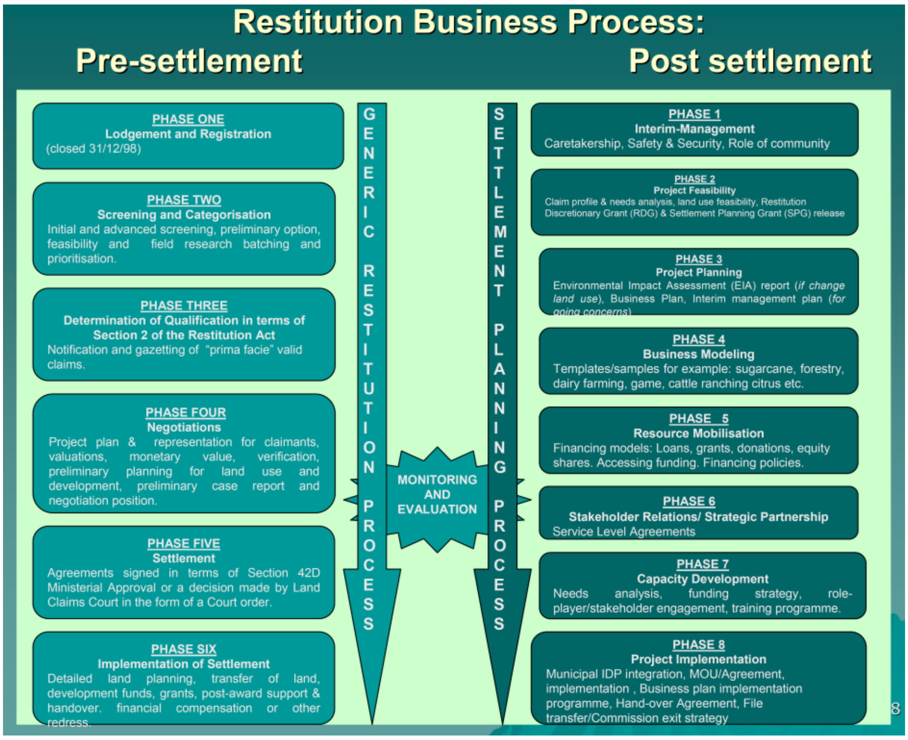
> 'Participants may choose to accept the assistance of a design agent. The design agent will be paid in two parts. A small payment will be made only to defray travel expenses. The second, larger payment will be paid only upon approval of the project. If the project is not approved and no transfer takes place, the design agent is not awarded the second payment. Payments made to design agents, together with those to valuers and expenses associated with subdivision, etc., will be taken out of a separate 'planning grant', which will be a maximum of 15% of the projected total capital costs of the project.'[36]

Under PLAS, the nature of project planning changed somewhat, because there is often a division in the decision-making process, whereby the first decision made is whether or not to purchase the identified farm, and the second decision is to whom it will be allocated and for what purpose; the latter decision may be taken months later. For the first stage, DLA/DRDLR usually depends on the respective provincial agriculture department for a 'feasibility study' or 'farm assessment', which usually consists mainly of a record of the farm's assets and a straightforward analysis of its present and possible future uses, where the latter usually differ little from the former. The actual business plan is then in principle drafted by a service provider, according to more or less the same terms of reference as applied to LRAD. However, it would seem that leases are awarded to beneficiaries regardless of whether or not a business plan has already been done or approved.

From the mid-1990s, the restitution programme also made use of the Settlement Planning Grant (SPG), but concerns over project performance were such that around 2001–2002 the CRLR set up a central Development Planning and Facilitation Unit, which was soon after complemented by spin-off units linked to the Commission's regional offices (RLCCs). However, these units were disbanded around 2009, when the Recapitalisation and Development Programme was introduced, even though it then turned out that only a small share of 'Recap' expenditure would be directed at restitution projects, and a small share of restitution projects benefit from Recap.[37] As of March 2009, the cumulative expenditure on the SPG was R246 million. Around that time, the SPG was amalgamated with the Restitution Discretionary Grant to become the 'Restitution Settlement Grant', which was then set at R6595 'per verified beneficiary household restored to land'.

The restitution programme has a detailed project cycle, of which numerous steps relate to planning. The diagram below summarises. The sequence of phases moving down along the left-hand column refer to the general process of receiving, researching and settling claims, of which the sixth phase is ''Implementation of Settlement', which consists of 'Detailed land planning, transfer of land, development funds, grants, post-award support & handover...'. This sixth phase can then be exploded into the phases moving down along the right-hand column, of which a number relate to planning. Given that rural restitution projects in which land is restored are often quite large (the average number of beneficiaries is almost 300 households), and many involve the restoration of multiple farms, it stands to reason that the planning process for restitution projects is often very involved.

Figure 7: Schematic of the restitution delivery process, including phases related to planning[38]



However, some members of the Commission feel that part of the problem with the performance of restitution projects can be traced back to the fact that the 'post settlement' planning starts too late, rather it should start during the pre-settlement phase so that the claimant community is better prepared from the moment they take possession of their land.[39]

To be clear, where business plans were drafted by consultants, whether for redistribution or restitution, these consultants were meant to work closely with applicants in developing these plans and to consider the applicants' needs from various perspectives. Consider the excerpt below from the 'Example of terms of reference of Service Providers for Business Plans' that forms part of the Implementation Manual for LRAD:[40]

> 1. Arrange workshops to explain the Land Reform Program of the Department of Land Affairs and the different options that are available to the community under this program.
> 2. Assess status quo of community in terms of the following:
>   - Characteristics (social profile);
>   - Goals and aspirations of the community;
>   - Organizational structure;
>   - Participation of women;
>   - Adherence to employment equity and existing labor relations legislation;
>   - Perform a skill audit, which should include an assessment of the literacy levels of the participants.
> 3. Perform a needs assessment of the current and future training needs of the participants.
> 4. On the basis of the needs assessment a comprehensive training proposal, to be executed by a recognized trainer or training organisation after project approval, should be prepared….
> 5. To conduct, during the facilitation process, information sessions, which include modules such as the following:
>   - legal entity identification;
>   - election of office bearers of selected management structures;
>   - responsibilities of members and committee;
>   - meeting procedures;
>   - reporting structures and procedures;
>   - gender sensitivity;
>   - basic financial skills; and
>   - basic management skills.

Moreover, within their respective funding parameters, SLAG, LRAD and PLAS were all designed so as to afford a great deal of flexibility in project type and design. For instance, despite being seen as a shift towards a more commercial orientation for land redistribution,[41] LRAD explicitly provided for so-called 'food safety net projects'. Moreover, as originally designed, LRAD anticipated that subdivision would be common:

> 'Although some farms may change hands as entire units, most may have to be subdivided in order to meet the objectives of beneficiaries. An owner of agricultural land seeking to

> subdivide in order to sell part to a beneficiary under LRAD will not be required to seek a permit. Until the restrictions on subdivision are fully rescinded, any subdivision undertaken for transactions under the land reform programme will be automatically pre-approved without further action on the part of the seller. The permission to subdivide for sale of land under LRAD will be effective immediately upon the launch of LRAD.'[42]

This makes what happened in land reform – and in redistribution particularly – all the more curious.

Project planning – what actually happened

More or less from the beginning, project planning in the context of the redistribution programme began to follow a more or less uniform, but unanticipated, approach. The essence of this approach was *continuity with the farming system of the previous owner*:

> 'By 1996–1997…there was a rapid convergence of projects around the following three characteristics. First, project business plans commonly assumed that the goal of a project was to provide the maximum cash income to each of its members, if not a full 'job-equivalent income' to each of them. Second, the usual strategy for seeking to accomplish this was to promote the idea that the group should continue with the farm activity that was undertaken by the previous owner. Often this was embellished with new activities that promised to add even more income (or, more accurately, to compensate for the fact that the existing farm enterprise was insufficient to support all the beneficiaries), for example, broileries, piggeries, 'knitting groups', and so on. And third, the implication was that the group would run the farm as a group. To compensate for the group's lack of management and/or farm experience, the plan often called for the group to hire a manager, perhaps on a temporary basis'.[43]

The consequence of this approach is well-known; group-based production projects were often beset by 'group dynamics', meaning that beneficiaries were often unable to agree on priorities or coordinate their efforts. This was one of the primary reasons why, under Minister Didiza, SLAG was discontinued in favour of LRAD in 2000/01, i.e. so that beneficiary groups were reduced in size, often even to single households. According to the LRAD policy document, group production projects would not be ruled out, however they 'will be discouraged'.[44] It is important to point out that this 'remedy' of using larger grants in order to reduce the size of beneficiary groups or do away with groups altogether, was not the only one that could have been identified – a completely different response would have been to abandon the large-scale commercial farming model (or apply it more selectively), meaning that beneficiaries could rather have subdivided the land, as per the implicit vision of the RDP. Why this alternative was not entertained is just as revealing as the initial choice to adopt the large-scale commercial farming model.[45]

Why did this happen – why, despite supposedly being premised on the advantages of small-scale farming, did the planning for SLAG-based redistribution projects almost invariably opt for the large-scale commercial farming model? And why, when this approach did not work, was the response/solution still one that embraced this model? Aliber and Mokeona suggest that it was because planners believed that large-scale commercial agriculture would secure the largest income, however that still begs the question, why?

Hebinck et al. (2011) provide a compelling answer, namely that land reform planning was and remains beholden to the prevailing 'expert system':

> 'Experts, expert knowledge and networks (together comprising elements of an expert system) play a key role in contemporary agriculture. Likewise, they are crucial to the implementation of land reform, particularly in settings like South Africa where consultants have come to play an important role in the design of business plans for land reform projects and their beneficiaries….The agricultural expert system represents a set of *practices* by which the development of the agricultural sector is directed; one in which problems are identified and solutions forged, proposed and implemented. Knowledge (and thus the control over what constitutes knowledge) plays a key role in any expert system.
>
> 'Moreover… a predominantly white consultancy industry played a key role in the planning and implementation of agrarian reforms. Each land reform project (redistribution and restitution) was assigned to "expert" consultants who compiled feasibility studies and prepared management and business plans. The consultants assessed the economic feasibility of the "project" and drafted a plan for knowledge transfer (implicitly assuming an absence of knowledge among the beneficiaries). In most instances, the sophistication of the business plans was not synchronised to the needs and wishes of beneficiaries, so that implementation of business plans often did not correlate with the contents of the plan.'[46]

In effect Hebinck et al. are saying that land reform projects were planned as large-scale commercial projects because this is what the planners – the 'experts' – were accustomed to and what they valued. Policy-makers either deferred to their judgement, or were not paying attention; at any rate, during the period 1994 to 2000, redistribution projects were established that had little to do with the vision or logic of the RDP.

Marais examined this process in detail, specifically how business plans were developed for redistribution projects with a bias in favour of large-scale commercial farming:

> 'Pre-democratic South African agriculture was known to be relatively large scale, market-oriented and mechanised…. If the claims made by critics in literature are true, then, according to the contemporary expert system's vision of agricultural development in South Africa, the future consists of agriculture as large scale and commercial within a productionist paradigm…. It seems if the contemporary expert system thus continues with the pre-democratic expert's macro-project. Other forms of agriculture, or other motivations to access land than just agricultural production, are seen as unproductive and not creating a future. Business plans that are not constructed towards this future are either totally rejected or need to be adjusted towards the recommendations made by the experts. Thus, the land redistribution scripts should lead towards this large scale commercial farming.'[47]

Marais presents detailed project case studies revealing how applicants' wishes were watered-down or disregarded by the 'experts', whether these be the consultants hired to help them, or the members of the District Agricultural Committees who vetted the business plans. In the case of Good Hope Farm near Malmesbury, Western Cape, the consultant hired to assist the beneficiaries made an earnest attempt to understand and promote their wishes, however their desire to subdivide was simply rejected by the District Agriculture Committee, while their intention to build their own homes was revised so that this would be a phased process taking a long time, so as to disturb the natural resources as little as possible. The fact that the applicants mainly intended to farm for their own food security was also called into question; to meet the demands of the Committee, the business plan had to be revised so that the applicants committed to graduating from 'subsistence farmers' to a 'small scale commercial level'. It is therefore not surprising that, post-transfer, the beneficiaries did not stick very closely to the business plan. These divergences seemed to have resulted in sharply different perspectives as to what was in fact happening. For example, from the perspective of the experts, the beneficiaries of the Lethu-Sonke Farmers project were 'doing nothing on the farm,' whereas according to Marais' own observation, they were indeed engaged in a number of agricultural and non-agricultural activities, simply not the ones or in the way prescribed in the official business plan, nor closely resembling what was happening on nearby large-scale commercial farms.[48]

It is impossible to assign statistics to this phenomenon whereby, in homage to the 'expert system', land reform assumed a one-size-fits-all bias in favour of large-scale commercial agriculture. One possible metric is the incidence of subdivision. However, the data available from DLA/DRDLR do not indicate how often subdivision was undertaken, although the anecdotal evidence suggests that subdivision has been rare except in a few settlement-oriented projects. One survey of over 100 redistribution and restitution projects in Capricorn and Vhembe districts, revealed not a single case of subdivision.[49] With larger farms now being acquired via PLAS, this may have changed, but one official suggests that it is only in the order of 10% of farms purchased through PLAS in which subdivision is undertaken,[50] which is all the more telling given the large size of many farms acquired via PLAS.

While the continued influence of the established 'expert system' is probably the most important explanation for the manner in which the large-scale commercial farming model quickly became the default for land redistribution projects, one other possible factor should be mentioned. We refer to this as the 'hassle factor', by which we mean the fact that handing over a farm to single beneficiary households or group, is easier than acquiring it, subdividing it, and then handing it over to multiple beneficiaries. While there is no direct proof that this 'hassle factor' has featured in the disinclination to subdivide, there is at least one clear correlate in an associated initiative, namely the Comprehensive Agricultural Support Programme (see below). Moreover, there is ample evidence that during much of the history of the redistribution programme, 'chasing hectares' took precedence over trying to accommodate large numbers of beneficiaries, not least because government's stated targets related to hectares and not people.[51]

Viability and the ambivalence regarding small-scale farming

Despite the laudable open-mindedness of policies, the influence of the expert system in agriculture – and in particular its bias towards large-scale commercial farming – can be detected in official documents. A key concept that arises time and again is 'viability'.

For example, in the Implementation Manual for LRAD, guidelines for subdivision are provided which state that, 'Approval of any subdivision will be based on the viability of the project(s) associated with the intended subdivision'.[52] 'Viability' is nowhere defined in the Manual, despite appearing over a dozen times. In one passage however it is suggested that 'the viability of the proposed project… takes into account total project costs and projected profitability',[53] and it thus appears to be something akin to future profitability, which one can establish by means of careful estimations and projections. Elsewhere the Manual states that one must, 'Compile a detailed assessment to prove the viability and sustainability of the proposed venture; including an assessment of the agricultural potential of the land; the assumptions that were used based on industry norms, current and projected employment and value-adding opportunities; financial indicators and tax implications, taking the outcomes of a sensitivity analysis into consideration'.[54] This would suggest that ascertaining viability is an involved process, but also, arguably, a corruptible one, in the sense that it is fairly easy to assume future value addition and premise the viability on activities which at present do not even exist.

As shown by Cousins and Scoones, the concept of 'viability' is more elastic and problematic than policy-makers and project planners would like to believe.[55] For one, viability is not merely a feature of a parcel of land, but as suggested already is a concept that only has meaning in relation to the needs and expectations of whomever is (or will be) using the land. This is often understood in relation to a person's or household's needed income; however, who is to determine what is enough, and for whom? What about part-time farming and multiple-livelihood strategies, which are an especially reasonable assumption in the context of those who want land mainly for food and tenure security? One problem with the concept of 'viability', or rather with how it is operationalised, is that it does not take these realities into account. For this reason, questions of 'viability' are often linked to the question of 'minimum feasible farm size', which in turn reveals planners' predilections for the norms associated with large-scale commercial farming.

Consider these excerpts from the LRAD Implementation Manual from the section entitled, 'Example of structure of a farm plan for food safety net projects' (reproduced in the PLAS manual as 'Format for a Business Plan for Food-Safety Net Projects'):

> 'Production plan or schedule that shows critical stages of production or activities that must be performed (e.g. land preparation, planting, fertilization through harvesting in terms of crop production) and allocation of responsibilities should be attached to the business plan.'[56]
>
> 'Information on the following should be provided and its implications on the proposed enterprise:
>
> - climatic conditions
> - soil conditions (analysis)

- veld conditions and carrying capacity
- land capability'[57]

'Financial information

- An indication of LRAD grant and own contribution.
- Agreed selling price.
- Projected capital requirements (for long term, medium term and short term).
- Indication of the additional finance needed, possible sources of this finance and the type of finance being sought.
- Indicate how books will be kept.

'Financial statements (balance sheet, income statement, enterprise budget and cash flow statement on the surplus to be produced) should be included as an appendix at the back of the business plan.'[58]

'Indicate plans to deal with the produced surplus, i.e. to store or market the surplus. If the surplus is going to be marketed, the following should be outlined.

- Nature, location and reliability of the market.
- Distance to the market (transport).
- How quality, quantity and good price will be ensured.

'Limiting factors if any (transport, training, quality, quantity, ability to add value if there is need) need to be discussed. A plan on how to overcome these problems should be given.'[59]

Moreover, the farm plan for the project must include an 'agricultural viability study,' an environmental impact assessment report, and a 'production plan/schedule'.

The point is that for a so-called 'food safety net project', these business plan requirements are overkill; they seek to impose norms relevant to commercial projects to situations where these norms are not appropriate, suggesting perhaps that the goals of 'food safety net projects' are either not understood or not valued.

In a somewhat different way, the application form for Recap (also known as 'RAD') reveals ambivalence and/or confusion as to the nature of small-scale farming. Consider this sequence of questions:[60]

- Would you describe yourself as a small farmer or commercial farmer?   Yes / No
- If you are currently a small farmer, will inclusion in the RAD program assist you to grow to a commercial farmer?
- Is the farm currently economically viable?   Yes / No
- Briefly motivate your answer above
- If no, how will inclusion in the RAD program improve economic viability?   Yes / No

The point is not that these questions reveal a 'bias' in Recap towards commercialisation; in any case, one of Recap's stated objectives is to promote commercialisation. The point is rather the telling conflation between 'small' with 'non-commercial', and 'large' with 'commercial'. The other curiosity is the idea that economic viability is something about which one can provide a 'yes/no' verdict.

To summarise, much of the story of South Africa's land reform to date – in particular, it's emphasis on large-scale commercial farming, on account of which so little has been achieved in terms of poverty reduction – owes not strictly to the policy itself (with the exception of Recap), but to the manner in which policy was implemented, in particular through *project planning*. This planning has been strongly influenced by the prevailing 'expert system' in agriculture, largely inherited from the pre-1994 era, which esteems large-scale commercial agriculture, notwithstanding the original intellectual basis for land reform, and notwithstanding the often lamentable results.

3 Higher-order planning approaches in land reform contexts

Introduction

The previous sub-section focused on project-level planning, which is an extremely important process during which policy objectives are translated (mistranslated?) into on-the-ground realities. However, over the years there have been various experiences with higher levels of planning that are also worth taking into consideration, some in relation to land reform specifically, but others to do with agricultural development more generally. Four of these are briefly discussed, namely DLA's Area-Based Planning process that prevailed from about 2007 to 2009; the specific instance of the Qedusizi/Besters initiative in KwaZulu-Natal; the Agricultural Master Plan of North West Province; and the relatively new planning process associated with the Spatial Planning and Land Use Management Act.

Area-based planning

In 2000, an NGO based in Limpopo, Nkuzi Development Association, came to the realisation that the very high share of commercial farmland under claim in the province should alert government to the need for proactive planning. Nkuzi conceived the idea of an area-based pilot process focusing on the prospects for and implications of land reform in a particular municipality. They selected Makhado Local Municipality as their pilot, and sought to work closely with DLA, the municipality, and various other local stakeholders. While Nkuzi's initiative did not fulfil its ambitions, it did result in a worthwhile, innovative report,[61] and can be credited in part with inspiring DLA, a few years later, to embrace area-based planning as a new way forward in helping guide the conduct of land reform.

The Department in due course commissioned a manual that set out how area-based planning was meant to be done.[62] The DLA's provincial offices began commissioning service providers to draw up area-based plans for their respective districts. By 2008, a number of Area-Based Plans (ABPs) had been completed, but because of budget constraints in the Department the process slowed and then halted; perhaps half a dozen plans had been completed and formally approved country-wide, and many more were partially completed.

In any event, in 2009 the DLA became the DRDLR. Given the enlargement in the Department's mandate, it was no longer clear whether it made sense to pursue the area-based planning initiative as earlier conceived. Area-based planning was not abandoned, but the form it should take would presumably have to change. As part of this process, a review of the 'first generation' of ABPs was conducted in 2012. Among the findings:

> 'Poor results have been obtained from the first round of Area Based Planning in different provinces and municipalities. The quality of the ABP/RDLRP documents is highly variable. The complexity and range of issues to factor into ABP/RDLRPs varies widely from District to District.
>
> 'Very few if any of the plans were formally approved and there is little evidence of implementation. The documents produced as outputs of the planning process seldom provide user friendly and practical implementation guidelines for officials, many of whom state that they lack skills and capacity to take delivery of the documents and implement the plans where these have been produced.'[63]

Another major sticking point identified was the difficulty of integrating area-based planning into municipalities' IDP processes. And a further one was the quality of the work produced by the contracted service providers:

> 'To date procurement processes seem to have assumed that service providers would have the capacity to produce ABPs without any prior in depth knowledge of land reform or training or orientation in the ABP methodology. Selection of service providers using price as the final determinant may have the unintended consequence of appointing consultants who cannot produce what is required.'[64]

From the perspective of advancing meaningful land reform, perhaps one of the main deficits of the first generation of ABPs, however, was the absence of a methodology for discerning land demand. What ABPs tend to do is discuss different aspects of land demand, for example the waiting list for low-income housing, labour tenant claims, restitution claims, and in some cases the turnover of farmland in the open market. There is however no sense of the demand for land in terms of the redistribution programme, and how this might be disaggregated, for example demand for small versus medium versus large plots. The impression generated by the authors' review of a number of ABPs is that the consultants hired did as much as secondary data would allow, but there were little or no consultative processes or surveys on the basis of which to establish land demand with any nuance. Without this, how useful could the ABPs be?

