Socio-economic impact of land reform projects benefiting from the Recapitalisation and Development Programme in South Africa

By

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DECLARATION

I, Nosipho Nomfundo Mabuza, declare that the dissertation, which I hereby submit for the degree of Master of Science in Agricultural Economics at the University of Pretoria, is my own work and has not been submitted by me for a degree at this or any other tertiary institution.

SIGNATURE: N. Mabuza

DATE: 15/07/2016

DEDICATION

This work is dedicated to my husband, Duncan, for his endless love, support and encouragement.

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ABSTRACT

Land reform is a key aspect of social and economic development in South Africa, both as a way of redressing past injustice and addressing the problem of poverty in the country, especially in rural areas. Empirical evidence, however, shows that a large number of land reform beneficiaries have not been able to meaningfully use their land due to inadequate nature of the post-settlement support provided. As a response to the challenges of unproductive land reform projects, the Recapitalisation and Development Programme (RECAP) was introduced in 2009. The objectives of this programme are "to increase production; to guarantee food security; to graduate small farmers into commercial farmers and create employment opportunities within the agricultural sector".

The purpose of this study was to assess the socio-economic impact of land reform projects benefiting from the Recapitalisation and Development Programme in South Africa. Assessment of a programme is important in determining how well the programme is meeting its intended objectives and is a fundamental requirement for improving efficiency and performance. The study used cross-sectional data collected in 2013 from a purposive and stratified sample of 98 projects in six of South Africa's provinces. Descriptive statistics and a paired t-test were used to determine the impact of the programme on economic variables such as production, employment, and number of people benefiting from the projects. A logistic regression analysis was adopted to assess how the different interventions of RECAP

(mentor/strategic partner, skills transfer and funding) improved the household food security of beneficiaries.

The results indicated that the programme has made some progress towards improving the socio-economic status of land reform beneficiaries, particularly in terms of production, but much still needs to be done to ensure that the programme achieves its objectives. Positive changes were mostly experienced in terms of food security, employment generation, and economic and social status after RECAP was introduced, although the same cannot be said for skills transfer and market access**.** The paired t-test showed that the observed differences between the mean values of the socio-economic variables such as production, employment, number of beneficiaries were statistically significant, suggesting that RECAP has made some advancement towards achieving its intended objectives. The empirical evidence from this study indicates that the impact of RECAP on beneficiaries' food security is significantly influenced by age of project managers, number of beneficiaries, farm size, funding and, most importantly, skills development. One of the core principles of RECAP, strategic intervention (having a strategic partner/mentor), was found not to be significant which may be attributed to the way the strategic partner/mentor is chosen for a project.

To ensure effective skills transfer from strategic partners and mentors, the selection criteria for strategic partners and mentors need to be reviewed. More emphasis needs to be placed on job creation as a condition for receiving RECAP assistance on the part of beneficiaries. Diversification through small and medium agro-enterprises should be adopted to build resilient livelihoods and create non-farm employment opportunities for the poor.

Key words: Socio-economic impact, Empowerment, Land reform, Household food security, RECAP.

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ACRONYMS AND ABBREVIATIONS

AgriBEE: Agricultural Black economic Empowerment

CASP: Comprehensive Agricultural support Programme

CRDP: Comprehensive Rural Development Programme

DAFF: Department of Agriculture, Forestry and Fisheries

DRDLR: Department of Rural Development and Land reform

LAMOSA: Land Access Movement of South Africa

LRAD: Land Redistribution for Agricultural Development

MAFISA: Micro-agricultural Financial Institution of South Africa

MALA: Ministry of Agriculture and Land Affairs

PLAS: Proactive Land Acquisition Strategy

RECAP: Recapitalisation and Development Programme

SLAG: Settlement Land Acquisition Grant

CHAPTER 1

INTRODUCTION

1.1 Background

Twenty-two years into democracy, South Africa is still facing imbalances in land ownership as a consequence of the apartheid discriminatory practices that resulted in land being taken away from black people. A number of items of legislation were used to dispossess black people of their land and the most significant one was the 1913 Native Land Act (Boudreaux, 2010). This historical dispossession of land led to the majority of agricultural land being held in the hands of the white minority. In the early 1990s, almost 82 million hectares of commercial land were held by about 60 000 white owners (Levin & Weiner, 2003). Black people were left crowded in marginal and unproductive land areas where high poverty rates, high infant mortality, poor living conditions, extremely low per capita income, and illiteracy were prevalent (Wilson & Ramphele, 2003).

In 1994, the Land Reform Programme was introduced by the new government. The programme's main aim is to correct the inequalities of the past whilst improving the socio-economic status of its beneficiaries (Department of Land Affairs, 1997). The main objectives of the land reform programme are to provide previously disadvantaged people access to agricultural land to improve their livelihood, food security, and their quality of life. South Africa's land reform is divided into three sub-programmes: land tenure reform (aims to secure people's rights to hold land), redistribution (uses land acquisition grants to assist previously disadvantaged people to acquire land) and restitution (involves restoring land that was taken away as a result of apartheid practices back to the rightful owners) (Department of Land Affairs, 1997). The Government committed itself to transferring 30 % (about 25 million hectares) of the agricultural land to previously disadvantaged people by 2014 through the land reform programmes. However, as at the end of 2012, only 7.5 % (7.95 million hectares) had been transferred (Nkwinti, 2013).

Land is one of the most basic needs in rural areas, as many people depend on access to land for their social and economic survival. Secure access to land is of significant importance in improving the livelihood of rural people and enhancing their food security. Therefore,

correcting the inequality of land distribution is key in ensuring food security (FAO, 2008). According to Thiesenhusen (1989), land reform may lead to a decrease in agricultural production initially as a result of the drastic change of the production structure. However, in the long run, land reform can increase agricultural production, resulting in the improvement of the socio-economic position of the beneficiaries. Growth in agricultural production can reduce food prices, and increase employment rates and opportunities in rural areas. For land reform to have a positive impact on the livelihood of the beneficiaries, the land concerned must be used productively. Land reform programmes that have resulted in poverty alleviation have been implemented in the following countries: Philippines, China, Taiwan, South Korea, Malaysia, Cuba and India (Gordoncillo *et al*., 2003; Lim & Anthony, 2003; Besley & Burgess, 2000; Borras *et al*., 2006).

The White Paper on South African Land Policy projected that the land reform policy would result in land being equitably distributed, in enhanced food security, and in improved beneficiaries' quality of life (Department of Land Affairs, 1997). Between 1994 and 2012, 7.95 million hectares were reassigned through the programme to previously disadvantaged people and nearly 250 000 people have benefited, including women, youth, and persons with disabilities (Nkwinti, 2013). Although the redistribution and restitution processes have shown a great deal of success, there are still a number of concerns about the use of the land by beneficiaries.

These concerns, which are also supported by empirical evidence, show that most of the land transferred through the redistribution and restitution programmes has not been used productively due to a number of constraints (Kirsten & Machethe, 2005; Aliber, 2001; Andrew *et al*., 2003; Ahmed *et al*., 2003; Van den Brink, 2003). Most land reform projects are experiencing hardships or have failed, which has resulted in the reversal of the land reform objectives (Anseeuw & Mathebula, 2008). Successful land reform programmes can contribute to increased agricultural productivity, alleviate poverty and enhance food security. However, much more than land is needed to improve the socio-economic status of beneficiaries. For example, appropriate financial services are essential in rural areas to guarantee that sustainable development is achieved. Thomas and van den Brink (2006) pointed out that to ensure that the land reform policy achieves its intended goal, investments in resettlements, input purchase, technical advice and other investments are essential, and land only makes up a minor portion of the overall costs.

South Africa's land reform programme's main criticism is that little or inadequate post-settlement support has been given to beneficiaries of land reform. Geingob (2005) went further to highlight that more attention has been paid to the number of hectares of land transferred and the amount spent rather than to the socio-economic impact on beneficiaries. This absence or insufficiency of post-settlement support prevents the land from being used productively by beneficiaries. It has been shown world-wide that introducing land reforms without guaranteeing beneficiaries access to support services is futile (Eicher & Rukuni, 1996). Land reform is more than just redistributing land. If land reform is well planned and implemented, it has the potential to contribute to local socio-economic development and fighting poverty.

