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MEANINGFUL LAND REDISTRIBUTION SHOULD BE DONE ALONGSIDE KEY AGRICULTURAL REFORMS

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By:

Sifiso Ntombela

Simphiwe Ngqangweni

Thulasizwe Mkhabela

Bonani Nyhodo

Contact Person: Sifiso Ntombela: sifiso@namc.co.za

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1. Introduction

In spite of the strides made by South Africa following decades of apartheid and colonial oppression, the land question has not been addressed satisfactorily. It is encouraging to note that the size of the South African economy has tripled, access to safe drinking water, access to electricity has increased significantly since the dawn of democracy in 1994. It would be a misrepresentation of reality if the persistence of poverty, inequality and other social ills are not acknowledged. The emotive matter regarding land ownership remains a challenge and is even recognized as one that threatens the country's social and economic stability. Most recently, the land debate resurfaced and progressed to the level of passing through parliament a motion in favour of land expropriation without compensation. Overall this paper aims to propose to policymakers, industry captains and civil society at large appropriate land reform implementation strategies and techniques that have the potential to usher a new growth path in agriculture, characterized by meaningful transformation, decent jobs, and diversified and value-added agricultural exports.

2. Background information

On the 27 February 2018, The Economic Freedom Fighters (EFF) brought a motion to the National Assembly to have section 25 of the Constitution amended in order to intensify land redistribution through the introduction of expropriation of land without compensation. The Assembly debated and adopted the motion, thereafter referred the motion to the Constitutional Review Committee (CRC) which conducted public hearing on the motion. After intensive public hearings across the country, the CRC submitted their findings in the Assembly. In November 2018, the parliament of the Republic of South Africa through the National Assembly adopted a motion on land expropriation without compensation as an important decision to accelerate land reform. The ultimate action is the amendment of Section 25 of the Constitution of the Republic to be explicit about expropriation of land without compensation. Land ownership patterns in South Africa are still characterised by remnants of the apartheid and colonial era policies of land dispossession (such as the Native Land Act of 1913). This historical legacy is such that the black[1] majority owns far less land than it proportionally

[1] Inclusive of Coloured and Indians

represents in terms of the population demographics, thus land ownership is disproportionately skewed in favour of the white minority. As a result of the historical injustices, South Africa remains one of the most unequal societies in the world, with a Gini Coefficient - measuring inequality- at 0.68 based on income per capita.

Limited access to productive resources and social services, notably, agricultural land, water, education, and affordable financial support are often cited as causes for high inequality levels (DPME & World Bank, 2018). South African policymakers have always acknowledged that equitable land redistribution is key for reducing inequality and achieving a prosperous and inclusive society. The importance of an equitable land distribution is captured in all economic policy frameworks developed since 1994, including the Reconstruction and Development Program (RDP) in 1994 and the latest National Development Plan (NDP) in 2014. Despite all policy interventions since 1994, there is a general consensus that little progress has been achieved in redistributing the land over the past 25 years. Interestingly, there is no consensus on the real reasons why there has been slow transfer progress. Those in favour of expropriation argue that land prices have generally made land redistribution slow because land became too expensive (benefiting more those selling the land than recipients) as well as the lack of clarity of the land expropriation without compensation clause in the Constitution, while those against argue that government bureaucratic processes stalled land reform not prices or the Constitution.

There is an unfortunate consensus in the public discourse that land reform has not even come closer to its original target in terms of land transfers. In the agricultural economics sphere there has been numerous papers that have explained the extent of failure in two ways. Firstly, failure of the transferred farms to remain productive, as many of these farms have not lived up to the expectations. This failure is ascribed to lack or uncoordinated post settlement support given to farmers as well as the complications surrounding group dynamics of the beneficiaries (Machethe and Kirsten, 2005). Secondly, the negligibly low number of hectares that have been transferred as well as the remaining challenges with tenure security. There is substantial literature that blames lack of policy clarity and government inefficiency for the failure of land reform to reach its targets. Motlanthe (2017) also confirmed the limited progress in achieving an equitable land redistribution, and identified the lack of policy coordination and implementation as well as inflated land prices as chief factors constraining the progress. It must be noted that land is needed for multiple purposes including agriculture, housing, industrial and other developments. The three pillars of land reform (i.e. restitution, tenure security, and

redistribution) cover all these uses, however, this paper will focus on land redistribution for agricultural production. This focus is informed by the fact that agriculture, forestry and natural reserves activities use roughly 90 percent of the total surface area (equivalent to 122 million hectares) in the country (DAFF, 2017).

A land audit performed by the Department of Rural Development and Land Reform (DRDLR) (2017) showed that nearly 72 percent of agricultural land is in the ownership of white people confirming that little progress has been made, despite the land reform programme being in existence since 1995. Many scholars and commentators, such as Motlanthe (2017), Hall & Kepe (2017), Machethe & Kirsten (2005), and Manenzhe, (2007), have identified factors constraining progress. This paper will analyse these factors but more importantly, it will propose strategies and regulations required to overcome them. In addition, the paper provides insights on key agricultural reforms needed to support an effective land reform programme.

3. The state and role of agriculture in South Africa's economy

The South African economy has grown significantly in the past 24 years, with the expansion driven by tertiary industries like finance, property, telecommunication, business, and personal services. The tertiary sector grew by an average of 10.8 percent per annum over the last 24 years, thus increasing its share to the Gross Domestic Product (GDP) from 66 percent in 1994 to 76 percent in 2017 (StatsSA, 2018). During the same period, the agriculture's share to GDP declined from 5 to 2.4 percent[2], suggesting (at face value) that in relative terms agriculture's growth has been sluggish when it is compared to other sectors. Noteworthy is that the total gross value of agriculture in absolute terms has been increasing. As such, despite the slower growth pace, the current size of the agricultural economy is five times larger than in 1994. It is interesting to note that this absolute growth has been somewhat exclusive in nature as it has been led almost exclusively by some 30 000-40 000 commercial farmers, who are predominately white, and producing over 95 percent of total marketable agricultural output in South Africa.

3.1.Agricultural production and employment

[2] It should be noted that it is consistent with developmental theory that the share of the primary sectors decline as an economy develops and gets sophisticated and that this figure does not capture the backwards and forwards linkages that agriculture has in the economy (its multiplier effects).

The South African agricultural sector encompasses livestock, field crops, and horticulture farming. Field crops include grains, sugarcane, and oilseeds, whereas horticulture refers to fruits, flowers, and vegetables, and livestock is self-explanatory. It is evident from Figure 1 that livestock farming is a key driver of the agricultural economy contributing nearly half of agricultural production value in 2017. The data presented in Figure 1 also indicate that the value of horticultural products has surpassed that of field crops in the past six years. On the one hand, this can be attributed to a steady decline in field crops' area planted due to drought, low producer prices, rising input costs, and the land reform programme. On the other hand, the higher export earnings and the opening of new markets, especially in Asia and the availability of early-maturing fruit cultivars have propelled the growth of fruit and vegetable production in the country.