'Stakeholder-based land reform' – the case of Qedusizi/Besters

One of the most significant area-based land reform initiatives to date, Qedusizi/Besters, was not in fact an outcome of the ABP process, but rather emerged spontaneously as collective action among farm owners in an area together with their erstwhile tenants and workers. The Qedusizi/Besters initiative was/is in actuality quite intricate and ambitious:

> 'Since 2003, the Qedusizi/Besters initiative has established a bottom-up, area-based land reform and enterprise development program in an area primarily engaged in beef production. Among the list of problems associated with the South African land reform the approach tackled are the following: (i) It was an initiative of the key direct stakeholders, the Besters Farmers Association (BFA), their farm workers, and the Department of Land Affairs (DLA); (ii) planning of the farms and their acquisition was done by the beneficiaries themselves with the help of the commercial farmers; (iii) the beneficiaries were directly involved in the selection of land and therefore fully aware of its quality; (iv) the stakeholders set up a not- for-profit organization, the Section 21 Company Abrina 1518, that was fully accountable to the direct stakeholders; (iv) it not only dealt with the land transfer, but also managed the full range of post-settlement support, such as the purchase of animals and equipment, technical advice from mentors, construction of farm infrastructure and housing, etc.; (v) all decision making was decentralized to the section 21 company, the district land reform office, and other local offices of the relevant departments.'[65]

This example of 'stakeholder-based land reform' has much in common with various instances of 'community-based land reform', particularly those implemented in Latin America with World Bank assistance from the late 1990s. While the formulae vary somewhat, the key is to entrust more responsibility to local actors. Also, as stated in a recent review of state-led land reform:

> 'There are sound empirical and conceptual reasons for shifting the emphasis from state toward community. Community-led strategies may create openings for new processes and modalities of land reform not available under the state-led approach. A shift toward community, therefore, may be able to draw in a more diverse set of political actors inside and outside the state that can initiate and sustain land reform.... At the same time, community and state should not be seen in binary opposition to each other. They exist in close relation with each other, even if land reforms employ community-led strategies. These relations can take a large variety of forms, defying singular notions of state-led and community-led land reform.'[66]

Returning to the case of Qedusizi/Besters, there remains some uncertainty regarding how evenly beneficiaries in fact benefitted,[67] as well as regarding the extent to which some stakeholders may have been more influential than others, for example the BFA. However, regardless of its precise accomplishments or possible shortcomings, there is little reason to doubt that the sort of stakeholder engagement it sought to build on makes a great deal of sense for South Africa's land reform programme. For one, it is an antidote to the overly technical focus and arm's length character of first generation ABPs, which is not to say that technical considerations need to be ignored (nor were they at Besters), simply that they do not necessarily occupy centre-stage. And second, relying more on the agency of stakeholders is essential given the inevitably limited capacity of government. Whereas government often seeks to extend its capacity by means of contracting service providers, actual stakeholders by definition have more of a vested interest, imposing less cost on the state and helping achieve the non-economic aspects of land reform such as nation building. The fact that Qedusizi/Besters as an initiative did not stop with land transfer is further indication of its potential.

For reasons that are unclear, DLA/DRDLR did not make a concerted effort to replicate or build on the Qedusizi/Besters initiative, with or without refinements. Perhaps that was not so much a deliberate choice as due to the fact that this type of initiative did not clearly fit within policy at the time. Close examination of the revised PLAS policy suggests that a stakeholder-based approach similar to that of Qedusizi/Besters is more or less consistent with PLAS, however that does not mean it is happening. Some of the main promoters of Qedusizi/Besters are now attempting to resuscitate interest in the approach, however it remains unclear whether they will have any success.

The Agricultural Master Plan of North West Province

In 2010, the North West provincial department of agriculture launched the Agricultural Master Plan (AMP), which was a multi-million Rand, multi-year project involving the ARC, the University of the Free State, DBSA, etc. The AMP's User Manual describes it as an 'integrated spatial agricultural planning system' and 'decision support tool'; it mainly consists of hundreds of enterprise budgets and capability maps covering the province and its district municipalities. The declared objectives of the AMP are: 'alleviating pressure on always earning a wage to purchase food; encouraging producers to understand the link between food production and the land; and developing and nurturing a culture of self-reliance, which is implied in the notion of an African Renaissance.' Supporting land reform was also a declared priority: 'On implementation, the plan will support the presidential priorities that include land reform, capacity building, extension services, and agri-businesses. It will facilitate job creation, skills development, increased sector investment in agricultural infrastructure and good practice farming systems among communities'.[68] On the face of it, this seems laudable, but how was/is the AMP meant to be used in such a way as to lead to these worthy outcomes?

That is not clear. One indication in the AMP documentation is that this will happen via projects: 'The document includes project identification for each of the sectors, i.e. Social Development, Economic Development, environment and Natural Resource Management, Development Administration and Infrastructure Development.' Where these 'projects' are in the AMP is difficult to discern, unless this is a reference to the AMP's spreadsheet lists of some 400 projects, most of which would appear to be conventional projects funded by CASP, Ilima/Letsema, and LandCare. Presumably the underlying conviction is that, projects or no, the information resources made available through the AMP will enable government, private sector, and individuals, to make better decisions, meaning greater economic efficiency, and thus the desired outcomes mentioned above, not least because training in the use of the AMP system will then '…improve agricultural productivity, ensure sustainability, reduce food costs, and improve quality and availability of food.'

It is thus all the more strange that the key analytical document accompanying the AMP concludes as follows:

> 'Within the background of the structure of the NWP economy and its wide production capabilities, there is no doubt that agriculture will remain a key role player in terms of food production and job creation. However, the effectiveness with which the sector plays that role will depend to a large extent on how well some of the current constraints facing the sector are addressed. The constraints identified are institutional weaknesses and poor infrastructure. These especially relate to the deprived condition of many secondary roads linking farms to markets and sources of needed farm inputs.'[69]

The point is not that the AMP was a poorly managed process in which contradictory objectives and understandings came to the surface. The point is that there is an ambiguity about planning that often betrays itself: Is our underlying problem merely that we don't have enough of the right information, for want of which we don't plan well? Is the problem that we don't have an over-arching, coherent Plan which we can all follow? To the extent people can be trained to make use of a resource such as the AMP, are they truly learning how to plan in their own right in a manner that will result in more rewarding or sustainable agricultural activities? Is it often the case, as it appears to be with the AMP, that planning has a tendency to be conservative rather than transformative, because it relies so heavily on the 'expert knowledge' of how and where crops should be grown and livestock reared? Or, as at least some of the authors of the AMP eventually concluded, are our problems more to do with other things entirely, such as basic institutional capacity and road infrastructure, for which better planning in the agricultural sector is no substitute?

Rural Development Plans

South Africa has a passion for spatial planning. Our purpose here is not to review the many manifestations of this passion, nor to trace the evolution of spatial planning over the years, but rather to present and discuss one of the most recent forms of spatial planning – namely, Rural Development Plans – in so far as it relates to land reform and agricultural development.

When the Department of Land Affairs became the Department of Rural Development and Land Reform in 2009, the scope of the Department's responsibilities obviously expanded. By that time, Area-Based Planning for land reform had come to a halt due in part to lack of resources, however there were also discussions within the Department that these should be replaced by plans that took into account the Department's broadened mandate. At the same time, the Department had launched the Comprehensive Rural Development Programme (CRDP), and perhaps more significantly, situated itself as the custodian of spatial planning, not least through the passage in 2013 of the Spatial Planning and Land Use Management Act ('SPLUMA').

The purpose of SPLUMA is:

> 'To provide a framework for spatial planning and land use management in the Republic; to specify the relationship between the spatial planning and the land use management system

> and other kinds of planning; to provide for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government; to provide a framework for the monitoring, coordination and review of the spatial planning and land use management system; to provide a framework for policies, principles, norms and standards for spatial development planning and land use management; to address past spatial and regulatory imbalances; to promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications; to provide for the establishment, functions and operations of Municipal Planning Tribunals; to provide for the facilitation and enforcement of land use and development measures; and to provide for matters connected therewith.'[70]

While 'spatial development plans' and 'spatial development frameworks' already existed at different levels of government, SPLUMA sought to set universal parameters regarding the principles to which they should adhere and the processes they should follow. Among other things, SPLUMA established the principle that spatial planning must happen at various levels under the responsibility of the corresponding sphere of government (i.e. national vs provincial vs local), while simultaneously embracing the importance of meaningful community participation in the development of the plans/frameworks. As per the Constitution, municipal planning remains the duty of the municipality.

Writing from an *urban* development perspective, the South African Cities Network is of the view that SLUMA-fed SPFs have significant transformative potential:

> 'The SDF is the lever which has the greatest potential as a planning tool to realize spatial transformation. It is the SDF that interprets the principles into a spatial future/s for the city. In terms of municipal planning, stronger spatial guidance as part of the IDP process could lead to more strategic investment and implementation in the municipal space. In order for the potential role of the SDF to be realised, the process issues and institutional arrangement of the planning process must not be disregarded. The SDF is a multidimensional tool that requires constant checks and balances to actively ensure that issues of spatial transformation are being addressed.'[71]

But how is 'it' working in practice, and in particular, how is it working in rural areas? We are not in a position to answer this question directly and fully. What we can do is share a bit about how rural development planning is now taking place, and about the relationship between these plans and SPLUMA.

In short, SPLUMA provides for a hierarchy of spatial development frameworks: the National Spatial Development Framework is produced at the instigation of the Minister of Rural Development and Land Reform; a Provincial Spatial Development Framework is produced at the behest of the respective provincial premier, and, 'The municipal spatial development framework must be prepared as part of a municipality's integrated development plan in accordance with the provisions of the Municipal Systems Act,' (s 20(2)), and then be adopted by the respective Municipal Council.

In addition to this three-tiered spatial development planning system, SPLUMA provides for so-called 'Regional Spatial Development Frameworks'; in the body of the Act, Regional Frameworks are presented after Provincial Frameworks and before Municipal Frameworks, which might convey the idea that, in terms of geographical scope, they are intermediate between provincial and municipal. However, there is no concrete reason for supposing so. What actually sets regional frameworks apart is that they are sub-national in scope, but published by the Minister of Rural Development and Land Reform, 'after consultation with the Premier and the Municipal Council responsible for a geographic area' (s 18(1)). This is where 'rural development plans' come in: they are a particular example of regional spatial development planning frameworks:

> 'The Regional Spatial Development Framework is relevant to the concept of a Rural Development Plan as it allows for the identification of "any geographic area of the Republic to be a region to give effect to national land use policies or priorities in any specific geographic area"…. The authority to compile such plans also rests with the Minister (national level) which makes it possible for DRDLR to manage and coordinate the Rural Development Plan programme countrywide.'[72]

In effect, SPLUMA's provision for regional spatial development planning frameworks enables national government to maintain some control over local spatial planning, not least in the format of rural development plans.

The long quote that follows is from DRDLR's current guidelines document as to how rural development plans are meant to be developed. This initial excerpt specifically explains the circumstances under which the development of these plans came about:

> 'The Department of Rural Development and Land Reform (DRDLR) is mandated to facilitate, coordinate and align all initiatives to enhance Rural Development in South Africa. To achieve this, the DRDLR needs to facilitate the compilation of comprehensive development plans that will address the needs of communities living in extreme poverty and being subjected to underdevelopment in rural areas. In view of the above, the Department of Rural Development and Land Reform initiated a programme during September 2011 which focuses on dedicated interventions in the 24 most impoverished districts in South Africa…. This is in line with a Cabinet decision taken in July 2011. The main objective of this initiative is to formulate a comprehensive plan of action for each of these areas comprising a clear set of objectives, strategies, projects, and a phased implementation programme. The department labelled the mechanism to be used to package the "comprehensive plan of action" for these areas as a Rural Development Plan. The department notes that these Rural Development Plans will enhance the impact of intensified government investments through reviewing of current developmental realities and potential in these areas, and coming up with interventions that will bring change in the livelihoods of people in rural communities in line with the Comprehensive Rural Development Programme (CRDP) that was launched in 2009.'
>
> …
>
> 'The purpose of this document [on guidelines for developing rural development plans] is to assist and support municipalities in the formulation of Rural Development Plans (RDP) which can be adapted across the board whilst using the same framework when developing such plans in different provinces and by different executors. These plans are intended to ensure

> that integration happens between different Branches within the Department, between different government departments and even amongst the three spheres of government with the intention of strengthening cooperative governance. Above all, these Rural Development Plans need to ensure that rural South Africa is transformed into socially cohesive and stable communities with viable institutions, sustainable economics and universal access to social amenities.'[73]

As of October 2016, DRDRL had seen to the production of 27 Rural Development Plans. Most of these are district-based, but with attention to sub-areas (e.g. 'precincts' and/or 'functional areas', not necessarily defined in terms of local municipal boundaries).

The authors of this paper have had the benefit of seeing the guidelines document (quoted above) as well as three completed plans, specifically, the rural development plan produced by Urban Dynamics, based in Parktown West, Johannesburg, for OR Tambo district municipality, Eastern Cape; the plan for Xhariep district, Free State, produced by Pretoria-based Kena Consult Pty Ltd; and the plan for Ehlanzeni district, Mpumalanga, prepared by a team led by an academic based in Potchefstroom.

For purposes of this report, we focus on what the guidelines document of the three sample plans say about land reform and agricultural development.

The Rural Development Guideline mainly discusses agricultural development and land reform in reference to the existing programmes of which rural development plans are meant to take cognisance, such as the CRDP and the National Development Plan.[74] Apart from this, the Guideline refers to agricultural development in the context of the 'spatial analysis and synthesis' phase, which includes an activity entitled, '3.3.7 Analyse economic footprint'. Regarding agriculture, the Guideline identifies these three main steps:

- 'Map details of agricultural activity on all farming land;
- 'Compare current agricultural activity with agricultural potential of the area;
- 'Assess institutional arrangements/agreements in terms of utilisation of agricultural land.'[75]

Of course, that is easier said than done.

Or, consider the following overview as to the desired contents of a rural development plan:

> 'In general, the Development Framework of a Rural Development Plan should comprise the following elements:
> - Areas to be protected (e.g. river conservation/ecological corridors, critical biodiversity areas and ecological supporting areas like dams, bio-diversity networks);
> - Agricultural land with a more detailed indication of farming activities e.g. extensive agriculture, game farming, livestock farming, irrigated crop farming, dryland crop farming and commonage incubators and small scale stock or crop farming;
> - Areas of intervention (urban renewal/ revitalisation) in existing settlement areas or in decaying rural towns;

- Nodal structure and hierarchy;
- Restructuring and integration areas;
- Strategic development areas earmarked to accommodate future growth/expansion: (indicating location, form and densities of new development areas and how these will be integrated with existing settlement).
- Redevelopment, infill and densification areas;
- Economic development nodes or areas earmarked for business, industry, mining, tourism etc. (Economic footprint);
- Land reform priority areas;
- Priority services upgrading and/or expansion areas;
- Transportation proposals:
    - roads,
    - rail,
    - public transport network and facilities e.g. bus/taxi ranks
    - cycling,
    - pedestrian
- Proposed Rural Development Boundary around towns and settlement.'[76]

What is remarkable about the Rural Development Guideline is how little is said about land reform or agricultural development, which would appear to contradict the notion expounded in the CRDP that land reform and rural development are intimately inter-related. While it is fine and well to suggest that a rural development plan identifies 'land reform priority areas', how are these meant to be determined? Not only is that left unclear, the terms 'land need,' 'land demand', and related expressions, do not appear at all, except insofar as increased demand for land for residential development is identified as an important consideration in forward planning.

Given this lack of guidance, it is not surprising that the rural development plans themselves say so little about land reform and agricultural development in their respective areas. The rural development plan for Ehlanzeni District Municipality says little about land reform and agricultural development apart from ritual references to other programmes, e.g. the CRDP and the agri-parks initiative. At one stage the plan lists a number of land reform projects in the pipeline ('The following information was received from the DRDLR and which summarizes the major land reform projects and job creation targets within the District Municipality'), but does reflect on the implications of these projects. Most revealing perhaps are these observations shared in the plan's introduction:

> 'It must be borne in mind that after four decades of spatial planning, the general consensus among development stakeholders is that South Africa's rural space is still in a state of predicament. Added to long standing issues are several newly emerging trends which a Rural Development Plan (RDP) must now confront and address. These include: …
>
> > '5) the continued failure of development programmes to revitalize rural areas despite huge capital expenditures and outlays – Land reform has now somewhat shifted focus from land rights to commercial agricultural production systems and agribusiness support, even though many rural households tend to view this as involving high risk and unpredictable returns. There is also an apparent shift of focus towards the provision of services and infrastructure

for rural settlements with a view to gearing up rural economies, and this has continued to stir up efficiency debates around government's investment spending;

'6) the issue of land tenure also seem to be currently stuck in duality narratives e.g.: formal vs. informal, legal vs. illegal, live assets vs. dead assets, black vs. white ownership, communal vs. individual, commercial vs. subsistence etc., with no apparent progress.'[77]

The rural development plan for Xhariep, similarly, says little about agricultural development or land reform, despite one bold statement proclaiming the importance of 'agrarian transformation':

> 'The agrarian transformation strategy is the key strategy of the Department of Rural Development and Land Reform to achieve the outcome of a vibrant, equitable and sustainable rural community inclusive of food security for all in Xhariep. The strategy links directly to the phases of the Comprehensive Rural Development Programme dealing with meeting basic needs as the first phase, there after moving towards the establishment of rural business initiatives in support of the transformation and interventions required, and thereafter the empowerment of rural people and communities.'[78]

In summary, the move to have rural development plans is logical and sensible; however, in terms of using land and agrarian reform as a tool to support rural livelihoods and rural development – and based on a very small sample of such plans – it is not clear what they add. A tentative conclusion is that, thus far, these plans represent a missed opportunity. The plans tend to treat land reform as a parallel activity that has to be taken into account rather than a fundamental tool to promote rural development, among other things through the strategic application of land reform.[79]

4 Smallholder agriculture, poverty reduction and capital accumulation

Introduction

The purpose of this section is to consider the relationship between agricultural development, poverty reduction, and household-level food security.

It must be acknowledged that this is a complex theme to which this brief section will not do justice. The approach adopted is to address a number of key questions: How do households differ in terms of poverty and food security status according to participation in agriculture? What do we know about the contribution of farming to household-level food security? What do we know about why some households derive more benefit from agriculture and/or progress more readily than others? And finally, what are the prospects for agricultural development in the short or medium-term to make significant inroads into poverty and household-level food insecurity?

Poverty and food security status according to participation in agriculture

The first point to make is that black rural households – or more precisely black households in the rural parts of the former homelands, designed by Stats SA as 'traditional' – tend to be poor (Table 3), while black rural households engaged in agriculture tend to be especially poor (Table 4). Black households in traditional areas have an average per capita household expenditure about half that of urban black households, and also significantly lower than black households living in commercial farming areas ('farms'). By the same token, nearly twice as many 'traditional' black households are below the poverty line as compared to urban black households, and they are somewhat more likely to experience hunger (a proxy for food insecurity). Nonetheless, it is important to note that even though black households in traditional areas represent only 30% of all black households, they account for about R200 billion in annual household expenditure.

Table 3: Comparative statistics by geotypes[80]

Geo-type (also known as 'settlement type')	Share of all black HHs	Average per capita HH expend per month	Share below the poverty line	Share of HHs in which adults experience hunger 'sometimes', 'often' or 'always'	Est total annual HH expenditure (R millions)
Urban	65.0%	2 945	28%	11%	653 077
Traditional	30.5%	1 395	55%	14%	199 753
Farms	4.5%	2 212	31%	12%	33 489
All (total)	100.0%				886 319
All (average)		2 439	37%	12%	

Table 4 disaggregates black households residing in traditional areas according to the nature of their participation (or non-participation) in agriculture. As in Table 3, the sequence is from the most populous to the least populous sub-category. The most populous sub-category of black households residing in traditional areas are non-farming households, and by most measures they are better off than the various sub-categories of farming households, i.e. they have a higher average per capita expenditure, and a lower (though still shockingly high) share of households below the poverty line.

The next largest category is households who farm in order to derive an extra source of food. These households are poorer than non-farming households, however they appear to be relatively food secure.

The other sub-categories are much less populous by comparison. Those who produce as a main source of food are the worst off – they have the highest poverty rate and by far the highest incidence of hunger; speaking generally, relying on one's own production is a sign not of self-sufficiency but of desperation. By contrast, those who farm for income purposes – whom we roughly equate to 'smallholders', although the table reveals that households who farm as a main source of income are perhaps quite different on average than those who far as an extra source of income – are intermediate between those who farm for food and those who do not farm.

Table 4: Comparative statistics by 'household type' ('traditional' settlement type only)[81]

Household type	Share of all	Average per	Share below	Share of HHs in	Est total

according to nature of participation in agriculture	black HHs	capita HH expend per month	the poverty line	which adults experience hunger 'sometimes', 'often' or 'always'	annual HH expenditure (R millions)
Not farming	53.3%	1 735	47%	15%	114 615
Extra source of food	38.8%	1 046	63%	11%	70 047
Main source of food	3.5%	871	71%	29%	6 114
Extra source of income*	2.4%	1 159	62%	17%	4 341
Leisure activity	1.5%	1 360	58%	12%	3 954
Main source of income*	0.5%	1 247	67%	14%	683
All (total)	100.0%				199 753
All (average)		1 415	55%	14%	

Another aspect we observe is 'churning', whereby people move into and out of agriculture. For instance, in comparing Wave 3 to Wave 4 data from the National Income Dynamics Study, Ngqwala found that of those black individuals in the former homelands farming in 2012, 56% were no longer farming in 2014/15; by the same token, of those farming in 2014/15, 73% had not been farming in 2012.[82] A similar pattern of churning was noted by Aliber and Hart (2009) using Stats SA data, whereby not only was there significant movement into and out of agriculture between 2006 and 2007, but between different 'reasons' for engaging in agriculture, i.e. between those producing for own consumption versus for income. The implication is that it is largely erroneous to suppose that 'small-scale farmers', never-mind 'subsistence producers' and 'commercially-oriented smallholder', are sectors with stable membership.

The tentative conclusion is that among black households, agriculture is largely compensatory, i.e. it compensates for the lack of alternative sources of sustenance. While this does not preclude the possibility that some black households do escape poverty thanks to agriculture, or the certainly that mainly rural people genuinely find agriculture fulfilling, this is not the main picture; on the contrary, even those black households one could classify as 'smallholders' are generally below the poverty line, indeed they are poorer than their non-farming neighbours.

However, this is not to say that agriculture's compensatory function is trivial, as discussed in the next section.