Since a number of land reform farms were unproductive, the Department of Rural Development and Land Reform saw fit to introduce the Recapitalisation and Development Programme (RECAP) in 2009. The objectives of this programme are "to increase production; to guarantee food security; to graduate small farmers into commercial farmers and create employment opportunities within the agricultural sector" (DRDLR, 2012:17). The programme not only provides support to land reform beneficiaries, but also to emerging black farmers and to farmers in communal areas. The funding provided under this programme replaces all previous forms of land reform grants. Mentorship, co-management and share equity are the core principles of the programme. The programme has targeted about 1807 distressed farms (Cousins, 2013).

Since the inception of the RECAP in 2009, the government has invested a total of R3.32 billion to recapitalise 1459 farms (DRDLR, 2014). Through the programme, land reform beneficiaries and emerging farmers are provided with wide-ranging support through entrepreneurial support, infrastructure development, acquisition of mechanisation, production inputs, market access and integrating into the value chain over a five-year period (Department of Rural Development and Land Reform, 2013a).

1.2 The research problem

Access to land is a key part of socio-economic development in South Africa. It can be used as a way of rectifying the injustice of the past and lessening the severity of poverty among beneficiaries. Many land reform beneficiaries in South Africa are still poor and may even be in a worse off position than before, despite having access to land. There is an alarming failure rate on the land transferred through the land reform programme in terms of agricultural activity

on the land, which poses a serious threat to food security (DA, 2013). South Africa, therefore, still faces a serious challenge regarding food (in)security. Demetre *et al*. (2009) highlight the point that South Africa's indicators of food security show that the country has sufficient food to meet the requirements of its growing population. However, the same cannot be said about household food security. According to the Department of Agriculture, Forestry and Fisheries (2011), almost 35 % of the country's population was estimated to be susceptible to food insecurity in 2011.

Given the importance of the agricultural sector in improving the country's economic growth, increasing employment opportunities and poverty alleviation in rural areas, it is important that land reform results in increased or at least sustained levels of agricultural production. Additionally, given the current concerns with food insecurity, it becomes important to analyse the effect that RECAP can have on food security. As stated above, the Recapitalisation and Development Programme was designed to ensure productivity and food security, among other things. Since food security is one of the major objectives of the programme, socio-economic factors affecting land reform beneficiaries must be measured. Van Zyl *et al*. (1996) argue that the success of land reform in South Africa should be assessed against its ability to correct land inequality, upgrade livelihood, food security, rural employment creation, and enhancing the quality of life of beneficiaries.

After massive financial efforts by the public sector towards the RECAP, it becomes reasonable to question how the programme has successfully improved the lives of its beneficiaries. Has the desired livelihood improvement been realised? It is government's responsibility to ensure that land reform is implemented not only to rectify injustices of the past, but also and more importantly, to improve the livelihoods of previously disadvantaged South Africans. This topic is significant not only because of the amount of time and money the government is putting into the programme, but also because of the people of South Africa whose livelihood is dependent upon having access to land and its productive resources. In South Africa, the socio-economic impact assessment of the land reform programme received little attention in previous studies (Greenberg, 2010; Lahiff, 2008; Jacobs et al. 2003).

Assessment of a programme is an elementary requirement for improving efficiency and performance (Datar *et al*., 2004). The results of the analysis could also be helpful to policy makers for choosing an appropriate approach that could fulfil the intended objectives of the programme. An important question here is whether or not the land reform projects benefiting

from the Recapitalisation and Development Programme are having the desired effects on livelihoods, quality of life and food security of the beneficiaries, as imagined by the designers of the programme.

1.3 Research questions

a. Have land reform beneficiaries' income improved since the implementation of the Recapitalisation and Development Programme?
b. Are RECAP interventions (strategic partnership and mentorship) effective in empowering beneficiaries in terms of skills and access to output markets?
c. What is the economic impact of the Recapitalisation and Development Programme on the projects' production level and employment creation?
d. Which components of the Recapitalisation and Development Programme have positively contributed to the household food security of the beneficiaries?

1.4 Research objectives

The overall objective of this study was to assess the socio-economic impact of land reform projects benefiting from the Recapitalisation and Development Programme on the beneficiaries.

The specific objectives of the study are:

a. To analyse the effect of the Recapitalisation and Development Programme on the income of beneficiaries.
b. To assess the effectiveness of the RECAP interventions (strategic partnership and mentorship) in empowering beneficiaries in terms of skills and access to output markets.
c. To examine the economic impact of the Recapitalisation and Development Programme on the projects' production level and employment creation.
d. To identify the components of the Recapitalisation and Development Programme that have positively contributed to the household food security of the beneficiaries.

1.5 Research hypotheses

The hypothesis to be tested in this study is:

Participation in the Recapitalisation and Development Programme has resulted in an improvement in the socio-economic status of land reform beneficiaries.

This can be further divided into four sub-hypotheses:

a. Participation in the Recapitalisation and Development Programme has resulted in an improvement in the income of land reform beneficiaries.
b. The RECAP interventions (strategic partnership and mentorship) have been effective in empowering the beneficiaries by providing skills and access to output markets.
c. Participation in the Recapitalisation and Development Programme has resulted in an improvement in the production level and employment creation of land reform projects.
d. RECAP has contributed positively household food security of beneficiaries where projects were provided with a mentor/strategic partner, funding and skills.

1.6 Definition of key terms

Socio-economic impact

Socio-economic impact examines the impact of a proposed development on the community's social and economic well-being (Edwards, 2000). In this study, development impacts are evaluated in terms of changes in livelihoods, income, production level, employment creation, and food security, as well as changes in skills and market access.

Land reform

Land reform generally means the redistribution of property or rights in land for the benefit of the landless, tenants and farm labourers (Adams, 1995). In the case of South Africa, beneficiaries are previously disadvantaged persons.

Empowerment

Empowerment is the process of enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes (World Bank, 2002). In this study, empowering the programme's beneficiaries is measured in terms of farming skills development and improvement in access to market.

Livelihood

Livelihood refers to the means of making a living. Livelihood comprises "the capabilities, assets (both material and social resources) and activities required for a means of living" (Krantz, 2001:6). In this study, livelihood refers to a way of earning money in order to live. It includes choice of enterprises that the farmers engage in and sources of income.

Household food security

Food security is defined as a "situation that exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, 2003:16). For the purposes of this study, household food security entails that households are able to have access to adequate food needed for a healthy life without requiring food assistance or other coping strategies.

1.7 Organisation of the dissertation

The rest of this dissertation is presented as follows: Chapter 2 gives an overview of land reform in South Africa, highlighting the post settlement support needed to make land reform successful and the history of agricultural support services in South Africa. The Recapitalisation and Development Programme is also discussed in detail in Chapter 3. Chapter 4 reviews literature related to the impact of land reform programmes. Previous approaches used in analysing socio-economic impact of land reform projects are reviewed. The methods and procedures that were used in the analysis are presented in Chapter 5. The chapter also describes the sources of data for the study; sample composition; data analysis and data limitations. This chapter also describes and defines the variables used in the analysis. Chapters 6 provides a descriptive analysis of the respondents and characteristics of the sampled projects. Chapters 7, 8 and 9 present the study results. The dissertation concludes in Chapter 10 with a summary of the major findings, conclusion and recommendations of the study.

CHAPTER 2

LAND REFORM AND POST-SETTLEMENT SUPPORT IN SOUTH AFRICA

This chapter provides an overview of land reform in South Africa, highlighting the different types of post-settlement support needed to make land reform successful. It also reviews the different post-settlement support initiatives introduced by the government since the introduction of land reform in South Africa.

