



# POLICY IMPACTS

The impact of government agricultural and rural development policy on small-holder farmers in KwaZulu-Natal



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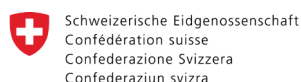
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## ACRONYMS

APAP	Agricultural Policy Action Plan
ARC	Agricultural Research Council
BEE	Black Economic Empowerment
CRDP	Comprehensive Rural Development Programme
DAFF	Department of Agriculture, Forestry and Fisheries
DARD	Department of Agriculture and Rural Development, KwaZulu-Natal
DEA	Department of Environmental Affairs
DRDLR	Department of Rural Development and Land Reform
DWA	Department of Water Affairs and Sanitation
GE	Genetically engineered
GHG	Greenhouse gas
GM	Genetically modified
GMO	Genetically modified organism
IRM	Insect resistance management
KZN	KwaZulu-Natal
MEC	Member of the Executive Council
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NGP	New Growth Path
OPV	Open-pollinated variety
PPC	KwaZulu-Natal Provincial Planning Commission
PGDS	Provincial Growth and Development Strategy
PGDP	Provincial Growth and Development Plan
OSS	Operation <i>Sukuma Sakhe</i>
RASET	Radical Agricultural Socio-Economic Transformation Model
RVCP	River Valley Catalytic Programme
SAB	South African Breweries
SACNASP	South African Council for Natural Scientific Professions
SANBI	South African National Biodiversity Institute
SAT	Strategy for Agrarian Transformation

# 1

## INTRODUCTION

There is little doubt that in a South African context the inter-related issues of food, agriculture and land give rise to: heated and emotive debate; contested political narratives; populist rhetoric; numerous research papers and research outcomes; and, finally, political mandates from a governing party fraught with factionalism and rising populism. The result is a host of ever-changing and poorly implemented policy prescriptions which then, invariably, give rise to a new cycle of debate, rhetoric, research and, ultimately, policy-making. Despite this state of affairs, there appears to be a general consensus amongst all protagonists in these highly contested debates regarding the urgent need to address not only racially skewed access to land, but also the abject levels of poverty, food insecurity and deficiency of productive activities and opportunities in rural areas. In terms of the former, the inertia, maladministration and lack of capacity by the state, coupled to inadequate funding, a lack of political will, corruption and elite capture has progressively led to more calls for the expropriation of land without compensation.<sup>1</sup> Responses to the latter concerns, which have been equally beset with a host of challenges, have generally and continue to focus on the establishment and support of a small-holder farming community – the key concern of this paper – and, increasingly, the integration of such small-holders into agro-processing value chains.

The point of departure for most agriculturally related policies, programmes and projects which a cursory glance at the relevant documents would confirm and, as affirmed by a DARD official, “comes from the Constitution ... everybody should have food available, water available and shelter available.”<sup>2</sup> In addition to these familiar features the Constitution, according to Olivier *et al.* (2010), also provides a “binding framework for the planning, co-ordination and implementation of development (including rural development) as one of the key foundations of South Africa as a developmental state.”<sup>3</sup> South Africa is, furthermore, a signatory to a host of international (United Nations) treaties which ought to shape and influence developmental policy. These would include, for example, treaties emerging from the Millennium Summit (MDGs 2000–2015)<sup>1</sup> and the World Summit on Sustainable Development (2002). South Africa has also committed itself to treaties facilitated by the African Union (AU Agenda 2063 for example) as well as the Southern African Development Community (SADC) – treaties and agreements which should have an effect on policy making and the developmentally-related rights of citizens.

Yet in terms of international treaties and conventions, no explicit legislative measures have, for the most part, been enacted by Parliament. Hence there have been no legislative measures, for example, to give statutory effect to the MDGs.<sup>4</sup> Furthermore, although all “spheres of government and organs of state” are obligated to “observe and to adhere to the principles of co-operative government and inter-governmental relations” these obligations have largely not been met. In part this is due to the Constitution itself which does not contain a “single integrated framework” showing how the various “references to development are or must be linked to one another.” Nor does the Constitution provide a “holistic vision” of how the “envisaged development should be attained.” It is therefore not surprising that, as Olivier *et al.* (2010) note, a situation has arisen which could be termed “constitutional fragmentation” where the lack of co-

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<sup>1</sup> The Millennium Summit gave rise to the Millennium Development Goals (MDGs) which came to an end in 2015. In 2012 the United Nations Conference on Sustainable Development (Rio+20) decided to create a new global development framework – to replace the MDGs – through the establishment of the Sustainable Development Goals. Whereas MDGs mostly focused on poverty reduction, the SDGs encompass all dimensions of sustainable development; namely the economic, social and environmental.

ordinating mechanisms to deal with this conundrum has “resulted in independent and separate formulation of policy and regulatory frameworks.”<sup>5</sup>

The portfolios of rural development and agriculture are a good example of this. Not only are they located in separate ministries/departments but are also concurrent functions shared between national and provincial governments. Parliament is therefore responsible for setting the national statutory or legislative framework via the Department of Rural Development and Land Reform (DRDLR) and the Department of Agriculture, Forestry and Fisheries (DAFF) respectively, whilst the Provincial Legislature in KwaZulu-Natal (KZN), via the Department of Agriculture and Rural Development (DARD) is responsible for province-specific legislation.<sup>6</sup> In addition, it should be noted that, from a developmental perspective, the spheres of “rural development” and “land” obviously fall under the DRDLR yet the administration of matters relating to ecologically sustainable development falls under the Department of Environmental Affairs (DEA). In KZN this responsibility falls under the Department of Economic Development, Tourism and Environmental Affairs. The ensuing poor co-ordination – between departments and within departments – has been repeatedly acknowledged by government (see below) yet it is doubtful as to whether the situation will ever be fully addressed. This is particularly true of the determining role of environmental concerns which, despite fashionable rhetoric to the contrary, are often seen as a hindrance to development rather than crucial to the long-term sustainability of a developmental path.<sup>7</sup>

What can be said with a greater level of certainty is that there has been, at minimum, a shift in the emphasis of policy and policy discourse related to rural development since 2009; although the pathways through which rural living standards were to be raised have hardly altered since 1994.<sup>8</sup> This shift, even if only in terms of the vision articulated, would be true for national as well as provincial policies. Whether this has resulted in tangible benefits for the rural poor is debatable although the most recent report on poverty trends in South Africa suggests that this has not been the case and that conditions in South Africa have worsened since 2011 and are “effectively” at the same levels as 2007. This paper also indicates that amongst those most vulnerable to poverty are people residing in rural areas; KZN is the third poorest province although admittedly conditions in KZN have improved slightly in recent years.<sup>9</sup> If the substance of a recent interview with a representative of an NGO is taken into consideration, these recent statistics should not be unexpected. According to the NGO representative the state, despite rhetoric to the contrary, doesn’t see rural development as “a priority and society doesn’t see it as a priority ... because the impacts of deprivation, and the impacts of poverty and impacts of malnutrition (in rural areas), are not understood by society.”<sup>10</sup>

Another certainty is that in the years to come additional policy papers will certainly be introduced before any of the existing policies have run their course or been fully implemented. As Ben Fine (2012) has commented: “policy documents come and go, and thick and fast, in South Africa.”<sup>11</sup> This is certainly true for the agricultural sector and the closely linked fields of rural development and food security. Unpacking and dissecting the multitude of policy documents and political statements that seek to address, in this instance, the agricultural support of small-holders is unquestionably an onerous task; more so when attempting to contrast and compare national policies and strategies with those at a provincial level. An even more arduous task is: evaluating the actual success of the relevant policies and strategies; disaggregating vision from reality or rhetoric from substance; and, from a financial or budgetary perspective, assessing the actual returns on investments made in the name of rural development. Aspects of some of these issues will, nonetheless, be touched on in this paper where relevant.

Rural development policy formulation and implementation in South Africa and KZN can, to date, be divided into three distinct phases.<sup>12</sup> The first of these would correspond with the initial years of South Africa’s fledgling democracy (1994–2000) and would be shaped to a large degree by the Reconstruction and Development Programme (RDP),<sup>ii</sup> a

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ii The first document addressing rural development following the launch of the RDP was the 1995 discussion document “Rural Development Strategy of the Government of National Unity.”

development plan which, according to Jacobs *et al.* (n.d.) was “conceptually disjointed, fragmented and divergent” with many “weaknesses and limitations.” As such it was a “recipe for policy misunderstandings and confusion” and, due to its incoherence, doomed to “failure at the outset.” Nonetheless, the RDP did look beyond mere land reform as the only intervention relevant to rural development and projected an orientation “towards all-round and holistic rural transformation.”<sup>13</sup>

The second phase (2000–April 2009) is defined by the Integrated Sustainable Rural Development Strategy (ISRDS)<sup>iii</sup> and its implementation.<sup>iv</sup> This strategy paper, following Thabo Mbeki’s conceptualisation of South Africa as consisting of a first and second economy, articulated policy within this dualistic framework; two economies that framed “rural polarisation as well as the inequalities between commercial and subsistence farming.”<sup>14</sup> The third, and current phase, is associated with the 2007 ANC Conference where the ANC resolved to embark on an integrated programme of rural development, land reform and agrarian change.<sup>v</sup> This phase commences after the April 2009 elections and would equate with the Jacob Zuma presidency. Agrarian reform and rural development would now, according to government statements, be one of government’s key policy priorities. To facilitate this, the Department of Rural Development and Land Reform (DRDLR) was founded; the first time a government department was established with the primary goal of focussing on the economic and social development of rural South Africa.<sup>15</sup> This phase, initially at least, was closely associated with the Comprehensive Rural Development Programme (CRDP)<sup>vi</sup> which captured the government’s vision for socio-economic prosperity in rural areas and the key strategy of pursuing “Agrarian Transformation”.<sup>16</sup> This “shift in rhetoric from ‘land reform’ to ‘agrarian transformation’” in the official terminology seemed to signal, what some believed to be, a more “militant thrust towards holistic and systemic change”.<sup>17</sup> This has, however, not been realised although the rhetoric on radical agricultural socio-economic transformation has certainly intensified in recent years.

There are a host of documents and positions that have guided national, and ultimately provincial, rural development policy during the Zuma presidency. These include: the Integrated Growth and Development Plan (2012); the resolutions of the Manguang Conference (2012);<sup>vii</sup> the Rural Development Framework (2013); the Agricultural Policy Action Plan (APAP 2015–2019);<sup>viii</sup> and the Revitalising Agriculture and the Agro-Processing Value Chain (RAAVC). All would in one way or another align with the New Growth Path (NGP)<sup>18</sup> published in November 2010, the National Development Plan: Vision for 2030 (NDP)<sup>19</sup> released a year later,<sup>ix</sup> and the Medium Term Strategic Framework (MTSF

<sup>iii</sup> The ISRDS, approved by Parliament in 2000 and implemented in 2001, was designed to have a ten-year lifespan and should be considered to be a strategy rather than a programme.

<sup>iv</sup> Additional legislation to consider included: the Strategic Plan for South African Agriculture (SPSSA) (2001); the Integrated Food Security Strategy for South Africa (IFSS) (2002); the Drought Management Plan (DMP) (2005); the National Spatial Development Perspective (NSDP 2006); the Medium Term Strategic Framework (MTSF 5-year rolling plan); the Medium Term Expenditure Framework (MTEF 3-year budget cycle); the Accelerated and Shared Growth Initiative of South Africa (ASGISA); the Provincial Growth and Development Strategies (PGDSs) and the Municipal Integrated Development Plans (IDPs) and in KZN the Mechanisation Policy (2006); and the Policy on Mentorship (2006).