The contribution of farming to household-level food security

What we know about the contribution of small-scale farming to household-level food security in South Africa is mainly thanks to localised surveys and case-study evidence, of which quite a bit has accumulated over the past two decades. Most of this evidence supports the idea that small-scale farming – inclusive of subsistence production – contributes to household nutrition specifically, and household food security more generally. For instance, based on a survey of rural households in KwaZulu-Natal which, among other things, examined the relationship between participation in agriculture and the stunting of children, Kirsten et al. concluded that, '…agricultural activities make a positive contribution to household nutrition, which suggests that designing effective programmes for improving agricultural productivity in the less-developed areas of South Africa could have a potentially positive impact on household and child nutritional status'.[83] Also using evidence from rural KwaZulu-Natal, Hendriks found that production for home consumption increased households' intake of micronutrients, but also enabled savings that could be directed to the purchase of other nutritious foods which would otherwise have been unobtainable.[84]

Using household survey data from two villages in the western part of Limpopo province, van Averbeke and Khosa found that, even while (non-agricultural) income is critical to household food security, small-scale farming makes a noticeable contribution to household nutrition, especially among the ultra-poor.[85] Dovie et al.'s study of another village in Limpopo imputed very high values to production for own (non-marketed) consumption, and by inference a significant contribution to household food security.[86]

There are however notable exceptions to this general pattern of affirmation. An interesting and useful case is that of Webb (2000), who scrutinises three published case studies of the nutritional benefits of food gardens, of which one was from Zimbabwe, and the other two from South Africa, specifically Eastern Cape (which was his own, earlier study) and North West. Webb concludes:

> 'However unpalatable the idea, this paper has questioned claims linking cultivation to the improved nutritional status of cultivators in general. These claims are found in both the general literature and in a few case studies. Promotional material might be excused for extravagant claims; case studies need to be taken far more seriously.'[87]

In other words, there is a danger that we observe a connection between food gardening (and presumably by extension small-scale agriculture) and nutrition because that is what we wish to believe. Webb's critique underscores, among other things, the danger of taking at face value respondents' subjective notions about the nutritional value of their diets, and the inconsistency and low levels of consumption associated with food gardening.

Another important dissenting finding is that of Palmer and Sender, who analysed the Income and Expenditure Survey of 2000. Observing the minimal difference between the per capita food expenditure levels of farming versus non-farming rural households, they concluded that 'on-farm self-employment' does not represent an escape route out of poverty.[88] In fact they did not claim that small-scale production offers no nutritional benefit; however this can be deduced from the fact that the per capita expenditure levels were so similar between farming and non-farming households.

Nonetheless, using a similar approach to Palmer and Sender's, but employing Stats SA's Income and Expenditure Survey of 2010/11, Aliber and Mdoda found that, controlling for expenditure decile, agriculturally-active households enjoyed significant savings on food expenditure. For former homelands and urban formal areas, these savings were in the order of 10% to 20%, taking into account input costs apart from family labour.[89]

Explaining success?

There is a literature seeking to identify what are the circumstances of successful small-scale farmers, including those who manage to graduate, e.g. subsistence producers who manage to commercialise into smallholders. A summary of some of this literature is presented in the table below:

Table 5: 'Success factors' and 'challenges' in respect of smallholder performance[90]

Services	Enterprises/ commodities addressed	Lessons
Irrigation schemes.	Field crops and produce vegetables.	Success factors include diversification of farming enterprises, and individual marketing strategy management; challenges include financial constraints, poor quality of infrastructure, farm gate sales, and unclear land tenure systems.
Individual/emerging farmer initiatives.	Crops, livestock and mixed farming.	Success factors include access to markets, value-adding activities, individual farmer control of production and post-production activities, capacity building, security of tenure; challenges include transportation and transaction costs, delayed payments, quality and packaging, resources, access to credit, and marketing.
Food security/subsistence/ semi-subsistence farming initiatives.	Vegetables, legumes, fruit trees, dryland field crops, indigenous crops, and organic agriculture.	Success factors include secure land rights, efficient use of land; challenges include resource access (land & capital), youth participation, plot size, market access, infrastructure quality, input costs, and skills.
Land reform projects.	Arable, livestock and mixed farming.	Success factors include support from municipalities and/or provincial departments of agriculture, market access, mentorship and/or farm management partnerships with commercial farmers (in some cases), and good farm infrastructure; causes of challenges are not easy to identify, but poor infrastructure, lack of experience, and appropriate skills were cited as key issues. Challenges are compound – more challenges experienced relate to a poorer prognosis for success. Other challenges include generic smallholder problems (marketing, resources - human, financial and physical, extension services, and inclusion of other stakeholders).

The 'success factors', alas, are fairly generic: 'access to markets' (which the source document makes clear may be either formal or informal markets); tenure security (whether in terms of communal or statutory tenure); good infrastructure; adequate support; and so forth. In terms of the characteristics of the farmers themselves – i.e. what predisposes some farmers to succeed over others – the literature is similar to that of technology adoption, where characteristics such as youthfulness, education and literacy, can be statistically linked to a greater likelihood of growing/adopting/commercialising.[91]

More specifically in terms of 'graduating' from subsistence to commercially-oriented status, there are disparate views as to how much this is in fact to the advantage of the farmer. The specific point of contention is whether being 'integrated' into formal value chains is ultimately in the farmer's longer term interest (the dominant assumption), or whether the farmer will experience 'adverse incorporation', whereby the terms of engagement tend to deteriorate over time to the disadvantage of the farmer.[92]

Be that as it may, it is one thing to consider what might account for one farmer rather than another to be successful, and quite another to ask about the prospects for agriculture to offer a route out of poverty or food insecurity for significant numbers of farmers.

In terms of the international literature, there is little doubt that the most reliable predictor of an individual farmer's 'success' – particularly in the sense of future growth of the farming enterprise – is an advantageous starting point, i.e. in terms of wealth/assets, because better-off farmers are more able to take advantage of new opportunities, whether this is in terms of new markets or the early adoption of new technologies. This in turn is a function of them being less risk-averse, i.e. because they are better able to self-insure, but also because they typically have better access to support services such as credit and extension, as well as non-agricultural income.[93]

For whatever exact reason, the pattern in most smallholder-dominated African countries is that the smallholder sector is more differentiated than is commonly supposed. Based on detailed analysis of farm surveys from five countries, Jayne et al. note that while a large share of small-scale farmers are becoming sub-economic through population growth and dwindling plot sizes, there is a category of elite farmers who are doing very well:

> 'As shown…, 1% or 2% of the farms account for 50% of the overall marketed maize surplus from the smallholder sector. These farm households appear to enjoy substantially higher welfare levels, in terms of asset holdings, crop income, and non-farm income than the rest of the rural population. The relatively "elite" smallholder farmers had roughly 2-6 times as much land and productive assets as the non-selling households, 6-9 times more gross revenue from the sale of all crops, and 5-7 times as much total household income. When a broader set of staples are aggregated together (maize, cassava, sweet potato, millet, and sorghum) more than 55% of the sales of staples are still accounted for by 10% of the farmers with the largest sales.'[94]

Wiggins is more explicit that this differentiation is likely to become starker over time. Writing on the future contribution of the 'smallholder model' in the midst of Africa's rapid population growth, Wiggins notes:

> 'An important qualification to the debate is that smallholder development will benefit directly probably no more than the uppermost quartile of small farmers, those with a little more land and resources than their often land-poor neighbours. Surveys show clearly just how unequally land is distributed even within relatively egalitarian villages where there are no landlords, only farming households; and the way in which most of the marketed output comes from a minority of small farms.'[95]

It is worth pausing to reflect on the fact that in South African policy circles and among development experts, there are two dominant visual metaphors that capture the notion of farmer development over time, in particular the notion that over time subsistence producers may or will 'emerge' as small-scale commercial farmers, *en route* to becoming large-scale commercial farmers. The one is the 'ladder model', whereby diligent subsistence producers can climb up to smallholder status, and thereafter climb to become large-scale commercial farmers.[96]

The other metaphor is at present more prevalent, perhaps because it is both more descriptive and suggestive, namely the 'development pyramid', whereby the masses of subsistence producers occupy the base of the pyramid, while at the 'top' is a small, elite core of large, modern, commercial farming enterprises. While this pyramid depiction could be taken merely as an image of the static structure of the sector, wherein the number of farmers gets fewer the 'higher' (i.e. more modern, large, integrated and successful), it is strongly suggestive of a developmental pathway in the same vein as the ladder, but in which only a small share of actors at one level will 'graduate' to the next level, and only a share who are or who have arrived at this level, will in turn graduate to the one still above. Underlying this interpretation are different possible stories, for example that at any given level, only a small share of farmers genuinely have the aptitude to rise above their current situation. But presumably, the ability of subsistence farmers to graduate to smallholder-hood, or of smallholders to graduate to large-scale commercial status, could be enhanced through appropriate support, not least from government. At the same time, it would be problematic if 'too many' farmers in one stratum shifted upwards to the next, unless the additional marketable surplus were to be channelled in such a way as to not cause over-supply; in other words, the pyramid structure also has a broader, normative economic logic.

Agricultural development and poverty reduction

The 'empirical regularities' identified by Jayne et al. and by Wiggins fit this pyramid image quite well, even if the dimensions of the pyramid are shifting over time in various ways. What does all of this suggest about patterns of accumulation? It suggests that, in most African countries, asset accumulation assumes an unbalanced pattern, in particular such that the prospects for 'accumulation from below' are limited. Rather, accumulation is concentrated in those who already occupy an advantageous place in the pyramid, especially its top.

However, the questions remain, to what extent do these generalisations apply to South Africa, and what does it mean for poverty reduction?

Certainly the situation in South Africa is quite different to the 'typical' situation in sub-Saharan Africa. For one, within South Africa's small-scale farming sector, land availability is not generally constraining, owing to the fact that agriculture (especially field cropping) has to a large extent collapsed. Second, small-scale farmers in South Africa rarely depend on agriculture for their main source of income – only about 1% to 2%; by contrast, in the five countries covered by Jayne et al., the share of income due to farming was in the order of 60% to 70%. But perhaps the biggest difference is that in South Africa, small-scale farmers co-exist with a large, well-established, and highly-capitalised large-scale commercial farming sector, as well as a pervasive formal agro-food system, and of course a large 'urban sector'. Another reality is that over the past 15 years, the number of black South African households involved in agriculture appears to have been more or less static, although the absence of fully comparable data over this period makes it difficult to judge.

Broadly, what we can venture is the following:

- In principle it would be possible to promote agricultural development in South Africa in such a way as to reduce household-level food insecurity, in particular by supporting productivity gains among existing subsistence producers, and by encouraging/enabling more households to engage in subsistence production. One reason for supposing this is possible is that by and large rural households do have access to suitable land, and productivity gains are indeed achievable with modest support and intervention. However, this would require an overhaul of existing government support services, of which more is said below.

- As for reducing poverty, that would require a more fundamental change in the performance of the small-scale farming sector and in government policy. In particular, it implies that commercially-oriented smallholders would have to earn more money from their farming, and also that there would be more such smallholders. On the positive side, there is almost certainly adequate market demand within former homeland areas, where most smallholders are located. The challenges are two-fold: low levels of productivity, and pervasive market failures such that most of the market demand within the former homelands (never mind beyond) is satisfied through supermarkets and other shops, which in turn mainly sell food originating from the large-scale commercial farming sector, whether in South Africa or abroad. Overcoming these challenges would again require more effective and broadly accessible government support, and significant changes either to the marketing landscape, or in terms of the procurement practices of the existing food retail sector. Another possible contributor could be land reform, however this would also require significant changes. At present, only about 3% of smallholders identify themselves as land reform beneficiaries, which is not surprising in light of the discussion above regarding the evolution of the redistribution programme.

What is doubtful however is whether there could be *significant* direct poverty reduction through agricultural development and land reform. The concern goes back to the observations of Jayne et al. and Wiggins noted above. Despite its significant differences, there is still reason to suppose that within South Africa's small-scale farming sector – or perhaps more accurately, within the black farming sector – a large share of any future growth will be concentrated among a minority of black farmers, most of whom are probably already among the least poor black farmers. A relevant example is the so-called 'second agricultural revolution' in Zimbabwe from roughly 1980 to 1990, during which smallholders doubled their maize production – to the extent that smallholder production eventually accounted for 70% of national maize production – and vastly increased their cotton production.[97] This accomplishment owed to a combination of strong extension support, effective seed policy, infrastructure investment, and improved access to credit and fertiliser. However, of all of the maize delivery to the Maize Board by smallholders over this period, over 40% was grown by only 1% of the country's smallholders.[98]

However, what about the possible *indirect* effect of agricultural development on poverty reduction? For sub-Saharan Africa at large, Wiggins addresses this issue as follows:

> ‘This brings the argument back to the original question posed: that of smallholder agricultural development and the ultimate goals of poverty reduction and food security. If much of the growth takes place on relatively few (small) farms, does this mean limited impacts on poverty? The answer is no, not necessarily. Given the right kind of complementary actions, benefits can be spread more widely….
>
> ‘It is not hard intuitively to explain why smallholder development, that probably sees immediate benefits to a few small farmers, has such an effect on poverty. Farming in Africa is generally intensive in labour, and especially so on small farms. When small farmers expand production they invariably have to hire in more labour and thus demand for rural labour rises to the benefit of land-poor neighbours who need additional work off their small plots. It is plausible, too, that supply of labour falls as some of the small farmers, with enhanced farm incomes, withdraw from occasional labouring. Then there are links from farming to the rural non-farm economy. More output means more jobs in supplying inputs, processing, and transport. Even more important, small farmers tend to spend much of their additional income locally on construction, services, and local manufactures such as furniture; so that links through consumption can be strong.’[99]

To what extent is this confidence that smallholder growth will translate into broader poverty reduction applicable to South Africa? That is very difficult to judge. On the one hand, it is fair to say that if there will ever be a significant increase in agricultural employment, it will not be on large-scale commercial farms, but rather on smallholdings, whether these be within the former homelands, or via a re-designed land reform. On the other hand, it is difficult to accept that there will ever be significant poverty reduction by means of the multiplier effect, notwithstanding the estimates in Chapter 6 of the National Development Plan. As Wiggins points out, local multiplier effects tend to be strong where a farming community is relatively isolated;[100] and as Philip points out, South Africa’s formal, urban-based economy reaches into the country’s remotest corners, meaning there is little opportunity for rural industries to emerge, including agro-processing.[101]

5 Post-1994 state and private programmes to support small-scale farming

Introduction

While there were some notable pre-1994 efforts to support black farmers, especially those in the Bantustans and Coloured reserves,[102] with 1994 there was a sweeping reorganisation of government’s agricultural departments, followed by a spate of new policies and programmes. In effect, there was a more or less wholesale shift of resources away from white farmers and towards black farmers, but this must be understood against the backdrop that most agricultural subsidies designed for the benefit of white farmers had been removed in the years leading up to 1994. This was not least through the dismantling of the regulated marketing system, which among other things served as a vehicle for price supports.

It would be fair to say, however, that there was not then in 1994, nor is there now, a clear, coherent, and broadly accepted vision of what kind of agricultural sector the country wished to move towards. A common denominator was to address/erase the extreme dualism that characterised the agricultural sector, in particular because the polarities of this dualism were largely defined in terms of race, indeed they were the direct result of past racist policies.

However, what did 'addressing dualism' mean? One interpretation is the one expressed in the Reconstruction and Development Programme, as mentioned above, whereby, in particular via land reform, there would be an attempt to embrace small-scale agriculture as the ideal and norm. A different approach was implied by the *Strategic Plan for South African Agriculture*, which from 2001 in effect became government's primary statement regarding agrarian reform. The *Strategic Plan* did not so much want to erase dualism, as de-racialise it, in particular by giving blacks an opportunity to 'enter' the sector, presumably meaning entering the large-scale commercial part of the sector:

> 'Given the legacy of exclusion and discrimination, the challenge is now to unlock the talents and creative energy of people and improve their participation in all aspects of the sector and rid it once and for all of the many entry barriers rooted in its historical dualism. The challenge is to identify programmes to encourage new entrants: black and white; young and old; men and women; small and medium-scale enterprises, to enter the sector.'[103]

Among the programmes that have been introduced since 1994 to support small-scale and black farmers – one must be mindful of the fact that these are overlapping but not identical categories – are the Comprehensive Agricultural Support Programme (CASP) of 2004, the Micro Agricultural Financial Institutions of South Africa[104] (MAFISA) of 2006, Ilima/Letsema of 2008, and others. The introduction of these initiatives contributed to increased expenditure on small-scale agriculture, but without having a clear impact on the numbers of producers and their livelihoods. Having said this, it is important to recall that in terms of people-power and expense, the largest single support measure is agricultural extension, which of course was not newly introduced as of 1994, but which has been – albeit to a limited extended – reoriented.

Around 2009/10, government made some effort to introduce a more coherent approach to supporting small-scale agriculture. When the Department of Agriculture was restructured to become the Department of Agriculture, Forestry and Fisheries (DAFF), one directorate was established to champion 'subsistence' producers, and another to focus on 'small holder development'. Specific developmental targets were agreed in terms of government's Programme of Action, including that the number of smallholders would be increased by 50 000 over a five-year period, from 200 000 to 250 000.[105] At more or less the same time, the Economic Development Department adopted the 'New Growth Path', which also emphasised the importance of growing the smallholder sector; the specific targets was that the smallholder sector would grow by 300 000 by the year 2020; over the same period, there would be 145 000 new jobs in agro-processing and the upgrading of conditions of 660 000 farm workers. Also in the vein of promoting a more coherent approach, around 2014 DAFF began work on a 'Policy on Comprehensive Producer Development Support', the purpose of which is, ‘to regulate and guide the provision of support measures to the various categories of producers in order to attain a sustainable and competitive agricultural, forestry and fisheries sector’. Among other things, draft versions of the Policy – which is due for finalisation in 2017 – seek to identify and ration different types of support for different types of producers, where the ‘types of producers’ would appear to be more or less the familiar three-fold hierarchy, that is, commercial, smallholder, and ‘household producers’ (i.e. subsistence).

This section discusses support to small-scale farmers in two sub-sections. The first looks specifically at land reform beneficiaries – mindful of the fact that not all beneficiaries are small-scale farmers – while the second looks at agricultural support outside of land reform. The rationale for drawing this distinction is that two important support measures were introduced mainly with land reform beneficiaries in mind, and have to be understood in this light.

Farmer support in the context of land reform

The Department of Land Affairs conducted or commissioned three ‘Quality of Life’ (QoL) surveys since the start of the land reform programme which documented, among other things, the experiences of land reform beneficiaries after land transfer had taken place. According to the first QoL report, production loans, agricultural extension, infrastructure and project management training were the critical support services for the sustainability of land reform projects, but which too few land reform beneficiaries were receiving.[106] The first and second QoL surveys found that more than 80% of land reform beneficiaries expected that the programme would allow them to engage in some crop farming and generate an income from agriculture, while more than 90% expected the programme to deliver better homes and services. However, six years after land reform had begun, only a small percentage of beneficiary households reported that their expectations had been realised, as reported by May et al.[107]

At least some land reform projects have improved the incomes and livelihoods of those who received land – despite inadequate government support for planning and production, and in the face of severe resource constraints.[108] May et al. note that 52% of beneficiaries earn income from agriculture, while 36% are in cropping and 51% own livestock.[109] Through cropping or livestock production, redistribution has allowed some beneficiary households to ‘bump out of poverty’.[110] A national survey of Land Redistribution and Agricultural Development (LRAD) projects, established that farming is the most important source of income for 41% of beneficiaries; 38% had seen incomes rise thanks to the programme. Other benefits included improved tenure security (42%); food security (34%); and grazing access (34%).[111] The same study also showed that 28% of the projects were stable, 21% had improved performance, 22% had marginal benefits, and 29% had failed.[112] A more recent analysis of LRAD and PLAS projects by Business Enterprises at University of Pretoria (BEUP) found that although the land reform programme achieved some progress in terms of improving access to land and contributing to improved livelihoods, its sustainability is questionable.[113]

As mentioned in above, the government’s first land redistribution subsidy, SLAG, was very modest in size and led to large beneficiary groups seeking to farm as groups. However, another identified fault

with the SLAG-based programme was that it made no provision for 'post-transfer support', or rather, it assumed that support would be forthcoming from the respective provincial agriculture departments. The fact that this support often did not materialise has often been cited as the main reason SLAG-based redistribution projects were apt to fail.[114] The then Department of Land Affairs (DLA) concurred with the analysis that weak post-transfer support was a major challenge.[115]
As also mentioned above, in 2001 DLA established a new redistribution grant package called Land Redistribution for Agricultural Development (LRAD), directed at individual households or small groups wishing to acquire land for farming. Ostensibly, the LRAD policy sought to close the post-transfer support gap that prevailed under SLAG. Initially, the remedy was to clarify roles and to ensure better coordination between Land Affairs on the one hand and both national and provincial agriculture departments, on the other: 'The Department of Land Affairs should budget for the grant components of LRAD, while the Department of Agriculture must budget to ensure that its provincial counterparts are financially prepared to meet their commitment to provide post-transfer agricultural support.'[116] The decentralisation of implementation to both provincial and district level would further enhance inter-departmental coordination. A key complaint of provincial agricultural departments up to that time was that it was unfair and unrealistic to expect them to support land reform projects in which they had played no influence or role in the design or vetting of the proposals/applications. In due course district committees were established involving officials from Land Affairs and the respective provincial agriculture department; these committees sought to ensure that project applications were sound before they went to the provincial Land Affairs office for approval.

But by far the most conspicuous response to the concern about weak post-settlement support was the introduction in 2004 of the Comprehensive Agricultural Support Programme (CASP). CASP was launched mainly to provide post-settlement support to beneficiaries of land reform, but also to other previously disadvantaged producers who acquired land through private means. Ostensibly, it was meant to place particular emphasis on women, youth and people with disabilities.[117]

CASP was created in the form of a Schedule 4 conditional grant, which meant that it was budgeted for at national level for use by the provincial sphere, in particular the provincial agriculture departments. The logic presumably was that since these departments were responsible for post-settlement support, then the funds should ultimately be in their control, albeit according to the programme parameters set out by the (national) Department of Agriculture. Although CASP comprised a number of 'pillars' (the six pillars were: Information and Knowledge Management, Financing mechanisms, Technical and advisory assistance, Training and capacity building, Marketing and business development, and On- and off-farm infrastructure), in practice the vast majority of financial support went to the acquisition/development of on-farm infrastructure for land reform beneficiaries. The same district committees mentioned above that vetted LRAD applications, were often also used to consider how CASP could be used in a complementary fashion.