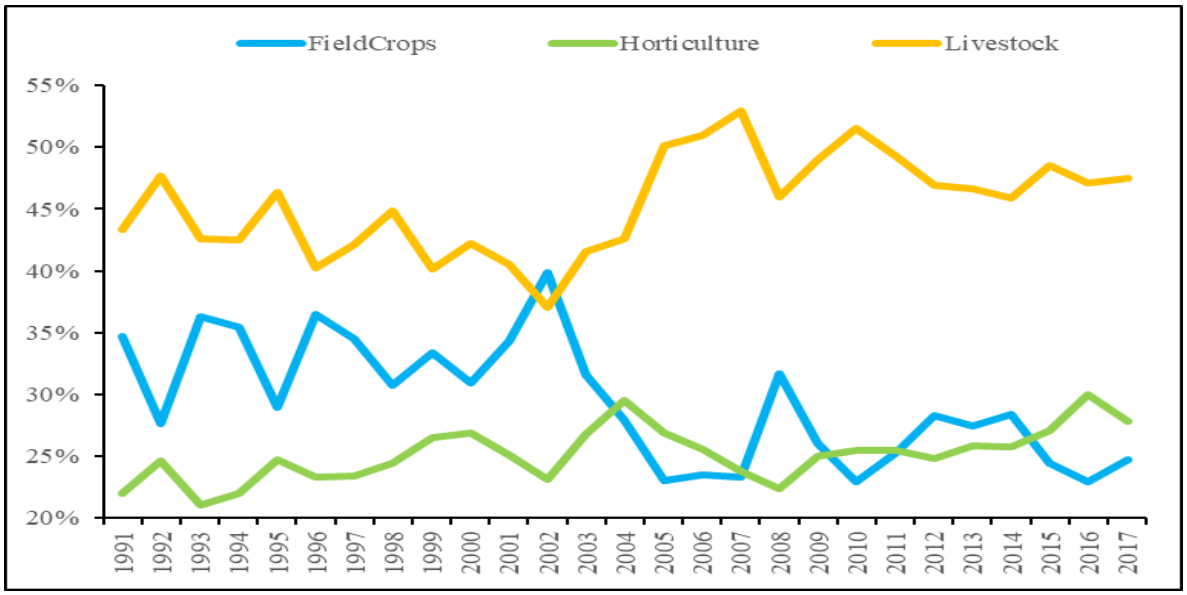

Figure 1: Industry share in agricultural gross production value

Source: DAFF, 2018

A key message emanating from Figure 1 is that the agricultural economy is relatively diverse, ranging from animal production to field crops and horticultural products. To further understand the state of an agricultural economy, it is worth analyzing the employment and land use trends. The agricultural sector employed 842 122 workers in 2018, which is equivalent to a five percent share in total employment in the country. Agricultural employment has been declining over the past 28 years, dropping from 1.112 million in 1990 to 842 thousand in 2018, thus losing an average of 51 603 workers in every five-year period (Table 1). The field crops and livestock subsectors have experienced the largest decline in jobs due to the adoption of new technologies

like planting and harvesting machinery as well as increasing farm wages caused by the minimum wage policy and other factors.

Table 1: Area planted, production and employment in agriculture

Period	Area: 1000 ha		Animals: million head	Production: 1000 tons			Employment: 1000 head		
	Grains	Fruits		Grains	Fruits	Meat	Crops	Livestock	Mix-Farms
1990 -1995	6,427	169.0	41.8	26,764	2,732	791	645	367	100
1996 -2000	5,774	188.9	40.0	34,989	3,232	853	573	255	82
2001 -2005	4,743	205.7	37.9	34,327	3,796	923	457	217	111
2006 -2010	4,619	200.6	37.3	32,310	4,216	1,180	464	240	70
2010 -2015	4,471	213.7	36.7	31,637	4,810	1,368	452	234	68
2016 -2018	4,265	221.7	34.9	32,586	5,315	1,445	512	265	77

Source: Own calculations based on DAFF, StatsSA, FAO, NAMC & Industry Associations data

Note: **Grains** – maize, wheat, sorghum, sunflower & sugarcane; **Fruits** – Apples, grapes, lemons, oranges & avocados; **Animals** – cattle, sheep & pigs

In addition, Table 1 shows the changes in area planted for grains and fruits industries. The area under grains has declined by 34 percent in the past 28 years, but grain production (harvest) increased by 22 percent during the same period. This implies that technology adoption, farming practices, and better yields have all assisted the field crop industry to sustain its production, despite losing area under plantation. Looking at the area under fruit production, it increased from an average of 169 000 hectares in the 1990-1995 period to 221 700 hectares in the 2016-2018 period. During this period fruit production doubled reaching an average of 5.31 million tons. It is evident from the data presented in Figure 1 and Table 1 that fruit industries have grown substantially over the past two decades, followed by the field crops and livestock industries. The players in the agricultural sector have always endorsed the idea of an inclusive agricultural economy, and it would be interesting to understand if the agricultural growth since 1994 has been inclusive.

3.2.Inclusivity in the agricultural economy

To evaluate the inclusivity in the sector, two indicators can be analyzed, namely the share of production from the previously disadvantaged individuals (PDIs) or number of PDIs that have become commercial farmers. Unfortunately, the data on both indicators is not readily available as both the official statistics (DAFF, 2018) and commodity associations do not capture it. To gain understanding on the sector's inclusivity, we derived data from the records of the National

Agricultural Marketing Council (NAMC), based on administration of the Agricultural Industry Trusts and Statutory Levies. It is deduced from the records that PDIs contribute a meager share (approximately 8 percent) in agricultural production, despite the State interventions to promote an inclusive agricultural economy since 1994. At industry level, PDIs hold a share of 12 percent of total fruit production in the country. The figure shrinks to less than 10 percent when looking at field crops. Of more concern is the data from the livestock industries, where an estimated 40 percent of live cattle herds is in the hands of PDIs in Provinces like Eastern Cape and KwaZulu-Natal. However, over 96 percent of the PDIs' owned livestock do not make it to commercial feedlots and abattoirs. This implies that the data presented in Figure 1 and Table 1 above, largely mirrors the performance of commercial agriculture in the country.

Based on the data derived from NAMC's Statutory Levies and Agricultural Trusts records, it is evident that the production growth observed in agriculture over the past 24 years has been driven by commercial farmers. The growth has not only been exclusive but has also been largely attributable to a few large commercial enterprises. As a result, the number of farmers declined from 60 thousand in the early 1990s to less than 30 thousand in 2012 (Liebenberg, 2013). This exclusivity is not limited to the primary sectors, but is also prevalent in the downstream levels of agricultural value chains. A concentrated agricultural value chain carries with it a risk of anti-competitive practices, which not only affect consumer prices but also perpetuates the exclusion of the PDIs in the sector. Some of these anti-competitive practices have been uncovered in the recent past, following investigations by South African competition authorities.

The Competition Commission conducted extensive investigations in the sector and has found many companies in the livestock and grain industries to have committed anti-competitive acts such as fixing prices, market division, abuse of dominance and blocking of new entrants. Mncube (2015) found that firms paid penalties to the value of R294.5 million between 2004 and 2008 for engaging in anti-competitive behavior in the agricultural sector, mainly companies involved in grain and livestock subsectors. Further extensive investigations by the Competition Commission found more firms breaking the competition law, as penalties paid by agricultural firms increased to R691.5 million between 2009 and 2013. Between 2014 and 2017, the Competition Commission received an average of 15 complaints per annum about the anti-competitive conduct in agriculture, relating mainly to companies from the grain and livestock sectors. The 2016/2017 annual report of the Competition Commission found that

most cartels (concluded investigations) are in the agricultural sector - 12 cartels investigations were in agriculture just for the 2016/2017 report period.