2.1 Land reform in South Africa

South Africa has designed and implemented a number of land reform policies and programmes since 1994, when the new democratic government came into power. The land reform policy is implemented through three key programmes:

2.1.1 Land restitution

Land restitution aims to reinstate historical lands to eligible claimants who were forcefully removed from it as a result of past racially biased laws and practices, provided that the removal from the land occurred after 1913 (Pepeteka, 2013). Under the programme, claimants may either have the land under claim returned, or receive another piece of land, or be remunerated financially, provided they have submitted legitimate claims in accordance with the Restitution of Land Rights Act, 22 of 1994. The Restitution of Land Rights Amendment Bill initially set a deadline for land claims at 31 December 1998. The programme began at a slow pace, with about 41 cases being settled between 1995 and 1999. As a response to speed up this pace, the Restitution of Land Rights Act was amended in 1999 and 2003. By January 2013, 97 per cent of the 77 979 claims had been settled, which is about 1.443 million hectares, including 13 968 households headed by females and 672 people with disabilities as beneficiaries (Pepeteka, 2013).

The restitution programme's total cost stood at R16 billion by 2013, of which R10 billion was spent on land acquisition and R6 billion was used for financial compensation of claimants (Nkwinti, 2013). Even though the land restitution programme has made major progress, there are some concerns. Lahiff and Rugege (2002) observe that there has been an inclination of settling urban claims (72 %) over rural claims (28 %) and a large number of beneficiaries have been financially compensated, which undermined the objective of attaining the target of transferring 30 % of the commercial agricultural land to previously disadvantaged people by 2015. Another key challenge faced in settling land claims has been the lack of attention paid in ensuring that land given to claimants is sustainably developed (Rugege, 2004). As a result of these challenges, the government saw fit to extend the deadline for land claims to 31 December 2018.

2.1.2 Land tenure

Turner *et al*. (1999:2) define land tenure as "the terms and conditions on which land is held, used and transacted". In South Africa, land tenure reform seeks to address the inequalities between tenants and white owners. Millions of people in rural areas, including farm dwellers, have insecure tenure. Under the land tenure programme, government implemented the Land Tenants Act, 3 of 1996, and the Extension of Security of Tenure Act, 62 of 1997, aimed at legalising and upgrading informal rights, as well as putting in place restrictions and procedures to be followed on how and when tenants may be removed from farms to avoid illegal evictions (DLA, 1997).

> *The evicted have nowhere else to go and suffer terrible hardships. The victims swell the ranks of the absolute landless and the destitute. They find themselves at the mercy of other landowners for refuge. If no mercy is shown, land invasion is an unavoidable outcome. Because the root cause of the problem of insecurity of tenure under these circumstances is a structural one it requires a structural solution. (RSA 1997: 34)*

However, these pieces of legislation have not been very effective in preventing evictions of farm workers and labour tenants. Therefore, the Land Tenure Security Bill (2010) was introduced as a response to the dilemma of farm workers and farm dwellers with the aim of providing and strengthening tenure rights for dwellers by providing them with the necessary opportunities whereby they could qualify to become proprietors of the land (LAMOSA, 2010).

2.1.3 Land redistribution

The land redistribution programme seeks to provide poor people with access to land in order to improve their socio-economic status. The beneficiaries can use the land for residential and production purposes. The programme is based on a "willing-buyer willing-seller arrangements" system with the help of land acquisition grants provided by the government. It is mainly targeted at the urban and rural poor, farm workers, farm dwellers, emergent farmers and women. Originally, the government only provided assistance for the purchase of land and was not the "buyer". Most of the time, communities are required to come together and combine their resources to jointly buy and hold land under a formal title deed. Individuals are also provided with opportunities to access the land acquisition grant (DLA, 1997). Similar to the land tenure programme, the approach of land redistribution has undergone a number of changes over the years. The following sub-programmes were established to advance the constitutional agenda of land reform:

2.1.3.1 Settlement/Land Acquisition Grant (SLAG)

The SLAG programme, as the main sub-programme, was initiated under and guided by the Land Assistance Act of 1993. The sub-programme presented an opportunity to individuals to access land for agricultural purposes through the introduction of an 'own contribution' principle (MALA, 2001). Each qualifying household was given a grant of R16 000. The grant was for the purchase of land from a willing seller and could be used for both residential and agricultural production purposes. The SLAG programme also supported the idea of obtaining land through groups of applicants so that they could combine their grants to afford the purchase. This programme, however, had many challenges. According to Lahiff and Rugege (2002), the challenges included overcrowding of large groups of people without the necessary skills to allow them use the land productively, high cost of marginal land, and the lack of any substantial contribution to the development of commercial black farmers as a result of insufficient grants provided.

2.1.3.2 Land Redistribution for Agricultural Development (LRAD)

As a result of the poor performance of the SLAG programme, the Department of Land Affairs replaced it with a new programme. The Land Redistribution for Agricultural Development (LARD) sub-programme was introduced in 2001 to provide land grants to beneficiaries, based on the size of their own contribution (DLA, 2001). Applicants were required to contribute towards the process as a way of showing their commitment to farming, hence ensuring the establishment of emerging black farmers. The beneficiaries of the programme can gain access to grants ranging from R20 000 to R100 000. To cover the poor, the capital contribution was replaced by sweat equity (contribution in the form of labour).

The LRAD programme had two alternative components; the allocation of production land to specific individuals or groups, or transferring land to commonage projects. Under municipal commonage, the state provides funds to rural towns for use by the local residents. The land can be used for grazing or small gardens by poor communities to enhance their income and food security (Rugege, 2004).

2.1.3.3 Proactive Land Acquisition Strategy (PLAS)

To accelerate the pace of land reform, the government introduced the Proactive Land Acquisition Strategy (PLAS) in 2006. The PLAS programme aims "to benefit households with limited or no land access, commercial smallholders with the potential to expand, and aspiring black commercial farmers". Other beneficiaries targeted include farm workers, youth, women, and unemployed agricultural graduates. Under the sub-programme, government purchases the land from a 'willing seller' on the market and leases it out for a period of three to five years to beneficiaries with the intention of permanently transferring the land to beneficiaries displaying potential (Lahiff, 2008). The dependence on market-based purchases has continued through the programme, although more emphasis has been given in ensuring that beneficiaries are effectively using the land than in securing tenure for the poor.

Although the land reform programme has been able to realise a few achievements in terms of increasing access to land and positively contributing to the livelihood of beneficiaries, its sustainability has been disputed. Some of the land transferred has not succeeded in obtaining the desired levels of productivity, while others are not operational at all. A major contributing factor for the failure of the land reform rate of most land reform projects is the meagre or

inadequate post-transfer support provided to the beneficiaries. There has also been no coordination between relevant stakeholders, such as the DLA, DoA and other government departments (Jacobs, 2003). According to HSRC (2003) and Wegerif (2004), lack of post-settlement support remained a significant weakness of land redistribution projects.

2.2 Post-settlement support

Post-settlement support (also known as 'post-transfer support') has assumed different definitions across many countries, depending on the land reform type and purpose (Rungasamy, 2011). In the South African land reform setting, post-settlement support refers to the functions and responsibility provided by government to beneficiaries after they have received access to land (Molefe, 2004). Beneficiaries of land reform deal with all the challenges faced by existing farmers, while at the same time facing extra impediments as a result of their lack of required skills and experience, limited resource base and lack of contact with various institutions assisting commercial farmers (FAO, 2006). Access to land alone is insufficient in bringing about socio-economic development of beneficiaries. This highlights the necessity for human capital development (such as training, education, extension and other advisory services), financial support, access to markets, and the establishment of physical infrastructure, especially in rural areas (Dekker, 2003). The forms of post-settlement support needed by land reform beneficiaries are discussed in detail below.