One concern expressed about CASP in its early years is worth singling out given what it suggests about the tendency of programmes to change in character over time. After about 5 years of implementation, a conspicuous feature of CASP was that even while the annual budget was increasing, the number of distinct projects per year was going down. Interviews with provincial staff revealed that the reason was largely due to the 'hassle factor', which was mentioned above as a possible contributing factor in failure of the land reform programme to undertake subdivision of properties acquired for redistribution. In the context of CASP, the experience of at least some implementers was that, 'To administer R10 is as much as to administer R10 million, so we are meant to do fewer, bigger projects; the more projects you have, the more work you have.'[118]

According to a recent evaluation by BEUP, CASP made little contribution to building the capacity of projects to be self-reliant; possibly due to inadequate capacity building, some projects remained dependent on repeated support from CASP despite many years of being assisted.[119] Moreover, only a third of all recipient farms examined in the study could be considered to be commercial. One symptom of this was that the majority of CASP farmers did not find it easier to access formal markets than prior to CASP. Moreover, in almost all the provinces, the evaluation found that the food security situation of the farmers and their households had not improved much since their participation in CASP.[120] However, CASP did seem to result in a significant increase in the average number of full-time employees per project, namely from 7 to 11.[121] According to BEUP, CASP is reaching most of the target groups but relatively few youth and disabled persons are involved in the programme.[122] These sections of the target population constitute only 14% and 3% of all participants in CASP, respectively.

One structural impediment to CASP has allegedly been that is was not closely enough integrated with the land reform delivery process, owing to the fact that land reform was the responsibility of the Department of Land Affairs, while CASP was created in the (national) Department of Agriculture, to be implement by the provincial agriculture departments.[123] This is perhaps one reason why, about six years later, the newly rechristened Department of Rural Development and Land Reform launched the Recapitalisation and Development Programme (RECAP). While the stated objectives of RECAP were to increase agricultural production, guarantee food security, graduate small farmers into commercial farmers, and create employment opportunities in the agricultural sector, in effect the purpose of RECAP was and is to rescue or support land reform projects through infrastructure provision and technical support, where the latter is mainly in the form of strategic partnerships and mentorships. Ironically, as of late 2016, there was an in-principle agreement that RECAP should be relocated to DAFF, because this arrangement would be more consistent with the departments' respective official functions.

BEUP assessed RECAP and concluded that the overall achievement of its intended objectives is moderate to good, although as one might expect the results vary significantly according to province and type of impact considered.[124] For example, 47% of the respondents benefiting directly from RECAP noted that their market access had improved, but the figure among respondents surveyed in KwaZulu-Natal was 70%, whereas for Gauteng it was 0%.[125] Regarding employment, the report notes that:

> 'In total, 540 jobs have been created through RECAP on the [98] projects covered in the evaluation. These are mainly part-time jobs: 111 full-time and 429 part-time jobs. This represents an increase of 53% over the previous employment figures on these farms…. Although the above is a positive outcome, the numbers remain low in relation to the amounts of RECAP funding spent on the projects.'[126]

Indeed, the average amount of RECAP spent for each of the 540 jobs created was about R530 000.

Another concern with RECAP was the generally ineffective skills transfer by strategic partners, leading to very low capacitation of farmers. On the brighter side the economic situation of the farmers increased significantly in relative terms. The social well-being of the beneficiaries was also reported to have improved, although its sustainability is difficult to gauge.[127] The food security and diet of beneficiaries increased overall. About 59% of those benefiting effectively from RECAP noted that RECAP had impacted on their diet (mainly in the quantity, but also the quality and diversification of their diet).[128]

Farmer support outside of land reform

The vast majority of black farmers are not land reform beneficiaries. The purpose of this section is to look at support to this majority; having said that, most of the support measures described here also apply in some measure to land reform beneficiaries.

A large number of different state and non-state organisations are involved in supporting small-scale farmers. On the state/government side, there are principally the Department of Agriculture, Forestry and Fisheries (DAFF), the Department of Rural Development and Land Reform (DRDLR), the provincial departments of agriculture (PDAs), the National Agricultural Marketing Council, the Agricultural Research Council (ARC), the Land and Agriculture Development Bank ('Land Bank'), and various province-based parastatals, such as the Eastern Cape Rural Development Agency and KwaZulu-Natal's Agribusiness Development Agency.

Non-state actors include: commodity organisations such as Grain SA and the National Woolgrowers' Association; commodity-based trusts such as the Maize Trust, the Winter Cereal Trust, and the Potato Industry Development Trust;[129] private agribusiness companies (including input suppliers and traders) such as NWK, VKB, OVK, MGK, Senwes, Suidwes, Afgri, NTK, GWK, Monsanto, Pannar, Syngenta, Omnia, Sasol Nitro; commercial banks that are active in agriculture, e.g. ABSA and Standard Bank; tertiary institutions which render modest amounts of support services of different kinds, sometimes through specialised units such as UKZN's Farmer Support Group; and NGOs/NPOs, such as the Institute of Natural Resources, LIMA Rural Development Foundation, Ntinga Ntaba kaNdoda, and Mdukatshani Rural Development Project, to name but a tiny fraction. Not infrequently state and non-state actors collaborate in rendering support to small-scale farmers, for example whereby a government entity finances or co-finances the work of a non-state actor. The different possible arrangements are numerous. A notable example both in terms of its complexity and scale is the small-scale farmer cropping programme implemented by Grain South Africa, which leverages large amounts of money from the Jobs Fund (a matching grant fund financed and managed through the National Treasury), based on volume discounts provided by input suppliers.

The rest of this section provides an overview of the types of support provided to small-scale farmers in terms of generic categories such as 'extension and advisory services', 'agricultural finance', etc. However, before proceeding, we briefly present a quantitative overview based on the 2014 and 2015 editions of the General Household Survey. The GHS poses a reasonably comprehensive list of questions as to whether or not the household received various types of agricultural support from government, followed by two questions that add perspective as to the perceived usefulness of government support in general, and access to support from sources other than government.

The upper part of Table 6 below shows how many subsistence and smallholder households received these types of support over a 12-month period – in other words, these are averages over the two consecutive 12-month periods covered by the 2014 and 2015 surveys. One notes among other things that the share of small-scale farmers receiving support is small, especially among subsistence producers; however, some types of support are more widely accessed than others, for example free inputs and livestock health support.

Of those subsistence and smallholder households who did receive agricultural support from government, about 9% and 19%, respectively, found it to be 'very useful'. Meanwhile, less than 2% of those receiving support from government, *also* received support from an entity other than government. If one assumes that the likelihood of a small-scale farmer receiving support from a non-government source is more or less the same whether or not one receives support from government, then less than 2% of small-scale farmers receive support from an entity other than government.[130] This means one should be very careful not to assume that the laudably large number of private sector and civil society interventions translates into a broadly felt impact.

Table 6: Numbers and shares of subsistence and smallholder households receiving different kinds of services (averages for 2014 and 2015)[131]

'Has your household received any of the following kinds of agricultural related assistance from the government during the past 12 months?'	Subsistence households		Smallholder households	
	Number	%	Number	%
Training	41 393	1.8%	11 298	7.0%
Advice from gov't extension	35 776	1.6%	10 592	6.6%
Grants	2 600	0.1%	0	0.0%
Loans	1 817	0.1%	734	0.4%
Inputs as part of a loan	12 511	0.5%	3 201	2.0%
Inputs for free	115 139	5.0%	12 291	7.7%
Livestock health services (eg dipping)	153 318	6.7%	25 669	16.0%
Among households receiving government support for agriculture:				
…found gov't assistance 'very useful'	202 454	8.9%	29 671	18.6%
…also accessed 'agriculture-related assistance from' from non-government entity'	34 847	1.5%	2 571	1.6%

Extension and advisory services

At present government employs about 3200 extension officers around the country.[132] In principle government endorses a multiplicity of extension approaches, because "There is no single extension model or approach suited to all situations in South Africa", and "Approaches and methods must be adapted to local situations…".[133] However, in practice the sort of support on offer to small-scale farmers is a mix of the so-called 'Training and Visit' system, which stresses technology transfer, and the 'project approach', which is "a powerful instrument whereby planned, targeted extension actions are introduced," but which presumes that farmers are grouped together into "funded projects … [with] clearly defined objectives, action plans, timelines, deliverables, key performance indicators and resource assignment and execution responsibilities."[134] According to DAFF, the recommended extension-to-farmer ratios range from about 1:500 for 'subsistence and household' farmers, to 1:300 for 'semi-commercial' farmers; 'market oriented and large scale commercial' farmers have a preferred ratio of 1:500 again, [135] presumably based on the idea that they are more self-reliant than semi-commercial farmers, and/or benefit more from private sector extension.

A detailed 2008 report by the Department of Agriculture on the state of extension and advisory service within the public service, provided a sober assessment of the state of the nation's extension services. The report stated that the 'capacity of provinces to deliver quality extension services to farmers varies and to some it is already suffocating'.[136] Due to the recognition that extension services were not adequate, in 2007/08 DAFF introduced the Extension Recovery Programme (ERP), of which the main features were: to return a large share of existing extension officers to further training so as to enhance their technical knowledge; to enable the use of internet-enabled laptops so as to ensure extension officers had easy access to technical information; and to recruit additional extension staff.[137] Prior to the ERP, in fact, the number of extension officers nationally was around 2700. Ultimately the idea was to have 9000 government extension personnel to serve the sector.[138] The idea presumably is not that each and every farmer would have direct contact with an extension officer in, say, a given year, but that a critical mass of farmers would, such that with time the benefits would be widely diffused through the farming population.

However, it is difficult to make sense of the numbers. Presently, the total budget for extension is approximately R4 billion per year, which accounts for roughly one fifth of all government expenditure on agriculture, forestry and fisheries. Taking subsistence producers into account, the actual ratio of extension officers to farmers is 1:660, which is not dramatically worse than the ideal ratio; where then does the target of 9000 extension officers come from? But supposing it were true that in a given 12-month period only about 46 000 households received one or more visits from an extension officer (Table 6); that would imply that the average extension officer interacted with only about 14 farming households, at an average cost exceeding R80 000 per household. Even assuming the GHS figures under-estimate the numbers of households receiving extension support by, say, two thirds, the workload per extension officer and cost per supported farmer are profoundly problematic. This is especially the case when one considers the fairly low share of farmers who feel that the support they receive from government is 'very useful'. Another curiosity is that more farming households benefit from 'inputs for free' than from extension. This might possibly reflect the reality of the 'project approach' to extension mentioned above, which appears to manifest in the tendency whereby the role of extension officers is nowadays less that of an advisor than a project coordinator and/or dispenser of government largesse.[139]

According to Liebenberg, it is important that both the quantity (number of visits to farms) and the quality of extension services are closely monitored.[140] Indeed, greater accountability was also a core goal of the ERP.[141] DAFF promotes the use of what is called the ‘Green Book’ as a mechanism to monitor the work of extension officers and to ensure accountability. The purpose of the Green Book is to keep a record of extension officers’ visits with farmers and other stakeholders. However, there is a widespread feeling that the system is too easily manipulated. This appears to be one reason why the Western Cape Department of Agriculture adopted Smart Pen technology, which digitises extension officers’ handwritten notes, but also enables managers to track the movements of extension officers, e.g. so as to verify that the extension officers were in fact where they said they were.[142] Some other provinces are in the process of following suit, however it remains unclear whether such a ‘technological fix’ will in fact fix much.

While the Extension Recovery Programme can claim a number of successes such as materially increasing the presence of extension officers on the ground, it is widely recognised that it is not adequate in either scale or scope.[143] A number of development agencies exist at a national and provincial level such as CASIDRA (Western Cape), the Mpumalanga Agricultural Development Corporations and Ncera Farms (Department of Agriculture, Forestry and Fisheries). Information on these agencies is very limited and Liebenberg asserts that a rigorous effort ought to be made to record these agencies in an effort to expand our knowledge of the full list of potential service providers to farmer settlement and support.[144]

Given the apparent limitations of government-provided extension services, one common claim is that the private sector and civil society can do it better, indeed they are doing so already.[145] In 2011, DAFF began work on the development of the *National Policy on Extension and Advisory Services*, which was finally approved by Cabinet in late 2016. Among other things, the Policy calls for a more symbiotic relationship between private and public extension, which is not to say that it advocates for outsourcing extension to the private sector.[146] Although there are advocates of the outsourcing approach: for example, in some countries, private-sector firms can hire, fire and compensate employees based on performance, therefore, they may be able to successfully deliver extension programmes as long as there are adequate funding. However, if these extension activities are publicly funded and public funds decline as governments attempt to shift the cost of extension services to the farmers themselves, then most private-sector firms will shift their focus to alternative funding sources and abandon these extension activities.[147] In any case, at present there is little likelihood that government will shift its extension budget to external service providers. In the meantime, whether the extension support presently offered through the private sector and commodity organisations is fact much better, Table 6 implies that the total footprint of these interventions is extremely modest.

Training

On the face of it ‘training’ would appear to be another name for extension, however the meaning in the sector is usually short-courses, often provided by service providers contracted by different government departments. The courses may be technical (e.g. broiler production), but are also often more business or management-related, e.g. marketing or financial management. Training is offered by agricultural colleges and accredited service providers. On average, the duration of courses is five days. In addition, provinces have organised mentorship programmes between experienced commercial farmers and the emerging farmers. The Public Service Commission study of CASP found that where CASP-funded training was concerned, departments often arrange for training without any prior assessment of needed skills.[148] The study also found that 72% of land reform beneficiaries receiving CASP support in the four sampled provinces had been trained. KwaZulu-Natal reported that 100% of CASP beneficiaries were trained between the 2007/08 and 2009/10 financial years. Western Cape stated that 50% were trained, followed by Mpumalanga province with 24% and lastly Eastern Cape with 4%. At the time of the evaluation, none of the sampled provinces had conducted an impact assessment of their training activities.

Agricultural finance

In 2003, the government established that financial services – above all agricultural credit – to smallholder farmers were insufficient, despite the existence of numerous institutions with a mandate for the task, including the Land Bank, Ithala Bank, and Uvimba Finance. The problem was classic: high transactions costs deterred financial institutions from dealing with small-scale clients, and many would-be clients lacked assets that could serve as collateral. Government therefore introduced a scheme in 2004 called the Micro Agricultural Financial Institutions of South Africa (MAFISA), which was given an initial capitalisation of R1 billion. The idea was that this money would be made available (i.e. 'wholesaled') at low interest rates by the then Department of Agriculture (DoA) to a number of existing financial institutions, which in turn would 'retail' it to farmers.[149] The inexpensive cost of the capital would assist the retailers compensate for the challenge of high transaction costs. It is not clear that there was any particular plan to address the absence of collateral, except that it would seem that the DAFF had little ability to penalise the financial intermediaries (FIs) who failed to repay on account of their own poor collections.

MAFISA was piloted from July 2005 to December 2007 by DoA and selected FIs in three provinces. The pilot involved two products, namely a production loan and a small equipment loan, with a maximum loan size of R100 000 per person. FIs were allowed to lend at an interest rate of 8%, of which 7% was to cover the costs of the FI and 1% was the cost of the wholesale finance from the MAFISA Fund. In 2009 the Department of Agriculture, Forestry and Fisheries (DAFF) implemented the credit scheme via nine FIs, and the maximum loan size was increased to R500 000 per person. In fact, while some institutional changes have taken place over the years, the basic model has remained the same, both in terms of the use of intermediary institutions which retail loans to the final clients, and the nature of the loan products on offer.[150]

In 2014/15, a major evaluation of MAFISA was conducted by Business Enterprises at the University of Pretoria (BEUP).[151] While one would expect a new, complex and ambitious programme such as MAFISA to be challenging to implement, the BEUP study found that even after 10 years MAFISA was plagued by numerous problems. One problem, which also hampered the evaluation itself, was the poor state of records maintained by some of the FIs, which was such as to make it difficult even just to calculate something as basic as a repayment rate. Related to this is the finding that DAFF does not have adequate capacity to monitor MAFISA and support its implementation.[152] On the other hand, MAFISA has yielded some benefits. The points below are some of the findings from the BEUP study, both positive and negative:[153]

- A total of 16 080 job opportunities were created by 2 448 MAFISA loans; larger loan sizes and labour-intensive farming activities positively influence the numbers of jobs created
- MAFISA is virtually the only source of formal institutional credit to smallholder farmers in South Africa[154]
- However, the number of MAFISA loan recipients is nonetheless a small fraction of the total number of smallholder farmers
- At the end of 2013 only 5 FIs were retailing MAFISA loans, and these intermediaries did not provide a national footprint
- FIs have varying capacities to retail MAFISA loans; one FI only approved and disbursed 17 loans, while another only loaned out one fifth of the capital allocated to it
- Not all provincial development finance institutions are accredited as MAFISA retailers, while only 3 commodity organisations have been accredited (covering red meat, grain and sugar); not all appropriate institutions are keen or qualified to serve as intermediaries
- The estimated repayment rate was 45% as of March 2014, rendering MAFISA unsustainable.

Although small-scale farmers' lack of access to credit is sometimes lamented, and although one could say that the performance of MAFISA has been less than inspiring, in fairness one has to acknowledge the global experience that providing agricultural finance to small-scale farmers tends to be intrinsically challenging, and that the weaknesses of South Africa's smallholder sector makes it especially difficult to reach. Be that as it may, DAFF is recently of the view that too large a share of the expenditure in support small-scale farmers is in the form of grants rather than loans. Among other proposals on the table is a shift towards 'blended funding' models:

> 'The total funding needs of most programmes are much bigger to what can realistically be mobilised by the National Treasury, therefore, the need to reconsider the use of loans blended with the current grant funding. This may enable implementation agencies to reach a high number of beneficiaries with the same grant funding.'[155]

Tractor services

It is broadly accepted that an important ingredient of a strong, viable small-scale farming sector is access to affordable, timely tractor services.[156] What individual smallholders and subsistence producers have in common is that they can rarely afford their own tractor, nor does their scale of operation justify the ownership of a tractor, thus the idea of 'tractor services' which can serve numbers of small-scale farmers in the same area.

While government has often recognised the need to try to improve small-scale farmers' access to tractor services, its recent efforts have tended to perform poorly.[157] In 2010/11 DAFF launched a 'mechanisation programme', which consisted mainly of DAFF giving tractors and equipment to provincial agriculture departments, which either used them to provide subsidised tractor services directly to farmers, or gave them away to others (e.g. co-ops, traditional leaders, municipalities), who in turn would to serve their member or nearby farmers. In practice there have been two significant problems with this approach. The first is that accountability for these assets has tended to be dilute; although hard data are lacking, it is commonly accepted that many of these tractors quickly fell into disrepair or even disappeared. At an agriculture portfolio committee meeting in 2013, committee members complained: "Members were generally not happy with the principles around distribution of tractors and felt that the national Department should retain more accountability…; members commented that some people were not benefiting from the programme at all and its implementation still seemed haphazard."[158]

The second problem is that such efforts drive out existing tractor services, i.e. those that are provided by local tractor owners who offer such services as an enterprise; many of these individuals are themselves small-scale farmers. While there is little recent evidence as to the scale of these services in South Africa, they appear to be significant, which is not to say adequate. The most recent evidence we have is unfortunately quite old, namely from Stats SA's 'Rural Survey' of 1998, which was conducted across the former homelands. The roughly 640 000 households making use of tractors for land preparation at that time procured their use through three main means: about 17 000 used their own tractors, 9000 borrowed someone else's tractor, and 614 000 households hired tractor services from someone else. It is reasonable to assume that in most cases, these latter hired services from among the 17 000 households who owned their own tractors.

The other main way in which government promotes access to tractor services is through projects, of which probably the most significant example at present is Fetsa Tlala, government's cropping programme. As with its antecedents such as the Eastern Cape's Massive Food Programme, Fetsa Tlala generally operates by means of tractor contractors, however typically not the very small, local contractors referred to above; thus as with government's other efforts, Fetsa Tlala does little to develop local capacity. In any case, the economics of Fetsa Tlala are very problematic.[159]

Marketing support

Over the past decade or so, DAFF has introduced a number of well-rounded policies, strategies and programmes which seek to enhance small-scale farmers' ability to 'access markets' – which is arguably shorthand for accessing *formal* markets. These include the Agricultural Marketing Policy for the Republic of South Africa (2010), the Agricultural Marketing Strategy for the Republic of South Africa (2010), An Integrated Marketing Strategy for Agriculture, Forestry and Fisheries Products in the Republic of South Africa: 2012-2030 (2012?). Most of these strategies emphasise improving farmers' access to market information, to the need for institutional development (e.g. marketing co-ops), to taking advantage of opportunities for public procurement, to improved agro-logistics infrastructure, and so on. Meanwhile, a number of other policies/strategies/programmes have been introduced with a bearing on marketing, e.g. the Agricultural Policy Action Plan (2014), the Revitalization of the Agriculture and Agro-Processing Value Chain initiative (2015), and so on.

Despite all of these policy initiatives, and with the exception of DAFF's market information system (which farmers of all kinds can access using computers or smartphones through a designated web portal[160]), there has been little tangible follow-through. For some years DAFF's marketing division sought the resources with which to construct fresh produce hubs to enable small-scale farmers to aggregate and market their produce, however most of the money was tied up in CASP and Ilima/Letsema, which provincial agriculture departments preferred to use for on-farm infrastructure and free inputs. On the other hand, the Department of Rural Development and Land Reform has been busy building the occasional abattoir and feedlot, but there has been little assessment of these.[161] The significant development at present is the planning for the establishment of the 44 district-based agri-parks, which is far more ambitious than anything government has done in the past two decades, only that it is premature to say what the results of this initiative will be, assuming the budget is found in order to carry it out.

Similarly with institutional changes, it is notable that government has been rather timid about pursuing the government procurement route, nor has it done much to either encourage or compel the retail sector to make more effort to procure from small-scale farmers. Perhaps most conspicuously, however, is the emphasis on 'production co-ops' at the expense of support to marketing co-ops. According to a recent DAFF report on co-ops in the sector, only 5% of co-ops are engaged in input supply or marketing/processing; however, if one excludes secondary co-ops (which exist to serve primary co-ops), the share declines to 3%.[162] (More is said about small-scale farmers' access to markets in section 7 below.)

6 The alignment of land and water allocation reforms

Introduction

Agricultural activities in South Africa consume over 60% of fresh water, relative to 35% and 8% consumed by municipalities and industrial activities, respectively. The sector utilises water mostly for crop irrigation. More than half of the country's fresh water is used for irrigation of the 1.5% of agriculture land.[163] This is largely through the consumption by large-scale commercial farmers; 12%, 33% and 55% of irrigation water is utilised through localised irrigation, surface irrigation and sprinkler irrigation, respectively. South Africa's farmers increasingly employ globally recognised water-efficient techniques, however the bulk irrigation infrastructure has problems.[164] The National Development Plan's 'proposal' to expand the area under irrigation by 33% by 2030 is largely predicated on achieving more efficiency within the existing water use levels.[165] Paradoxically, agriculture only contributes 3% to GDP. On the positive side though, agriculture directly employs about 640 000 people, possibly more than half of whom are in the labour-intensive irrigated sub-sector.[166]

South Africa's water demand projections estimate that about 17.7 billion m^3 by 2030 resulting in excess demand of around 17%. Agriculture alone is expected to have a demand gap of 7.9%. Consequently, 6 of the 19 water management areas are expected to experience water deficiencies with those encompassing Cape Town, Johannesburg, Durban and Pretoria suffering the most.