Despite the industry leaders from both the private and public sectors advocating for an inclusive growth in the agricultural sector, this has not been realized over the past 24 years due to, among others, poor support to PDIs and anti-competitive behavior by established commercial enterprises in the agro-food chain. Other factors limiting the progress of PDIs include the lack of access to land, market and affordable finance as well as poor rural infrastructure (Machethe & Kirsten, 2005; and Manenzhe, 2007). While programmes such as the NAMC-coordinated National Red Meat Development Programme (NRMDP), which aims to enhance beef production from PDIs, the support given is inadequate. It is important that any state programme that seeks to promote inclusive agricultural growth, addresses not just the land issue but also the financing, infrastructure, markets and anti-competitive conduct.

4. Factors constraining an inclusive agricultural economy

Many scholars and commentators in the agricultural sector agree that the PDIs are faced with multiple challenges and they need support. The primary challenges facing PDIs include, but are not limited to, the lack of access to land and water, markets and market-related infrastructure, research innovations, affordable financing and anti-competitive conduct.

4.1.Access to water for inclusive agricultural economy

The Department of Water and Sanitation (DWS) has developed a water sector master plan which points out the priority actions required until 2030 and beyond to ensure water security and equitable access to water for all South Africans. The master plan reveals that about 50 percent of South Africa's water resources originate from ten percent of the country's land, but many of these "water factories" are under threat. Between 1999 and 2011 the extent of main rivers in South Africa classified as having a poor ecological condition increased by 500 percent, with some rivers pushed beyond the point of recovery. South Africa has lost over 50 percent of its wetlands, and of the remaining 3.2 million hectares (approximately 30 percent) are already in a poor condition.

The master plan further states that approximately 56 percent of municipal wastewater treatment works and approximately 44 percent water treatment works in the country are in a poor or critical condition and need urgent rehabilitation, with some 11 percent completely

dysfunctional. These water infrastructure challenges pose a direct threat to agricultural development as well as the environment in the country. It is known that 61 percent of total water in South Africa is used by the agricultural sector for irrigation purposes. Of this total, 98 percent of irrigation water rights is in the hands of white commercial farmers, implying that black farmers have no access to water. It is on this ground that land reform or transfer of land to black farmers cannot be divorced from water reform, as both land and water access determine the success rate of black farmers. Furthermore, a number of the farms transferred to black farmers exclude the water rights on the land which are still held by the previous land owners.

4.2. Land as enabler for an inclusive agricultural economy

South Africa is a democratic state that was previously governed by an oppressive colonial and apartheid system which caused racial and gendered land disparities in the country. As a result, black people who account for 81 percent of total population had access to less than 13 percent of total land in the country by 1994. According to Nkoana-Mashabane (2018), between 1994 and 2017, over 9.8 million hectares of land has been purchased by the state for land reform purposes at cost of close to R60 billion (Figure 2). From this total, about 3.5 million hectares were for land restitution to settle some 80 664 land claims between 1998 and 2017. About 70 percent of these land claims were for urban land suggesting that there is equally high demand for urban land as there is for agricultural land in the country. The 80 664 land claims benefited close to 2.1 million people of which 163 463 were women (Nkoana-Mashabane, 2018). On the land redistribution pillar, government acquired 4.8 million hectares of farm land between 1997 and 2017 (Figure 2). From this, 4 million hectares were for agricultural production whereas the remaining 800 000 hectares were for farm labour tenants.

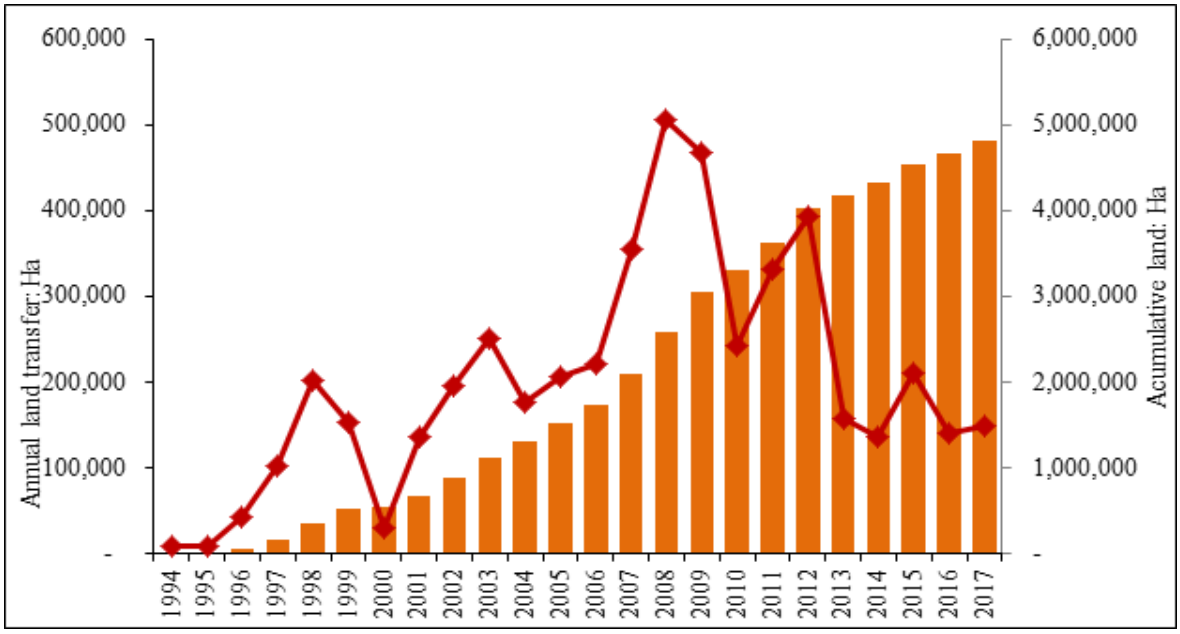

Figure 2: Land purchased through land redistribution pillar per annum, 1994-2017

Source: Adapted from DRDLR (2017), and Motlanthe (2017)

It is evident from this information that land reform is a costly programme and Motlanthe (2017) found that farm prices have been inflated in some cases, which distorted the land market. In addition to land market failures, constant changes in policy direction have contributed to the slow pace of the land reform programme. For example, the land reform policy changed from the initial Settlement Land Acquisition Grant (SLAG) Strategy in 1994 to Land Redistribution for Agricultural Development (LRAD) Strategy in 2001 and to the Proactive Land Acquisition Strategy (PLAS) in 2006. The policy changes not only delay the implementation of the land reform programme but they also augment bureaucracy in government, leading to increased levels of frustrations by individuals waiting to benefit from the state's land reform. Hall & Kepe (2017) have also highlighted the problem of constant changes in land reform policy which increases policy uncertainty.

Since 1994, land transfer has been through market mechanisms such as "willing buyer – willing seller" principle. The implementation of land reform though market systems has been credited for bringing stability in the economy and food systems, thus attracting investments in the agricultural sector. However, as noted earlier, the investments in agriculture have been largely concentrated on areas where commercial farming is dominant, which systematically excluded the new entrants such as PDIs in the sector. There is a recognition within the country's body politic that land reform exclusively through market channels has fallen short of attaining the

expected outcomes, thus partially deepening poverty and food insecurity in the country. The intensifying poverty and discontent with market driven approaches has led to growing calls for the expropriation of land without compensation to become one of the policy measures available to government to accelerate land reform. In November 2018, the National Assembly adopted the recommendation from the Constitutional Review Committee to amend the Constitution in order to allow for expropriation of land without compensation as one of the tools available to the state for accelerating the redistribution of land.