2.2.1 Extension services

Agricultural extension is concerned with distributing the various items of information and advice needed by farmers from government agencies through non-formal education means with the intention of enhancing beneficiaries' social and economic conditions. Extension plays a key role by conveying important information, such as technology transfer, improved farming techniques and marketing information, to encourage farmers to adopt new technology and improved practices and hence increase their production efficiency. It is also regarded as an entry point to assistance from government and other institutions after the land has been transferred (Anderson & Feder, 2004). There has been a debate on whether extension services are more effective when provided by the private sector or by government. However, Anderson and Feder (2004) highlight the point that in reality, almost 80 % of extension services

worldwide are funded by governments. Participation of the private sector is limited to commercial agricultural interests.

2.2.2 Capacity building

Beneficiaries' lack of skills is one of the main problems in land reform in South Africa. For land reform to be successful, it requires beneficiaries to have the required skills and experience in land use and management and the ability to increase productivity, reduce poverty, and thus promote food security and socio-economic development. Farming requires knowledge of farming and management expertise with respect to financial management, marketing, and human resource management, which are skills that cannot be provided by extension workers. Farmer training through agricultural colleges is one of the ways to assist the process of transferring skills to land reform beneficiaries (Kirsten & Machethe, 2005). A range of training programmes consisting of management and mentorship programmes can be used to enhance beneficiaries' technical and managerial skills. The mentors, in the forms of a strategic partner or experienced farmers, can guide and train land reform beneficiaries on farming skills, financial and human resource management (Rungasamy, 2011).

2.2.3 Access to credit

Lack of access to credit is one of the major constraints that impede beneficiaries from using their land effectively. Many constraints on agricultural output are a result of the lack of access to credit for emerging farmers, which in turn hinders the social and economic development of the rural poor. Access to adequate funding is essential for agricultural development to be realised; however, most of the financial markets in rural areas are inefficient. Beneficiaries are constrained financially, and therefore cannot afford to finance the purchase of operational inputs, such as seeds and fertilisers and the infrastructure needed in most agricultural projects, thus hindering their capacity to become successful commercial farmers (Spio, 2003). Access to credit could also speed up the adoption of new technology. Spio (2003) argues that even though experience around the world has shown that governments are not efficient in providing financial services, it is government's responsibility to create a conducive atmosphere for facilitating the provision of financial services.

2.2.4 Infrastructure

Rural infrastructure development, improved technologies and a variety of well-disposed rural services have been found to be crucial to "effective and lasting agrarian reform" (FAO, 2006). Most parts of the rural areas in the country, and in Africa as a whole, are characterised by poor roads which present a clear and severe stumbling block for successful land reform and agricultural development. It is mainly the public sector's responsibility to finance infrastructure development such as road construction. Other infrastructural deficiencies that have to be improved on include communications, electricity, health, and water supply infrastructure. Parts of these are public, community and private sector responsibilities.

2.2.5 Access to markets

Market access is of fundamental importance in poverty reduction and sustainable development. Therefore, post-settlement support should not only be limited to developing land reform beneficiaries and financial assistance, but should also extend to providing support in finding potential markets for the beneficiaries. According to Anderson and Feder (2004), these markets can be formal or informal markets, contracts with retail chains, or contracts with processing plants. For farmers to flourish, they rely on sales made from selling their products at prices which makes it profitable to produce, and for this to occur, access to profitable markets is of great importance. Access to markets is mainly influenced by the availability of market information and infrastructure (Van Renen, 1997). Thus, the public sector has a crucial responsibility for ensuring the availability of different market infrastructures and providing market information through extension services.

2.2.6 Research

It has been widely acknowledged that innovators play an important role in ensuring economic progress of a country. Agricultural research plays an important role in improving agricultural productivity, achieving sustainable level of food security, and ensuring farmers' competitiveness through adoption of new technologies and agricultural practices. A large portion of agricultural research is provided by government in many countries, which benefits the farmers as well as the agribusiness sector, as a whole (Mafora, 2014). The challenges of

unproductive and failed land reform projects point to the need for increased research in this area.

2.3 Post-settlement support initiatives in South Africa

In order to address the problem of lack of access to post-settlement support, including agricultural support services, government has implemented a number programmes and initiatives as described below.

2.3.1 Comprehensive Agricultural Support Programme (CASP)

In 2004, the Department of Agriculture introduced the Comprehensive Agriculture Support Programme (CASP) to address the challenges of inadequate post-settlement support services. The main aim of the programme is to provide agricultural support services to beneficiaries of land reform and to emerging farmers in order to promote agricultural development and assist farmers to contribute to the economy. The programme provides support provided on six key areas; on- and off-farm infrastructure services, financing mechanisms, training and capacity building, technical and advisory assistance, information and knowledge management, business and marketing development, and regulatory services (Didiza, 2006).

Through CASP, beneficiaries received a once-off grant for an agricultural-related project which was mainly used on developing infrastructure. However, one key limitation of the programme was the lack of a holistic approach to farmer support since emphasis was put on farm infrastructure at the expense of other important supports, which compromised the effectiveness of CASP to function as an instrument of growth for the beneficiaries of land reform programmes (LAMOSA, 2010). CASP provided support to more than 300 000 beneficiaries in more than 4 200 projects between 2004/05 and 2008/09 (Greenberg, 2010).

2.3.2 MAFISA

The National Department of Agriculture, in an attempt to ensure financial support to land reform programme, introduced the Micro-agricultural Financial Institution of South Africa (MAFISA) in 2005. MAFISA is a state-owned scheme established to provide micro and retail agricultural financial services on a cost-effective and sustainable basis to increase support to

farmers and transform the agricultural sector (Didiza, 2006). The programme targets farmers in rural and peri-urban areas who are economically active. The credit scheme was started with the initial budget of R1 billion managed by the Land Bank and recently moved to the intermediaries' organisation placed within the provinces (Hall, 2004). MAFISA provided production inputs (fertilisers, seeds, pesticides, et cetera) to successful applicants. Regardless of the gains the scheme had made, the funding did not provide other important support that land reform and emerging farmers need, such as training, extension support, mentorship and market linkages (LAMOSA, 2010).

2.3.3 AgriBEE

Agricultural black economic empowerment (AgriBEE) was launched in April 2008 by the national Department of Agriculture, in pursuance of the objectives of the Broad Based Black Economic Empowerment Act (2003). It is aimed at empowering black emerging farmers by granting them access to agricultural opportunities through funding, while ensuring the de-racialisation of land and enterprise ownership. The programme assists individuals or groups to obtain equity and ownership in already existing commercially viable and sustainable enterprises within the sector (Hall, 2004). The direct outcomes of the programme are the increase in the number of black farmers participating in sustainable agricultural businesses and the establishment of partnerships that promote shared efforts and benefits. The department has formed partnerships with agricultural colleges and higher learning institutions in an effort of furthering the objectives of the Small, Medium and Micro Enterprises (SMMEs) development.

2.3.4 Ilima Letsema

Ilima-Letsema was introduced in 2008 by the National Department of Agriculture as part of an effort to assist the country's poor communities in both urban and rural areas to realise an increase in agricultural productivity. The programme's main goal was to ensure socio-economic development and food security by increasing food production. The Ilima-Letsema programme targeted beneficiaries at the household level with the sole intention of enhancing food production capabilities of the rural poor through a number of interventions (DRDLR, 2009). The programme focused on using household and backyard activities to stimulate food production, creating micro-enterprises in communal land, ensuring productivity of all land in

vulnerable communities, and transforming latent agricultural assets into income-generating assets. The Ilima-Letsema campaign has been implemented throughout the country and aims to increase production by 10 to 15 % (LAMOSA, 2010).

2.3.5 Extension

The extension and advisory service of the Department of Agriculture continues to play a critical role in land reform. Extension workers are providing extension and advisory service to farmers, including the recipients of land through government programmes. The extension services in South Africa are insufficient with regard to their numbers, training, necessary skills to convey to beneficiaries, and the needed infrastructure is also deficient, which is a common experience in many countries on the continent (Groenewald, 2003). According to Hall (2004), provincial Departments of Agriculture were found to be under-capacitated and short-staffed, making it difficult for them to play a meaningful role in providing support to land reform beneficiaries. The Extension Recovery Programme (ERP) was introduced to address some of the shortcomings in the provision of extension services. In the first year (2008/09) of implementation, a total of R100 million was disbursed to provinces for the implementation of the ERP (DAFF, 2011). The aim of the programme was to address the challenges of skills gaps and to respond to the needs of farmers (including the beneficiaries of land reform).