Evolution of water rights in South Africa

Allocations, applications and enforcement of water rights and authorisations have always been complex and intricate processes in South Africa. Water rights have over time been influenced by hydrological and climatic processes, population growth, migration patterns, land use changes, and various geographical, topographical and environmental forces. Water rights are also affected by international and local boundaries. It has been argued though that political intent towards water laws serves only as a signal of the background forces of cultural, climatic and environmental considerations.[167] The concurrence of the disparate aforementioned factors is such that it is difficult to make an efficient determination and enforcement of water laws that satisfies all parties; i.e. tensions are inevitable, if not actual conflict.

Legal doctrines for water rights

There are four basic legal doctrines of water law that have been applied over the world and over time, of which two have been especially important in South Africa. Depending on the intentions of the relevant controlling authority and/or the time in history, these doctrines have been alternately or jointly applied to suit what would be viewed as in the social interest.[168] A key concern of the doctrines guiding water legislation is the promotion of effective and sustainable water management. The sustainable provision of water is defined as, 'the ability to provide for all water needs, whether they are social, economic, environmental, physical, biological or religious, of the current generation without jeopardising those of the future'.[169] Given this perspective as the prevailing one over time, and determined by the joint impacts of cultural and environmental factors, the four doctrines applied include the absolute ownership principle of *dominus fluminis*, riparian, appropriation and correlative systems.[170] These are described as follows:

- *The Dominus fluminis Doctrine* - As the 'absolute ownership' principle suggests, the *dominus fluminis* doctrine vests all rights to a water resource in one governing authority. Contrary to what its name might imply, the doctrine does not transfer ownership rights to the governing party, but merely vests total controlling authority with it. *Dominus fluminis* prevailed in South Africa during Dutch rule.[171]

- *The Riparian Doctrine* – The riparian doctrine dictates that the rights of use of water resources lay in the proprietor of the riparian property which borders, surrounds or within which the said water source is located. The universal application of riparian law proved complex and therefore was often amended in various locations specifically to suit land ownership systems prevailing therein. Riparian rights cannot be lost by use or lack thereof of the land, property or water source in question.

- *The Appropriation Doctrine* – Also known as the Colorado Doctrine, the system worked on a 'first in time, first in right' basis. Essentially this meant that the first individual to lay claim rights to a water source would acquire said rights. In application, the system was comparatively sensitive as a claim to water rights could supersede the rights of the proprietor of the property within which the water source is bordered. In effect it meant that riparian rights could be outweighed by appropriation authority. Additionally, the appropriation rights were subject to use and maintenance of the water source. Abandonment could result in forfeiture of appropriation rights.

- *The Correlative Doctrine* – Effectively designed for underground water resource management, the correlative rights system, also known as the California Doctrine, integrates certain components of the appropriation and riparian systems. The underlying principle dictates that the owners of the land overlying the underground water basin or aquifer act as joint tenants endowed with equivalent access to reasonable use of the water.

Historical analysis of water rights in South Africa

South Africa over the years has implemented water rights and legislation based on the *dominus fluminis* and riparian doctrines (individually and jointly). South Africa's historical application of water rights bears similarities with other British, Portuguese and Dutch colonies in Sub-Saharan Africa which have similar climatic, hydrological, fluvial and environmental processes, e.g. Angola, Botswana, Malawi, Mozambique, Zambia and Zimbabwe. The application of the legal doctrines towards water use and control were governed largely by the dominant water consumption activities and population dynamics vis-à-vis the prevailing environmental conditions. Activities such as household consumption and subsistence gardening (now categorised as Schedule 1 activities under the National Water Act of 1998), and the small population relative to land and water resources, probably determined the *res omnium communes* ('things owned by no one and subject to use by all') approach adopted by the early Dutch settlers. Water sources were therefore viewed as a public resource available to everyone.

National Water Act (Act No 36 of 1998)

The National Water Act was published in 1998 with the principal intention of redressing and reforming prior legislation relating to water resource management and consumption, which was regarded as unsuitable for a modern South Africa. The law was premised on the understanding that South Africa is a water-scarce country – South Africa has a mean rainfall of about 450mm compared to a global mean of 860mm – thus qualifying it as the 30^{th} driest country in the world in per capita terms, with about 1400m^3 per person per year.[172] The Act sought to promote sustainable water use within a democratic context. It addressed such functions as the protection, use, development, conservation, control of water, as well as the encouragement of all stakeholders' participation in water resources management. The NWA aligned matters recognised in the Constitution (Act 108 0f 1996) relating to water use, environmental management and government as custodian of water resources.

The core purpose of the NWA was to provide a legal basis for ensuring that the country's water resources are used, controlled, managed, conserved, developed and protected in a sustainable manner for the benefit of all, both at present and into the future .[173] Specific objectives of the NWA included:

- Providing for basic human rights
- Redressing prior racially discriminatory laws, rights and obligations
- Protecting the country's scarce water resources
- Having a framework for sharing water resources with other countries
- Promoting socio-economic development through water allocation
- Establishing representative water management institutions and
- Ensuring robust stakeholder participation in water management decisions which affect them.

The State's fiduciary role (NWA s3(2))

The NWA expressly dictates that water resources in South Africa belong to 'all people'. [174] This arguably creates ambiguity – how can ownership rights be vested in 'all citizens', which implies that an entire citizenry acquires a legal personality through which to advance a claim over all water resources? Alternatively, it can be interpreted that the government assumes a fiduciary role (with the Minister of Water and Sanitation as proxy (NWA s3(2)), upon which it entrusted itself as representative of the people. This 'public trust doctrine' was a reversal of the Roman-Dutch private ownership doctrines which previously applied.[175] The public trust doctrine adopted here states that title rests in the nation with citizens as the beneficiaries of state trusteeship. Another compelling argument for the adoption of s3(2) was that the objective of equitably distributing water to fulfil the basic human needs of all citizens would not be feasible in an unchecked market system. Sustainable consumption would be subject to private property laws as set up in the riparian and *dominus fluminis* systems. The maintenance, preservation, conservation and protection of natural water resources however fall into 'public good' categories which are usually failed by free markets. Naturally, as the democratic custodian of people's current preferences and future interests, the law permitted the State to adopt its fiduciary role.

Water authorisations and use

To accommodate varying objectives, chapter four of the NWA provides for the establishment of permissible entitlements and use of water principles, and the administration of water entitlements. Under section 21, water use and authorisations are disaggregated into three categories so as to achieve equitable distribution, basic access and efficient allocation. These are classified as Schedule 1 authorisations, General authorisations and licensed use authorisations:

- *Schedule 1 Authorisations* – The law, through Schedule 1 authorisations, allows the access and utilisation of comparatively small quantities of water targeted for domestic consumption and is thus exempt from licensing. The Act states that all are entitled to be provided with water for reasonable basic household consumption from any source to which access is legal. Water on land and/or adjacent land may be utilised by the occupants of the land for reasonable household purposes,[176] gardening and watering cattle.[177] The stated use of water is subject to the extent and reasonable consumption of other beneficiaries and users of the same source of water.

- *General Authorisations* – The idea of the General Authorisation is that in areas not badly stressed by water shortages, water users needing slightly more water than contemplated under Schedule 1 would not need a license, although they might be required to register their use. The registration of use could be done at the relevant Catchment Management Agency (CMA) or Water User Association (WUA) provided for in chapters seven and eight of the Act; in the absence of a CMA or WUA, the user would rather register directly with the nearest office of the DWS. General authorisation to use water requires publication with regards to the use of water, the source of water and the specified area.[178]

- *Water use licensing* – Water use licensing is one of the underpinning guidelines of water rights and use in the NWA. Its implementation since the promulgation of the Act, though, has been marred by delays and errors in the then DWA, resulting in delays in compliance with the provisions of the Act. To date the existing lawful use principle, which was meant to be an interim alternative while licensing was undertaken, is still in use. Regardless, processes are underway to update and adhere to water use rights as defined in the NWA. The intention is that presently and in the near future, any person intending to use water for purposes exceeding the conditions necessary for Schedule 1 and general authorisations, should apply for licensed authorisation from the relevant authority.[179] Granted the said water used licenses, they would be valid only for specified periods of time (maximum 40 years) and subject to review every half a decade. Section 43 mandates the licensing policy to ensure: fair and reasonable division of rights over common water resources; beneficial use of water in public interest; efficient management of water resources; and protection of quality water sources. Licenses can be granted for water extraction, storage, course alterations, flow reductions, irrigation and related purposes, treatment of polluted water, subterranean water use and recreational purposes.

Social, economic and environmental factors

The Bill of Rights of the Constitution ensures citizens' rights to water and to an environment in general which is suitable for dignified living. These founding principles are consistent with Article (2) of the African Charter on Human and People's Rights of 1981, with the International Covenant on Economic, Social and Cultural rights of 1966 (albeit being merely implied in the latter), and with the Dublin Principles of 1992.[180] The State therefore sought to provide basic water requirements of 25 litres/per person/day, to be accessible within 200 metres of a homestead, as governed by the 2001 regulations to the NWA known as the Regulations Related to Compulsory National Standards and Measures to Conserve Water.

The Constitution guarantees the right to sufficient food and water and imposes the duty upon the State to undertake legal and reasonably necessary measures to ensure *progressive* realisation of these rights under sections 27(1)(b) and 27(2), respectively. It is therefore clear that water is viewed as the underlying basis upon which reasonable social, economic and environmental existence thrives. Through the DWS and sections 9 and 10 of the Water Act, a policy of 6KL/month/household is provided free of charge towards realisation of the above-stated objective. This threshold however may vary depending on local municipal financial and organisational capabilities; local municipalities have the discretion to determine the quantity of free water they can realistically provide. The Act also provides a legal framework from which work towards the 'less than 200m distance to water source' objective can be eventually achieved. In reality, this target is yet to be achieved due to capacity constraints, topographical hindrances and climatic change impediments. The then Department of Provincial and Local Government (DPLG) noted that for the 2000-2002 period about 78.1% of households had access to piped water; however, according to the General Household Survey, by 2015 the share of households with access to piped water had risen to 89.4%, although 22.3% of households relied on a water source exceeding the 200m distance threshold.[181] These figures illustrate notable but incomplete progress towards achieving universal water access.

Environmental management issues are provided for in sections 2 and 3(2) of the Act. Section 2 identifies the need for protection of the environment through water resource management, while 3(2) stipulates that in determining the allocation of water use rights, the Minister of Water Affairs should contemplate environmental impacts. This is consistent with section 24 of the Constitution which guarantees citizens' rights to a safe environment which promotes health and well-being for both the current and future generations.**Error! Bookmark not defined.** Ecological, geographical and environmental concepts are therefore contemplated in the Act. Licensing is therefore mandated for activities relating to channelling of polluted water or activities which have detrimental implications on the quality of surface and subterranean water such as mining, fracking and waste disposal, among others.

Water resource and use management

After the clear mandate to the Minister established in section 5(4) of the Act to develop a water management strategy, the then Department of Water Affairs and Forestry developed the first edition of the National Water Resources Strategy (NWRS) in 2004. The Minister is obliged to generate an updated version of the NWRS every 5 years.[182] The strategy is binding to all water users and institutions, and has the purpose of:

- Facilitating proper water resources management
- Providing a framework for use, protection, control, management and conservation for the country
- Providing a framework for regional and catchment levels
- Providing information on water management for all in public domain
- Identifying water related development opportunities and constraints.

Catchment management agencies

Catchment Management Agencies (CMAs) form part of the water management strategies underlined in the NWRS. Originally, 19 water management areas (WMAs) were identified based on location, water use and the nature of water resources available. These were later reduced to 9. Each of the WMAs is legally required to have a catchment management agency which in turn should have a catchment management strategy tailored to the circumstances of the WMA. The primary purpose of CMAs is to decentralise water resource management to levels which can incorporate the international standards of universal stakeholder participation.

The full establishment of a CMA appears to be a long, painstaking process, as illustrated by case of the Inkomati-Usuthu WMA, whose CMA was one of the first to be fully operational. Having first been established in 2004, the Inkomati-Usuthu CMA and the then DWAF signed the service level agreement on the functions, operational requirements and obligations of the CMA in August 2007. The takeover of water management responsibilities as stated in the memorandum of understanding between the two parties only occurred in 2017. To date, since the promulgation of the NWA, this is one of the only two fully operational CMAs, although up-to-date information is difficult to find.[183]

Water user associations

Water user associations (WUAs) are statutory bodies established by the Minister to coalesce groups of water users wishing to co-ordinate their activities for common interest or benefit. Activities beneficial to particular water users in an area can be co-ordinated by a WUA to the joint benefit of all members. Activities can range from construction of dams and canals, to the acquisition of water-related material like pipes. The Act provides that pre-existing water boards, subterranean water control boards and irrigation boards should transition into WUAs which merge with the relevant new users in an area.

However, this process has not gone smoothly, seemingly owing to the resistance of the existing bodies. As of mid-2013, there were 78 established WUAs, against 129 remaining Irrigation Boards. The National Water Policy Review expressed government's displeasure with the situation as follows:

> 'The existing tension between small localised Irrigation Boards owning infrastructure versus the broader intention of a WUA aimed at supporting the decentralisation of water management is creating a confusion of roles. The merits of decentralised management of water resources to this level in monitoring water use [and] enhancing enforcement of water management cannot be disputed. However, there are number of challenges posed by WUAs in water resource management. In addition, oversight of a large number of WUAs is becoming a challenge for the Department.'[184]

On the theme of some IBs' obstructive tendencies, Woodhouse noted one situation where an IB was reluctant to collect charges and in the process severely diminished the new CMAs' planning and operational capabilities.[185] Compromises on access and rights towards private water infrastructure like dams and canals by sub-groups of CMAs have been difficult to reach. Additionally, the Constitution (Act 108 of 1996) Bill of Rights' recognition of both the citizens' rights to water access and the protection of private property rights have created a joint riparian-*dominus fluminis* water rights system. This has opened room for legal confrontations. Localised impediments by anti-reform organisations such as the Transvaal Agriculture Union (TAU) have been recorded.[186]

The slowness of the process of shifting from IBs to WUAs, followed by the difficulty of supporting the WUAs themselves, would appear to constitute the main reasons why the above-mentioned Review took the position that the WUAs should be phased out: 'The Minister will specify a date by which WUAs and Irrigation Boards (IBs) will cease to exist, with the appropriate functions related to a state-owned water scheme being delegated to a SMA or Regional Water Utility.[187] However, at this stage it does not appear that government intends to abolish the WUAs after all, though their fate remains unclear.

Limited governance capacity

Schreiner, Pegram and Von der Heyden identified various institutional inadequacies which were either hindering water reform or stalling development of new water management agencies.[188] Limited human capacity has seemingly been the main constraint to replacing ELU-based rights with licenses.[189] The lack of skills and experience in the processes has been identified by the DWA as the reason for the huge license issuance backlog, which is why a very large share of commercial farmers continued to operate under ELUs.[190] There has been little understanding by DWA staff of the NWA provisions and their linkages with the DWA. NWA sections 32 to 35, which provide for the verification and validation of water use and their links to management practices such as registration, legality, mandatory licensing and current use, are poorly understood.[191]

This no doubt has been detrimental to the efficient delivery and administration of CMAs and WUAs. Msibi and Dlamini observed what they classified as inadequate drive, repressiveness and excessive caution among DWA staff to the extent of crippling water reform processes.[192] Of particular impact was their approach towards the provisions of NWA governing General Authorisations and mandatory licensing.[193] Monik observed that DWA staff members were reluctant to issue General Authorisations as they viewed them as a loss of the capacity to control their work, thus risking legal ramifications.

The allegation is that the incompleteness of the water reform process has allowed commercial farmers more latitude to do as they wish, whether or not they have contributed to this incompleteness. The 2013 National Water Policy Review lamented that, 'Sixteen years after the White Paper, a large number of water use allocations are authorised under an ELU. The implication of this is that water which is not being productively and beneficially used is held, and often traded, by a minority group in the country.'[194] Some of the implications of this situation for land reform are sketched out below.

Water reform and the agricultural sector

The transition from one system to another in modern democracies is usually instigated by the need to develop better and improved systems guided by efficiency, accountability and sustainability. However this is not necessarily a simple process. Part of the difficulty has been explained above in terms of the incomplete and uncertain institutional transformation, e.g. from IBs to WUAs and/or CMAs.

Another key aspect is the establishment of the new water licensing regime. Water allocation and use rights enshrined in the NWA are based on the premise of verifying Existing Lawful Usage (ELU), which in turn is defined in terms of the previous legislation.[195] However, South Africa's previous water laws were themselves complex and open to various interpretations; this has brought about difficulties in verification and validation of ELU-based rights of water resources prior to the NWA. In the previous system IBs provided compensation as per the DWAF officially allocated amounts. This though does not guarantee or provide reliable information as to the actual amounts of water previously utilised. High levels of information asymmetry exist as only irrigating farmers and their immediate IBs can reveal exactly how much water was used, despite the adoption of digital irrigation equipment.[196] Even supposing the existence of completely truthful users, the exact amounts of water used cannot be known with accuracy. The government, through the DWS, has committed considerable personnel and financial resources towards validation and verification of existing legal uses, but this appears to be an incomplete and challenging process, not least due to the capacity constraints referred to above.

Regarding small-scale farmers the considerations are somewhat different. Chapter four, section 21 of the NWA broadly qualifies the different water use methods recognised by the law. S21(a) and s21(b) relate to abstraction and storage of water, thus paving way for the categorical classifications as Schedule 1 Authorisations, General Authorisations and Licensed Use Authorisations. In the cases of smallholder farmers and residents in former homelands, the provisions create a situation where the former and latter are classified as both Schedule 1 and licensed consumers. As homestead owners, smallholder farmers can be classified as requiring only Schedule 1 Authorisations, but as practising farmers (unless if they can prove the need for an exemption), they may require more than General Authorisations, and will therefore be legally obligated to acquire licensed access.

However, the more common situation in former homelands is where the farmers have no individual water rights, as they are members of projects which fall under the jurisdiction of the provincial departments of agriculture (PDAs), which inherited water allocation duties after the 1994 dissolution of homeland administrations.[197] Of particular concern here are the hundreds of 'smallholder irrigation schemes' that were established in the then homelands/Bantustans, generally from the 1950s to the 1980s. It is therefore the duty of the PDAs to compensate the DWA for water usage on behalf of by farmers in their areas; in some schemes, however, there is a distinction between small food plots (generally less than half a hectare), and commercial plots; the former fall within Schedule 1 Authorisations so no payment is in order; for the commercial plots, however, the PDA may attempt to get farmers to pay water charges or user fees of some kind.

Water reforms in relation to land reform

The fragility of land reform projects as attempts to improve the livelihoods of black households, has been widely discussed. But to what extent has land or agrarian reform been further compromised by either a misguided or an incomplete water reform? The question is especially pertinent given the persuasive argument put forward by Cousins that irrigated smallholder agriculture presents one of the best opportunities for using agrarian reform to reduce poverty and food insecurity.[198] One imagined scenario is whereby irrigated commercial farmland is prioritised for acquisition and transfer, and in the process is subdivided so as to accommodate smallholders in some fashion, although Cousins cautions that providing the right combination of irrigated land, infrastructure, and appropriate support 'on a large scale may be beyond the capacities of the state as it currently functions'.[199]

There are three main issues that have come to light in respect of this scenario. First, as already discussed above, subdivision almost never happens. Again, the reason is not because of a legal or technical impediment[200] (which is not to say that all commercial farmland is equally suitable for subdivision), but because of the widespread belief within government that subdivision *should not be undertaken*. This is not to do with water or water reform as such, but it constrains the use of land reform as a tool to reallocate water use in a manner that will create rural livelihoods.

Second, there are myriad anecdotes to the effect that when redistribution or restitution beneficiaries take possession of commercial farmland that was previously irrigated, much of the irrigation infrastructure is no longer in place or functional. Whether this is because of the former owners' spite, or because the sale agreement was not sufficiently inclusive or detailed or clear, or because of something going wrong in the gap in time between when the previous owner vacates and the new owners/lessees arrive, is difficult to say.[201] Impressionistically, however, it would seem that the Department of Rural Development and Land Reform has become considerably more thorough in its procedures over the years, for example in terms of clarifying the terms of sales and putting in place mechanisms to safeguard assets while the newly acquired land remains unallocated or unoccupied. In addition, government has put more measures in place to develop on-farm infrastructure for land reform beneficiaries, notably CASP and Recap.

The third issue however is to do with whether or not the land being acquired via land reform has 'water rights' which then the beneficiaries can use to their advantage. This is where the intersection between the land reform and the water reform processes is most tangible. Regarding restitution, Van Koppen et al. report that,

> 'In a few cases, water rights tied to land under claim were sold, leaving an asset of lesser value. Without readily available registers of land under claim, the DWAF could not easily track this problem. In the late 1990s, however, it introduced a policy that the trading of water rights of land under claim should not be approved.'[202]

In fact, it is difficult to gauge whether this problem was only experienced 'in a few cases', or whether it is more common. Moreover, what about redistribution?

The thorny issue is whether or not the previous owner's water rights come with the land that's being acquired; this in turn is related to the question of the tradability of water rights. These would appear to be simple questions, however they are not. The complexity has to do with the application of the law in conjunction with the reality of the incomplete institutionalisation of water reform.[203] But it also has to do with the fact that irrigation systems differ, whereby the situation of a farm relying on boreholes is often quite different to one relying on bulk water supply via an actual scheme (e.g. a canal bringing water from a dam that serves farms in the area); in short, the latter situation more easily allows for a divorce between the rights to the land and the rights to water.