<sup>v</sup> At the 52nd ANC Conference in 2007, the party resolved to embark on an integrated programme of rural development, land reform and agrarian change. Subsequent policy documents increasingly capture these views. The government’s definition of an agrarian transformation “refers to a specific term currently in use by the SA Department of Rural Development and Land Reform. It carries a political meaning, envisioning a rapid fundamental change in the relations of land, livestock, cropping and community. The focus is on establishing rural economic activity, cultural initiatives and vibrant local markets in rural settings, and revamping and renewing rural infrastructure for sustainability and development” (DRDLR, July 2009. *Comprehensive Rural Development Programme Version 1*. Pretoria: 3). It is interesting to note that the NDP does not mention the word “agrarian”.

<sup>vi</sup> The CRDP was approved by cabinet in July 2009.

<sup>vii</sup> The two key resolutions that emerged relevant to the issue of small-holders were 1) to develop an inclusive rural economy and 2) for agrarian reform; the need to balance land transformation with food security.

<sup>viii</sup> This Action Plan advocated the revitalisation of the agro-processing value chain through the beneficiation of particular agricultural products as well as practical interventions such as conservation agriculture. It also identified critical commodities that have good opportunities for both import substitution and exports.

<sup>ix</sup> The Diagnostic Report was released in June 2011 and the draft national plan was released in November 2011. The final NDP was launched in August 2012 and adopted in September 2012.

5-year rolling plan).<sup>x</sup> Clearly these cannot all be discussed here other than to emphasise that the ultimate goal is quite obviously employment creation, poverty alleviation and the creation of a more equitable (rural) society. Here the NGP, NDP and MTSF have ambitious goals for rural development with the former targeting participation by some 300 000 households in agricultural small-holder schemes and 145 000 jobs in agro-processing by 2020. The NDP refers to 643 000 primary and 326 500 secondary jobs created within the agricultural sector by 2030, whilst the MTSF speaks to the creation of one million new jobs in the rural economy by 2030 and a reduction of rural unemployment from 49 per cent to less than 40 per cent by 2030.<sup>20</sup>

As small-holder development is crucial to meeting these goals, a variety of relevant support programmes have been introduced at national and provincial level. These include a wide ranging set of factors and interventions such as infrastructure development, irrigation schemes, the provision of basic services, marketing, finance, extension services, the establishment of food gardens and marketing and service co-operatives, as well as a strong emphasis on the agro-processing value chain and opportunities in the backward and forward linkages within agriculture.<sup>21</sup> All of which have been, or should have been, included in the relevant provincial strategies and programmes that would, on the whole, frame the discussion in this paper.

The key shift in policy, therefore, came when rural development was given departmental status at the level of Cabinet in 2009. At a national level, rural development was now twinned with land reform and agriculture with forestry and fisheries. At a provincial level agriculture was twinned with rural development and it is perhaps in this twinning where some of the key tensions between national and provincial policies emerge. It would appear that a core assumption driving policy is that rural development equates with development in the agricultural sector as this is where jobs are most easily created. It could be argued that the complex relationship between the two has not been fully understood. In other words there is a tendency, even if only inadvertently, to equate the rural economy with agriculture – that the land reform question is therefore an agrarian question – despite evidence of economic diversification.

In fact it is interesting to note that government has chosen the concept of “agrarian” change or transformation as its key rural development intervention rather than mobilising around a concept such as “de-agrarianisation” or if the emphasis is to be on agriculture then, perhaps, the term re-agrarianisation could be employed.<sup>xi</sup> Even the NDP (Our Future) acknowledges that South Africa has a “small share of its rural population engaged in agriculture” and that turning agricultural production around “will not be easy or rapid.”<sup>22</sup> Similarly, as O’Laughlin *et al.* (2013) advocate, the argument which holds that “ownership of agricultural land will lead to a major improvement in well-being for rural people in South Africa” assumes that “people with farming skills do not have land, or sufficient land to make a living from it, and that the existing land and water resources of South Africa can sustain rural livelihoods for many new small-scale farmers;”<sup>23</sup> an assumption that needs to be thoroughly interrogated.

Of interest to the agroecological movement is the availability of opportunities in the policy-making environment where the dominance of the current productionist paradigm – or industrial capitalist agriculture – can be contested and where alternative models of sustainable agriculture can be promoted. The current industrial model of agriculture, with its roots in the agricultural-chemical-transportation revolution of the 18th century, has been able to manipulate nature, science and the entire food supply chain into a production-led sector. This, in turn, has been able to deliver

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<sup>x</sup> The MTSF aligns with the government’s electoral term reflecting the commitments made in the election manifesto of a given term (2009–2014 and 2014–2019). Of importance are outcomes 4 (employment), 7 (rural development) and 10 (environmental assets and natural resources). Outcome 7 refers specifically to a comprehensive rural development and food security strategy. (Republic of South Africa. Department of Agriculture, Forestry and Fisheries. November 2014. *Medium Term Strategic Framework*. Pretoria: 2).

<sup>xi</sup> De-agrarianisation refers to a process of moving society away from an agricultural or agrarian system to other forms of rural employment; is specifically “defined as a process of: (i) economic activity reorientation (livelihood), (ii) occupational adjustment (work activity), and (iii) spatial realignment of human settlement (residence) away from agrarian patterns.” (Bryceson, D. 1996. Deagrarianization and Rural Employment in sub-Saharan Africa: A Sectoral Perspective. *World Development*. 24(1): 97–111: 99).



impressive results in terms of increased food production. It is therefore little wonder that the adoption of this highly productive model is central to dominant development narratives in many developing countries, including South Africa.

The emphasis on productivity has, however, taken priority over all other considerations including ecological sustainability and the skilled, local knowledge needed to manage complex local ecologies; skill and knowledge that have increasingly been substituted with technology. The increase in productivity has, moreover, been highly reliant on the exponential increase in the use of fossil fuels, fertilisers, pesticides, antibiotics and mechanisation as well as a host of “technological fixes” including the genetic engineering of plants and animals. The relentless pursuit of greater levels of productivity and profit have, increasingly, led to a highly unstable system characterised by declining yields and a host of biophysical constraints and contradictions which invariably are masked by the externalisation or undervaluing of costs. Clearly then, as Weiss (2010) has put forward, the time has come where biodiverse food systems need to be rebuilt and where agricultural work will once more be valorised. All of which will require the rethinking of agriculture’s “place in conceptions of development and modernity.”<sup>24</sup>

To this end it is interesting to note that the resolution on rural development, land reform and agrarian change (known as RDAC) taken at the ANC Conference in Polokwane in 2007 was highly critical of, what it referred to as, “environmentally damaging agriculture.”<sup>25</sup> As Jacobs (2012) notes, implicit within the document is a “view that industrial-scale farming-for-profit, which depends on environmentally destructive chemicals” and the inefficient utilisation of water “plays a significant role in threatening the future of the planet.” In spite of this, the resolution did not propose “replacing industrial agriculture with sustainable agroecology in service of pro-poor agrarian change.”<sup>26</sup> Nor did such a critique find its way into the subsequent policy document relevant to rural development, namely the CRDP, or even the NDP. In the *NDP Vision Statement* reference is made to “industrialised food production” which “contributes to climate change and the destruction of biodiversity.”<sup>27</sup> It is therefore recommended, the document continues, that due to the “consequences of industrialised agriculture” attention should be given “to advances in ecological approaches to sustainable agriculture. This includes greater attention to alternative energy, soil quality, minimum tillage and other forms of conservation farming.”<sup>28</sup>

Admittedly, the CRDP makes reference to the “sustainable use of land and natural resources”<sup>29</sup> yet it also refers to “maximising the use and management of natural resources” and the “optimal use and management of natural resources”;<sup>30</sup> terms that are often associated with conventional or industrial agriculture. The Strategy for Agrarian Transformation (SAT) only mentions the concept of “environmentally sustainable” once in relation to rural development<sup>31</sup> and, as with the CRDP, also makes reference to the “optimal development of natural resources.”<sup>32</sup> It is therefore uncertain as to what the actual position of government is. What “advances in ecological approaches to sustainable agriculture” are being referred to? Such vague, confusing or even contradictory perspectives abound in the various government documents related to agriculture and rural development. One explanation may be that de-politicised and project-based agroecological,<sup>xii</sup> permacultural and organic initiatives can easily be subsumed by Green Revolution or industrial agricultural agendas.<sup>33</sup> In other words, reforming aspects of the industrial model of agriculture whilst, simultaneously, co-opting ecological terminologies thus satisfying certain societal constituencies, especially in the context of climate change, yet ensuring that the industrial components of the agro-food system remain in place and provide centres or regimes of accumulation for well-positioned new elites.

A further excerpt from the *NDP Our Future* to consider with regard to this is the following:

*Agriculture, forestry and land use contribute 6 percent to total emissions,<sup>xiii</sup> and have significant potential to act as*

<sup>xii</sup> In 2011 DAFF claimed that it wanted to “promote a new kind of agriculture called agro-ecological agriculture.” Yet the explanation given of what this entailed was very limited (Republic of South Africa. DAFF. 2011. Strategic Plan 2011/12 to 2014/15. Pretoria: 4).

<sup>xiii</sup> It is unclear whether this refers to carbon emissions or all GHG emissions including methane.

*carbon sinks, particularly in the context of regional sequestration initiatives ... South Africa will seek to expand the forestry sector, and will re-establish natural plant cover in areas such as the thicket biome. **Agricultural practices will reduce meat production, reduce the use of nitrogen fertilisers, and promote organic farming methods.***<sup>34</sup>

It is uncertain which agricultural practices will reduce meat consumption or even what the highlighted phrase actually means. However, seeing that this excerpt is located in the section which refers to an “equitable transition to a low-carbon economy” it is presumably recognition of the relationship between meat consumption and the utilisation of nitrogen fertilisers, and climate change. The increased meatification of diets and the rapid increase in livestock populations globally, especially through the concentration and compression of livestock in enormous feedlots as part of the oil-dependent feed grain-livestock complex,<sup>35</sup> is a significant contributor to the production of methane – a greenhouse gas (GHG) which has 21 times the global warming potential of carbon dioxide.<sup>36</sup> Yet in none of the key government documents referred to in this study is there any mention of the relationship between livestock numbers, the meatification of diets, and climate change. Instead, the livestock industry is celebrated for its upstream and downstream job creating potential. The *NDP Vision Statement* even states that the “demand for animal feed will grow rapidly over the next decade as more animal protein is consumed.” As a result more soybeans and yellow maize will be planted and “competition for arable land” will be driven by the sector where the “fastest growth in demand is anticipated, namely animal feed.”<sup>37</sup> As will be illustrated below, KZN is also in the vanguard of promoting livestock as a key catalyst for rural development, clearly ignoring the mandate of the DEA to address the issue of greenhouse gas emissions.<sup>38</sup> This is not to ignore the importance of livestock in farming systems but is more a question of scale and concentration.