Another important point to note from the data presented in Figure 2 is that the state purchase of farm land through market channels has led to a situation where the bulk of land in the market is from the low potential areas (marginal areas), where commercial farmers have a heightened willingness to sell. This is evident when looking at the data, which indicates that over 35 percent of the 4.8 million hectares purchased for agricultural production was from the Northern Cape province. The Northern Cape province has the lowest land potential because of low rainfall and extreme weather conditions.

4.2.1. Status quo on land ownership in South Africa

The focus of South Africa's land reform is to correct the racial bias of land ownership in the country. This section analyses the provincial and national data on land ownership by race in order to gauge the progress made towards deracialisation of land ownership in the country. The data presented in Figure 3 suggests that white individuals own more than 72 percent of total land in the country, followed by coloured (mixed descent) individuals who own 15 percent whereas Indians own five percent. Black (African) individuals own 3.6 percent of total land in the country. The land ownership data analyzed in Figure 3 implies that on average, a single white individual owns roughly 19.5 hectares while a black person on average owns 0.75 hectares if communal land that is under state and/or traditional administration is included. These numbers indicate that majority of South Africans have limited access to land, which explains the meager share of PDIs in agricultural production, despite various redress programmes implemented since the dawn of democracy 24 years ago.

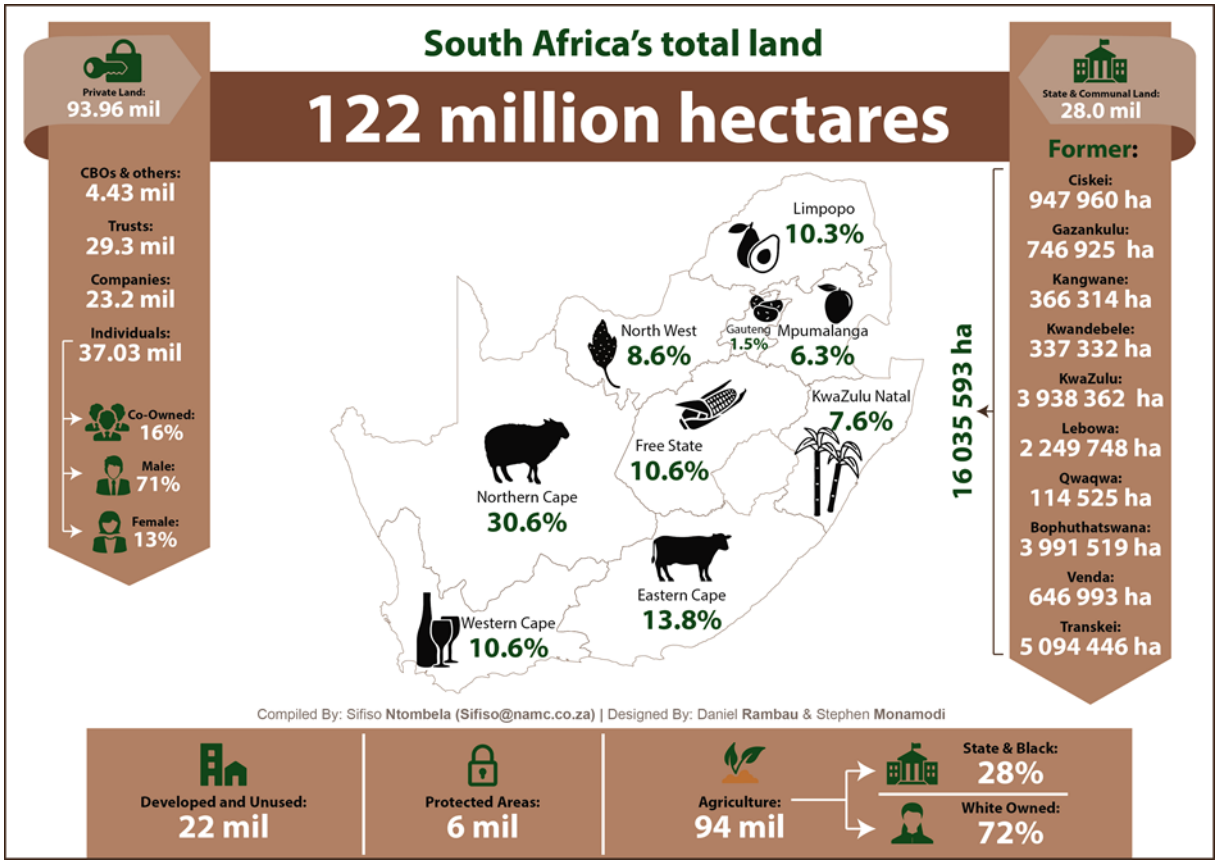

Figure 3: Land size, ownership and use in South Africa

Source: Own calculations based on DRDLR (2013 & 2017); AgriSA (2017) and PLAAS (2013)

Note: percentages in the map indicate the size of each province as a share of total land.

Figure 3 also presents data on the land under former homelands as well as the land size per province. It is only in KwaZulu-Natal and Limpopo provinces where black individuals own more than 10 percent of provincial land. In the Northern Cape province, they own less than one percent whereas in the Western Cape province they own just 1.4 percent of total provincial land. This data indicates that land ownership remains highly skewed towards white individuals, despite the land reform programme having been in existence for more than 20 years.

South African women account for more than 52 percent of the population, however, they own less than 14 percent of total land in the country. The analysis of available land data found that men own 72 percent of all individually-held land in South Africa, while couples or co-owners own 16 percent and women only own 13 percent of land. On average a woman will own land that is approximately six times smaller than that owned by a man, regardless of race and location (DRDLR, 2017). While women also make up more than half of the population in the Eastern Cape and KwaZulu-Natal provinces, they own less than 10 percent of provincial land.

The worst case is in KwaZulu-Natal, where men and co-owners own 91.7 percent of all land, leaving women with just 8.3 percent (DRDLR, 2017). It must be noted that co-ownership includes all land that is owned by couples, groups of individuals and cases where the gender could not be identified.

The provinces that have a relatively large population share residing in rural areas tend to have the lowest share of women owning land or having access to land. This suggests that in the rural context where majority of land is under traditional leadership, there is a relatively large limitation to land access and ownership by women. For example, in KwaZulu-Natal, Eastern Cape, Limpopo and Mpumalanga, women on average own less than 12 percent of total provincial land, which is lower than the national average. The race-based land policy and debate in the country has overshowed the importance of also achieving equitable land redistribution on gender lines.

4.2.2. Impact of land redistribution to achieve inclusive agricultural economy

The information discussed in this section is based on the analysis conducted by Mkhabela *et al*. (2018), which was presented at the 56th Conference of the Agricultural Economics Association of South Africa (AEASA). Mkhabela *et al*. (2018) applied a dynamic computable general equilibrium (CGE) model to quantify the macroeconomic and sectoral impacts of redistributing the land. They designed four scenarios, namely the (i) **"Baseline",** which reflects a business-as-usual economic growth with changes on land reform policy; (ii) **"Inclusive",** which reflects an accelerated land redistribution but all land transfers are through a market mechanism; (iii) **"Radical",** which reflects a policy change to include the expropriation of agricultural land only without compensation, (iv) **"Socialist",** which reflects a policy change to include expropriation of all land without compensation. In the modelling framework, the agricultural economy was divided into commercial and emerging farming to reflect a dual agricultural economy that exists in the country. Mkhabela *et al.* (2018) also analysed the impact of fast-tracking the land redistribution programme without requisite support to PDIs, such as access to markets and affordable finance.