2.4 Summary

The objective of this chapter was to provide an overview of land reform, highlighting the post-settlement support needed to make land reform successful, together with the history of agricultural support services in South Africa. In this chapter, the post-settlement support challenge in land reform has been identified as a key issue that has weakened the achievement of the development goal of most land reform sub-programmes in South Africa. Many post-settlement support initiatives have also failed in making land reform successful. For smallholder farmers to be able to produce successfully, they require holistic agricultural support services, including profitable product pricing, access to financial services, provision of technical skills through mentorship, and access to markets, which are what most of the agricultural initiatives mentioned above lack. As a key to ensuring that the benefits of land reform are realised, the government introduced the Recapitalisation and Development Programme in 2009. This programme is discussed in detail in the following chapter.

CHAPTER 3

RECAPITALISATION AND DEVELOPMENT PROGRAMME

This chapter provides an overview of the Recapitalisation and Development Programme, highlighting the programme's rationale, objectives, functions and its theory of change. RECAP's performance from inception is also presented in the chapter.

3.1 Background on the Recapitalisation and Development Programme

The Department of Rural Development and Land Reform in 2009 carried out an appraisal of the land reform programme, since its inception. The results showed that most of the transferred farms were struggling, while others had collapsed. The failure of these projects was largely attributed to the lack of adequate or appropriate post-settlement support provided to the beneficiaries. As a response, the Recapitalisation and Development Programme (RECAP) was implemented in 2009 (DRDLR, 2011; DRDLR, 2012). The programme was established to revitalise and develop unproductive land reform projects. The programme focuses on farms in distress and newly acquired through the land reform restitution and redistribution programmes since 1994. It also targets black emerging farmers without grant funding, who are not land reform beneficiaries and those in communal areas (Cousins, 2013).

RECAP supports emerging farmers with comprehensive support through human (capacity development), infrastructure development, production inputs, market access and integrating into the value chain over a five year period through partnerships with commercial farmers. The approach is to ensure that the enterprises are profitable and sustainable across the value chain in line with the Business Plan**.**

3.2 RECAP objectives

According to DRDLR (2011), RECAP objectives are:

- to increase production;
- to guarantee food security;
- to graduate small farmers into commercial farmers;

- to create employment opportunities within the agricultural sector; and
- to establish rural development monitors.

The key strategic objectives of the programme are to ensure "that Land Reform farms are 100% productive; that the class of black fledgling commercial farmers which was destroyed by the 1913 Natives Land Act is rekindled; and that the rural-urban population flow is significantly reduced" (DRDLR, 2014:6). The objectives mentioned above are meant to contribute to the achievement of Outcome 7: Vibrant, equitable and sustainable rural communities and food security for all. The programme also contributes to the achievement of Outcomes 4 and 10: Creation of decent employment opportunities through economic growth and ensuring sustainable natural resource management, respectively (DRDLR, 2011).

3.3 Functions of RECAP

Post-settlement support under RECAP is implemented through recapitalisation (providing financial support to distressed farms through grants) and development (providing technical support through strategic partnership and mentorship). The two functions of the programme are discussed in detail below:

3.3.1 Recapitalisation

The Recapitalisation function is entirely resource-driven and provides financial support through grants, based on a credible business plan. The programme's grant replaces all previous forms of land reform funding, including settlement grants (Cousins, 2013). RECAP projects were initially funded based on a five-year cycle, where 20% of the business plan needs for the succeeding year came from the previous year profits (DRDLR, 2011). Eventually, this model was changed to five development phases in 2012, to take in to account the variations in the nature and incubation periods of agricultural enterprises (DRDLR, 2012). The development or business plans are written by either strategic partners or departmental officials and are used to guide decision-making. The funding model is shown in Figure 3.1. The model illustrates the three-way collaboration between the beneficiaries, the DRDLR and strategic partner/s.

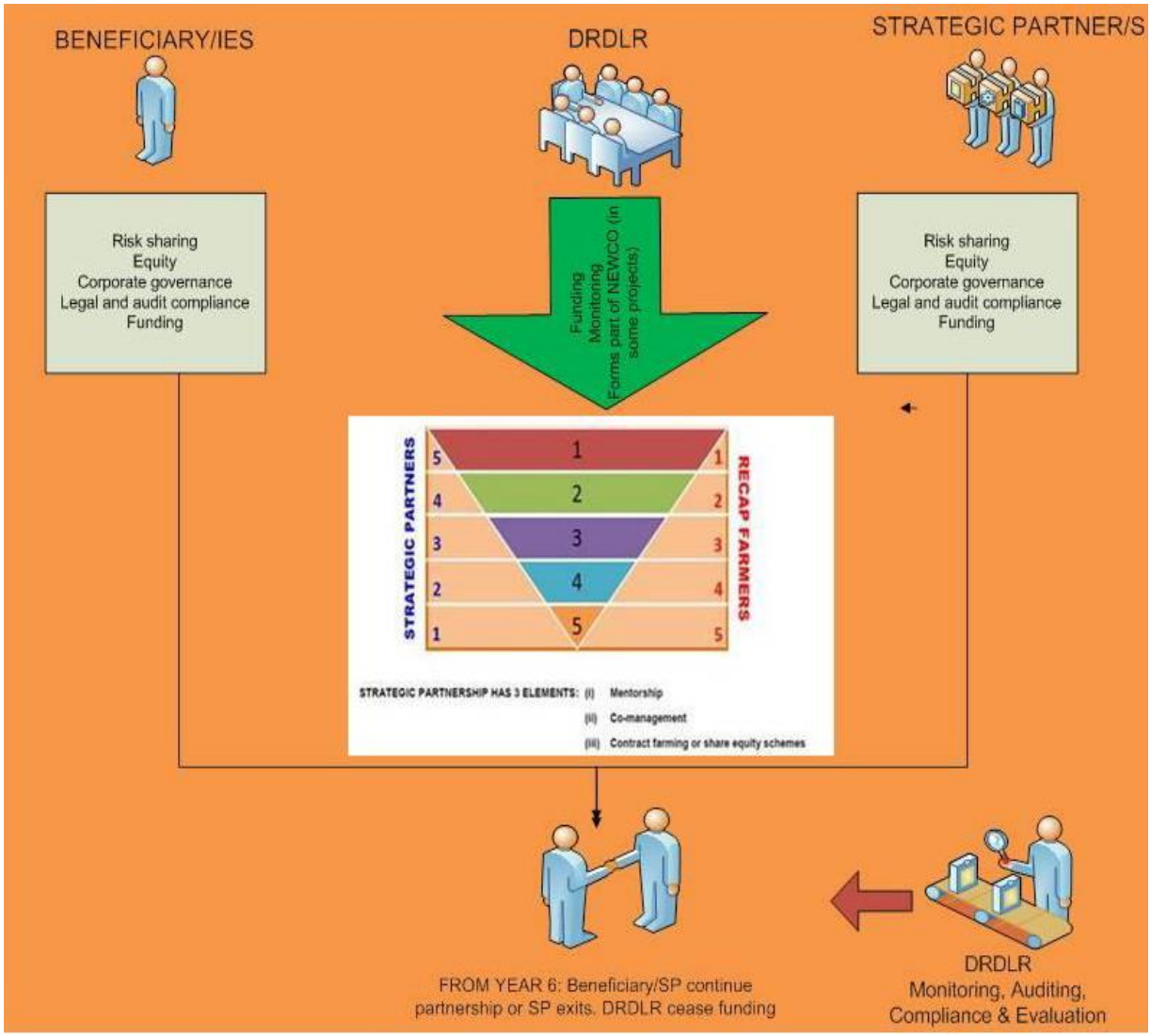

Figure 3.1: The RECAP funding model

Source: DRDLR (2014)

Phase 1: 100 % funding

The funding in this phase covers 100 % of the infrastructural and operational inputs identified in the business plan.