The reference to a reduction in “the use of nitrogen fertilisers” and the promotion of “organic farming methods” is also somewhat of an anomaly; more so as these recommendations appear not be repeated in any of the other major relevant documents. Interestingly, and related to this point, is the reference in the *NDP Our Future* to the need for farmer “access to high-quality seeds, fertiliser and other inputs suited to the continent’s (presumably including South Africa) ecological conditions.”<sup>39</sup> Yet what type of fertiliser? What constitutes “high-quality seeds”? Who determines what is suitable for local ecological conditions? Aspects of these questions may, from a government perspective, be answered by the NDP’s call for increased “investment in research and development for the agricultural sector”; noting that growth in the sector “has always been fuelled by technology” and that “South Africa has adapted technology from all over the world to its circumstances.” This should, the NDP concludes: “... again become the focus of agricultural research by research councils, universities and the private sector for all scales of farming.”<sup>40</sup> Unpacking the technology question in agriculture as a whole is beyond the parameters of this research paper, although it is worth noting – for the benefit of this study – that the NDP considers GE as being a technology “under development” which has given rise to “bio-ethical” concerns over the “genetic modification of food crops.”<sup>41</sup> Yet whether these concerns should or should not shape the future trajectory of GE use in agriculture is not explored, whilst the obvious inconsistency with organic farming is never even considered. (The seed question is explored in more detail below).

A final factor to take into account when evaluating the inconsistencies inherent in government policy, with regard to small-holders, is the stance of government on value chains. In the NDP the following position is articulated: The traditional approach to rural development and improving agricultural income in poor countries is to help farmers move up the value chain by supporting agro-processing. In South Africa, however, a highly centralised, vertically integrated agro-processing sector already exists for staple foods ... These value chains tend to exclude small, new or black farmers, but there is no point setting up parallel agro-processing initiatives and ignoring the industry giants.<sup>42</sup>

Yet the Radical Agricultural Socio-Economic Transformation Model (RASET), as is noted below, claims to be a “government programme aimed at creating an alternative value chain to deal with structural barriers to economic transformation in the agricultural sector.”<sup>43</sup> The national Agri-parks strategy, which is being promoted as one of the key interventions to catalyse rural transformation, is also set to establish “new agricultural value chains in the Province.”<sup>44</sup> It

is therefore uncertain as to whether policy is still about integrating small-holders into existing value chains or whether this is now primarily about developing new and alternative value chains. There also appears to be no recognition of less resource intensive informal value chains and localised distribution networks that could be supported by the state.

These inconsistencies in policy positions may point to the ruling party being represented by a broad church with varying interests and a desire to satisfy these interests. Nonetheless, certain points could also be strategically utilised by civil society to compel government to engage with a more sustainable form of agriculture and more appropriate and meaningful interventions for small-holders. The case study of KZN, which follows below, points to some of these possibilities as well as the manner in which national policy has manifested itself provincially. The first section provides a basic overview of provincial government policies and programmes impacting small-holders in KZN with a specific emphasis on the *Strategy for Agrarian Transformation*. The implications of such policies and programmes on the independent and self-sufficient development of such small-holders will also be examined (Part 2). In addition, this research paper explores the manner in which policy has shaped the nature and substance of extension services; how the context for extension is framed; and the consequent skills transferred to farmers (Part 3). This links to a final area of investigation which examines the specific content of the programmes of support rolled out for small-holders in terms of infrastructure and services, agricultural models, types of inputs and seed systems. This latter section focuses specifically on the role of genetically engineered seeds (Part 4).

# 2

## OVERVIEW OF GOVERNMENT POLICIES AND PROGRAMMES REGARDING SMALL-HOLDER FARMERS IN KZN

### Introduction

There is a plethora of National and, where relevant, Provincial Acts, legislative frameworks, policies and political statements which shape or influence the character and development trajectory of the agricultural sector as a whole, as well as that of small-holders. The majority emanate from the offices of the National Department of Agriculture, Forestry and Fisheries (DAFF), the National Department of Rural Development and Land Reform (DRDLR) and the Provincial Department of Agriculture and Rural Development. Additional inputs or influences emanate from the National Department of Water Affairs and Sanitation (DWA), the National Department of Environmental Affairs (DEA) and the Provincial Department of Economic Development, Tourism and Environmental Affairs. The legislative domains of these various departments will not be discussed in any great detail in this section of the paper or the paper as a whole. Instead, the focus is primarily on the provincial policy of the Department of Agriculture and Rural Development (DARD) as pertaining to small-holders (excluding the discourse over land reform) with a specific emphasis on the Strategy for Agrarian Transformation.

### Evolving of policy in KZN: The strategy for agrarian transformation

The objective of provincial policies geared towards the support and upliftment of small-holders in KZN has been, and continues to be, essentially two-pronged. One area of focus is directed at the commercialisation of small-holder enterprises and the other is aimed at ensuring household food security for rural dwellers. Policy emphasis has waxed and waned between these two foci over the past 20 years or so, depending on the impulses of the relevant MEC and the party-political/ideological perspective of a given moment. This has been exacerbated by the fact that there have been 7 MECs responsible for agriculture in the past 13 years; each with his or her own particular view of agriculture and, more recently, agriculture and rural development. This administrative turmoil has contributed to an ambiguity and lack of clarity around the actual content of agricultural programmes, uncertainty among agricultural staff and, as a result, the poor implementation of policies in general.

In February 2011, the KZN Provincial Executive Council tasked the KZN Provincial Planning Commission (PPC) to prepare a Provincial Growth and Development Strategy (PGDS) which sought to capture the long term developmental vision for the province.<sup>xiv</sup> The PGDS was adopted in August 2011 and revised in 2016. The 2016 version of the PGDS,

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<sup>xiv</sup> The PGDS prioritised seven key developmental goals.

now referred to as the Provincial Growth and Development Plan (PGDP),<sup>xv</sup> was adopted in November 2016.<sup>xvi</sup> This should have included a vision for agriculture and rural development. Yet according to a DARD official “when you read the PGDP you don’t get a real sense of where we are going with Agriculture ... or Rural Development ... it’s in there ... but ...”<sup>45</sup> This vagueness in the PGDS/P was addressed by the SAT which was approved for implementation with effect from 1 April 2015.<sup>46</sup> In his 2015/16 budget speech then MEC Cyril Xaba was therefore able to proudly announce that the agrarian “strategy is now in place.”<sup>47</sup> The province was now in a position to “unleash the agricultural potential of KwaZulu-Natal” by introducing new “approaches that embrace the principles of agriculture as a science and a business.”<sup>48</sup> The new strategy targeted small-holders in the former homelands with the aim of increasing the size of the agricultural sector by making use of the “hundreds of thousands of hectares of underutilised arable land in the communal areas.”<sup>49</sup>

This “new approach to agricultural development”<sup>50</sup> entailed various programmes (pillars) to develop rural enterprises and commercialise agriculture.<sup>51</sup> These pillars consist of: a Land Reform Support Pillar, an Agri-village Pillar, a River Valley Pillar and a Communal Estates Pillar. The last three “pillars”, as spaces of concentrated activity, are designed to catalyse further development within the province ranging from subsistence food security activities to “emerging and commercial farmer development.”<sup>52</sup> These pillars are supported by four “building blocks”, namely: agro-processing; a business model; a commodity approach; and scientific research, technical development, training and extension.<sup>53</sup> The SAT would replace “all other strategies on agriculture.”<sup>54</sup> This meant that DARD was now in a position where it once more “had to formulate new programmes and projects that are aligned with the new strategy.”<sup>55</sup> It is not entirely certain as to which programmes had to be replaced or were discontinued due to the plethora of policy trajectories, as well as the change in the MEC in June 2016<sup>xvii</sup> which witnessed new shifts and emphases in policy.

An example of these repeated “shifts and emphases in policy” was that from 2016 onward “food security”, according to MEC Themba Mthembu, would “become the over-arching focus of the Department”<sup>56</sup> rather than the commercialisation process. He was also quick to point out that “food must be seen as a health and social justice issue before it is seen as business” and that the primary aim is “not just a matter of planting more crops and raising more livestock, but dealing with issues of making nutritious food affordable to the poor.”<sup>57</sup> During his first few months as MEC, Mthembu declared that he had introduced a “review process to focus on how we respond to the shifting environmental, political and socioeconomic terrain that we operate within”<sup>58</sup> and had, as a result, reformed Departmental strategy to effectively respond to the needs of the poor and to “change the way we will be doing agriculture in the province.”<sup>59</sup>

Mthembu has also sought to reinstate or revive the seed distribution and mechanisation programme aimed at subsistence farmers and small-holders. He acknowledged that these had not always been successfully implemented in the past. He was, however, adamant that a greater level of control would now be introduced to avoid repeating “past failures” and “abuse” of state resources. A concern which had apparently influenced Xaba to move away from these particular DARD programmes was the fact that they had been open to abuse.<sup>60</sup> Subsistence farmers would therefore continue to be assisted through the mechanisation programme and to receive seeds. In addition to the promotion of small-holder farming Mthembu also called for the “training and re-skilling of extension officers so that they are able to provide farmers with the relevant farming advice and support.”<sup>61</sup> Mthembu also challenged the crop production bias within DARD and assured rural communities that in the 2017/18 financial year livestock development

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<sup>xv</sup> The PGDP prioritised 30 key developmental objectives assigned to 18 PGDP Action Work Groups. The objectives included the “unleashing” of the agricultural sector and working towards sustainable household food security.

<sup>xvi</sup> This was in line with the NGP and the 14 outcomes of the MTSF. The revised version aligned with APAP, the Poverty Eradication Master Plan (PEMP) (2015) (in which one of the five pillars focused exclusively on agriculture), the second cycle of the MTSF (2014–2019) as well as the key points emerging from the Nine-Point Plan of National Government as articulated by the President in the State of the Nation Address (SONA) in 2015. Point two referred specifically to revitalising agriculture and the agro-processing value chain.

<sup>xvii</sup> Cyril Xaba was replaced by Themba Mthembu.

would finally receive a fair share of the budget. Livestock programmes to be supported included a host of animals comprising indigenous goats, sheep (izimvu) and chickens with a suggestion of “even going back to using oxen for ploughing.”<sup>62</sup>

### River Valley Catalytic Programme (RVCP)

The concept of a RVCP was first mooted in the *Comprehensive Rural Development Programme (CRDP-2009)* as part of national policy. The programme as such was implemented in 2013 and, with its focus on the value chain and impact on food security, was considered to be “one of the highlights of the CRDP”.<sup>63</sup> Provincially, the RVCP assumes that KZN has several rivers running through the province with highly productive land, suitable for agriculture, immediately adjacent to them; land which is currently underutilised.<sup>64</sup> Such land can be irrigated. RVCP schemes would include irrigation infrastructure as well as economic infrastructure, improved market access, social infrastructure and skills development.<sup>65</sup> The primary goal is the commercialisation of agricultural activities in a particular area, although in the long run an expansion of economic activities may result in the establishment of an Agri-village which would then catalyse the delivery of additional services. An initiative would commence by engaging with a “community in the development of such an area” with a specific focus on the development of a particular “agricultural commodity or agricultural enterprise that bring jobs to people, and bring skills in and uplifts the community.”<sup>66</sup>

### Communal Estates

The establishment of a Communal Estate will, in general, rely on an extension officer who “identifies potential” in an area and then brings “people together who have small areas in close proximity to one another. You with your one hectare, me with my one hectare, another with theirs ... we pool our resources together and farm as one unit”<sup>xviii</sup> ... form a co-op ... in many cases we have people who have land who cannot utilise land ... now can be brought into production.”<sup>67</sup> A three-phased approach is then introduced which starts with agricultural profiling, the introduction of the commodity-driven model and then the introduction of the most workable business enterprise model.<sup>68</sup> Unlike the Agri-villages (discussed below) there is no delivery of services associated with the initiative. This is primarily about commodity production, and co-operatives are assisted with “direct funds,<sup>69</sup> tractors, implements and vouchers for seed.”<sup>70</sup> It is uncertain what seed was to be provided to farmers on Communal Estates. This would depend on the decisions made by the co-operative but in all likelihood, would include seeds for the planting of beans, vegetables, maize and possibly soybean with a strong possibility that seeds for the latter two crops could be GE.