The NWA is silent on the tradability issue, however it is implied that water rights are not tradable, or if they are, only in an indirect and highly regulated manner. The imperative of the Act is to ensure an equitable redistribution of water rights, which cannot be accomplished if market forces are allowed to operate unfettered. In principle, therefore, water licenses can only be transferred indirectly, i.e. through the relevant governing body (e.g. the DWS, a CMA, WUA, etc.).[204] This potentially creates a problem for land reform in the sense that when an irrigated farm is acquired in which the irrigation is based on (new order) license-based rights, the purchaser (in this case government) is not strictly speaking acquiring the water rights on behalf of the beneficiaries as well; that is, the water rights do not come automatically with the land. Acquiring these rights would require an additional administrative manoeuvre via the relevant authority; presumably then the Department of Rural Development and Land Reform becomes the responsible/liable water user, whether or not it tries to pass on the costs to the tenant, i.e. the land reform beneficiary.[205]

However, the more common situation appears to be where the commercial farmer still accesses water in terms of an ELU, i.e. has not been through the licensing process. The challenge here is that trading of these rights still happens; whether or not it is meant to is difficult to say, the fact at present is that there is no meaningful mechanism to prevent it. This is the gist of the quote above from the 2013 National Water Policy Review bemoaning the fact that water use allocations authorised under ELUs are 'often traded'. This raises the possibility of an owner selling water rights separately from the land, as suggested in the Van Koppen quote above, and as also suggested by numerous anecdotes over the years. But why would a seller want to sell water rights before selling the land to land reform? Presumably because it can be profitable, for instance if the government's valuation assumes that water rights are being acquired whereas they have already been sold off. But again, it is not clear how often this happens.[206]

To its credit, the Department of Rural Development and Land Reform has attempted to highlight the water rights issue when deciding whether or not to purchase land. The memoranda submitted by provincial chief directors for the consideration of the National Land Allocation and Recapitalisation Control Committee (NLARCC), which in turn recommends acquisitions to the Minister, has an obligatory section which spells out the nature of existing water rights, the details of which are meant to have already been verified with DWS. The NLARCC, moreover, has a standing member from DWS in order to provide guidance to the NLARCC regarding technical and legal water issues. If ever it were common that, in an attempt to increase their revenues, land owners sold water rights separately to the land that is then sold for land redistribution – and again, it is not clear that it was – then it is very likely less so now. A much bigger problem very likely is that South Africa has little irrigated cropland, which is in extremely high demand by commercial farmers wishing to intensify as a means of staying afloat.

7 Smallholder farmers and market linkages

The post-independence inclination towards neo-liberal market policies did not provide suitable platforms for smallholder farmers who were already struggling.[207] Smallholder farmers are exposed to various constraints which have limited their development and sustainability. These include lack of access to appropriate and timely market and production information, small production levels, lower quality produce vis-a-vis massive large scale commercial farm competition, poor pricing, long chains of transactions between producers and consumers and logistical burdens. These drawbacks have contributed largely to the difficulties in alleviating the triple threats of poverty, unemployment and inequity through smallholder agriculture. Various undesirable consequences of poor market linkages have included barriers to markets (both formal and informal), increased overall costs, inefficient markets and a rejuvenated prejudice towards subsistence agriculture activities at the expense of commercialisation.[208] The most troubling effect though, has been the massive opportunity costs associated with loss of potential incomes and employment that could have been gained from agriculture, agro-processing, marketing and consumption value chains. Various forward and backward linkages could exist between producers and consumers which could massively boost farm and non-farm employment. Regardless of the weak and inefficient market linkages which smallholder farmers are exposed to, evidence has indicated that the latter do contribute significantly to South Africa's socio-economic structures through formal and informal linkages.

Market linkage strategies

Smallholder farmers in South Africa are to large extents responsible for food security and employment especially in rural areas. This is despite their constrained access to formalised markets, erratic supplies, escalating costs and small market shares. The unavailability of large markets for smallholder farmer produce chokes their ability to cheaply and efficient dispose of their commodities. They have on occasion had to resort to distant or export markets; which naturally multiplies the prices of the commodities.[209] Farmers are also exposed to elongated and persistent transaction lines involving wholesalers, agents, retailers, transporters etc, which severely dents their returns. It is necessary that strategies which serve the best interests of smallholder producers be implemented. While some linkage techniques are already in existence, there is need to invest in, emphasise and evolve them to suit current and future needs. Linkages may be improved through:

- *Mobile technology development and inclusion* – The Linking Producers to Markets Programme provided a valuable framework for interventions towards improving smallholder farmers' access to markets. What was lacking though was the mention or emphasis of inclusion of technologies, in particular mobile-based ICTs in the development of smallholder agriculture.

- *Mobile applications* – Mobile-based ICTs have noticeably overwhelmed all sectors of production and services in global economies. Typically, ICTs developments have brought rapid growths in telecommunications practices and South African smallholder farmers should in no way be lagging. ICTs in developing economies' agricultural sectors have taken various forms such as mobile money transfer services, passive infrastructure sharing, early warning systems, market and pricing systems among many others. While South Africa boasts well developed technologies systems relative to other African countries, its commitment of lack thereof has seen it lagging in smallholder agriculture ICT penetrations. Kenya's M-PESA provides comparatively cheaper and convenient money transfer systems which have seen it develop into the leading service in Africa with over nine million users and 15000 agents.[210] This service has benefited the rural smallholder farmers to large extents. Labonne and Chase found strong evidence of income growth associated with mobile phone and application uptake of 11-17% among smallholder farmers.[211] This was attributed to stronger bargaining positions, commercialisation of products, market participation, access to early warning systems and reduced costs.[212] In the African context various specific-sector based agriculture mobile applications have been developed such as iCow, Rural e-Market, mFisheries, FarmerConnect, M-Shamba, Mobile Agribiz, AgroSim, amAgriculture, Farming Instructor among many more.[213] While applications can be specific to countries, it is clear that South Africa is not adopting its own technical capacity as none of its agriculture-specific ICT qualifies for top ten usage on the continent. Farming application uptake and penetration rates are relatively low among South African smallholder farmers relative to regional compatriots.

- *Online trade platforms* – The adoption of cost-effective technology-based operations has significantly improved co-ordination in undertaking business in various sectors. Smallholder farmers have remained rigid or constrained in the traditional informal farm gate marketing techniques and the fresh produce markets (FPMs) available. Typical in the 19 city-located FPMs are site and agent charges of 5% and 7.5% of the selling price respectively. The conjunction of this 12.5% cost accumulation and the marketing associated transport costs may engulf the profit margins expected by smallholder farmers.[214] As of 2012, 34% of fresh produce was traded through FPMs while 36% was traded through other means; a far cry from the over 60% in 1981 for the former.[215] Of the operational national FPMs, only Johannesburg and Uitenhage markets experienced mean growths in produce trade volumes between 1998 and 2005, which was an indication in the decline in FPMs usage.[216] Consequently, large scale farmers adopted web-based trade through systems like Farm Gate Exchange. This relatively new trade model in South Africa agriculture made over 3000 trades worth over R125 million/per in its early inception years at a cost-to-farmer of 3% of sales which was attributed to platform operations. The operational costs were envisaged to decline significantly with positive volume growth and in turn reduce cost-to-farmer to about 0.1%. This form of agriculture-sector innovation significantly reduces marketing costs borne by farmers. While it has its limitations in relations to inspections and good-faith, friction is certainly reduced. The critical factor is that smallholder farmers especially in rural areas are not exposed or have limited access to online-based systems of this nature. The unavailability of reliable web servers and inhibitive costs of partaking in the technology marginalises small scale producers. It is vital that willing smallholder farmers be included in such value chains to benefit from information, markets and research. The potential for multiplier effects in non-farm rural employment may rise through service providers, trainers and maintenance personnel.

- *Contract farming* – African smallholder farmers need to overcome many structural constraints instigated by history and geography.[217] It is therefore imperative that smallholder farmers participate in not only production but also processing and marketing of their goods. This would only be beneficial through significant vertical integration of smallholder farmers with processing and marketing firms.[218] Such contracting practices are not as easily undertaken in reality. As exporters of agriculture commodities, smallholder farmers in South Africa are required to abide by the stringent health and quality requirements of the richer states to which they export. To undertake this efficiently, smallholder farmers cannot act in unison but rather integrate their activities through larger and more developed enterprises. Contracting can be a cost reduction centre for farmers and marketers alike.[219] Contracting primarily serves as method of overcoming entry barriers in the market associated with smallholder farmers. Contracting opens access to information, assets, services and remunerative markets with typical contracts involving contract farming, producer cooperatives and out-grower schemes. Large firms which dominate supply chains do not have the capacity or will to engage all smallholder farmers individually. The prohibitive costs leave aggregation as the only means through which many smallholders may engage large wholesalers, processors, retail chains and banks.[220]

  Contracting is the main form of interlink and can take the form of simple contracts of sale or more complex ones involving advance of credit and inputs. In South Africa, these practices have been successful in inclusive horticulture farming in particular. A 2010 report by Produce Marketing Association showed that only 10% and 2% of fresh produce is processed and exported respectively. 46% and 42% of fresh produce is sold through municipal fresh produce markets and directly from farms respectively. Various models of integration have been undertaken by smallholder farmers with the intent of market access. These include the commercial farmers' model like Eldorado Fresh in Tarlhon, Gauteng and Sunherbs of

Olifantsfontein, Gauteng which has linkages with Pick n Pay, Spar and Shoprite Checkers. The retailers' model guided by the AgriBEE Act requires 30% of fresh produce to be acquired from smallholder farmers. Spar, through its rural retail centre (RRC) system has developed successful contracts with smallholder farmers in Mpumalanga and KwaZulu Natal. The processors' model presents a significant opportunity for smallholder farmers whose produce is of slightly inferior quality. Processor, because of their storage capacity and ability to increase shelf life, are less stringent about the quality of fresh produce. JustVeggies operates a successful integration with Vryheid village farmers.[221]

Localised marketing and supply chains

While emphasis in the basic argument has been largely on the inclusion of smallholder farmers in established and dominant value chains, this rhetoric may not be as prudent and universally economically beneficial to all smallholder producers. The NDP identifies explicitly the integration of emerging and smallholder farmers in national and export value chains with the intention of yielding multiplier effects which would result in employment and income externalities among historically disadvantaged individuals (HDI).[222] To deviate from the rigidity of rhetoric, some smallholder farmers could benefit more from agro-diversity and localised market linkages. It would be prudent to provide former homeland production and market-led stimuli with emphasis on catering for local markets.[223] Providing for local markets may guarantee a stable and predictable market albeit with limited multiplier effects on farm level employment and income growth and even less impacts on non-farm value chains. Consequently, this is a low risk, low return policy which would be beneficial in cases where there is a localised market gap or where smallholder inclusion in mainstream supply chains is costly, unpredictable and/or impractical. Chikazunga identified Limpopo tomato farmers as marketing 30%, 12%, 10% and 17% of their fresh produce to local hawkers, traders, markets and supermarkets respectively. This indicated significant localised market linkages which are highly beneficial to smallholder farmers.[224]

Supermarkets and retail value chains

The low-profit margin environment in which supermarkets and most retailers operate coerces them to develop models which constrict prices while simultaneously improving product quality.[225] Consequently, retail profits are continuously driven by how well they implement the coordination, integration and management of their supply chain value systems.[226] As custodians of consumer retail markets, supermarkets inherently hold significant market power in determining supply chain requirements. As leaders in agriculture value chains, supermarkets can dictate quality and price determination to their advantage and in the process marginalising smallholder farmers who have little alternative.[227] Their ability to up-stream costs along the value chain increases costs and risks associated with smallholder agriculture.

Large scale agro-processors, producers and wholesalers are closer to supermarkets and retailers in the supply value chain and can therefore hedge themselves better through cost optimisation and downstream dissemination of costs to the further detriment of smallholder farmers.[228] A cyclical pattern of continued cost increases and welfare loss created by the large retail model persists because of the domino-effect triggered by the latter. Competing outlets have little alternative but to adopt similar or linked supply chain practices which spread the negative impacts to smallholder farmers. Furthermore, the supermarket model has been identified as a predatory technique by on-ground farmers.[229] While they dictate, demand and hold first preference to high quality fresh produce, supermarkets benefit from market generated prices determined by lower quality produce at FPMs and by interactions with agro-processors. This further compounds financial and operational constraints on smallholder farmers.

With the continued evolution of retailers and supermarkets, they develop intricate internal procurement structures which eliminate wholesalers, agro-processors and traditional markets.[230] Subsequently, smallholder farmers who hold no intention of selling directly to retailers will be engulfed into the supermarkets procurement chain and its effects. Smallholders can inherently have their livelihoods threatened through the elimination of small scale buyers, a hostile procurement system and elimination of traditional wholesalers who are direct purchasers of smallholder fresh produce.[231]

Gender mainstreaming

In developing economies, South Africa included, women have over time faced bottlenecks in farming when seeking to improve productivity. Statistics show that women are on the bottom end of the spectrum in smallholder agriculture. Less than 2% of land is owned by women, they are afforded just 5% of agriculture extension services, only 10% of smallholder credit thus limiting their access to technology, research and innovations and less than 10% of official development assistance directly addresses gender issues.[232] Consistent literature from Kenya and Burkina Faso indicates that more equitable distribution of smallholder agriculture resources along gender lines can raise productivity by as much as 20%. Closing the gender gap could increase farm output by as much as 20-30%, total agriculture output by 2.5%-4% and reduce the numbers of malnourished people by 12-17%.[233] Naturally, land reform, redistribution and tenure processes in South Africa should address gender mainstreaming. Little policy action has been undertaken to emphasise the role of women in smallholder agriculture.

Preferential marketing

The preferential marketing approach involves the undertaking of intentionally preferential purchasing patterns by large and usually government-backed organisations in favour of smallholder producers. Through, but not limited to, the government-led Zero Hunger and National School Nutrition Programmes which seek to alleviate hunger in less endowed schools and hospitals through food procurement, a ready and less stringent market exists for smallholder farmer produce.[234] While the introduction of the programme provided a stepping stone upon which preferential purchasing is undertaken initially by government schools and hospitals, the programme should have room for growth.

8 Conclusions and recommendations

This report has treated three distinct but overlapping areas of intended reform, namely land reform, small-scale farmer development, and water reform. At the dawn of democracy, each of these in their own but complementary way was expected to contribute to the broadening of economic participation, not merely by enabling larger numbers of people to share in the benefits of the existing economy, but by means of altering the structure of the economy itself. Poverty reduction was the ultimate aim.

In each of these spheres, there have been accomplishments, but by and large the gains have been modest and the ambitious visions of transformation have not been realised, nor has the core objective of poverty reduction. In this brief concluding section, we seek to distance ourselves from the detail presented above, and see if it's possible to discern common threads as to why things have evolved as they have. We put forward four over-arching explanations:

- *Faltering vision* – Particularly with land reform and small-scale farmer development, the implementation of the policies conceptualised in the mid-1990s was corrupted by a loss of clarity as to what South Africa was trying to accomplish.[235] The issue is not that the initial nation-wide consensus was lost, because there never was such a consensus. Rather, those responsible for the implementation of policies seem to have lost either their nerve or their way, and were called to account by no one.[236] Land redistribution virtually never actually attempted to implement the RDP-based vision of a land reform oriented towards small-scale agriculture, and support to small-scale farmers ended up being concentrated on a relatively small number of (often not-so-small) farmers.[237] Over the years, what became more and more clear was a tension and confusion between two distinct ways of understanding the goal of 'transformation', whereby the one is to do with favouring an agrarian structure based to a larger degree on smaller-scale farms, and the other is more focused on de-racialising large-scale commercial agriculture.[238] The fact that the latter goal has to a large extent eclipsed the former – at least as far as land redistribution goes – should not obscure from the fact that the two are not necessarily mutually exclusive.[239] In a sense this is another face of the confusion/tension mentioned above regarding dualism: are we seeking to erase dualism (and if so, how?), or deracialise it?

- *Limited bureaucratic capacity* – the three areas of reform discussed in this report each in their own way are very demanding of a capable and probably large bureaucracy. Not only this, but in some cases the policies have evolved in such a way as to increase the demands on the bureaucracy. An obvious example is PLAS, which obliges the Department of Rural Development and Land Reform to be a landlord in perpetuity for land acquired for redistribution. Another example is the District Land Reform Committees, the existence of which places an extra burden on DRDLR's already stretched district-based staff. A third example are rural development plans, which are meant to integrate a vision for land reform with a coherent rural development plan per district, but which in practice seem to say very little about land reform, and bypass the public consultation that should be key to their elaboration. The very partial nature of water reform can also be ascribed to the capacity limitations of the bureaucracy. For the poor performance of the government's extension services, weak bureaucracy is also arguably part of the problem, not because extension officers are bureaucrats, but because there appears to be too weak a bureaucracy making sure they perform their job and/or are able to do so. The fact that government is averse to creating more posts is understandable, and in some departments fully justified (e.g. provincial agriculture departments); however, particularly in the case of DRDLR, there is almost certainly a mismatch between the size of the responsibility and the sums of money involved, on the one hand, and the on-the-ground capacity to make it happen, on the other. One possible counter to this sometimes mentioned is the idea that policies or programmes should be redesigned so as to place more responsibility on the applicants or beneficiaries. This may make sense in some cases, but care has to be taken that such an approach does not contribute to elite capture, which is precisely what happened when LRAD replaced SLAG as the main vehicle for land redistribution.

- *The inability/disinclination to learn* – One of the conundrums of South Africa's agrarian reform process up to now is the fact that on the one hand there is a literally overwhelming amount of experimentation and innovation, involving government, the private sector, and civil society; and yet on the other hand there appears to be relatively little *learning*, meaning adaption of policies in recognition of this rich experience. Examples abound, such as the stakeholder-driven land reform initiative of Qedusizi/Besters, which for all of its shortcomings almost certainly represented a model that land reform should have attempted to repeat and refine, if not embrace, over 10 years ago – all the more strange because it received the active support of the KwaZulu-Natal provincial land reform office. Another example is the joint initiative around 2002 to 2005 of the Eastern Cape provincial land reform office and the Eastern Cape agriculture department, which developed an effective means of accelerating land acquisition without causing land price inflation. Yet another example is the linking of small-scale farmers to supermarkets, which was demonstrated to be feasible and effective at very modest cost over 10 years ago, but which government never sought to capitalise on in a significant way. Government policy does seem to evolve according to actual experience, but sometimes not logically; for example, the transition from SLAG to LRAD reflected a weak diagnosis of the problems with SLAG-based redistribution, while the elimination of LRAD in favour of PLAS similarly did not appear to have been based on a cogent analysis of the problems with LRAD. In other instances, government policy jumps about erratically – for example, the sudden announcement of the agri-park programme by the Department of Rural Development and Land Reform, without taking into account the many recent failures of government-sponsored agro-processing infrastructure, without preliminary discussion with the Department of Agriculture, Forestry and Fisheries, and without even provision for a pilot phase. The ill-advised decision to eliminate Water User Associations without a clear alternative in mind, is another example or erratic policy-making. The fact that the Department of Planning, Monitoring and Evaluation has accorded much more importance to quality impact analyses of major programmes is a major achievement, however this cannot compensate for the weakness of government's learning culture, which appears to be stymied by the relative emphasis on compliance.

- *Unrelenting macro-forces* – Reform has not been assisted by the bigger picture, in particular the unrelenting pressures of continuing land consolidation and market concentration. Land consolidation has meant that the norms of large-scale commercial agriculture have shifted further and further out of the reach of 'emerging farmers' in terms of skill sets and capital requirements, which in turn means that the objective of de-racialising large-scale commercial farming is continuously becoming more difficult to achieve. However, anecdotal evidence also suggests that at least as problematic is the rise of 'mega-farms', which are pushing up land prices and possibly exacerbating the competition for water. While the process of consolidation dates to almost half a century ago and cannot be ascribed to the liberalisation of the 1990s, it is probably true that liberalisation has contributed to the process, both directly and indirectly. The most tangible connection is the post-liberalisation reality of growing market concentration, whereby the gap between the farm-gate price and the consumer price appears to have widened, in part thanks to an intermediary sector (e.g. agro-processors and retailers) with significant market power, and within which mega-farms are more resilient than 'ordinary' large-scale farms. Notwithstanding the concerns one may have about the ability of the current government to carry off the new agri-parks programme, it is worth recalling the fact the previously, decentralised, government-owned and managed infrastructure played a very large role in linking farmers to consumers, e.g. municipal abattoirs and fresh produce markets.

The report concludes with four main, high-level recommendations, followed by a number of recommendations of a more specific nature. The high-level recommendations are as follows:

- *Clarifying our objectives* – It might appear that there are no easy fixes to the challenges spelled out above, however perhaps this is not entirely true. The core recommendation of this paper is that that there needs to be a bold re-statement of what we want land and agrarian reform to look like, i.e. what we are trying to accomplish. It does not have to be long, detailed and complex: the purpose is to try to shift the way implementation is taking place within the current policy framework, much of which (e.g. for land reform) is more or less okay.[240] This could be followed by a brief review of existing implementation patterns, with concise recommendations as to how they could be revised within the existing policy framework.[241]

- *Clarifying/fixing the relationship between DRDLR and DAFF* – The Department of Rural Development and Land Reform, and the Department of Agriculture, Forestry and Fisheries, are duplicating one another's efforts rather than sticking to a clear division of labour. Since 1994, the main changes to this configuration were that for a long while DRDLR and DAFF shared a minister, but at present they do not, and it is probably no coincidence that the tendency to duplicate efforts is now especially bad. The current situation is profoundly problematic, and for reasons that are not clear this is not getting the vocal attention that it merits. Policy development on precisely the same issues is happening in parallel at both DRDLR and DAFF, resulting in a high degree of confusion, redundancy, and unproductive competition; there is little or no alignment of budgets between what should be complementary functions of the two departments; and provincial agriculture departments find themselves unsure how to balance the competing demands on them coming from the two national departments. What exactly the remedy is, is difficult to say. The minimal acceptable option would be to return to the arrangement whereby both departments fall under the same minister.

- *Rationalise/tweak implementation systems to take into account current capacity constraints* – In the short and medium term it looks unlikely that there will be new posts at DRDLR, DAFF, DWS or the PDAs. Nor will budgets increase in such a manner is to allow more delivery capacity by means of outsourcing. Boosting delivery capacity will therefore mean learning to 'work smarter'. Although a cliché, it is nonetheless one to take seriously, given the evidence that: i) there are some areas where it is clear that we are not getting enough out of current capacity (e.g. extension); ii) there are some policies that appear to take for granted more capacity than is available (e.g. the State Land Lease Policy); and iii) there are some approaches that boost effective implementation capacity at little or no additional expense (e.g. stakeholder-driven land reform).

- *Elevate the importance of learning and adaptation* – This recommendation may sound a bit 'twee', however in parts of the corporate sector it is taken very seriously.[242] Just as DPME has made considerable strides in elevating the importance of evaluation, so too it or some other agency could promote processes whereby government officials are more actively engaged in sharing their experiences and insights, thereby hopefully developing a culture of learning at least as strong as the culture of compliance that presently prevails. Where this would be especially useful if there were to be a move towards more small-scale farmer-oriented land reform would be on the question of how to undertake subdivision.

Specific recommendations are as follows:

- *Revise the implementation manual for PLAS* – The implementation manual for PLAS should be revised so as to emphasise the importance and how-to of subdivision; this will have to be updated frequently as lessons are learned as to the dos and don'ts of subdivision.

- *Disband the District Land Reform Committees in favour of true stakeholder-based land reform* – District Land Reform Committees are not working and are probably not going to work. They were created according to a proposal in Chapter 6 of the *National Development Plan*, but are unable to perform the function outlined for them in the *Plan*, which is just as well. To the extent land reform needs the benefit of input from local stakeholders, it should rather be through a much more robust form of stakeholder-based land reform. Such instances of stakeholder-based land reform as have been attempted should be studied carefully and improved upon.