The impact results of the three policy scenarios are presented in Figure 4 and are plotted against the Baseline scenario. Firstly, the Baseline scenario indicates that the economy will continue to grow but at a relatively slow pace, which is way below the required pace prescribed in the National Development Plan (NDP). The Baseline results indicate that the current level of

economic growth and pace of land reform are not conducive for a stable, employment-generating and equitable economy. Under the Baseline, the economy will grow by a cumulative 47 percent between 2012 and 2044. These Baseline results suggest that over the medium to long term there may be a risk of increasing social unrest because of increasing unemployment rate and, widening inequality in the country.

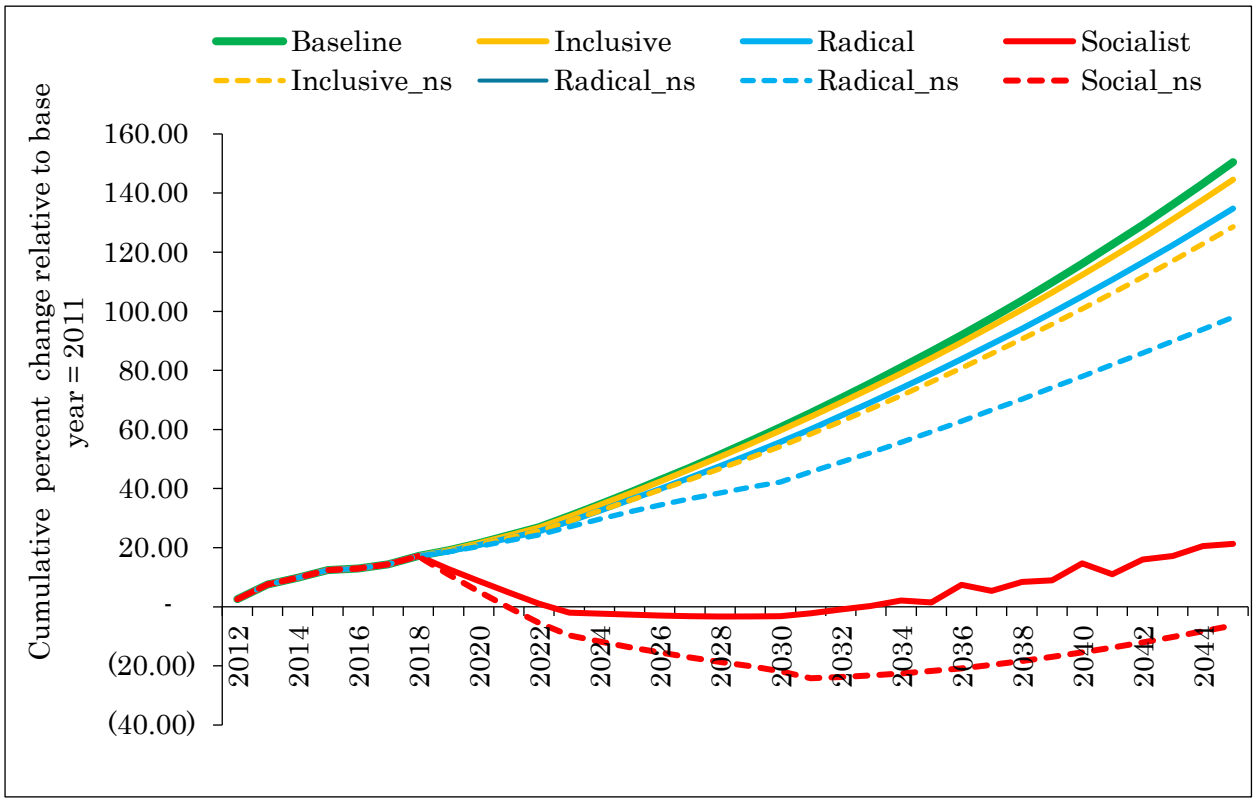

Figure 4: Expected impact of land redistribution under different policy directions

Note: NS = No Support provided to emerging farmers and land reform beneficiaries

Under the Inclusive policy scenario, the economy declines by 5.92 percent below the Baseline scenario, indicating that fast-tracking land redistribution will incur adjustment costs. It is important to emphasise that the low adjustment costs under the Inclusive policy scenario is due to the fact that fast-track land redistribution is market oriented and happening within the current legislations that do not include expropriation without compensation. Moreover, the Inclusive scenario assumes that there will be appropriate post-settlement support mechanisms and optimal access to finance and markets by new black commercial farmers. In addition, the Inclusive scenario only affects agricultural land, which limits the direct impact on other sectors of the economy.

When the post settlement support, transfer of skills, access to markets and affordable finance are not provided to new black commercial farmers, the adjustment cost is relatively higher under the Inclusive policy scenario, increasing to 8.74 percent below the baseline scenario. This clearly indicates the sensitivity of the results to support mechanisms that will be provided to new black farmers under the fast-tracked land redistribution programme. This also suggests the importance of aligning the land redistribution debate with support packages in the agricultural sector to ensure that the economy and food supply system is minimally disturbed when the land is transferred. This means that reforming the land policies without reforming other areas such as markets and financing will lead to higher adjustment costs on the economy.

The results in Figure 4 also indicate the impacts when agricultural land (i.e. Radical Scenario) and all land (i.e. Socialist Scenario) are expropriated without compensation in the country. Under these scenarios the welfare loss is significantly higher indicating the economy will be significantly impacted in the short to medium term. When the support mechanism for new black farmers are not provided, the impacts are even more severe on the economy under both the Radical and Socialist scenarios. The results indicate that the Socialist scenario provides a worse case situation while the Inclusive scenario provides a somewhat moderate situation that still reduces the welfare but can significantly assist in addressing the slow pace of land redistribution in the agricultural sector.

The adjustment costs found under the Inclusive Scenario, particularly if the support packages to new black farmers are provided, can be argued to be relatively moderate but necessary to achieve a developmental goal of addressing the injustice of historic laws. The next section discusses the other constraining factors in the sector. The three areas that need critical reform to support the land redistribution in the agricultural sector are: development of rural infrastructure and agro-processing capacity, affordable finance for farmers, and research and technology innovations. Capacity building and skills development cannot be ignored as the majority of the entrant farmers have limited agricultural and farming skills due to long years of alienation from the land.

4.3. Rural and agro-processing infrastructure to boost land reform

The agricultural economy is dual in nature comprising commercial and emerging farmers. The emerging farmers are predominantly black and located in the former homeland areas where there is poor infrastructure and agro-processing capacity, thus limiting their participation in the formal agricultural economy. Chapter 6 of the National Development Plan (NDP) calls for a

need to invest in a strong network of rural and economic infrastructure designed to support the country's medium and long-term objectives in order to achieve sustainable and inclusive growth. As part of implementing the NDP goals, Strategic Integrated Projects (SIP) focusing on rural economic infrastructure and agro-processing (SIP 11) was initiated in 2013. The NAMC was appointed by DAFF as a coordinating institution to implement SIP 11 in agriculture.

The NAMC conducted an infrastructure audit in order to determine the infrastructure needs of the sector. Based on the audit and engagements with various stakeholders in the sector, the NAMC proposed strategic infrastructure projects that will improve the competitiveness of the sector and encourage a meaningful participation of the PDIs in the formal agricultural value chains. Figure 5 presents the outcome of infrastructure audits as well as strategic projects identified to boost an inclusive growth in the sector. The strategic projects include boosting the biosecurity, storage, roads, irrigation and agro-processing. Biosecurity is one of the factors that constrain the sector. Improving biosecurity capacity helps to ensure that agricultural products comply with global food safety and quality standards. This will also limit the outbreaks of diseases such as Foot-and-Mouth Disease, Avian Influenza, Fruit fly, Armyworm and others.