### Agri-villages

According to a DARD official, “one of the main focus areas or streams for development”<sup>71</sup> as noted in the SAT is the development of new forms of rural agricultural settlements such as Agri-villages.<sup>xix</sup> It would appear that currently there is only a single pilot project for an Agri-village in the province, which has been initiated in Emadlangeni near Amajuba.<sup>72</sup> This was launched by the former Premier<sup>73</sup> and is “not just an agricultural thing ... all the others (Departments) come on board with the idea that it is then linked to a farm which is run commercially and they, as the Agri-village, then run the farm.”<sup>74</sup> The aim, according to the official, is about:

*... bringing people on a willing basis together who live in a rural area to live in a closer settlement area where you still have a relatively large portion of land ... not like in a township ... where you can do your own livelihood practices ... your vegetable garden ... you can have your kraal for your cattle or your goats ... but enabling the municipal services to be supplied to you so you can get water, sanitation and then develop around that a number of different services*

<sup>xviii</sup> The minimum size of an Estate would be 50 hectares up to a maximum of 200 hectares. (Cyril Xaba: Address by KZN MEC for Agriculture and Rural Development, at the Second Conference for Women in Agribusiness. 4 November 2015. <http://m.polity.org.za/artice/kzn-cyril-xaba-address-by-kzn-mec-for-agriculture-and-rural-development-at-the-second-conference-for-women-in-agribusiness-organised-by-nepad-and-ada-durban>). [14 June 2017].

<sup>xix</sup> The official definition for an Agri-village is as follows: An Agri-village is the development of a new settlement, or converting an existing nucleus settlement for the purpose of settling farm workers and dwellers in a concentrated settlement pattern. (KZN DARD. 15 May 2015. Budget Policy Speech 2015/16. [www.kzndard.gov.za/Documents/Plans](http://www.kzndard.gov.za/Documents/Plans) [21 July 2017]).

... a clinic ... a primary school, postal services or telecommunications ... basic welding that can be done there, and ideally mechanisation services for the community and if you produce something that needs value added then you have a value adding centre there ... something simple like pack house ... focus on agriculture ... farm but also live in close proximity so that other services can be provided...<sup>75</sup>

### **Food and Nutrition Security and Poverty Eradication: Operation Sukuma Sakhe (OSS)**

An important component of the SAT is the continuation of policies which are designed to address household poverty directly. In the SAT document, the collective focus on rural household poverty is captured by the phrase “Poverty Eradication Phakisa” which functions in conjunction with the national *Fetsa Tlala* (eradicate hunger) Food Production Initiative and the provincially-driven Operation *Sukuma Sakhe* (stand up and build) (OSS). OSS was launched in March 2011 and is intended to represent a “whole of government approach” to address issues of poverty and to eradicate poverty. In 2013 assistance to impoverished households who qualified for support<sup>xx</sup> under OSS was to be augmented through the provision of a “poverty package”. A year later, in June 2014, during the State of the Province address, Premier Mchunu “announced the adoption of a Poverty Eradication Programme and Package” that was intended to eradicate poverty through a variety of existing endeavours such as Operation *Sukuma Sakhe*.<sup>76</sup> In the SAT document a detailed list of what the “household production package” or “food security package” entails is provided.<sup>77</sup>

This DARD-funded package is embedded in the new agrarian strategy and is aimed at households that have “no access to sufficient, safe, nutritious food in order to maintain an active life.”<sup>78</sup> The major thrust of the strategy is to promote a culture of producing “for own consumption” in rural households in an effort to reduce the number of poor households. The “DARD will provide agricultural training to all food security beneficiaries with the aim to graduate them to the next level of food production. The key principle of the food security support is to promote self-sufficiency and decrease dependency on government.”<sup>79</sup>

The most recent food security intervention at a household level in KZN is the re-introduction of a “Food and Nutrition Security” programme. The content of the programme, driven by the MEC, was agreed upon at a strategic planning session held at the end of 2016. This “massive food and nutrition planting season programme” was officially launched in Nqutu on 22 March 2017 with a budget of R200-million. The role of the Department within this programme is to “provide farmers with relevant and diverse commodities comprising of field crops, vegetables, fruit trees, indigenous crops, as well as livestock.” The “nutrition” component of the programme includes the adoption of a “biofortified strategy” which would also promote “high nutrient density staple crops containing higher amounts of vitamin A, iron and zinc.”<sup>xxi</sup> An interesting aspect is the emphasis on the use of indigenous livestock and indigenous crops. It is, however, uncertain as to whether this would, for example, include local landraces for maize and other key staples.<sup>80</sup>

### **RASET and the agricultural master plan: Supporting the Strategy for Agrarian Transformation**

The most recent high-profile policy statement around which political interests in KZN are mobilising is the Radical Agricultural Socio-Economic Transformation Model or RASET.<sup>81</sup> RASET is a subsidiary of Operation Vula<sup>xxii</sup> and is linked

<sup>xx</sup> Households impacted upon by malnutrition, hunger, TB and HIV and AIDS.

<sup>xxi</sup> According to an official this is via a conventional breeding programme. Their success story thus far is an orange fleshed sweet potato (with increased Vitamin A). In terms of maize, new cultivars with enhanced levels of “minerals and vitamins” were being sourced from Mexico and bred locally.

<sup>xxii</sup> Operation Vula is the most recent contribution to the efforts to stimulate entrepreneurship and small businesses in South Africa by Small Business Development Minister, Lindiwe Zulu. It seeks to open the economy by focusing on efforts to “localise the economy”. The initiative was first introduced in the 2017 SONA and should not to be confused with the 1986 underground operation initiated by the ANC’s military wing, Umkhonto we Sizwe.

to the Agri-park programme.<sup>82</sup> The RASET Programme will contribute towards meeting the NDP target of creating one million jobs by 2030. This is to be achieved by promoting small-holder farming; creating linkages between farmer support programmes, job creation and access to markets; and the creation of developmental programmes aimed at youth, women and people with disabilities.<sup>83</sup>

The main thrust of the “ground-breaking policy programme”<sup>84</sup> is to utilise government buying power to access participation of black South Africans in the “lucrative food production value chain.”<sup>85</sup> In other words, RASET is a “government programme aimed at creating an alternative value chain to deal with structural barriers to economic transformation in the agricultural sector.”<sup>86</sup> Mthembu encouraged the “vigorous promotion of Agri-BEE to build black industrialists” with a special emphasis on the youth who could “unleash their potential through technology and innovation in the agricultural value chain.”<sup>87</sup> In the words of Mthembu: “We cannot break the racial glass ceiling of agricultural value-chain ownership, management and control unless government takes a radical lead to change these patterns.”<sup>88</sup> To enable this government, especially the Departments of Health, Social Development and Education, will prioritise black-owned SMMEs and co-operatives that are registered on the supplier database, when procuring fresh produce, poultry and beef.<sup>89</sup> In addition “groups like Massmart; the Spar group; Tsogo Sun as well as the Hilton Hotel Group ... have committed themselves to supporting the RASET programme by sourcing their food from emerging black farmers under the auspices of RASET.”<sup>90</sup>

## Concluding comments

Unpacking and dissecting the multitude of policy documents and political statements that seek to address the agricultural support of small-holders is unquestionably an onerous task. The obstacles and challenges are clearly formidable and whilst solutions may roll off the tongue with ease it is, as with all developmental programmes, projects and processes, the implementation which is key. In South Africa, small-holder farming is perceived as insignificant when consideration is given to its contribution to the formal food market. As Hall (2013) points out, this lack of significance may lead to easy dismissal and any attempt to promote small-holder farming could be seen as “idealistic romanticism, disconnected from contemporary economic realities.” Yet small-holder farming, Hall contends, “is of importance not because of its contribution to GDP, or even to employment, but because it is the primary productive and potentially income-generating activity of many of the poorest South Africans.”<sup>91</sup>

One of the main aims of this research paper is to explore the essence of the SAT and other policies impacting small-holder farmers; however, the endless changes in the political leadership of DARD and subsequent policy adjustments make it somewhat difficult to put forward a substantial or meaningful overview of policy or even a sustained critique. Aspects of the SAT have already been tweaked or are under review – a position which may shift again following the political changes unfolding since the ANC’s National Conference in December 2017. The endless shifts and changes are possibly understandable considering the enormity of the task at hand and the inability of the state to generate major structural adjustments; the land reform programme is probably a more visible manifestation of this inertia. Yet at the same time it must unquestionably also be policy uncertainty and administrative turmoil that undermines the successful, let alone incremental, implementation of policy.



# 3

## THE EXTENSION SERVICE: HOW THE CONTEXT FOR EXTENSION IS FRAMED AND THE CONSEQUENT SKILLS DEVELOPMENT PROVIDED TO FARMERS

Due to the crucial role played by extension services in delivering support to the rural poor, the following section will seek to address the ensuing two questions: first, how the context for extension is framed in KZN; and second, the skills development provided to farmers through extension services. In addition, the links to the policy environment and the actual content of programmes of support for small-holders, where relevant to extension services, will also be explored. It should be noted that due to certain constraints, extension officers were not interviewed during the research process nor were in-depth interviews conducted with small-holder communities in KZN who are key beneficiaries of extension services. The contents that follow are therefore based on a limited number of in-depth interviews with high ranking DARD personnel and a desktop review of the relevant government documents, as well as some of the secondary material on the subject.

### Extension and rural development

In South Africa extension officers, as will be expanded upon below, are responsible for the dual tasks of supporting both agriculture and rural development more specifically. To this end extension has been broadly defined by government as: “A service of information, knowledge and skill development to enhance adoption of improved agricultural technologies and facilitation of linkages with other institutional support services (input supply, output marketing and credit). At the same time, extension is a political and organisational instrument utilised to facilitate development.”<sup>92</sup> Development, or rural development more precisely, according to the DRDLR, points to a process whereby individuals and communities in rural areas: “take control of their destiny, thereby dealing effectively with rural poverty through the optimal use and management of natural resources. It is a participatory process through which rural people learn over time, through their own experiences and initiatives, how to adapt their indigenous knowledge to their changing world.”<sup>93</sup>

Extension, by implication, relates to what would generally be referred to as a developmental concept. It is multidisciplinary in its approach and should combine “educational methodologies, communication and group techniques in promoting agricultural and rural development”. It also includes “technology transfer, facilitation, and advisory services as well as information services and adult education”.<sup>94</sup> This implies that, amongst a host of desired proficiencies, extension workers are essentially educators. Extension officers should therefore also have a basic understanding of experiential learning theories,<sup>95</sup> the concept of education for development,<sup>96</sup> transformative learning theory<sup>97</sup> and so forth. This is, however, highly unlikely as most tertiary training institutions in South Africa, despite rhetoric to the contrary, do not themselves practice what could be called progressive teaching and learning methodologies.<sup>xxiii</sup>

<sup>xxiii</sup> A major contributing factor undermining the practice of, and therefore student exposure to, “progressive” teaching and learning methodologies is the massification of tertiary education.