- *Improve the relevance and quality of rural development plans or drop them* – At present rural development plans offer little guidance as to how to pursue land reform, and are thus no substitute for the worthwhile attempts are area-based land reform planning started some years ago. The essential thing is to prioritise the understanding of land demand in an area – preferably a local municipality, given that districts usually are vast areas.

- *Prioritise fixing extension* – There are various initiatives to improve farmer support, not least a process led by DAFF that will culminate in a new policy on 'Comprehensive Producer Development Support'. However, the most urgent task at present is to come to terms with the current state of extension support, in particular the fact that so few black farmers have regular interaction with extension officers. One key is to emphasise that extension officers' core function is to provide advice rather than to dispense handouts. The most promising option is probably some kind of farmer-to-farmer extension approach and/or experiential approaches.

- *Government should get out of production* – This was a principle put forward in the 1995 *White Paper on Agriculture*, which unfortunately has been forgotten. In the current circumstance the implication is that Fetsa Tlala and similar initiatives whereby government pays and organises contractors to farm on farmers' behalf, should be eliminated.

- *Greater support for small-scale irrigators* – The Department of Water and Sanitation should seek to expand its infrastructure support to small-scale irrigators. One possibility is to form a more structured partnership with provincial agriculture departments.

- *Introduce a rational tractor services policy and programme* – Government should introduce a policy/programme that seeks to improve access to local tractor services, including by supporting existing tractor owners to provide such services more effectively.

- *Move away from group-based production projects in favour of more appropriate forms of collective action* – The practice of encouraging group-based production as a pre-requisite for farmer support should be stopped. To the extent there is a logic in working with groups rather than individuals, then a shift should be made to other forms of collective action, e.g. marketing coops, and study groups / Farmer Field Schools.

- *Push progressive procurement requirements from small-scale farmers* – Both government institutions (especially schools) and private retailers should be encouraged and/or compelled to procure a progressively larger share over time of their produce from small-scale farmers.

Notes

[1] Numbers have been rounded. The table is adapted from M Aliber, T Maluleke, T Manenzhe, G Paradza and B Cousins, *Land Reform and Livelihoods: Trajectories of Change in Northern Limpopo Province, South Africa* (Cape Town, 2013), p.15.

[2] Central Statistical Service, *Census of Agriculture 1993* (Pretoria, 1998), and Statistics South Africa (Stats SA), *Census of Commercial Agriculture 2007* (Pretoria, 2009). There is a minor issue of non-comparability between the 1993 and 2007 censuses, in that the latter included commercial farms in ex-bantustans while the former did not; however employment on newly included farms appears to be minimal. The number of commercial farm units is not synonymous with the number of commercial farmers, but is a reasonable proxy.

[3] Stats SA, *Labour Force Survey February 2002*, dataset on CD ROM (Pretoria, 2002); Stats SA, *Labour Force Survey March 2007*, dataset on CD ROM (Pretoria, 2007); Stats SA, *Income and Expenditure of Households 2005/2006*, dataset on CD ROM (Pretoria, 2008); Stats SA, *General Household Survey 2010*, dataset on CD ROM (Pretora, 2011).

[4] 'Guestimates' based on data from: Department of Land Affairs (DLA), Monitoring and evaluation data of land reform projects (unpublished unofficial electronic data) (Pretoria, 2009); Public Service Commission (PSC), *Report on the Evaluation of Government's Poverty Reduction Programme* (Pretoria, 2009); J May, M Keswell, E. Bjâstad, and R van den Brink, *Monitoring and Evaluating the Quality of Life of Land Reform Beneficiaries and the Impact of Land Transfers: 2005/2006,* (Unpushed report, 2009). Extrapolations were made to compensate for missing beneficiary numbers and estimations to convert individual-level data to household-level data after 2001.

[5] Stats SA, *Labour Force Survey February 2002*, dataset on CD ROM (Pretoria, 2002); *Stats SA, Quarterly Labour Force Survey Quarter 2 2010*, dataset on CD ROM (Pretoria, 2010).

[6] Personal communication, F. Liebenberg, University of Pretoria, 2016.

[7] Agricultural censuses and surveys, various.

[8] Personal communication, J. Purchase, AgBiz, 2013.

[9] CP Timmer, 'The Agrarian Transformation,' in C Eicher and J Staatz (eds.) *International Agricultural Development* (3rd edition) (Baltimore and London, 1998).

[10] There is some recent evidence of a change in this pattern in the US. In 1997 the average farm size in the US was 431 acres (about 196 hectares, which is very small relative to South Africa's average farm size); after vacillating up and down, in 2012 it ended up at 434 acres, that is, effectively the same. However, over this same period, the number of small farms (i.e. those 49 acres or smaller) increased by 10%, as did the number of

large farms (those 2000 acres or larger); all size categories in between shrank in number. Calculated from United States Department of Agriculture, 'Table 1. Historical Highlights: 2012 and Earlier Census Years', accessed 19 September 2016 at https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_US/st99_1_001_001.pdf. This 'hollowing out' of the farm structure is a plausible scenario for the future of South African agriculture as well.

[11] ABSA's *Agricultural Outlook 2013* promotes this view precisely: '...farmers need to become more productive, yielding higher production levels while driving down costs through efficiencies and economies of scale' (ABSA 2013: 23). In other words, so long as one is on the treadmill, stop walking and start running. The problem of course is that South African farmers cannot sit back and hope that producing less will encourage higher commodity prices, because these prices are increasingly a function of international commodity markets and by extension production and consumption trends beyond South African borders.

[12] See e.g. H Binswanger and K Deininger, 'South African Land Policy: The Legacy of History and Current Options,' in H Binswanger, J van Zyl and J Kirsten (eds.), *Policies and Markets and Mechanisms for Agricultural Land Reform in South Africa* (Oxford, 1995).

[13] K Deininger and P Olinto, *Is Broad Asset Growth Good for Growth? Panel Evidence from 62 Countries* (Washington DC, 1999).

[14] M Lipton, *Land Reform in Developing Countries: Property Rights and Property Wrongs* (London, 2010).

[15] Stats SA, *Gross Domestic Product* (Pretoria, 2016).

[16] Various agricultural censuses and surveys.

[17] M Visser and S Ferrer, 'Farm Workers' Living and Working Conditions in South Africa: Key Trends, Emergent Issues, and Underlying and Structural Problems,' study commissioned by the Pretoria Office of the ILO, 2015.

[18] H Bhorat, R Kanbur and B Stanwix, 'Estimating the Impact of Minimum Wages on Employment, Wages and Non-Wage Benefits: The Case of Agriculture in South Africa, DPRU Working Paper 12/149 (University of Cape Town, 2012), p.12.

[19] It must be acknowledged however that there is no definitive time series for agricultural employment. Historical data generally come from agricultural censuses and surveys, while more recent data come from household surveys, e.g. the Labour Force Survey and Quarterly Labour Force Survey, the latter of which have their own continuity issues.

[20] Quantec EasyData and own calculations.

[21] Quantec EasyData and own calculations.

[22] Quantec EasyData and own calculations.

[23] African National Congress (ANC), *The Reconstruction and Development Programme: A Policy Framework* (Johannesburg, 1994), s 2.4.2.

[24] ANC, *The Reconstruction and Development Programme, s* 4.3.8.

[25] See respectively, e.g. Lipton, *Land Reform in Developing Countries*, versus J Sender and D Johnston, 'Searching for a Weapon of Mass Production in Rural Africa: Unconvincing Arguments for Land Reform', *Journal of Agrarian Change* 4, 1&2 (2004).

[26] National Planning Commission, *National Development Plan 2030* (Pretoria, 2012).

[27] Economnic Policy Research Institute (EPRI), 'The Social and Economic Impact of South Africa's Social Security System', EPRI Research Paper No. 37 (commissioned by the Department of Social Development, Pretoria, 2004).

[28] D Neves and C Hakizimana, *Space, Markets and Employment in Agricultural Development: South Africa Country Report,* Research Report 47 (Institute for Poverty, Land and Agrarian Studies, UWC, 2015).

[29] Land and Agriculture Policy Centre, memorandum prepared on behalf of the Department of Land Affairs (Johannesburg, 1994).

[30] Department of Land Affairs (DLA), *White Paper on South African Land Policy* (Pretoria, 1997), p.38.

[31] DLA, *White Paper.*

[32] There are two initiatives that might partially reverse this trend. The one is the 'One household, one hectare programme', which was launched in the Eastern Cape in late 2015, and about which the authors were unable to collect ample information. The other is that, at a policy level, DRDLR has introduced the idea of four distinct different beneficiaries 'categories', ranging from those who need land for subsistence ('Category 1') to 'Large-scale or well established commercial farmers who have been farming at a reasonable commercial scale, but are disadvantaged by location, size of land and other resources or circumstances, and with real potential to grow' (i.e. 'Category 4'). At present, it does not appear that there are significant numbers of beneficiaries in the 'lower' categories.

[33] Note: cost/individual figures are not adjusted for inflation; also, estimates for PLAS based on incomplete data.

[34] Personal communication, senior manager, DRDLR, 2016.

[35] Personal communication, senior manager, DRDLR, 2016.

[36] Ministry for Agriculture and Land Affairs (MALA), *Land Redistribution for Agricultural Development: A Sub-programme of the Land Redistribution Programme* (Pretoria, 2001), p.8.

[37] Personal communication, senior manager, CRLR, 2016.

[38] Commission on Restitution of Land Rights (CRLR), 'Presentation to the Portfolio Committee, 8 July 2009,' accessed 1 September 2016 at pmg-assets.s3-website-eu-west.amazonaws.com/docs/090708crlr-edit.pdf.

[39] Personal communication, senior manager, CRLR, 2016.

[40] DLA, 'Land Redistribution for Agricultural Development (LRAD): Implementation Manual for Provincial Land Reform Offices, Version 1,' (Pretoria, 2003), pp.121-2. This in turn is more or less reproduced in the manual for PLAS: DLA, 'Manual for the Implementation of the Proactive Land Acquisition Strategy, Version 2' (Pretoria, 2007), pp.149-50.

[41] P Jacobs, 'Support for Agricultural Development,' *Evaluating Land and Agrarian Reform in South Africa Vol 4*, September, Vol 4 (Programme for Land and Agrarian Studies, UWC, 2003).

[42] MALA, *Land Redistribution for Agricultural Development*, p.8.

[43] M Aliber and R Mokoena, 'The Land Question in Contemporary South Africa, in J Daniel, A Habib and R Southall (eds.), *State of the Nation* (Pretoria, 2003), p.334.

[44] MALA, *Land Redistribution for Agricultural Development*, p.4.

[45] But as mentioned elsewhere, in 2015 DRDRL suddenly rediscovered the virtues of small subdivisions when it launched the 'One Household, One Hectare Programme'.

[46] P Hebinck, D Fay and K Kondlo, 'Land and Agrarian Reform in South Africa's Eastern Cape Province: Caught by Continuities, *Journal of Agrarian Change*, 11,2 (2011), pp.220–240.

[47] F Marais, 'Pinching Shoes: The Use of Business Plans in South African Land Redistribution to Foster the Expert's Vision of Development' (Master's thesis, Wageningen University, 2008), p.28.

[48] Marais, 'Pinching Shoes', p.81.

[49] Aliber, Maluleke, Manenzhe, Paradza and Cousins, *Land Reform and Livelihoods.* It should be stressed that for redistribution projects undertaken in terms of the Provision of Certain Land for Settlement Act 26 of 1993, which is the main enabling legislation for redistribution, the Subdivision of Agricultural Land Act 70 of 1970 does not apply. This is due to the Provision of Land and Assistance Amendment Act 126 of 1998, which provided for automatic exemptions to the Subdivision of Agricultural Land Act in cases of land redistribution; in other words, since 1998 there has been no legal impediment to effecting subdivision on land acquired for redistribution, rather there were only normal procedural requirements, e.g. surveying of new boundaries and registration thereof with the Surveyor General's office.

[50] Personal communication, senior manager, DRDLR, 2016.

[51] See e.g. M Aliber, '"Where must I find the beneficiaries?"' Reflections on the 30% target,' *Umhlaba Wethu*, 5 (2008), p.2.

[52] DLA, 'Land Redistribution for Agricultural Development (LRAD): Implementation Manual for Provincial Land Reform Offices, Version 1,' (Pretoria, 2003), p.41.

[53] DLA, 'LRAD Implementation Manual', p.11.

[54] DLA, 'LRAD Implementation Manual', pp. 123-24.

[55] B Cousins and I Scoones, 'Contested Paradigms of 'Viability' in Redistributive Land Reform: Perspectives from Southern Africa,' *Journal of Peasant Studies*, 37, 1 (2010), pp.31-66.

[56] DLA, 'LRAD Implementation Manual', p.105.

[57] DLA, 'LRAD Implementation Manual', p. 106.

[58] DLA, 'LRAD Implementation Manual', p. 106.

[59] DLA, 'LRAD Implementation Manual', p. 106.

[60] Department of Rural Development and Land Reform (DRDLR), 'Project Application Form to Access Recapitalization and Development Funding (Pretoria, 2013).

[61] E Lahiff, T Manhenze, M Wegerif, M Aliber and J Quan, 'The Area Land Reform Initiative in Makhado, Limpopo Province, South Africa: Experiences and Policy Lessons (2000–2006),' Research Report for DFID Central Research Department, Land and Territory Research Paper No. 4 (2006).

[62] Umhlaba Rural Services, 'A Review of LRAD Project Performance, 2001-2006' (report commissioned by DLA, 2008).

[63] Phuhlisani, 'A Rapid Inventory and Evaluation of the State of Area Based Rural Development and Land Reform Plans in South Africa: Final Report" (study commissioned by Belgian Technical Cooperation, 2012).

[64] Phuhlisani, 'A Rapid Inventory and Evaluation.'

[65] H Binswanger-Mkhize, R Henderson, Z Mbhele, J Magasela and K Muir Leresche, 'Towards Stakeholder-driven Land Reform in South Africa' (unpublished report, 2010).

[66] See e.g. T Sikor and D Müller, 'The Limits of State-Led Land Reform: An Introduction,' *World Development* 27, 8 (2009), p.1313. This is not to say Latin America's community-based land reforms are universally regarded as successful, especially their 'market-based' elements.

[67] D Hornby, 'Dynamics of Social Differentiation after Land Reform among Former Labour Tenants in Besters, KwaZulu-Natal (PowerPoint presentation, 2012).

[68] Agricultural Management Plan (AMP) (CD ROM, 2010), p.3.

[69] Agricultural Management Plan.

[70] Spatial Planning and Land Use Management Act, Act No. 16 of 2013.

[71] South African Cities Network, 'SPLUMA as a Tool for Spatial Transformation', research report (Johannesburg, 2015), p.5.

[72] DRDLR, 'Rural Development Guideline 2014', draft internal document (Pretoria, 2014), p.23.

[73] DRDLR, 'Rural Development Guideline 2014', pp.1-2.

[74] The guidelines document paints a picture of incrementalist improvements from one rural development policy to the next: 'In support of the Integrated Sustainable Rural Development Strategy (ISRDS), national government initiated the Comprehensive Rural Development Programme (CRDP) in 2009. The CRDP differs slightly from previous government strategies in that it takes a *proactive participatory community-based planning approach* rather than an interventionist approach to rural development.' DRDLR, 'Rural Development Guideline 2014', p.12.

[75] DRDLR, 'Rural Development Guideline 2014', p.52.

[76] DRDLR, 'Rural Development Guideline 2014', pp.66-67.

[77] DRDLR and Ehlanzeni DM, 'Rural Development Plan, Ehlanzeni District Municipality' (Pretoria, 2016), p.16.

[78] DRDLR and Kena Consult, 'Towards Xhariep District Rural Development Plan: Part One; Resource Document of Issues Leading to the Xhariep Rural Development Plan' (Pretoria, 2015), p.22.

[79] It is worth mentioning in this context that the same unit within DRDLR that is responsible for rural development plans, has also developed a GIS-based tool designed to help local officials and District Land Reform Committees (DLRCs) to identify Strategically Located Land (SLL). The main purpose of the SLL tool is to take a parcel of land that has provisionally been identified for acquisition and to objectively rate its suitability in terms of location, projected profitability, etc. The use of the tool is likely to become mainstreamed during 2017. The DLRCs were established in late 2015 and are also meant to assist in the identification of suitable land and appropriate beneficiaries for that land.

[80] Data sourced from Stats SA, '*General Household Survey 2014*', dataset on CD ROM (Pretoria, 2015), and Stats SA, '*General Household Survey 2015*', dataset on CD ROM (Pretoria, 2016). The datasets were combined in order to enlarge the sub-sample sizes. Monetary values are expressed in constant 2015 Rand.

[81] Stats SA, *General Household Survey 2014* and Stats SA, *General Household Survey 2015*. Notes: 1) About three quarters of black farming households are located in the 'traditional' areas, whereas another 20% are in urban areas; land reform has contribute very little to the overall picture, which is why only about 3% of black farming households (i.e. excluding farmworkers) are in commercial farming areas. 2) The *'s signify the categories of farming households that are sometimes designated collectively as 'smallholders'.

[82] S. Ngqwala, 'Agriculture as a Compensatory Activity' (draft master's thesis, University of Fort Hare, 2016). The issue is not the comparison of the two percentages, which might be taken to imply that more people entered agriculture between the two periods than left it. Ngqwala's comparisons between Wave 1 and Wave 2, and Wave 2 and Wave 3, found different patterns, the commonality being that the movement into and out of agriculture represents a very high share of those involved in agriculture.

[83] JF Kirsten and J Van Zyl, 'Defining Small-scale Farmers in the South African Context,' *Agrekon* 37, 4 (1998), p.586.

[84] SL Hendriks, 'The Potential for Nutritional Benefits from Increased Agricultural Production in Rural KwaZulu-Natal,' *South African Journal of Agricultural Extension*, 32 (2003), pp. 28–44.

[85] W van Averbeke and TB Khosa, 'The Contribution of Smallholder Agriculture to the Nutrition of Rural Households in a Semi-arid Environment in South Africa,' *Water SA*, 33 (2007), pp.413–18.

[86] DBK Dovie, ETF Witkowski and CM Shackleton, 'Direct-use Value of Smallholder Crop Production in a Semi-arid Rural South African Village,' *Agricultural Systems*, 76 (2003), pp.337–57.

[87] NL Webb, 'Food-gardens and Nutrition: Three Southern African Case Studies,' *Journal of Family Ecology and Consumer Sciences*, 28 (2000), pp.61-7.

[88] K Palmer and J Sender, 'Prospects for On-farm Self-employment and Poverty Reduction: An Analysis of the South African Income and Expenditure Survey 2000,' *Journal of Contemporary African Studies*, 24, 3 (2006), pp.347-76.

[89] M Aliber and L Mdoda, 'The Direct and Indirect Economic Contribution of Small-scale Black Agriculture in South Africa,' *Agrekon*, 54, 2 (2015), pp.18-36.

[90] Khulisa Management Services, 'Diagnostic Evaluation of the Government-Supported SmallholderFarmer Sector: Final Full Report,' report commissioned by DPME (Pretoria, 2016), p.43.

[91] See e.g. TJ Bembridge, "Characteristics of Progressive Small-scale Farmers in Transkei,' *Social Dynamics: A Journal of African Studies*, 12, 2 (1986), pp.77-85; VM Mmbengwa, T Ramukumba, J A Groenewald, HD van Schalkwyk, MB Gundidza and AN Maiwashe, 'Factors that Influence the Success and Failure of Land Bank Supported Farming Small, Micro and Medium Enterprises (SMMES) in South Africa,' *Journal of Development and Agricultural Economics*, 3, 2 (2011), pp.35-47.

[92] A du Toit, 'Forgotten by the Highway: Globalisation, Adverse Incorporation and Chronic Poverty in a Commercial Farming District of South Africa,' Chronic Poverty Research Centre Working Paper 49 (Manchester, 2004).

[93] G Feder, RE Just and D Zilberman, 'Adoption of Agricultural Innovations in Developing Countries: A Survey, *Economic Development and Cultural Change*, 33, 2 (1985), pp.255-298; Z Griliches, *Technology, Education and Productivity: Early Papers with Notes to Subsequent Literature* (New York, 1988).

[94] TS Jayne, D Mather and E Mghenyi, 'Principal Challenges Confronting Smallholder Agriculture in Sub-Saharan Africa,' *World Development*, 38, 10 (2010), pp.1384-1398.

[95] S Wiggins, 'Can the Smallholder Model Deliver Poverty Reduction and Food Security for a Rapidly Growing Population in Africa?' Contribution to the FAO Expert Meeting on How to feed the World in 2050 (Rome, 24-26 June 2009), p.2.

[96] KwaZulu-Natal Department of Agriculture and Rural Development, *Strategy for Agrarian Transformation in KwaZulu-Natal* (Pietermaritzburg, 2015); M Lipton and M Lipton, 'Restructuring South African Agriculture,' *IDS Bulletin*, 25, 1 (1994); V Gumede, 'Radical Land and Agrarian Reform on the Horizon in South Africa: Following Zimbabwe's Footsteps? *The Thinker*, 61.

[97] C Eicher, P Tawonezvi and M Rukuni, 'Synthesis, in M Rukuni, P Tawonezvi and C Eicher (eds.), *Zimbabwe's Agricultural Revolution Revisited* (Harare, 2006).

[98] TS Jayne and M Rukuni, 'Distributional Effects of Maize Self-sufficiency in Zimbabwe: Implications for Pricing and Trade Policy', *Food Policy*, 18, 4 (1993), pp.334–341.

[99] Wiggins, 'Can the Smallholder Model Deliver?', p.16.

[100] 'Formal modelling of such rural linkages in Africa have produced estimates of 1.35 for rural Sierra Leone in 1974–75… to estimates ranging from 1.31 to an extraordinary 4.62 for Burkina, Niger, Senegal and Zambia in the 1980s… – the very high estimates being explained as the result of isolation in rural Africa which means that

any exogenous increase in farm earnings will be spent disproportionately on locally-produced goods and services.' Wiggins, 'Can the Smallholder Model Deliver?', p.16.

[101] K Philip, 'Structural Inequality and Its Impact on Economic Opportunities on the Margins, Part 1,' presentation to the Portfolio Committee: Rural Development and Land Affairs, 9 September 2011; accessed 25 December 2014 at www.oecd.org/els/soc/48227494.pdf.

[102] Farmer support programmes date back to the apartheid era. In fact the 'Farmer Support Programmes' (FSP) were started 1986 to assist small-scale farmers in the homeland areas to improve their agricultural production and incomes. A particular objective of the FSP was to move away from the expensive and poorly performing 'scheme-based' interventions that had previously characterised much of the agricultural support in the homelands. See IR Singini and CJ van Rooyen, *Serving Small-scale Farmers: An Evaluation of the DBSA's Farmer Support Programmes* (Midrand, 1995).