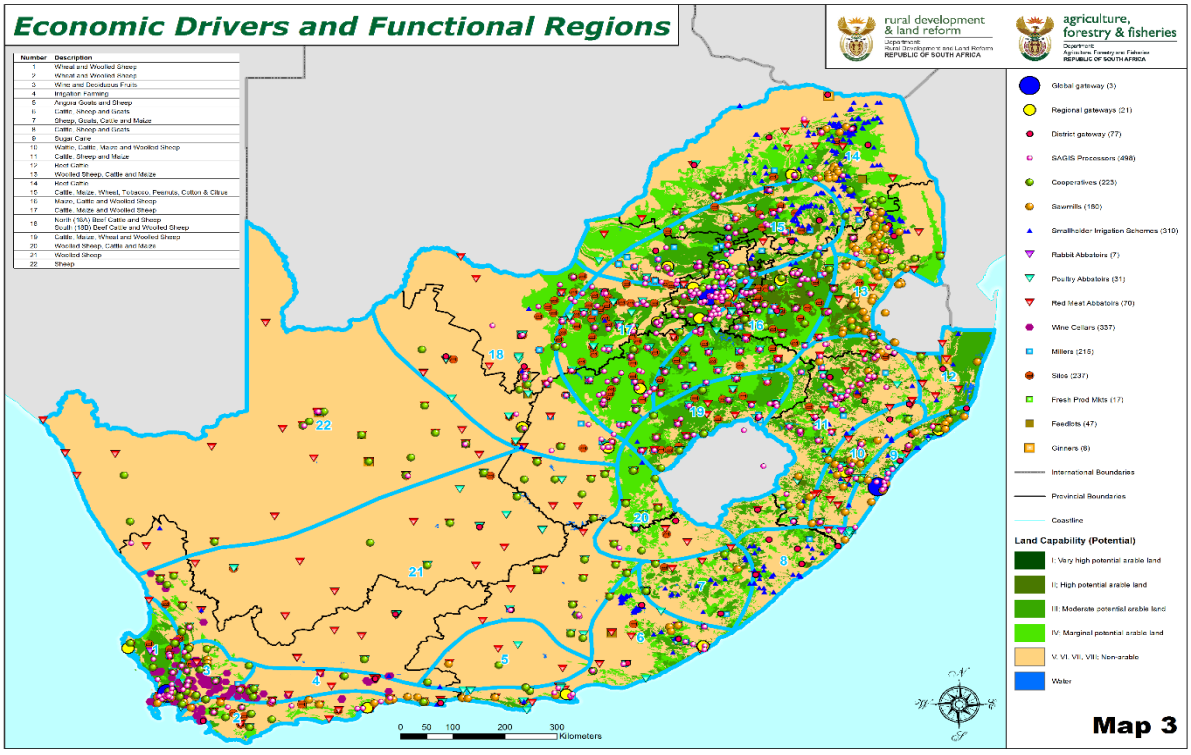

Figure 5: Rural infrastructure and agro-processing capacity audit

Source: NAMC, DRDLR and DAFF (2015)

Figure 5 also shows the current storage and processing capacity which is concentrated in the inland areas, thus inhibiting potential growth in the coastal areas where majority of PDIs are located. This infrastructure plan was endorsed by all agricultural stakeholders, but funding constraints have limited its implementation. The NAMC had proposed a Public-Private Partnership funding model in order to ensure a close working relationship between government and private sector, but this approach is yet to be implemented. Limited budget for these identified infrastructure projects has not only kept the PDIs excluded from the formal agricultural value chains but also constrains the competitiveness of the whole agricultural sector. It is important that a land reform debate takes into account the need to have effective infrastructure on the ground.

4.4. Agricultural research and technology to improve land productivity

In general, South Africa is allocating a limited budget to research and development (R&D), and this is evident when assessing the data published by the Department of Science and Technology (DST) in 2017. DST (2017) found that the Gross Domestic Expenditure on R&D as a percentage of GDP is 0.80 (equivalent to R32.3 billion), indicating a low investment in R&D. In the country, there are only 1.7 researchers per 1 000 people employed, hence the level of innovation is low in all economic sectors. Of the total R&D allocation in the country, the agricultural sector receives 8 percent share.

Agricultural R&D in South Africa is largely driven by the Agricultural Research Council (ARC), a public entity. The ARC receives a parliamentary grant which funds the bulk of research outputs. Moreover, industries through Statutory Levy and Agricultural Trusts instruments that are administered by the NAMC allocate fund to research activities. On average the funding for agricultural research activities is estimated at R2 billion, where over two-third of funding comes from the public institutions and the rest is provided by the private sector. The public funding for research and development has been stagnant over the past five years, whereas private sector funding has been increasing by 12 percent per annum over the same period. This implies that research innovations have been driven by private institutions which somewhat limits access to agricultural innovations for PDIs that rely on public research. This contributes to an inequality gap between commercial and emerging farmers, since majority of commercial farmers benefit from privately-funded research. The access to new innovations and technology resulting from private sector R&D initiatives is often not broad-based, which limits access to such innovations for smallholder farmers.

Noticing a funding constraint for agricultural research and development, especially public funding, Mkhabela and Ntombela (2019), measured the opportunity costs on the agriculture and the economy as whole (Figure 6). They found that between 2011 and 2017, about R169 million was forgone in national GDP due to low agricultural innovations caused by reduction in public funding and inadequate private funding. They noted that if low funding for research and development is maintained, that will further increase the opportunity cost to R468 million by 2022, thus contributing to the low agricultural economic growth and job losses.

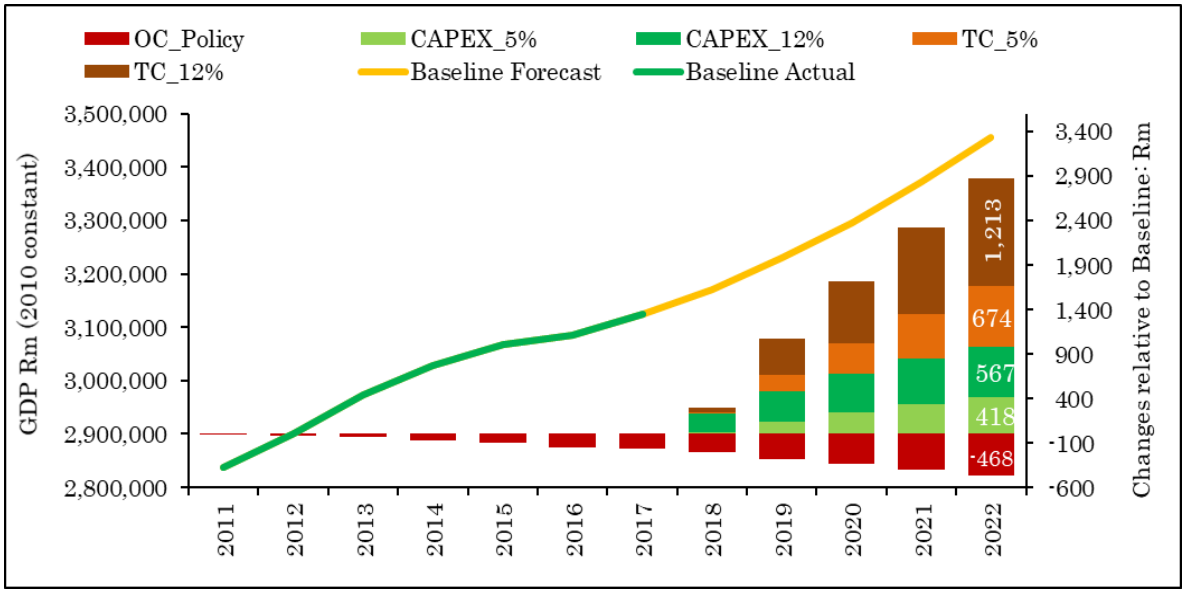

Figure 6: Expected impacts on increasing the investment in agricultural research and development
Source: Mkhabela and Ntombela (2019)