## Extension on the ground: Practice

In a recent Budget Policy Speech MEC Mthembu admitted that government had “heard the outcry of many stakeholders regarding the need to improve the capacity and visibility of our extension support” in KZN.<sup>98</sup> A snap survey conducted on 7 July 2017 with 14 representatives from small-holder communities in the Okhahlamba Municipal Area gives substance to this “outcry” and appears to confirm the perception of a rather lackadaisical approach to extension by extension personnel in the province. Community representatives agreed that: “extension officers are not present”; “they make promises but never implement”; “some areas do not see their extension officer”; extension was “top-down”; and that “extension officers impose seeds on farmers.”<sup>99</sup> An NGO representative, when asked to comment on the manner in which extension officers were perceived by small-holders, echoes these perceptions: “They are not accessible and are not there to solve general farmer queries as they are mainly appointed to implement specific government projects with designated groups of farmers.”<sup>100</sup> When small-holders were asked where they would go for support they responded that they would get the necessary advice “from the shop... information comes from private people (more) than from extension.”<sup>101</sup> A DARD official, in response to a question on the quality of extension services, voiced similar complaints: “I don’t know about the technical level but ... (some are) not impressed with our local staff in terms of response time, politeness, interest ... technical level not sure ... people say they either don’t find them ... people complaining about them ... bit of a disconnect.”<sup>102</sup>

A 2015 Parliamentary Portfolio Committee Report recorded similar concerns when on a site visit to KZN. The Committee reported that small-holders and farming communities claimed that they received very little assistance from DARD – and by implication extension officers – and when they did, such support was “not consistent”. Services from DARD were limited to handing out seed packs and ploughing, but even the ploughing was erratic and unsystematic. The Committee reported that the mechanisation programme as a whole was being implemented “haphazardly and inconsistently”. It was also asserted by Committee members that “most of what was reported in written reports ... was not visible on the ground”. In fact, written reports appeared to reflect the “opposite” of what was happening on the ground. A further cause of concern was the lack of accountability regarding *Fetsa Tlala* funding for 2014/15.<sup>103</sup> According to DAFF, the “success” of the *Fetsa Tlala* initiative will “depend on the advisory services rendered by extension officers.”<sup>104</sup> This lack of accountability, therefore, reflects poorly on the work of extension officers in KZN, particularly in terms of addressing the needs of the poor.

There is also uncertainty as to whether extension officers actually kept abreast of developments in areas in which, it could be assumed, they should have some expertise; agricultural production specifically. A scientist at Cedara commented that: “The results of my research go out to extension, if they implement to the farmers I cannot tell you. Extension officers need to read research bulletins and transfer that knowledge to the farmer ... so I’m dependent on the extension officer ... what we also have every second year is a symposium where we present our results to the extension officers ... they are invited ... ask questions ... again I hope they will take the knowledge and transfer it to small-scale farmers in the different communities.”<sup>105</sup> When asked whether this actually happened, the DARD scientist replied:

*I am highly frustrated about it (that research is not applied) ... I drive around and I can see that there is supposed to be an extension officer working here but nothing happens ... it is frustrating ... but I cannot go and do it ... KZN is divided into 11 districts ... many communities ... as research we have spoken about how we can improve this whole thing and how if I am an extension officer I must want to help farmers. Once you’ve got that attitude you would be able to source information and transfer that information to the farmers ... it’s actually a very complex problem ... we are constantly faced by it.*<sup>106</sup>

The attainment of food and nutrition security by the rural poor, particularly at a household level, is a strategic objective of the KZN government and a key focus area of provincial policy-making. The major means of reaching this objective is through small-holder agriculture, which should be promoted and nurtured through agricultural extension.

However, “food security programmes and extension approaches and agendas are often not compatible”;<sup>107</sup> more so when extension personnel may have had inadequate or inappropriate training. This may include a lack of “soft” or personal skills as well as “participatory skills” required for empathetic and adaptable engagement with individuals or communities. Extension personnel were said to “struggle when they come out” of tertiary institutions as they have very little understanding of the skills required when “engaging with farmers” and are generally instilled with a “we know it all” attitude despite the fact that “they lack those skills.”<sup>108</sup>

As was noted above, the primary medium for extension officers to address household food and nutrition security for the very poor is the *Sukuma Sakhe* programme. A DARD official was rather sceptical of the ability of extension officers to provide the required service other than technical advice. It was felt that “extension officers and people in local district offices do not even understand the concepts and debates and discussions around food security ... they simply just go out there and give technical advice to people on what they are supposed to do when planting.” At a practical level this could equate with the following hypothetical example put forward by a DARD official. In the example an extension officer would say: “We’re doing goats so I’m going to deliver the goats and the fencing and whatever ... show them how to put it up, then I’m gone, end of story.” This, according to the DARD official, “is your social security intervention only ... there’s no monitoring to see what difference it makes, whether they are coping with it ... is there any other intervention the household needs because maybe there is something that prevents them from even looking after goats altogether. There’s none of that thinking.”<sup>109</sup>

A representative from an NGO pointed out that: “Extension doesn’t do extension, they administer (state) programmes ... they don’t go out and give advice. They are project managers for massification (a state-driven initiative) ... performance is based on how many hectares you have planted in terms of the massification programme.”<sup>110</sup> A similar view was put forward by an academic: “There is this performance management for extension officers ... So if you take a model from government and you bring it to farmers and farmers do it ... then you get a lot of points ... you are able to adopt whatever they (government) are saying in terms of their strategic whatever.”<sup>111</sup> This was confirmed by a DARD official who argued that DARD measures “extension output by their input ... how many hectares did you plant ... but never how much yield did you achieve ... what difference did you make ... we are measuring the wrong thing ... we are rewarding the wrong thing with our extension staff ... not measuring the right thing.”<sup>112</sup> This critique appears to have been taken to heart by MEC Mthembu who proclaimed that:

*A fault previously was that we measured inputs rather than outputs. Our concern was on how the budget was spent so we accounted for how many seed were distributed, the quantity of fertiliser distributed, etc. Going forward we will be measuring our outputs. The focus has to be on whether there is value for the money spent. For example, whether a maximum number of jobs has been created or crops produced and the effects on the local economy.*<sup>113</sup>

A key question, when determining the nature of the “skills development provided to farmers” by KZN extension officers, focused on the ability of such officers to support diverse agricultural models. The PGDP in fact, encourages DARD to take the “lead supporting projects through training and the provision of inputs for permaculture practices and other appropriate agricultural practices for food production” to “increase productivity” at a household level in an “environmentally sustainable manner.”<sup>114</sup> It was therefore put to interviewees during the research process that future market access for small-holders may consist of accessing specialised niche markets for produce grown in “an environmentally sustainable manner.” This may include meeting a demand for organically grown crops;<sup>115</sup> free range animals and animal products; or agricultural products that are grown according to agroecological principles, are low carbon, fairly traded, cruelty free, natural or that are being promoted by the Slow Food Movement. It would therefore be crucial that extension officers were well-informed on the various agricultural models or were at least able to provide small-holders with a variety of options including the permaculture option noted in the PGDP.

A scientist at Cedara, in response to the question, pointed out that various contexts should require varying responses from extension officers. Extension officers would therefore “need to use what I would call common sense

... unfortunately it's easier to grab a container of herbicides" – the conventional solution – "than to do the other management practices".<sup>116</sup> A senior DARD official responded: "I don't think they always have (the range in skills), they have specific skills." Yet, the official provided a rider, pointing out that the extension officers: "like all of us have our own hobbies in agriculture ... preferences that we want to push ... it's just human. But there is always a place for a person to be able to enhance his abilities to give support to the developing communities. The question ... is not necessarily do I have the knowledge but can I interpret what this person is asking me and what would be best for that person."<sup>117</sup> Another official was unequivocal in response to the question:

*No, no I don't think so ... I think the majority of our extension officers have never farmed ... they have never managed a farm themselves ... learnt only conventional agriculture ... could never do specialist fields like permaculture ... may know of it ... will have to call in specialist experience ... our extension staff don't have the capacity.*<sup>118</sup>

Increasingly commercial farmers in KZN are becoming more reliant on services provided directly by commodity organisations<sup>119</sup> or the representatives of agribusiness companies, including seed companies. To some extent this is a preferred choice in terms of knowledge and capacity. DARD has also acknowledged that: "Government cannot do everything itself – it must partner with commodity associations, commercial farmers, the private sector and investors in order to support agricultural SMMEs."<sup>120</sup> DARD has also emphasised the need for "partnerships with commodity organisations for training of extension officers"<sup>121</sup> who in turn will then "train the farmers on the latest technology in the specific commodity."<sup>122</sup> As with most government documents there is a degree of ambivalence as to what technology is being referred to. Nonetheless, in a context where information days on GE crops are hosted by seed companies<sup>123</sup> and where the GE industry takes a proactive role in educating small-holder farmers "on the use of GM technologies"<sup>124</sup> it could be argued that perceptions of a weak extension service and the proliferation of public-private partnerships may provide additional opportunities for the accelerated penetration of industrial agriculture and agri-technologies such as GE.

## On the other side of the extension fence

The state has admitted that there are substantial "weaknesses prevalent" in the "extension and advisory services"<sup>125</sup> and that "KZN DARD has not been aggressive on its rural development mandate."<sup>126</sup> In conjunction with the discussion above this would suggest that not all is well with the quality of extension services. There is no doubt that there are significant challenges facing extension officers. Many are due to the legacy of apartheid whilst some could be firmly laid at the door of administrative instability within DARD. At the individual level, as with any service sector, the ability, competence, capacity and accountability of any extension officers is certainly dependent on the quality of training as well as personal traits. Much, however, is also dependent on the quality of leadership at all levels as well as the systems of management and accountability.

This was made apparent in an interview with a representative from an NGO who presented a more empathetic and supportive opinion of extension workers albeit within the parameters of the non-government sector. The representative believed that training was not at fault and that: "the quality of extension is dependent on systems and accountability ... and obviously education and training." It was argued that in the public extension service "systems of accountability have been eroded ... and the minute you take away accountability" in the public sector, service delivery collapses. In other words, it was "purely and totally about systems" and in the government sector "there is no such thing as productivity and efficiency and accountability."<sup>127</sup>

A further factor to consider when evaluating the performance of extension officers is the working environment. Extension officers may, for example, have large areas with many small-holders to service. In such a situation, it could easily happen that: "If you spread your wings you drop balls. When you are in an area you make promises ... 'Ja we'll get back to you' and never do ... you end up forgetting."<sup>128</sup> A DARD official also pointed to the dilemma extension

officers face when attempting to implement ever-changing policies and that, in this respect, their working context certainly needed to be understood:

*It's also about how estranged they feel from Cedara, from the centre. The support system doesn't filter all the way down ... feel like they are on their own ... policies change ... Look like they are not delivering ... now been instructed to do something else ... make them distraught ... they make themselves more scarce ... goes back to the problem of chopping and changing of policy ... speak to ones who are really trying and the things that they have to put up with.<sup>129</sup>*

The ability of an individual extension officer to make a substantial difference at a household or community level should also be recognised. When a DARD official was asked how an extension officer would respond to small-holders who wanted to save and propagate their own varieties of seed it was stated: "that's a difficult one ... because it depends on how that extension officer interprets policy ... If it is an extension officer with initiative of his or her own they will definitely work with that farmer to save his own seed."<sup>130</sup> When it was suggested that this would imply that every exchange between an extension officer and a farmer would or could be characterised by a different manifestation or interpretation of policy it was asserted that:

*Yes, that is possible ... because of a shortage of funding ... we will never have sufficient funds to give inputs to everybody in the province so would either need to think out of the box to assist the farmer or say sorry ... that will depend on the individual extension officer. And you cannot control that. You can uplift your extension officer in a way where you would be able to say, if you come in a situation like this how would you deal with this ... promote the ideas of using your own seed.<sup>131</sup>*

The individualised nature of extension work, therefore, appears to provide a significant space for innovative thinking, actions, problem-solving and activities. In an interview with a DARD official an example of just such innovative thinking was described. It would seem that in northern KZN an extension officer decided to "embed" himself in a poorly resourced community. Utilising only locally sourced inputs and materials and applying permaculture principles, the extension officer has, apparently, been able to create a sustainable and self-sufficient agricultural project with virtually no state support. It would appear that the permaculture skills had been assimilated "from his background at UniZul".<sup>132</sup>

## Concluding comments

A response to the question of "how the context for extension is framed" and what "skills" are "provided to farmers" in KZN would primarily need to engage with the dual nature of the responsibilities of extension officers in KZN in terms of subsistence/small-holder agriculture versus commercial agriculture. In fact, the context for extension is actually framed by a more extensive wish-list including: food and nutrition security as the "over-arching focus of the Department"; seed saving; cropping and livestock production; developmental programmes aimed at youth, women and people with disabilities; the promotion of Agri-BEE; value chain interventions; and so forth. As a result, the context for extension is somewhat variable and also complex.