[103] Department of Agriculture (DOA), *Strategic Plan for South African Agriculture* (Pretoria, 2001), pp. 6-7.

[104] Notwithstanding the name, MAFISA is not a set of new institutions, but an attempt to improve small-scale farmers' access to credit via new arrangements among existing institutions.

[105] DAFF, *Strategic Plan for Small Holder Support 2011-2015* (Pretoria, 2013).

[106] DLA, *Annual Quality of Life Report* (Pretoria, 1998), p.23.

[107] J May, B Roberts, J Govender and P Gayadeen, 'Monitoring and Evaluating the Quality of Life of Land Reform Beneficiaries, 1998/1999: Technical Report Prepared for the Department of Land Affairs' (Pretoria, 2000).

[108] B Cousins and A Dubb, 'Many Land Reform Projects Improve Beneficiary Livelihoods,' *Fact Check Land Reform*, 4 (Institute for Poverty, Land and Agrarian Studies, UWC, no date).

[109] May, Roberts, Govender and Gayadeen, 'Monitoring and Evaluating the Quality of Life of Land Reform Beneficiaries, 1998/1999'.

[110] May, Roberts, Govender and Gayadeen, 'Monitoring and Evaluating the Quality of Life of Land Reform Beneficiaries, 1998/1999'.

[111] Umhlaba Rural Services, 'A Review of LRAD Project Performance, 2001-2006'.

[112] Umhlaba Rural Services, 'A Review of LRAD Project Performance, 2001-2006'.

[113] BEUP (Business Enterprises at University of Pretoria), *Mid-Term Review of the Recapitalisation and Development Programme*, study commissioned by DPME (Pretoria, 2013).

[114] Jacobs, 'Support for Agricultural Development'; T Manenzhe, 'Post Settlement Challenges for Land Reform Beneficiaries: A Case Study of Munzhedzi, Mavungeni and Shimange Communal Property Associations' (Master's thesis, University of the Western Cape, 2007). According to Turner and Ibsen, 'there was little attention to the provision of long-term support to beneficiaries after they had taken ownership of redistributed land'; S Turner and H Ibsen, 'Land and Agrarian Reform in South Africa: A Status Report,' Research Report No. 6 (Programme for Land and Agrarian Studies, UWC, 2000).

[115] DLA, *Review of the Land Reform Support Programme* (Pretoria, 1999).

[116] MALA, *Land Redistribution for Agricultural Development*, p.11.

[117] Department of Agriculture, *Farmer Support and Development* (Pretoria, 2005).

[118] R Hall and M Aliber, 'The Case for Re-strategising Spending Priorities to Support Small-scale Farmers in South Africa,' in L Nyagah, ed, *Seeds for Growth: Financing Smallholder Farming in Southern Africa*, (Johannesburg, 2011); p.69.

[119] BEUP (Business Enterprises at University of Pretoria), *Impact Evaluation of the Comprehensive Agricultural Support Programme*, study commissioned by DPME (Pretoria, 2016).

[120] This finding should however be taken with a grain of salt. It is generally agreed that most LRAD beneficiaries were not poor or food insecure to begin with, thus one would not expect to see their food security enhanced through complementary support from CASP.

[121] BEUP, *Impact Evaluation of the Comprehensive Agricultural Support Programme.*

[122] BEUP, *Impact Evaluation of the Comprehensive Agricultural Support Programme.*

[123] Personal communication, H. Binswanger, 2016.

[124] BEUP (Business Enterprises at University of Pretoria), *Main Report on MAFISA Impact Evaluation*, study commissioned by DPME (Pretoria, 2015).

[125] BEUP, *Main Report on MAFISA Impact Evaluation.*

[126] BEUP, *Main Report on MAFISA Impact Evaluation*, p.70.

[127] BEUP, *Main Report on MAFISA Impact Evaluation.*

[128] BEUP, *Main Report on MAFISA Impact Evaluation.*

[129] The Agricultural Industry Trusts were established after the disbandment of the former commodity-based control boards to receive and manage their assets, for the general good of their respective sectors but normally with specific obligations to support transformation.

[130] Preferably, the GHS would have asked *all* subsistence and smallholder households whether they had received support from a non-government support, instead of only asking those who had received support from government. This makes the findings more difficult to interpret. One possibility is that a farmer is more likely to receive non-government support if she does not receive support from government; this could be the case for example if the private sector or NGOs focus on those farmers who are most neglected by government. An alternative possibility is that a farmer who receives government support is more likely to receive agricultural support from a non-state entity, perhaps because government tends to favour those farmers who are already thriving, perhaps owing to the support from the non-state entity. Both scenarios are easy to imagine, however we do not have data with which to say which if either is the more operative. On balance, we would say however that the evidence is strong that far fewer small-scale farmers receive support from non-state entities as compared to those who receive support from government, which is another way of saying that very, very few small-scale farmers receive support from non-government entities. It is furthermore reasonable to suppose that of those who do, are very large share are small-scale sugar cane farmers.

[131] Data sourced from Stats SA, '*General Household Survey 2014*', dataset on CD ROM (Pretoria, 2015), and Stats SA, '*General Household Survey 2015*', dataset on CD ROM (Pretoria, 2016). The values presented are averages taking into account both the 2014 and 2015 data so as to enlarge the sub-sample sizes.

[132] However, it must also be recognised that there are also hundreds of animal health technicians who perform somewhat similar roles in respect of livestock farming, albeit obviously with a focus on animal health.

[133] Department of Agriculture, *Norms and Standards for Extension and Advisory Services in Agriculture* (Pretoria, 2005).

[134] Department of Agriculture, *Norms and Standards*, p.6.

[135] Department of Agriculture, *Norms and Standards*.

[136] Department of Agriculture, *The State of Extension and Advisory Services within the Agricultural Public Service: A Need for Recovery* (Pretoria, 2008).

[137] Department of Agriculture, Forestry and Fisheries, *National Framework for Extension Recovery Plan,* (Pretoria, 2011).

[138] Department of Agriculture, *The State of Extension and Advisory Services.*

[139] This is an under-studied phenomenon of which at least some senior managers in provincial agriculture departments are keenly aware. Since this report does not mention it elsewhere, it is worth mentioning in this context the Ilima/Letsema programme, which in the past has largely consisted of distributing free inputs to farmers, and thus presumably accounts for a large share of the GHS respondents who indicated that they had received 'inputs for free'. Like CASP, Ilima/Letsema is budgeted for at national level and is then transferred to provincial agriculture departments. More than R800 million has been spent on Ilima/Letsema projects since its inception in 2008/09.

[140] Liebenberg, 'Agricultural Advisory Services'.

[141] Department of Agriculture, *National Framework for Extension Recovery Plan*.

[142] Public Service Commission, *An Evaluation of the Comprehensive Agricultural support Programme (CASP),* (Pretoria, 2011).

[143] Liebenberg, 'Agricultural Advisory Services'.

[144] Liebenberg, 'Agricultural Advisory Services'.

[145] B Koch and S Terblanché, 'An Overview of Agricultural Extension in South Africa,' *South African Journal of Agricultural Extension*, 41 (2013), pp. 107-117.

[146] DAFF, *National Policy on Extension and Advisory Services* (Pretoria, 2014). Page 27 reads: 'Government of South Africa will continue to fund extension and advisory services. This is especially so to poorly resourced clients. A user-pay principle will apply in the case of producers and members of producer organisations that can afford to pay for services rendered. Outsourcing, co-financing, contracting of services and private funding should be implemented to solve the problem of fiscal sustainability. Full-scale privatisation of extension and advisory services is not feasible in the country at the moment and government policy is to ensure equity and meet the need to support the many clients who rely on the public service, and who have no means to pay for private services. However, integration of the private sector into the public extension and advisory services is encouraged and promoted.'

[147] BE Swanson, *Global Review of Agricultural Extension and Advisory Service Practices* (Rome, 2008).

[148] Public Service Commission, *An Evaluation of the Comprehensive Agricultural Support Programme.*

[149] BEUP, *Main Report on MAFISA Impact Evaluation.*

[150] BEUP, *Main Report on MAFISA Impact Evaluation.*

[151] BEUP, *Main Report on MAFISA Impact Evaluation.*

[152] BEUP, *Impact Evaluation of the Comprehensive Agricultural Support Programme.*

[153] BEUP, *Main Report on MAFISA Impact Evaluation.*

[154] Not everyone believes this, however. According to one estimate, "Development Financial Institutions (DFIs) and commercial banks have provided about R450 million per annum to smallholder farmers and land reform beneficiaries", which implies that MAFISA could not have been the main funder. What is unclear however is now much of this went to land reform beneficiaries who are not small-scale. See M de Klerk, F Fraser and K Fullerton, 'The Status of Agricultural and Rural Finance in South Africa', (FinMark Trust, 2013).

[155] DAFF, ' Integrated Agriculture Development Finance Policy Framework (IADFP) for Smallholder Farmers: Final Document,' (Pretoria, 2015), p.93.

[156] Of course this excludes micro-scale cultivation that can be done by hand, and otherwise is in the absence of widely available animal traction services. The viability of resurrecting South Africa's tradition of effective animal traction is another question. For purposes of this report, it suffices to say that government has even less of a plan for promoting access to animal traction than it does for tractor services.

[157] S Gwala, K Caister, T Dlamini, and Y Jezile-Pakela, 'Government tractor services provision: where to for indigent farmers?', https://www.sasae.co.za (2016).

[158] Portfolio Committee on Agriculture, Forestry and Fisheries, 'Mechanisation Programme & Tractor Allocation: National Department briefings', 4 March 2013 (PMG, 2013).

[159] See e.g. L Njara, 'Assessing the Implementation and Effects of the Fetsa Tlala Food Initiative Programme in Achieving Its Vision of Eradicating Household Level Food Insecurity,' (Master's thesis, University of Fort Hare, 2017). The basic problem is that the cost of production grossly exceeds the value of what's produced. The reason seems to be poor management. The production package and cost per hectare are similar to those used by Grain SA in its programmes, but with rather different results.

[160] DAFF, 'Linking Producers to Markets Programme', (Pretoria, 2012).

[161] B Jacobs, 'Assessing the performance of government investments to improve smallholders' access to market and agro-processing infrastructure in Eastern Cape, South Africa,' Master's thesis, University of Fort Hare, 2017).

[162] DAFF, *The 4th Annual Report on the Status of Cooperatives in Agriculture, Forestry and Fisheries* (Pretoria, 2015), pp.5-6.

[163] Department of Water Services, 'Water Conservation and Water Demand Management Strategy for the Agriculture Sector' (Pretoria, 2004).

[164] 'It is estimated that a minimum of 20% to 30% of the water supplied to the irrigation sector is lost due to leakages out of conveyance structures, evaporation, evapotranspiration, spillage and flooding, among others. Some older schemes have, and still are, recording periodic losses of up to 70%.' WRC, 'Weeding out water wastage in irrigation canals', *The Water Wheel*, September/October (2008)*, p.26.* Although these statistics are about 10 years old, there is little reason to believe the situation has improved much since then.

[165] National Planning Commission, *National Development Plan 2030.*

[166] Stats SA, *Quarterly Labour Force Survey Quarter 1 2016*, dataset on CD ROM (Pretoria, 2016).

[167] D Tewari, 'A Detailed Analysis of the Evolution of Water Rights in South Africa: An Account of Three and a Half Centuries from 1652 AD to Present', *Water SA*, 35, 5 (2009).

[168] Obviously these views on the best social interest have varied over time, space and governance.

[169] Department of Water Affairs and Forestry, *Management of Water Resources of the Republic of South Africa* (Pretoria, 1986).

[170] P Black and BL Fisher, *Conservation of Water and Related Land Resources*, 3rd edition (Boca Raton, 2001).

[171] Tewari, 'A Detailed Analysis of the Evolution of Water Rights in South Africa'.

[172] Action Aid, 'Running on Empty: What Business, Government and Citizens Must Do to Confront South Africa's Water Problem' (Johannesburg, 2016).

[173] Department of Water Affairs and Forestry, 'Guide to the National Water Act' (Pretoria, 1998).

[174] GJ Pienaar and van der Schyff, 'The Reform of Water Rights in South Africa', *Law, Environment and Development Journal*, 3,2 (2007).

[175] Tewari, 'A Detailed Analysis of the Evolution of Water Rights in South Africa'.

[176] Access to water on land and adjacent lands is not limited only to legal occupants of the land. The designation of legal residence is disregarded by the Act.

[177] Schedule 1 Authorisations limit the provision of water for cattle to the extent of the grazing capacity of the land.

[178] Pienaar and van der Schyff, 'The Reform of Water Rights'.

[179] Department of Water Affairs and Forestry, *National Water Resources Strategy* (Pretoria, 2004).

[180] F van der Merwe, *Water Use and Water Transfers: Part 1* (Pretoria, 2010).

[181] Pienaar and van der Schyff, 'The Reform of Water Rights'.

[182] Department of Water Affairs and Forestry, 'Guide to the National Water Act'.

[183] DWS published one and only *Catchment Management Agency Quarterly Update* in February 2015. See www.dwa.gov.za/IO/Docs/CMA%20%20Establishment%20Quarterley%20Update.pdf.

[184] Department of Water Affairs, 'National Water Policy Review: Updated Policy Positions to Overcome the Water Challenges of Our Developmental State to Provide for Improved Access to Water, Equity and Sustainability', Government Gazette, notice 888 of 2013, 30 August 2013, p.19.

[185] Woodhouse, 'Reforming Land and Water Rights'.

[186] M Schonteich and J Steinberg, 'Attacks on Farms and Smallholdings: An Evaluation of the Rural Protection Plan,' Institute of Security Studies (Pretoria, 2000).

[187] Department of Water Affairs, 'National Water Policy Review,' p.19.

[188] B Schreiner, G Pegram and C van der Heyden, 'Reality Checks on Water Resources Management: Are We Doing the Right Things in the Best Possible Way?' (Midrand, 2009).

[189] Schreiner, Pegram and van der Heyden, 'Reality Checks on Water Resources Management'.

[190] D Mochotlhi, 'Emergency Response Plan for the Eradication of Water Use Authorisation Applications (WULA) Backlog: LETSEMA Presentation to the Portfolio Committee: Water and Environmental Affairs,' accessed 15 September 2016 at http://pmg-assets.s3-website-eu-west-1.amazonaws.com/docs/100316letsema.pdf.

[191] AR Seetal, 'Progress with Water Allocation Reform in South Africa, paper presented at the OECD Workshop on Agriculture and Water, accessed 15 September 2016 at http://www.oecd-ilibrary.org/agriculture-and-food/water-and-agriculture/progress-with-water-allocation-reform-in-south-africa_9789264022577-30-en.

[192] M Msibi and PZ Dlamini, 'Water Allocation Reform in South Africa: History, Processes, and Prospects for Future Implementation,' Report no. 1855/1/11, Water Research Commission (Pretoria, 2011).

[193] Msibi and Dlamini, 'Water Allocation Reform in South Africa'.

[194] Department of Water Affairs, 'National Water Policy Review,' p.9.

[195] P Woodhouse, 'Reforming Land and Water Rights in South Africa', *Development and Change*, 43, 4 (2012).

[196] R Hassan and P Woodhouse, 'Implementation of South Africa National Water Act: Catchment Management Agencies, Interests, Access and Efficiency' (Pretoria, 1999).

[197] Woodhouse, 'Reforming Land and Water Rights'.

[198] B Cousins, 'Smallholder Irrigation Schemes, Agrarian Reform and 'Accumulation from Above and from Below' in South Africa,' *Journal of Agrarian Change*, 13, 1 (2013), pp. 116–139.

[199] B Cousins, 'Smallholder Irrigation Schemes,' p.136.

[200] The 1998 amendment to Act 126 provided for automatic exemption to the Subdivision of Agricultural Land Act (which among other things regulated subdivisions by means of an application process) in cases where Act 126 was invoked to enable the purchase of land for redistribution, which was the norm for redistribution projects.

[201] The problem is probably all of these in some measure, however as indicated these 'observations' are more in the realm of anecdotal evidence than proper research or administrative records.

[202] B van Koppen, H Sally, M Aliber, B Cousins and B Tapela, *Water Resources Management, Rural Redress and Agrarian Reform*, Development Planning Division, Working Paper Series No 7 (DBSA, 2009), p.16.

[203] C Venter, 'Water Use Rights as an Estate Asset: An Examination of the Valuation and Transferability of Water Use Rights,' (Master's thesis, North-West University, 2010).

[204] The 1997 *White Paper on a National Water Policy for South Africa* in fact adopted the principle that the transfer or trade of water allocations between users required the Minister's consent. This is in direct contrast to those who believe that a free market in water would result in greater allocative efficiency.

[205] Further research would be required to establish how common and problematic this situation is. One reasonable guess is that the Department is not a very adroit water rights holder, just as it has proven to be a rather negligent landlord under PLAS. For the latter, see e.g. R Hall and T Kepe, 'Elite capture and state neglect: new evidence on South Africa's land reform,' *Review of African Political Economy*, 44, 151 (2017), pp.122-130.

[206] The existence of markets in water rights is evident even in property valuation reports commissioned by DRDLR. In one such report from 2012, the valuer noted that the seller's property was scheduled for 55 hectares through the local WUA, which itself comprised only 9 member-farmers. This scheme happened to be adjacent to a larger scheme. In assessing the contribution of the water rights to the value of the property, the valuer reasoned that, 'Due to the limited number of water users, it is the opinion of the Valuer that these water rights will have a lower market value, given the smaller market, than water rights within the [other] scheme.' (A Crouse, 'Valuation of Immovable Property,' unpublished report (2012)).

[207] DAFF, 'Linking Producers to Markets Programme'.

[208] DAFF, 'Linking Producers to Markets Programme'.

[209] DAFF, 'Linking Producers to Markets Programme'.

[210] World Bank, 'ICT in Agriculture: Connecting Smallholders to Knowledge, Networks and Institutions,' Report #64605 (Washington DC 2011).

[211] J Labonne and R Chase, 'The Power of Information: The Impact of Mobile Phones on Farmers' Welfare in the Phillipines,' Policy Research Working Paper 4996 (Washington DC, 2009).

[212] M Muto and M Yamano, 'The Impact of Mobile Phone Coverage Expansion on Market Participation: Panel Data Evidence for Uganda,' *World Development*, 37, 12 (2009), pp.1887-96.

[213] C Fripp, 'Top Ten Mobile Agriculture Applications,' (2013), accessed 12 August 2016 at http://www.itnewsafrica.com/2013/11/top-10-mobile-agric-applications.

[214] S Shannon, 'Online Selling of Fresh Produce Upstages Markets,' *Financial Times*, 2013.

[215] Shannon, 'Online Selling of Fresh Produce'.

[216] A Louw, M Geyser, L Wessels and J Gouws, 'Satellite and N2 Markets: Part of the NAMC Section 7 Section Committee Investigation on FPM in South Africa (Pretoria, 2005).

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[235] This point is predicated on the view that those policies, while not perfect, were sound, and that deviation from them represents a move in the wrong direction.

[236] The authors' occasional interactions with parliamentary portfolio committees, together with their review of the proceedings of many of these committees' meetings, suggest that parliament has not been an effective safeguard of the original pro-poor policies. As a gross generalisation, parliamentarians by and large do not seem to grasp the policy nuances, rather their default position is to berate departments for failing to report timeously, send the right officials, or adhere to their annual performance plans. While the 'compliance culture' that has evolved is in many respects admirable and worthwhile, it is quite different from the capacity to appreciate the policy drift that has blunted the State's efforts to implement a meaningful agrarian reform.

[237] For one effort to quantify this pattern, see e.g. Hall and Aliber, 'The Case for Re-strategising Spending Priorities.'

[238] To remind the reader what exactly is at stake, it is the fact that replacing a share of white large-scale commercial farmers with black large-scale commercial farmers, will do nothing in itself to reduce poverty, even if this share were to be very high.

[239] This is another way of saying that favouring smaller-scale agriculture does not necessarily imply the wholesale elimination of large-scale agriculture.

[240] A valid question at this point is why such an exercise is deemed necessary given all of the various other recent policy development exercises that speak to land and agrarian reform, e.g. the *National Development Plan* (2012), the Agricultural Policy Action Plan (2015 and beyond), and the Operation Phakisa for Agriculture, Land Reform and Rural Development (2016). That could be the subject of a much longer discussion, suffice it to say here that perhaps each of these might have been more productive had they been *preceded* by a clear restatement of the vision of agrarian reform, which would then have been taken as the point of departure for whatever new policy work was being undertaken; rather these exercises were arguably plagued by the very same tensions and confusions discussed above. A particular problem with the *National Development Plan* was that there was little discussion between the National Planning Commission and DAFF, to the extent that the latter did not have any sense of ownership of the *Plan's* chapter on rural development. Another opportunity lost was the 2011 *Green Paper on Land Reform*, which clarified rather little. The particular section one might have thought would provide such clarity was the one entitled, 'The Strategic Thrust of Land Reform'. It reads in its entirety as follows: 'Land Reform is located within the CRDP, and is anchored by the following pillars: (a) a coordinated and integrated broad-based agrarian transformation; (b) an improved land reform programme; and, (c) strategic investment in economic, cultural, ICT and social infrastructure for the benefit of all rural communities. While separate in the design, rural development and land reform are aligned at policy, programme and institutional levels to ensure coordinated service delivery. In pursuit of agrarian transformation, the link between the land question and agriculture is acknowledged as the basis of the search for an economic rationale and a vision of a post-reform agrarian structure. Yet, demand for land may be for other productive but non-agricultural uses'; DRLDR, *Green Paper on Land Reform*, (Pretoria: 2011), p.8.

[241] The bottom line however is that there needs to be more of an effective consensus on the following points:

- Land redistribution should be used to create multitudes of opportunities for farmers of different sizes, generally by means of subdividing commercial farms.
- Land reform should also be used to accommodate households simply needing well-located land for tenure and food security.
- In cases of small food/tenure security plots (or what in the State Land Lease Policy are known as 'Category 1' farmers), the option of individual ownership (freehold) should be immediately available, whereas for larger plots, land access should be in terms of a lease for a probationary period of not more than 5 years, following which the beneficiary will have an option of acquiring title to the land.

(The terms of this acquisition have to be worked out; in this respect PLAS and the State Land Lease policies need to be reviewed.)

- While land redistribution can still be used to create opportunities for black farmers to operate as large-scale commercial farmers, the emphasis should be on smaller plots.
- In identifying farms that are suitable for subdivision, water is an important consideration.

[242] See e.g. P Senge, *The Fifth Discipline: The Art & Practice of The Learning Organization*, (New York, 2006).