However, if public funding can be increased by 5 percent above the average of the past three years, the economy can recover the foregone value in GDP over the next five years. Real gains in the GDP will start materializing if public funding can be increased by at least 12 percent above the average of the past three years. The most positive scenario is when both the public and private funding are increased by 12 percent above the three-year average over the next five years, which results into a R1.21 billion contribution in real GDP relative to the forecasted baseline. At an industry level, the increase in both private and public funding will boost the agricultural gross value by R26.5 billion over the next five years relative to the baseline. This implies that the agricultural economy will gain significant growth over the next five years if research funding issues can be resolved.

4.5.Access to affordable finance for farmers

There are many financial instruments and sources available for farmers in the country, ranging from Development Finance Institutions (DFIs) such as the Land and Agricultural Development Bank of South Africa, Industrial Development Corporation of South Africa (IDC) and provincial Agribusiness Development Agencies. With that said, it would be wrong to argue that black farmers (both commercial and smallholder farmers) have easy access to finance. Black commercial farmers who are beneficiaries of land reform either do not have sufficient balance sheets to access money affordably or do not have the collateral as some of these farms are not yet transferred to the farmers who use them. The issue of tenure security is the biggest barrier to smallholder farmers many of whom predominantly operate on commonage or communal lands.

In addition, there are private corporations and banks that also provide financial services to the industry. A common factor across the DFIs is that they raise their money from the capital markets, which limits their ability to provide affordable financing solutions to emerging famers. As a result, majority of DFIs are unable to assist PDIs with their funding needs, which perpetuates the exclusion of PDIs in the financial markets. Given the nature of agriculture, access to affordable financing solutions is critical to ensure the sustainability of the agricultural sector. Over the past 24 years, commercial farmers have been the main recipients of funding in the country due to their healthy balance sheets and collateral such as land. On the opposite side, emerging farmers have been unable to secure funding due to lack of collateral like land and weaker balance sheet because of historic discriminative laws.

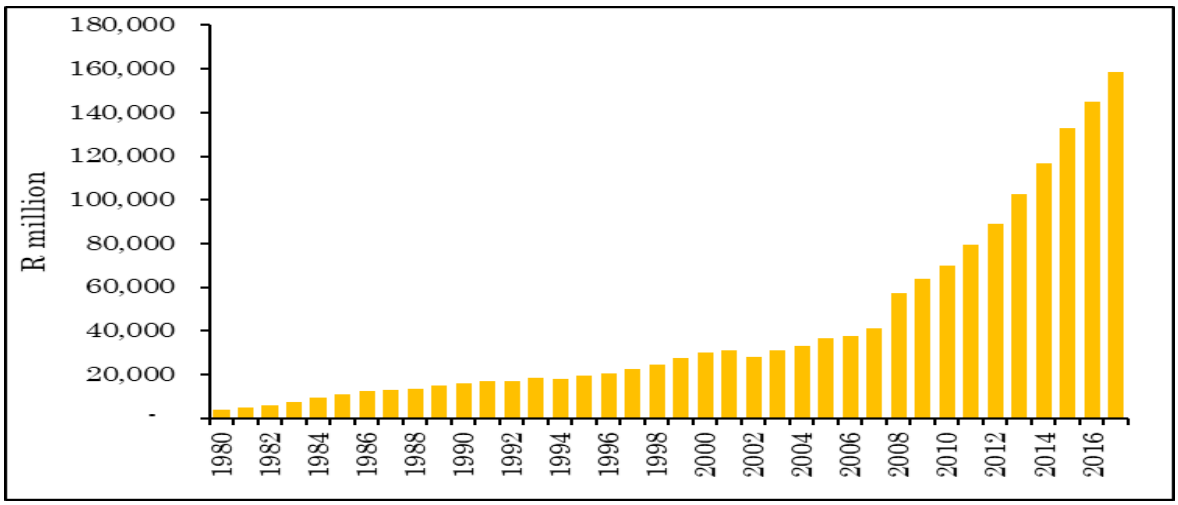

Figure 7: Total farming debt trend between 1980 and 2017

Source: DAFF, 2018

Figure 7 shows the growth trend of the farming debt in the country, which has been dominated by commercial farmers. If the current financial market is not reformed, the acceleration of land reform will not be successful because PDIs will be unable to secure finance. In addition, the issue of access to finance is one part, but gaining access to affordable finance is more important for PDIs that are faced with many developmental challenges. So far, the report has focused on unpacking the constraining factors that affect the inclusivity in the sector. One of South Africa's biggest challenges is the unsynchronised nature of operations. The financial assistance provided by all these institutions are run independently even those that are somewhat government owned (from municipal agencies, provincial agencies, DFI, government departmental grants to mention but a few).

The next section discusses some reforms that are a prerequisite for achieving a prosperous and inclusive agricultural economy.

5. Agricultural reforms to achieve an inclusive agricultural economy

5.1.Farmer support reform

There is vast evidence from literature which shows a positive correlation between farmer support and agricultural growth. Under the apartheid regime, white farmers were supported through such measures as minimum price guarantee schemes, tax breaks, export subsidies, concessional loans and on-farm infrastructure development. While some of these trade-distorting support measures like export subsidies and direct payments to producers are no longer permissible under the World Trade Organization (WTO) general trade rules, there are multiple non-trade distorting domestic support measures that are permissible under Annexure 2 of the Agreement on Agriculture, which can be used to support black and white farmers. These include:

- Extension and advisory services as well as research and development;
- Marketing and promotional services as well as infrastructure development;
- Natural disaster relief and financial assistance to marginalised smallholder farmers for structural adjustments and inclusive agricultural development

The majority of farmer support reforms necessary to facilitate structural adjustments in the South African agriculture are permissible under WTO trade rules. What is required is the

political and executive willingness in government to allocate adequate resources for farmer support.

The second issue is the distribution channels of domestic support to smallholder farmers in the country. Currently, the extension services and distribution of state grants to smallholder farmers is through the national, provincial and local state agencies and departments. Anecdotal evidence indicates that the quality of service supplied by government extension officers is below that which is supplied by commodity associations. Furthermore, the administration costs associated with distributing state farmer grants through government organs are high and come with an extra layer of bureaucracy, which delays service delivery and reduces the already insufficient financial resources to farmers. There is also a growing consternation on the ground that farmer grants are given to a few elite for extended periods while relatively unknown but deserving (according to the criteria) farmers are excluded. As part of reforms required to gain efficiencies and promote genuine public-private partnerships in delivering services to the sector, government should consider the following:

- Provide funding to a commodity association that has a Statutory Levy in place, to explicitly employ extension officers that will service black farmers in their respective industries. The money allocated to commodity associations should be ring-fenced for funding extension services. A monitoring tool like the transformation guidelines developed by the NAMC to monitor transformation money spent, should be developed to mitigate the misuse of funds by commodity associations. The commodity associations should complement this proposed government contribution using money from statutory levies and agricultural industry trusts. As a complimentary measure, some government extension staff could be seconded to commodity organisations to focus on servicing black farmers.