Nonetheless, in terms of the "over-arching focus of the Department" the context for extension is currently framed by an emphasis on household food (and nutrition) security. In this respect, MEC Mthembu appears to have, what could be termed, a "mixed" approach in terms of emphasising the need for a technology-driven agricultural sector with extensive backward and forward linkages. Yet, simultaneously, the MEC has made repeated references to self-sufficient, independent farming communities relying on traditional techniques and farming with traditional livestock and crops. This eclectic or perhaps pragmatic position does suggest that there is space for a sustained engagement with DARD over alternative farming systems and models.

Extension services have generally always promoted the use of external farm inputs in the form of seeds, inorganic fertilisers and chemical pesticides and herbicides. Yet interestingly, in the PGDP, when reference is made to “skills development to support local production for household consumption” it is “permaculture practices” which are promoted to “increase production levels to improve household food security ... in an environmentally sustainable manner.”<sup>133</sup> In this regard it is worth considering the position taken by an NGO which reported providing two types of support to farmers. One is:

*... yield orientated on a reasonable scale [in the field] and there we use environmental methods as much as we can (although) most of our recommendations are of a conventional nature in terms of seed and inorganic fertiliser ... and then we have a thing called food security which is a euphemism for gardening which is a hundred percent organic... But there is a lot that is happening in the field. In other words in the agricultural space ... many of the organic practices from the garden are starting to filter into improved environmental practices at field level ... fields and gardens as two different sciences ... so what you do in the garden and what you do in the field are quite different technical recommendations but the field is starting to resemble the garden more and more.*<sup>134</sup>

This comment suggests that small-holders may inherently – when given the space – tend towards more environmentally-friendly agricultural practices. Farming in a sustainable manner is, however, both information demanding and knowledge intensive as skills replace external inputs. Although many of these basic skills are integral to traditional agricultural systems many traditional farmers have lost these skills which would need to be revitalised and improved while simultaneously being augmented by farmer-driven research and experimentation supported by extension officers.

The question then is to what extent extension officers are equipped through training and practice to provide support to small-holders that engages with traditional knowledge systems, and how these could be enhanced using farmers’ knowledge rather than laboratory designed interventions suited to industrial farming systems. The tensions that arise from these dilemmas were acknowledged by an academic who has “engaged a lot with extension officers” in KZN over the years. According to the academic, extension officers are “really struggling” considering that communal farmers have complex crop production systems and “extension officers are not prepared for life out there”.<sup>135</sup> A similar point was made by a DARD official who maintained that:

*I know there are hurdles and I’m not laying it all at their door but I do think capacity is a major issue ... in terms of skills and in terms of experience and mentorship ... I think those three things are huge ... and then passing, when they have them, those skills to the farmer ...*<sup>136</sup>

As was found during the research process, the space that extension officers occupy provides significant leeway for such officers when it comes to determining the actual trajectories of agricultural and developmental processes on the ground; leeway the use of which would obviously be shaped by training, personal traits and on-going exposure to new or old ideas. Such leeway could, in the current context, also lead to the entrenchment of mainstream, modernist positions as well as creating opportunities for agribusiness and related interests to steer discourse and practice in the agricultural sector. It, however, can also provide opportunistic spaces for the manifestation of alternative paradigms through a strategic and empowering engagement with extension services and extension officers. It is a space where, it could be argued, ideas and practice could be contested.

# 4

## THE DISTRIBUTION OF GENETICALLY ENGINEERED SEEDS AS PART OF THE PROGRAMMES OF SUPPORT ROLLED OUT FOR SMALL-HOLDERS

### Genetically engineered crops in KZN

The general content of the programmes of support for small-holders has been discussed in the sections above. This section will focus primarily on a particular aspect of this support – the distribution of genetically engineered (GE) seeds through DARD. The approval or denial for either field trial purposes or the general release of genetically engineered crops is a national government competency regulated by the Genetically Modified Organisms Act (Act 15 of 1997).<sup>137</sup> DARD, at a provincial level, essentially has no say over what GE seed may or may not be utilised in the province. Not that this would be a consideration as the province and its scientists have certainly embraced the technology and have conducted field trials to determine the suitability of particular GE varieties for local conditions.<sup>138</sup> The rationale for this was provided by a DARD official and probably reflects what most DARD scientists would convey:

*The priority is food security ... that is our main aim now ... so we need to get people to have enough food ... and if that means you plant GMOs so you can reduce the weed population, so that you can get a higher yield, then by all means ... if you plant cotton and plant a Bt cotton ... get a decent yield so that you can now get enough money to send your kids to school ... Isn't that in the end what we need?*<sup>139</sup>

Small-holders in KZN are known to utilise hybrid and GE seeds accessed through a variety of sources: purchased directly from seed outlets; channelled through government agencies such as DARD/ARC; channelled through NGOs; channelled through producer organisations such as GrainSA; or donated by agri-business. However, the extent of the use of commercial seeds, especially GE seeds, among small-holders is largely unknown. It is therefore difficult to assess the impact the commercial seed industry is having on traditional farming practices and the continued existence of traditional landraces in KZN. This unknown detail is exacerbated by the cyclical nature of agriculture as well as the unpredictability of outside support and patronage.

The majority of state-led maize production projects in KZN will invariably contain a GE component although the quantifiable content is not as straightforward as may be assumed.<sup>xxiv</sup> The only areas in KZN where there has been an incentive to grow non-GE maize would have been in the Bergville, Newcastle and Estcourt areas (Uthukela and Amajuba districts) where South African Breweries (SAB)<sup>xxv</sup> had introduced some of their Go-Farming initiatives.<sup>140</sup>

<sup>xxiv</sup> By the 2012–13 production season GE maize adoption had reached 85% of the total South African maize area. Bt maize as single trait covering 29%, herbicide-tolerant (HT) maize as single trait covered 13% and stacked (Bt and HT) maize covering 43% (Gouse, M., Sengupta, D., Zambrano, P. and Falck-Zepeda, J. 2016. Genetically Modified Maize: Less Drudgery for Her, More Maize for Him? Evidence from Small-holder Maize Farmers in South Africa. *World Development*. 83: 27–38).

<sup>xxv</sup> A wholly owned subsidiary of SABMiller and now Anheuser-Busch InBev.

This GE-free (not organic) project<sup>xxvi</sup> has subsequently gone “belly-up.”<sup>141</sup> However, other than amongst these specific farmers, GE crops, according to a DARD official, are found “right through the province ... the majority of people are planting GMOs ... commercial and small-holder ... not sure of percentage or areas and quantities under GMOs ... very difficult to say ... You won’t find any district where you won’t find GMOs in the province.”<sup>142</sup>

The recognition of the wide spatial distribution of GE crops in the province does not, however, give any indication of the actual area under cultivation with GE crops, the volumes or quantities of GE seed sold annually, or the amount of GE crops harvested on an annual basis. In terms of seed retailing, there are, according to a DARD official, “basically three to four big seed suppliers in the province who normally get the (DARD) tenders ... Pannar, Linkseeds, Grovida, and then Sunshine for vegetables ... those are some of the major ones ... then a contract with people from Mpumalanga to supply seeds because of the problems with the procurement system.”<sup>143</sup> Seed companies such as Jermart Seeds, Capstone Seeds and SeedCo have also become major conduits for retailing and distributing certified maize seed.<sup>144</sup> The state itself has also recently become a player in the maize seed market with 20 tonnes of the drought tolerant non-GE hybrid WE3128, produced at the Makhathini Research Station, being “sold to recover production costs but not to outcompete the small seed companies.”<sup>145</sup> Not all companies were approached for comment on the GE seed issue but of those that were, Syngenta, according to their communications officer, “do not supply maize seed in South Africa.”<sup>146</sup> Pannar (DuPont Pioneer), which supposedly holds the largest share of the small-holder seed market in KZN, refused to comment or provide details on their activities as, according to the company, such information is “business confidential.”<sup>147</sup> This position would presumably be taken by all companies, which would make quantifying the presence of GE crops in KZN virtually impossible.

## DARD and the procurement of seed

There is little doubt that the majority of state-led maize and soybean<sup>xxvii</sup> production projects in KZN will contain a GE component although when it comes to the actual execution on the ground matters may not be as straightforward as could be assumed due to the seed procurement process. According to a DARD scientist, cultivar selection for small-holders in KZN should, in theory, be based on cultivar evaluations conducted throughout the province. Extension staff should be familiar with these evaluations and recommendations would then be based on these assessments.<sup>148</sup> This automatically seems to suggest that local landraces are unlikely to be promoted or encouraged unless local farmers strongly insist on their preferred local choices. Nonetheless, once a decision has been made by an extension officer, either unilaterally or in conjunction with small-holders, a request is then forwarded to the procurement office.<sup>xxviii</sup>

The uncertainty in terms of what specific cultivar eventually finds its way back to the farmer or small-holder is linked to this procurement process. According to officials “buying cultivars through the department is a major issue... because you can’t say I want Pan125 for example because then we identify already the person who sells the seed and we need to go on the open tender.”<sup>149</sup> The procurement office needs to be given the required specifications of a product but not the exact brand or make. As a DARD official explained:

*... for example a tractor ... I can’t say I want a Massey Ferguson tractor ... I need to say a 4x4 tractor, 50 kilowatt ... it must have a PTO take off ... it must have a 3-point lift ... specs ... then I could get a John Deere coming in, a Massey Ferguson or a Holland, or all these Chinese tractors coming in ... so you get sometimes a person who buys*

<sup>xxvi</sup> The project began in 2011 in partnership with KZN DARD and later the DTI and collapsed due to a misinterpretation of “what was expected”. An email inquiry to get details on this failed project was unsuccessful.

<sup>xxvii</sup> In the Pannar catalogue only GE soybean seeds are available. It is uncertain as to what seeds other seed distributors may have (Pannar. 2017. *Together we Farm for the Future*. 2017 Product Catalogue).

<sup>xxviii</sup> It is uncertain as to whether the seed included in the food security starter packs, distributed under the OSS initiative, would also be based on cultivar evaluations or whether these are simply mass purchases.