Phase 2: 80 % funding

The application of phase 2 should be guided by the business plan and be applicable to value adding developments (e.g. development of a feedlot). In this case, RECAP funding should cover 80 % of the development needs.

Phase 3: 60 % funding

Funding in phase 3 should be applicable to value adding developments (e.g. development of an abattoir). In this case, RECAP funding should cover 60 % of the development needs.

Phase 4: 40 % funding

RECAP funding in phase 4 is for value adding developments (e.g. development of a meat processing plant). Only 40 % of the development needs should be covered by RECAP.

Phase 5: 20 % funding

In phase 5, RECAP funding covers 20 % of the value adding development (e.g. development of a meat outlet). The profits from the operations of the previous year are to contribute to the shortfall of the succeeding year.

The guidelines specify that the funds should be paid to the strategic partners and mentors in instalments of not more than 25% of the amount approved and these funds should be spent within 120 days or returned to DRDLR. It is also not allowed to invest the funds in any markets or investment accounts. The guidelines state that the strategic partner/mentor must provide a financial and impact report, specifying how the funds were used together with supporting documents (Business Enterprises, 2013).

3.3.2 Development

The development function focuses on the growth and progress of the farming enterprise. Two strategic interventions have been adopted under the RECAP to ensure the sustainability of land reform projects. These interventions are mentorship and strategic partnership. RECAP requires that land reform farmers should enter into partnership with either a Strategic Partner or a Mentor for the purpose of capacity building, market linkages, business plan etc. DAFF has a key role to play as a development partner because it is the custodian of the agriculture sector plan and policies; and controls extension services, including research, veterinary services, and development facilities (DRDLR, 2011).

3.3.2.1 Mentorship

Mentorship can be described as a series of process in which a farmer with more skills or experience guides and coaches an emerging farmer with less experience for the purpose of developing his/her technical and managerial skills (Terblanché, 2007). It is a key element of the programme given the skills gap of most land reform beneficiaries. Commercial farmers are usually ideal mentors to equip land reform beneficiaries with production, marketing, finance, and other farm related skills, to ensure that they start producing, enter markets and create successful farms and enterprises. Mentors are assigned to different projects in accordance with their skills and knowledge over an agreed period.

3.3.2.2 Strategic partnership

Beneficiaries of RECAP will have business partners recruited from the private sector to work closely with them. Strategic partners can be private companies, state institutions or individual commercial farmers. The different types of strategic partnerships may include, but are not limited to:

- Co-management is an arrangement where "two or more actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources" (Borrini-Feyerabend *et al*., 2000:1). RECAP encourages co-management arrangements with neighbouring farmers or with municipal commonage areas.

- Share equity schemes are arrangements in which potential/land reform beneficiaries buy shares in a farming enterprise or an agricultural processing company (DRDLR, 2011). It seeks to contribute towards the achievement of land reform objectives, by roping in private sector participation in land reform, through equity sharing in the enterprises. This model is aligned to the Agri-BEE strategy of government.

- Contract farming is an agreement between farmers and processors or marketing firms the basis of which is "a commitment on the part of the farmer to provide a specific commodity in quantities and at quality standards determined by the purchaser and a

commitment on the part of the company to support the farmer's production and to purchase the commodity" (DRDLR, 2011: 9).

3.4 RECAP's theory of change

RECAP was established to revitalise and develop failing land reform projects which is largely attributed to insufficient or absence of post-settlement support (e.g. finance, extension services, markets, infrastructure, etc.). Land reform beneficiaries did not have the necessary skills and knowledge; and financial resources to operate their farms as productive and profitable commercial entities. Therefore, the RECAP theory of change was based on the major assumption that if land reform beneficiaries (projects) were provided with appropriate and adequate post-settlement support, they will fully utilise their farms and increase their production to the level where they can participate fully in output markets. According to Business enterprises (2013), the underlying assumptions were that:

(i) Financial support will lead to access to resources necessary to improve productivity and profits;
(ii) Adequate post-settlement support will lead to full utilisation of farms;
(iii) Farmers able to farm independently after RECAP;
(iv) Pairing farmers with strategic partners will lead to commercialisation;
(v) Strategic partners & mentors will be able to transfer technical and business skills; and
(vi) Revitalisation will lead to creation of more jobs.

The theory of change diagram (Figure 3.2) shows the causal relationships among the various activities, outputs and outcomes and impact of RECAP at the household level.

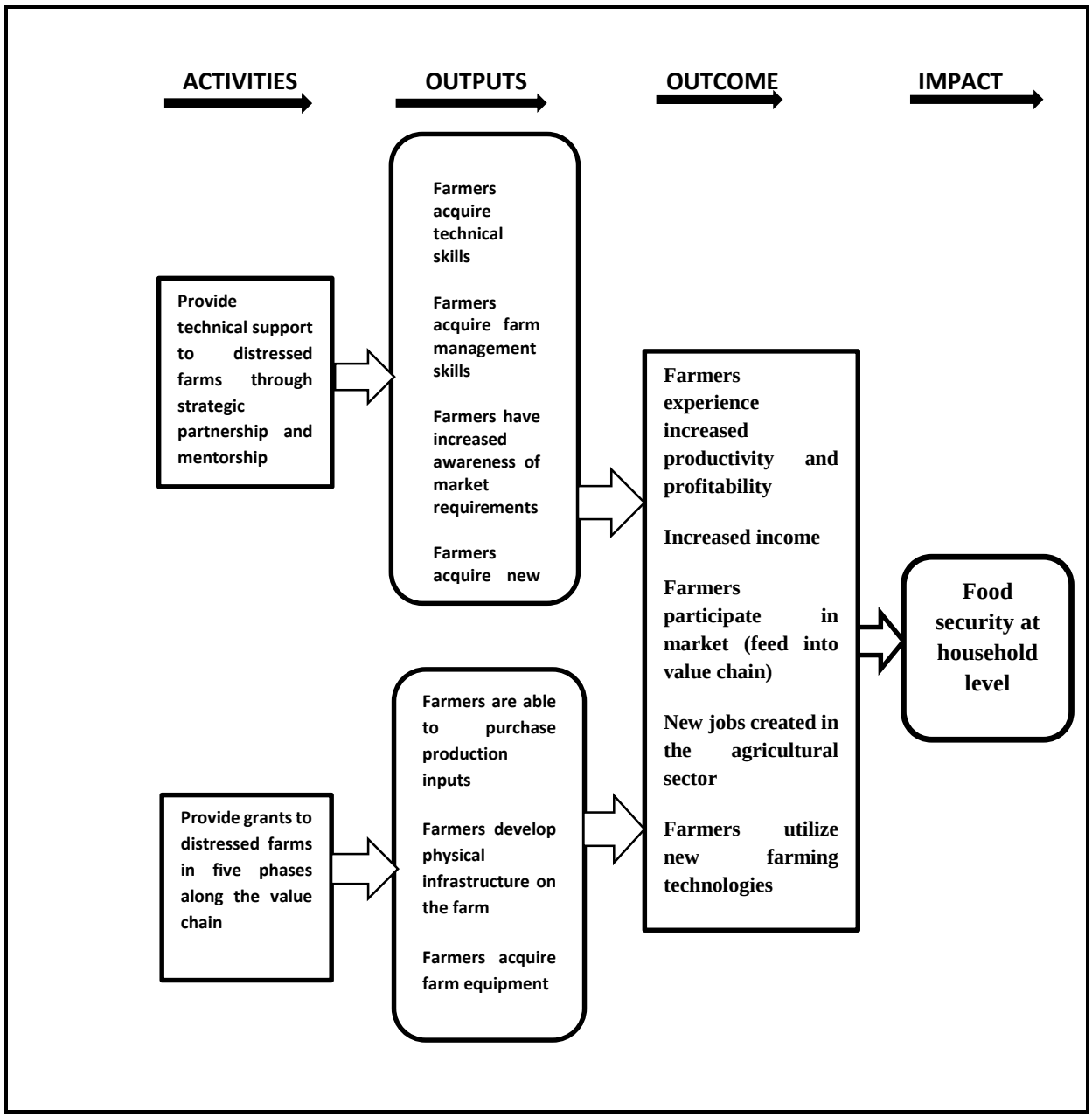

Figure 3.2: RECAP theory of change at household level

Source: Modified from Business Enterprises (2013)

3.5 Progress of RECAP

The programme initially targeted to recapitalise and develop about 1 807 distressed farms by 2014 (DRDLR, 2011). However, between November 2009 and March 2014, only 1 459 farms had been placed under RECAP, which translates to 28 126 beneficiaries and 1,38 million hectares of land, with an overall expenditure of R 3, 318 billion**.** There are currently 612

strategic partners supporting the beneficiaries of the programme and 1,889 farmers received training through RECAP (DRDLR, 2014).