- Government should consider distributing existing funds from DAFF and DRDLR through the big four banks in the country that have agribusiness divisions within them. The Land Bank will also be part of the reform structure. The private banks will be tasked to accept funding requests from black farmers, conduct due diligence and distribute funds. This could be executed through two avenues:

    a. If a funding request is approved first time, the bank will use government funds as a grant portion to the total loan requested by the applicant. The actual

grant portion provided to each applicant can be determined using the guidelines articulated in the 2018 DAFF National Policy on Comprehensive Producer Development Support. The remainder of a loan structure could be funded by the bank at an affordable or concessional rate.

b. If a funding request is not accepted first time, the bank should transfer the application (without involving the applicant) to a commodity association to improve the application working with the applicant until such application is approved for finance by the bank.

These proposed farmer support measures should improve the participation of black farmers in the agricultural value chains and also assist South Africa to achieve its regional and international developmental targets. For example, Malabo Declaration and African Agenda 2063 highlight clearly the level of resources that needs to be channelled into agriculture and farmer support in order to end hunger and halve poverty by 2025 in the African continent. These two African policy frameworks together with the United Nation's Agenda 2030 (i.e. Sustainable Development Goals -SGDs) make it obvious that countries like South Africa should reform their domestic support measures to ensure that ***"NO ONE IS LEFT BEHIND"*** as global leaders transform the world into a better, peaceful and prosperous place.

5.2.Agricultural financing reform

In South Africa, there are arguably sufficient financing options ranging from government owned banks such as the Land Bank to corporate banks like ABSA, Standard Bank, Nedbank, and First National Bank. The main problem which is common to both public and private financial institutions is the affordability and access to the money, particularly for smallholder farmers. Smallholder farmers who desperately need access to finance are unable to afford the loans due to their weak balance sheets. Moreover, their background characterised by low education and skills, limited farming experience and access to markets as well as lack of collateral enhanced by their historic exclusion in the land market, makes smallholder farmers a high risk for financial institutions including government owned institutions. To support an effective, transparent and equitable land redistribution, the South African government should develop blended financial models (as proposed in Section 5.1 above) that reduce the costs of

servicing the debt. In other words, South African institutions should create affordable financing options for smallholder farmers as well as commercial farmers.

5.3.Agricultural research and development reform

In Section 4.4, the opportunity cost of not investing in agricultural R&D was estimated and discussed. This section also explained that private sector has had to upscale its private research due to low funding channelled to the public institutions like ARC and others. The first reform required is the mindset by political and executive leaders in government to allocate better resources into agricultural R&D. Furthermore, there is a need to review the private R&D funded by statutory levies and agricultural industry trusts to ensure such research is accessible by all farmers including the black and white farmers, as a public good. It might also be necessary to assess the feasibility of transferring private funding to public institutions such as ARC, which by design are established to carry R&D in agriculture. The commodity associations, currently conducting private research shall focus on other activities such as extension services, domestic and export promotions, information collection and dissemination as well as enterprise developments to promote transformation in their respective industries. This reform is somewhat interlinked with the reforms discussed under farmer support reforms in Section 5.1 above.

5.4.Agricultural inputs, agricultural infrastructure and agro-processing reform

Improving access to safe and quality agricultural inputs is equally important to ensure a successful land redistribution programme. This also includes developing an enabling infrastructure in farming and rural areas, such as roads, water reservoirs and irrigations schemes, storage facilities and agro-processing infrastructure. To achieve these, the public and private sector could consider the following:

- Creating agricultural inputs pooling, enabled by Section 17 of the Marketing of Agricultural Products (MAP) Act to increase access to affordable agricultural inputs by smallholder farmers, especially in rural areas where there are no farm inputs retail.
    - Implement the infrastructure business plan which was developed under the Strategic Integrated Projects number 11, known as SIP 11. Some of

the infrastructure projects in the SIP 11 business plan require Public-Private Partnerships implementation strategy

5.5.Agricultural markets and export certificates

The redistribution of land to black farmers in order to achieve an inclusive agricultural growth necessitates an optimal access to markets. Without access to markets, the produce of black farmers will be wasted, particularly because agricultural produce is often perishable and requires readily available, reliable and steady markets. It is of paramount importance that land reform beneficiaries are supported with technical skills to meet market required quality standards in order to be competitive and to be able to comply with sanitary and phyto-sanitary standards/measures (SPS) which are often barriers to entry to lucrative markets.

5.6.Beneficiary selection criteria

Within the agricultural fraternity, most observed joint-ventures on land reform entail a land owner transferring some portion of the farm to the current farm employees. This is a popular model of identifying the beneficiaries of land reform in the private sector initiatives. Evidence shows that this model has mixed successes, where in some cases it yields positive results but, in most cases, it leads to failure due to group dynamics, conflicts among the selected beneficiaries, and adverse selection and moral hazard (Mkhabela, 2018). Another beneficiary selection criterion is the identification of qualified black professionals in various agricultural industries. These black professionals possess the theoretical understanding of the sector in which they are qualified but lack practical experience, which can be acquired over a short period of time. The benefit of considering qualified and young black professionals to enter the agricultural production is their ability to think independently, process available information and take managerial decisions without being overly dependent on the current owners of land. More importantly is their ability to understand the value chain of industries, while farm workers are often unable to understand the connectedness of the farm commodities beyond the farm gate.

5.7. Accelerate land redistribution for agricultural produce

- ❖ Expropriation of land without compensation shall form part of policy suit available to distribute land, provided that enabling legislation is in place. A caveat here is that such expropriation will not be used as resort of first option. The modalities on agricultural land should preferably include:
    - o Targeting of unproductive and underutilised land, the definition of which would need to be agreed on and legislated
    - o Creating a land depository agency where private and public institutions can donate agricultural land for agricultural purposes only and this should also be legislated accordingly to give such land the prerequisite legal standing, that is issues of ownership and title deeds should be addressed appropriately.
    - o Applications to access land must be electronical and be centralised to national department while ensuring transparency to circumvent rent-seeking and cronyism.
- ❖ Better and recognizable tenure security for land in the former homelands

6. Conclusions

This paper argues for the need for a successful land reform in South Africa without which many commentators believe that there is a risk of socio-political and other forms of instability that could cripple the country's economy. Recently there has been a renewed sense of political urgency to accelerate land reform using all the mechanisms that the current (or amended) Constitution allows. This comes on the back of increased impatience especially among those adversely affected by the unjust apartheid and colonial land legislation. The overwhelming public support for more drastic measures to accelerate land reform, notably expropriation without compensation is part of the proof of this consternation.

Accelerated land reform, however, does not necessarily translate into successful land reform. This paper makes the point that transfer of land to beneficiaries should be accompanied by a rethink in the provision of post-settlement support as well undertaking of key agricultural

reforms. These include, but are not limited to, extension services, affordable finance, rural infrastructure and agricultural R&D investment, agricultural markets, carefully-targeted land expropriation, and beneficiary selection. This paper supports and reemphasises the importance of the much written about reforms, but also goes further to provide some innovative options for ensuring that such reforms are effective. It will hopefully add value to the on-going debate on the important issue of land reform and agricultural development.

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