*from Massey Ferguson and then delivers to us and then we lose the manufacturers guarantee for the tractor in the process.*<sup>150</sup>

More specifically, in terms of seed the following scenario was put forward:

*Say for argument's sake ... they have asked for a Pioneer cultivar ... well actually we cannot specify ... you have to specify you want a short season, medium tolerance to whatever and then the suppliers or the companies supplying the government with seed will say well this is it... and then they will go for the cheapest one ... so you never really know what you are going to get ... the middle man ... just looked and said well this cultivar it's what you specified, short season, high tolerance to diseases ... there you've got it.*<sup>151</sup>

A further factor to consider is that once the seeds are delivered "sometimes the things that you ordered don't come in the packaging ... the way you wanted it or when you wanted it even ... eight months later."<sup>152</sup> The negative impact on small-holders caused by these lengthy delays in the procurement process in particular, was also acknowledged by a representative from an NGO who believed that "part of the problem is the procurement process" which appeared to be totally oblivious of the seasonal nature of farming.<sup>153</sup> An additional factor to consider is that the open tender system also precipitates a situation which:

*... from a government point of view it is traumatic for us ... we feel that we need to get the best seeds to the person on the ground ... so that you put that person where that person can make a success ... but don't put him in a position where you already challenge him of making the best end result ... why do you want to buy seed that will not produce the best potential for that specific area?*<sup>154</sup>

It should be borne in mind that the perspectives on what a productive seed entails are not uncontested. Embedded within the productivist discourse is also the question over the role of GE seed. When a DARD official was asked as to whether a competitive procurement process would exclude GE seed, which tends to be more expensive on the open market, the response was: "Well yes, then eventually we got approval from Treasury to identify, through the national variety trials, the best ones and then we can give an indication of at least three of those for a specific area."<sup>155</sup> Another DARD official, when asked whether an extension officer could request a Bt cultivar, responded: "They can, they can."<sup>156</sup> It is therefore not entirely certain as to what the exact situation is, especially with maize. In terms of cotton it was, apparently, straight forward: "If we bought GMO seed ... it was straight GMO seed. There weren't any other non-GMO seeds."<sup>157</sup> Furthermore, all soybean cultivars promoted by Pannar, for example, are glyphosate resistant<sup>158</sup> so there is clearly very little choice, even for commercial farmers, although other seed companies may offer more substantial choices.

## Shifting paradigms or political speak

There does, however, appear to be a new perspective on seed use, development and distribution in KZN. In recent communications, the current MEC for agriculture has stressed the need to re-examine the issue of seedlings, nurseries and seed banks in the province. Political posturing notwithstanding, there now appears to be a more nuanced understanding of the complexities of the seed sector. In terms of seeds and seed production, the MEC emphasised that there is a "need to develop a system whereby agricultural communities are educated on seed production":<sup>159</sup>

*A system where people are taught to conserve seeds after harvesting will be developed and our people will be taught these skills through our extension services. This will ensure that there is future self-sufficiency with less or no reliance on government. We want to build into the plan the development of nurseries in each district or municipality. This will also lessen the reliance of seed distribution. The development of seed banks will also form part of a collaborative research programme.*<sup>160</sup>

As hybrid seeds, as well as GE seeds, cannot be saved, the comment by the MEC, if maize is considered, can only refer to commercial open-pollinated varieties (OPVs) and farmer varieties or localised landraces.<sup>xxix</sup> In an interview with a DARD official it was queried whether a policy, which on the one hand appears to encourage sophisticated research into new seed technologies, but on the other hand seeks to celebrate and encourage “indigenous knowledge systems” and local “seed banks”, is not contradictory. The response was: “Definitely.”<sup>161</sup> Yet within the machinations of government these contradictions would, in all likelihood, be seen as particular opportunities for different vested interests. One could imagine, for example, that in the seed sector commercial benefits would accrue to new participants in the formal agro-seed-distribution systems as a desired outcome of current policy which places a strong emphasis on commodity chains; whilst political and cultural kudos would accumulate to the state through its support for local seed banks distributing OPVs and local landraces. This latter option would also create seed distribution networks in areas not profitable enough for commercial seed distributors as well as easing the pressure on a cash-strapped department.

It is therefore not surprising that there has been “some discussion ... about the growth ... of certain industries ... like around the seed issue” within government circles.<sup>162</sup> A key area to expand BEE opportunities within the agricultural value chain would certainly be in seed production and seed distribution. Although there is clearly recognition of the fact that the seed industry in South Africa is dominated by a few large players like DuPont (Pioneer-Pannar), Syngenta and Monsanto, this appears to be less of a concern to government than the perceived racial nature of such dominance. Therefore, when the seed issue is discussed, a DARD official commented:

*We get caught in the first level of the discussion ... the race issue ... who controls it in terms of race and that is what people are wanting to engage with ... before they even start talking about who controls it ... capital ... the supply of it ... so our objective becomes a race-based objective as opposed to a food sovereignty-based objective ... so to try and get to the food sovereignty discussion you've got to have that whole discussion (first).<sup>163</sup>*

Nonetheless, the DARD official welcomed the directive that recommended that DARD should start “to look at nurseries and seed banks in KZN” and agreed that this “is exciting.”<sup>164</sup> It was also pointed out that DARD is seeking “to establish a black seed producer and their focus would be on OP maize ... and beans for that matter ... and hopefully that’s going to be successful and will be able to sell to people who are interested in buying it ... the question though is will it be economically sustainable or not?”<sup>165</sup> It is uncertain as to how this initiative has progressed. In terms of localised seed saving and community seed saving schemes the DARD official was less optimistic, maintaining that this “would be a complete new mind change if people start realising that okay ... now I need to look after myself ... we’ve never done it that way ... government keeps on going back and giving support and giving support and there is no counter production from the person.”<sup>166</sup> A further factor that may undermine government efforts to propagate farmer varieties or local landraces and to establish viable community seed saving schemes is the lack of co-operation between departments:

*One would need to do it right through. Not just from an agricultural point of view. If everybody speaks with one tongue on how we as a community work, I see it working but if agriculture is doing one thing, health is doing another thing, education is doing something else and human settlements doing something else then it is not going to work ... we need to have one similar message throughout government to support the community ... otherwise people say: ‘They provide me with it. Why don’t you want to provide me with it?’<sup>167</sup>*

Even so, and despite these challenges, if aspects of these initiatives are genuine attempts at providing dedicated support for improving the seed practices of small-holder farmers and strengthening farmer-managed seed systems through, for example, community-based seed production schemes, then such initiatives should be advocated for and supported. It is important, however, that these initiatives are farmer-driven and do not impose vested commercial or

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<sup>xxix</sup> It should be noted that soybean seed can be saved, which is why GE soybean seed is sold under a multiple licensing fee. Many vegetables, if allowed to go to seed, allow for the saving of seed.

political interests on farming communities.<sup>168</sup> Care should also be taken that community-based seed saving initiatives do not become gene pools for multinational companies to co-opt and exploit. Venilla Yoganathan (2017) believes that efforts by groups such as Biowatch SA, the Mpophomeni Conservation Group and the Farmer Support Group, have seen the number of farmers becoming “knowledgeable about the risks associated with GMOs, growing steadily” and that such farmers have “consciously chosen not to plant GM seeds and have become the custodians of traditional seeds in their areas, encouraging their neighbours to do the same.”<sup>169</sup> Such examples clearly illustrate the need for a more nuanced approach to seed propagation and saving initiatives, which perhaps could be realised within the realm of the current MEC’s vision.

## Concluding comments

From the literature reviewed and from the interviews with various stakeholders, GE cultivars – especially maize and, where climatologically viable, cotton – are used extensively in KZN’s small-holder farming communities. GE soybean usage by small-holders appears to be limited to government programmes. Nonetheless, GE cultivars are available and easy to access in all of the districts in the province, whereas traditional seed appears to be in limited supply, not as easy to access, and under threat. With the backing of the state and the targeted marketing strategies employed by multi-national seed companies, GE cultivars are likely to receive favour over traditional seed. The gap between the availability and usage of traditional seed versus GE seed is almost certain to grow wider in the near future: as a reaction to the inevitable increase in climatic instability; as a solution to maladministration and the enduring failure of state programmes to deliver; the seduction of modernity; as well as perceptions that the much vaunted state-driven commodity chains may require modern and sophisticated inputs that can only be delivered by agro-technological interventions.

Until recently the aim of commercial viability, the use of modern agricultural methods or technology and ultimately being tied into commodity chains would have applied to all small-holders as well as the rural poor. This would almost certainly continue to define the path of participants in Agri-villages, the River Valley schemes, Communal Estates as well as the support rendered to land reform beneficiaries. Yet under the current MEC, it would appear that the content of support for individual households and the food security initiatives driven by the household production packages, emphasise an approach which appears to be less focused on pursuing a conventional commercialisation approach. Instead, if recent pronouncements are taken at face value, such initiatives appear to be geared towards the regeneration of subsistence systems based on the use of traditional and localised resources as a bulwark against poverty and hunger. To date DARD has only conducted research into the improvement of traditional livestock with less emphasis on the improvement of traditional crops, especially maize. There is also little evidence of researchers working with traditional farmers as equal partners in the improvement of traditional varieties; a substantial shift is therefore required.

With the core focus of DARD on household food security initiatives and the political focus on transforming commodity chains through state-led purchasing agreements, a gap may open up for agri-business to support and influence the commercially-orientated production programmes of DARD. Furthermore, by making commercial success the goal of its core rural redevelopment programmes (outside of the household food security initiatives), the provincial government has also opened the doors for seed companies to hold dominance in rural agricultural areas by elevating GE technology, ahead of traditional farming methods, as the solution. Small-holder farmers, most of them economically-vulnerable, are now sandwiched between an extensive government development drive and profit-driven big industries, including seed companies.

Government has made no secret of the fact that it wants to encourage the production of commodities that bring substantial financial benefit. This will be achieved by partnering with commodity organisations, scientific organisations

and training organisations that will bring farmers and extension officers up to speed with the latest technologies. On the need for a financially viable and independent small-holder farming community there is no debate. On the need for research into better farming methods and a well-trained echelon of extension officers, again there would be no debate. Yet it is the implied and absolute embrace by government of a specific production model, of a particular research model, and a distinctive understanding of what technological progress entails when it comes to commercial farming, which is questionable and should be open to debate and discussion.

# 5

## CONCLUSION

Rural livelihoods in South Africa have a long history of being intertwined with migratory networks thus providing rural residents with opportunities to diversify livelihood activities – albeit as a survivalist strategy. These activities, as Neves and Du Toit (2013) have postulated, can be separated into four broad domains: those based on various “land-based and agrarian activities”; those “supported by small-scale, informal economic activities, both farm and non-farm”; those shaped by “state cash transfers”; and those that are “patterned by culturally inscribed patterns of mutuality and social reciprocity.” Access to these domains will vary widely between households and as a result so too will the “patterns of vulnerability and social differentiation that subsequently emerge.”<sup>170</sup> There are also significant economic disparities between different rural areas; sometimes more significant than the differences between urban and rural areas as a whole.