Table 3.1: RECAP performance from 2009 to March 2014

Province	No. of farms	Hectares	No. of farmers trained	Budget expenditure	No. of Partnerships
Eastern Cape	188	111.591	125	R 427 478 429	85
Free State	182	134.587	67	R 385 662 220	100
Gauteng	115	19. 916	0	R 203 096 379	31
KwaZulu-Natal	212	131.619	493	R 508 365 796	103
Limpopo	196	79.143	197	R 338 799 465	58
Mpumalanga	206	165.726	215	R 514 974 531	74
Northern Cape	81	464.914	109	R 200 897 196	51
North West	215	225.571	69	R 425 403 524	94
Western cape	64	47.714	614	R 133 627 819	16
National	**1 459**	**1 380.781**	**1 889**	**R 3 318 305 359**	**612**

Source: DRDLR (2014)

3.6 Summary

The objective of this chapter was to provide an outline of the Recapitalisation and Development programme. RECAP was established to revitalise and develop failing land reform projects by providing beneficiaries with the financial means as well as the necessary skills to operate their farms as productive and profitable commercial entities. The programme had recapitalised and developed 1459 distressed farms compared with its target of 1 807 projects by 2014.

CHAPTER 4

LITERATURE REVIEW

This study is not about land reform per se, but about the impact of RECAP (a programme providing post-settlement support) in enhancing the social and economic development of land reform beneficiaries. This chapter reviews literature on (a) what needs to be in place for land reform to contribute to socio-economic development, especially the post-settlement support needed, and (b) methodological approaches to analysing the socio-economic impact of land reform. Studies carried out related to socio-economic impact of land reform projects on beneficiaries in relation to post-settlement support. The objective of the literature review is to identify the methodological approaches used in previous studies and the results obtained, so as to make an informed decision on the hypotheses.

4.1 Conditions for land reform to contribute to socio-economic development

Historical evidence from successful land reforms around the world suggests that positive results in terms of socio-economic development of beneficiaries will be realised if the reforms were to be complemented with pre- and post-settlement support, such as infrastructure development (roads, irrigation schemes), financial support, skills development and extension services (Stiglitz, 1998; Zimmerman, 2000; Finan *et al*., 2002; FAO, 2006).

Lopez and Valdes (2000) oppose the generally believed view that land reform can make a significant contribution in reducing poverty of beneficiaries and argue that the impact of such a programme on poverty is limited. Important elements mentioned to explain the limited capability was that the land reform beneficiaries often fail to transform the land asset into income which can play an important role in improving their socio-economic status. Access to land is a first step, but is not sufficient by itself towards improving the livelihoods of the poor. They state that the success of a land reform programme as a poverty alleviating tool is conditioned upon the provision of accompanying enablers such as on- and off-farm support services; infrastructure, input support, access to credit, human and skills development, access to water and viable technology. According to Stiglitz (1998), DFID (2002) and Cox *et al*. (2003), these complementary services allow the poor to turn the land into viable livelihoods

through farm or non-farm activities. Therefore, land reform should not be seen as a once-off intervention, where the process ends once the land has been transferred to beneficiaries.

Zimmerman (2000) also points out that for land reform to be successful in reducing poverty and ensuring food security, beneficiaries must not only be dependent on access to land, but must also be provided with "ancillary support". For land reform to have an impact on the livelihoods of beneficiaries, providing adequate and thoroughly planned settlement support is necessary. It has been shown that even slightly limited farmer support for beneficiaries has been able to increase land usage, production levels and income. The degree to which the people can make use of land is mostly dependent on the interaction of land and other forms of capital, such as physical, human, social and financial capital. This is also supported by Bryceson (1999), Zimmerman (2002), and DFID (2002) who argue that in most cases, poverty reduction is a result of this interaction between land and other resources.

Kay (1998) also questions the capability of land redistribution for developing the socio-economic status of beneficiaries, arguing that while public debates are always passionate about land redistribution as a poverty reducing mechanism, evidence so far points to a disappointing result. In a rural environment, with multiple market imperfections, the provision of people with access to land without markets for their product may be ineffective in improving their socio-economic status (Deininger, 1999). Hence, land markets have to be considered in the context of the operation of other factor markets. Borras *et al*. (2006) argue that for the impact of land reforms to be most felt, it needs to be accompanied by genuine support, which highlights the need for significant public investment and technical support which have been shown to be important characteristics of the most successful land reforms in countries like Japan, the Republic of Korea, and Taiwan. These result in an increase in off-farm and non-farm economic opportunities and enhancements of livelihoods.

Chimhowu (2006) states that giving poor people access to land may be beneficial to farmers in rural communities only if they have the required knowledge and skills, financial assistance, and access to markets, and where physical infrastructure such as transport systems are in place. These conditions are necessary for sustainable farm livelihoods; however, they are rarely met in most rural areas in South Africa and in Africa as a whole. As a result, it becomes important for beneficiaries to diversify the use of land. Land can give rural communities a base from which to introduce multiple livelihood activities that may or may not be linked to farming. It

may provide beneficiaries with an important resource; however, it still needs other complementary activities to be turned into a sustainable livelihood.

According to Bruce (1993), for land use to be effective and sustained, a number of policy changes need to be adopted by countries introducing land reform. He points out that the weaknesses of many African and Latin American countries is that they put much emphasis on land redistribution and tenure, but fail to restructure the wider agrarian economy. They failed to create an enabling environment for the emerging farmers which results in little or no improvement in the livelihoods of beneficiaries. In order to design a plan that will lead to sustainable socio-economic development of beneficiaries, providing support to land reform beneficiaries must be an integral part of the land reform process through planning, implementation and settlement process or between 'pre-settlement' and 'post-settlement'. For the process to be successful, it must not be looked at as an element that is to be provided at the end of the process.

The limited success of land reform programmes is also, to some extent, due to poor implementation and poor coordination. There is evidence that settlement support cannot be perceived of as something that is given to beneficiaries; rather, those individuals who have acquired land and are in need of support must be involved in the entire process. Lessons from around the world also show that providing support to land reform beneficiaries entails the involvement of various categories of role players, including the beneficiaries themselves, local government, various government ministries and non-governmental organisations. Providing proper support is often made difficult by the lack of coordination in institutions tasked with providing settlement support (Luwanda & Stevens, 2015). Therefore, there is a need for coordination of the institutions tasked with providing settlement support.

4.2 Approaches to measuring the socio-economic impact of land reform projects in relation to post settlement support

Gunning *et al.* (1999) examine the determinants of income growth using longitudinal data from beneficiaries of land previously owned by white farmers in Zimbabwe. The paper compares the determinants of crop incomes in 1982/83 with those of the 1995/96 agricultural year. It uses multivariate analysis to examine the determinants of incomes from crops, as well as the causes

of the income change over time. The dependent variable is the crop income and explanatory variables include agricultural tools, adult labour, land used, ox teams owned, extension and rainfall. The results indicated that all households had experienced a growth in income, but mostly for beneficiaries that had previously had the lowest income. An impressive accumulation of assets was noticed and increases in returns to these assets and farming experience have been significant in generating this increase in crop income.