The uptake of government programmes and the ability to utilise government support is therefore highly variable and influenced by this differentiation within communities and between communities – thus requiring locally appropriate and locally-driven supportive and interventionist strategies. Although policy documents may refer to the differentiated nature of rural households and communities<sup>xxx</sup> it would appear that policy implementation continues to perceive rural communities as a relatively homogenous entity. The *Strategy for Agrarian Transformation*, for example, makes no reference to the concept of “social differentiation” or “accumulation from below” nor does it offer a nuanced overview of the rural countryside. All it does is recognise “three different levels of production” and provides funding accordingly.<sup>xxxi</sup> The national Strategic Plan for Small-holder Support (2013) proposes a more nuanced typology of small-holders which acknowledges that “most types of agricultural support (e.g. extension, financing, mechanisation, etc.) require some degree of catering to specific circumstances, albeit within a unified approach.”<sup>171</sup> Yet in no relevant policy document as Okunlola *et al.* (2016) state:

*... does this awareness of differentiation translate into practical programmes of support that take the differences into account in meaningful ways? Programmes continue to be designed as though no such differences exist. Furthermore, key differences in relation to the meaning of “commercial orientation”, such as the distinction between loose and tight value chains, and between formal and informal agricultural markets are not recognised.*<sup>172</sup>

In a context of high levels of rural impoverishment and hunger, exacerbated by recent droughts, the shift by DARD to focus on household food security is politically unsurprising. As a DARD official pointed out that the “levels of hunger are real ... people are hungry and they are in your face right now and so the knee jerk reaction, and it’s an important response, is to put the money where it matters ... in a person’s day-to-day ability to survive and that will be far more important to a politician than an academic or advocacy organisation (who think) medium to long term.”<sup>173</sup> Due to the administrative waxing and waning between different goals as well as the inclination of extension officers there appears to be, in practice, an assumption that food security interventions equate with a basic commercialisation strategy. This was acknowledged by the DARD official as a “mistake” and that food security interventions need to be seen as “social security interventions ... as a programme of intervention in and of itself (where agriculture)

<sup>xxx</sup> The CRDP recognises five categories of land redistribution beneficiaries.

<sup>xxxi</sup> The three levels are: the household production package; community investment package; and the commercialisation package.

collaborates with social development and health and whoever else around those poor households." It is not the "first step in people becoming commercial farmers" and as an intervention by Agriculture "is not going to make them less poor." A commercialisation process should, according to the DARD official, be "separate from this" and the "starting point will need to be somewhere else ... in parallel ... we spent a lot of time thinking this is the starting point."<sup>174</sup>

At a broader level there also appears to be little theorising on the development of productive forces in agriculture as well as the issue of technology and technological change. More specifically there is little critique of the entrenched nature of corporate interests in food commodity chains, both local and global. A DARD official who has participated in numerous discussions and workshops over the years commented that it is only recently that officials have begun to explore the vertically integrated nature of agri-business and the dominance by certain industries. Gradually a more critical, albeit limited, questioning of commodity chains has begun: "How do we engage with that, how do we help people get into that, who's in it, where do we need to intervene, how can small-holders engage with it or not? ... started hearing those kinds of conversations ... more recently." However, as pointed out by the DARD official, discourses within government circles tend to focus on the racial ownership of commodity chains rather than the actual concentration of power within such chains.<sup>175</sup>

As a result the ability of agro-food commodity chains to provide diverse rural employment opportunities is simply considered a given by government. It is generally acknowledged in the mainstream literature that "at very low levels of development, non-farm activities tend to be closely related to agriculture" and that "growth in the agricultural sector (e.g. due to technological change) leads to growth in the non-farm economy, thanks to the backward and forward linkages from agriculture."<sup>176</sup> It should be noted, however, that such "growth patterns are not likely to be location neutral, as potential for agricultural growth and agro-industrial demand for agricultural products are not randomly allocated across space."<sup>177</sup> There is also no significant critique by government or engagement with the manner in which national and global value chains have transformed over time or how systems of governance within global value chains have changed. In other words how global food governance has shifted from a position where the state has been responsible for the regulation of *markets* to a position where the state now merely regulates *for the market*. International food systems, or chains, are increasingly moving beyond the reaches of state power, or are organisationally structured in a manner that limits state power. It is questionable as to whether the state will be able to intervene in a manner which will benefit small-holders or rural residents who are being shepherded into participating in agro-processing value chains.

Conclusions drawn from government land reform initiatives should also be considered when evaluating state-led agrarian interventions. Hall *et al.* (2017) claim that in certain instances "strategic partners" such as agri-business companies have benefitted from government land reform programmes rather than the intended beneficiaries. Such beneficiaries now "neither own the land nor lease it, but remain workers on state farms." It is, moreover, contended that certain conditional tenure arrangements under "the authority of the state or traditional institutions" are nothing more than mechanisms through which "black rural populations can be controlled." Hall *et al.* (2017) also believe that land reform since the mid-1990s has gone from "prioritising secure tenure" and a situation where poor black South Africans were able to "make their own land-use decisions to a highly prescriptive managerial approach." Such an approach prioritises the "sustaining" of "commercial land use" by "wealthy beneficiaries or agribusinesses" rather than providing secure tenure; a "form of 'productionism' that has altered the foundational logic of redistribution."<sup>178</sup>

The above perspectives or experiences drawn from the land reform programme are important as there is little to suggest that the productive activities of small-holders or their participation in the much vaunted value chains put forward by government will not be usurped by similar vested interests or new elites. As Holt-Giménez *et al.* (2013) affirm, small-holders or a "peasantry" are an important site for "accumulation by dispossession" and for "potential market expansion." The 2.5 billion small-holder farmers who form the base of global food production have become increasingly "attractive for global capital."<sup>179</sup> Following on from this agrarian initiatives in much of Africa, driven by

international organisations such as the Alliance for a Green Revolution in Africa (AGRA),<sup>xxxii</sup> are not only wedded to traditional green revolution practices but have now also added “transgenic technologies, global markets, environmental concerns, and a leading role for the private sector” in their programmes. At the same time these organisations as well as the Gates Foundation and World Economic Forum speak to concepts such as “value chains, public-private partnerships, micro-finance, village ‘agro-dealers’ and small-holder contract farming;” all of which align themselves to the language utilised by government departments.<sup>180</sup>

International food companies are also increasingly setting and controlling the agenda for sustainable agriculture and sustainable food systems including the establishing of the rules for certification (monitoring, compliance and enforcement) to minimise risks along the supply chain. This has invariably also resulted in corporates aligning themselves with, rather than against, environmental, fair trade, and other NGOs working in the field of food and agriculture – an association which could be termed a form of co-option.<sup>181</sup> Nonetheless, these mainstreamed processes are considered as opportunities for small-holders by the state; so-called niche markets. At one level they probably are<sup>182</sup> yet it is the uncritical engagement by the state with these processes that is somewhat problematic. This was acknowledged as much by a DARD official, albeit a very isolated voice:

*... so we're obsessed with certification, helping people get global gaps certified ... what is that stuff except a control mechanism into many of those markets ... so there are SME ... whether you're a farmer or a processor almost can't compete with what is already out there without massive capital investment and huge risk and if they fail and they lose certification they are back at the bottom of the pile again.*<sup>183</sup>

In addition there is the question of markets. If commodity chains are to be successfully shaped to deliver on the agrarian transformation then a key aspect of this is the ability to connect producers with markets. As a DARD official commented: “We’ve had dry beans that have been harvested and lying rotting in the field because we couldn’t find a market for it.”<sup>184</sup> The point was reiterated by an NGO representative who specified: “They don’t generally deal with the marketing side sufficiently, farmers who harvest, get farmers who have produced but no market. Don’t have silos for storage. Don’t look at the value chain ... get caught in primary production. Don’t build capacity, no technical capacity and no farm management capacity, no financial management capacity. So why are you (DARD) doing this?”<sup>185</sup> A DARD official gave a further explanation:

*... we are very focused on production, agricultural production, getting the fields, the land better utilised, getting farmers out there, producing, producing, producing but we don't base that on who they are going to sell anything to ... so if we get that right ... we're not thinking it through to say so this is going to go where ... so we have cases where things are just rotting on the ground ... so then the issue is let's concentrate a bit more on how the market actually works with regard to agriculture and who controls what goes in and out of what part of that market and then let's look at our strategy and engage the retail sector.*<sup>186</sup>

An additional factor that is hardly ever considered when policies are formulated is that there are a host of, what are considered to be, “non-productive” uses of land which “in fact make crucial and undervalued contributions to enabling and sustaining a host of rural livelihoods.”<sup>187</sup> Ferguson (2013) puts forward a convincing perspective to this effect as a reminder of the powerful narrative which characterises the normalisation of a modernisation approach to agriculture. Ferguson reminds readers that in contemporary South Africa:

*... small-holder agriculture, both crop farming and livestock, seems to be on the decline, and in many places in the former 'reserves' it is reported that fewer fields are being cultivated, and cultivated with less intensity, even by those who do have land rights ... The percentage of people farming 'seriously' (as they say) seems to be on the decline, while the dreams and ambitions of poorer South Africans focus less on small-holder farming, and more on urban living, consumer goods and the ever-elusive 'business'. Among the youth, we are told, few wish to cultivate the land. Yet even*

<sup>xxxii</sup> Mentioned in the NDP.

*in the midst of this, the importance of land, and the desire for it, seems in some ways to loom as large as ever. It may be true that many who do have access to land are not putting it to very effective agricultural use. But many black South Africans continue to be intensely interested in owning and having access to land.*<sup>188</sup>

Ultimately then, and “whatever the political and symbolic importance of land ownership in South Africa, it is still a means to an end, not an end in itself. If that end is a better quality of life, why assume that people must work the land to attain it?”<sup>189</sup> Clearly, in a country with a growing population and a paucity of arable land this reality does create a significant challenge for the state, especially in terms of food self-sufficiency and food security in a context of climate change; a challenge which, in part, may also explain the obfuscation, contradictions and confusion which tends to characterise government policy as a whole. Basically, there is little room for experimentation. It is also unsure as to who really wants to work the land although there is little doubt that land as an asset is highly sought after as would be employment opportunities in the various value chains associated with agriculture. Yet the dilemmas and questions remain: who will be responsible for future agricultural production; how will agricultural products be produced; is there a meaningful future for small-holder agriculture; can agri-business and small-holders coexist in the same economy; how can poorly skilled and impoverished rural inhabitants be drawn into meaningful livelihoods; what role should the state play in all of this; and so forth.

Ironically, many of the solutions lie embedded within official documents, yet government has repeatedly admitted that firstly:

*Creating jobs in agriculture will not be easy. It will require credible programmes, sound implementation, significant resources and stronger institutions, such as agriculture departments in local and provincial government. The effectiveness of extension officers depends on performance, capacity and level of priority given by provincial agricultural departments. Whether this service is effectively located should also be considered.*<sup>190</sup>

Then, secondly, that “co-ordination failures, split accountability and overlapping mandates” have hindered the “implementation of existing policies”<sup>191</sup> and that “policies, strategies, programmes and agreements” lack an “effective policy framework.”<sup>192</sup> This has resulted, DAFF acknowledged, in “disjointed” and “uncoordinated implementation and planning” with “each programme designing its own implementation plan, leaving a fragmented scattering of projects across South Africa’s landscape.” This has caused many policies and strategies to be “abandoned.” Furthermore, there are “fundamental contradictions or conflict between South Africa’s current macroeconomic policies and development policies and strategies.”<sup>193</sup> Finally, that co-operative governance will require “effective management across all three spheres of government, sector organisations and producers. Without an integrated approach and effective management of actions, roles and responsibilities, most strategies devised by the DAFF will result in ineffective implementation.”<sup>194</sup> Critical self-reflection and self-correction by the state, as well as non-state entities, is urgently required as we move into a future where the planet, as noted by Friedman (2009), is getting hotter, flatter and more crowded with more and more pressure being applied on ever-scarcer resources.<sup>195</sup>



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