Reyes (2002) examined the impact of agrarian reform on poverty in the Philippines using a panel study. The study employed a multiple regression model to assess the determinants of real income level in 2000 and also made use of a binary logit model to determine the likelihood that a household would not be poor, given a set of explanatory variables. The same sets of independent variables used in the multiple regression model were also used in estimating the logit model. These included access to credit, educational level of household head, household status, number of years as agrarian reform beneficiary, farm size, land type (irrigated vs non-irrigated), location, household size and a dummy variable of whether they had received or had not received financial assistance. The results revealed that agrarian reform had a positive impact on the studied beneficiaries. The results revealed that between 1990 and 2000, poverty incidences were reduced and income of beneficiaries increased. Beneficiaries of agrarian reform had higher income and lower poverty occurrence, compared with non-beneficiaries. In addition, the odds of beneficiaries being non-poor were also higher for households with access to complementary services, such as irrigation, credit and government services.

Finan *et al*. (2002) investigated the circumstances under which access to land reduces poverty in Mexican rural communities involving 25 000 households. The study used a semi-parametric procedure for estimating the relationship between income and land. The dependent variable is income, and the explanatory variables include gender, age, education level, labour force, land, infrastructure, indigenous household, access to agricultural cooperative. The results showed that land, infrastructure, education were all significant in explaining income.

Bradstock (2005) examined how livelihoods of land reform beneficiaries in the Northern Cape of South Africa changed between 2000 and 2004. Eight beneficiary groups with different levels of wealth were studied. It evaluated how households with different levels of wealth had incorporated agriculture into their livelihoods, as well as exploring other determinants that had led to a change in livelihoods. For the purpose of analysis, simple statistics in the form of frequencies, mean, standard deviation and cross-tabulations were employed. The results

showed that households were successful in expanding their livestock holdings and that per capita incomes for most households had increased, although the contribution that land had made to these increases had been limited. The findings showed that households with higher levels of wealth were more productive in using the land, compared with poorer households. Agricultural income was not significant in expanding livelihood activities. Success in the labour market played a major role in alleviating poverty for rich households, while receiving social grants was key in poverty alleviation for poor households. The poor rate of land reform progress in South Africa can be attributed to high costs of capital equipment, lack of infrastructure, especially in rural areas, low levels of technical assistance, and credit market failures which hinder the beneficiaries from exploiting the land given to them to its full potential.

Gordoncillo (2007) investigated the impact of the Comprehensive Agrarian Reform Program CARP on agrarian reform beneficiaries (ARBs) and non-agrarian reform beneficiaries (non-ARBs) between the years 2000 and 2006. The data used in the study were gathered using quantitative and qualitative methods from 405 respondents which were included for a true panel data analysis. The results indicate that ARBs had higher real per capita incomes than non-ARBs did. Access to roads, sources of water and electricity and toilets all increased from 2000 to 2006 for both CARP's beneficiaries and non-beneficiaries. The contribution of CARP to employment creation was more noticeable. The total mean asset was highest among ARBs. When the former tenants became ARBs, their cropping system improved and they also adopted agricultural technologies

Adhikari and Bjørndal (2009) analysed the economic relationship between access to land and poverty in Nepal. The study used a generalised additive model (GAM) and ordinary least squares (OLS) to determine the relationship between access to land and the dependent variables – consumption and income. The explanatory variables for both models included age, household size, education, infrastructure, regional variables, land and complementary assets. The results show that age, household characteristics, infrastructure, regional variables, land and complementary assets were significant and greatly influenced the consumption and income generating prospective of land. The cluster analysis indicated that selection criteria must be developed that would target appropriate individuals within the community that would make use of the land given to them.

Valente (2009) conducted a study to determine the effect of land distribution on household food insecurity in South Africa. He used propensity score matching and univariate probit estimates from the General Household Survey and Labour Force Survey. The dependent variable is a binary variable where the value one represents a household with difficulties in meeting its food requirements and zero if a household is able to satisfy its food needs. Explanatory variables included the number of household members, household head's age and its square, ethnicity, province fixed effects either relevant to food insecurity or quality of land, infrastructure, and post-settlement support. The result for the propensity score matching showed that, comparing treated and non-treated households with similar socio-economic factors, beneficiaries were significantly more likely to report difficulties in satisfying their food needs than non-participants were. The results from the probit estimates point out that the odds that a household is food insecure increases when a household head is uneducated, receiving welfare grants, single and the household size is large.

Gordoncillo (2012) evaluated the economic impacts of the Comprehensive Agrarian Reform Program using panel data from surveys carried out in 1990, 2000, and 2006. The study employed the first difference regression model as the methodological approach. The dependent variable used in the study was real income and explanatory variables were household size, age of respondents, land size, and the intervention variables, as well as the time trend variables. The study also used alternative indicators, such as the total value of assets, as well as the level of expenditures, to examine the effect of the programme. The analyses showed that household size and land size were all significant for all the models, whereas age was significant for the income and total asset models only. The first difference was also significant across time. It showed significant positive changes in the economic well-being of beneficiaries after intervention and in comparison to the control group.

Mafora (2014) investigated the socio-economic impact of land reform projects in the Limpopo Province in South Africa. The objective of the study was to assess the factors that positively contribute to socio-economic benefits (food security) of land reform involving 170 beneficiaries. The multinomial logic model (MLM) was employed to investigate the extent to which socio-economic factors have contributed to beneficiaries' food security. The dependent variable was the level of beneficiaries' satisfaction with food security, using the following categories; none; moderate and high, while explanatory variables included the number of beneficiaries, gender, farm size/ha, enterprise, land reform sub-programme, proximity to the

project, decision, knowledge, skills, training, participation in development organisation, sustaining production, and sustaining financial obligation. The results revealed that beneficiaries participating in decision making and who had gained knowledge through training had higher chances of attaining household food security. However, the type of enterprise was not found to have significantly contributed to household food security. The study established that land reform still plays a major role in the food security status of the people of Limpopo Province.

4.3 Summary

This chapter presented a theoretical and empirical literature review. A number of studies in the literature have revealed the importance of complementary services, such as infrastructure, access to financial services, capacity building/training and access to markets, in making land reform successful, thus improving the socio-economic status of beneficiaries. Methodological approaches used by different authors were also highlighted. The methological approaches discussed in the chapter included the first difference model in panel data (Gordoncillo, 2007; Gordoncillo, 2012), logit models where analysis depended on cross-sectional data with a qualitative dependent variable (Reyes, 2002; Valente, 2009; Mafora, 2014) and multiple regression was also employed incase of cross sectional data (Ardhikari and Bjorrndal, 2009). Since this study made use of cross-sectional data derived at one point in time through the use of a questionnaire, with a binary dependent variable, the logistic regression model would the appropriate model.

CHAPTER 5

METHODS AND PROCEDURES

This chapter presents the key methodological issues that were followed in conducting this research. Areas covered include data sources, sampling composition, data analysis and data limitations.

5.1 Data sources

This research relied on secondary data. The data used for this study was obtained from a survey of RECAP beneficiaries during 2013 in six of South Africa's provinces. The data was collected during a cross-sectional survey that was conducted in the Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo and North West in 2013 by the University of Pretoria in collaboration with the Department of Performance Monitoring and Evaluation (DPME), covering approximately 98 projects (Table 5.1)**.** To collect the data, a structured questionnaire was administered to the management (beneficiaries) of the farms/projects on an individual basis.

5.2 The sample composition

A purposive and stratified sampling method was used to select the sample, which comprised 98 projects. These methods ensured that different attributes of the projects are included, such as **"**geographic distribution to make sure that regional climatic variations are taken into consideration and both urban and rural areas are included; type of enterprise, making sure that both livestock and crop projects are included; size of project to ensure that small and large projects are included; stage of project to guarantee that projects in all stages (planning, implementation and production) are included; project performance to include both successful and failed projects; strategic initiative to include projects with and without a strategic partner/mentor; number of RECAP projects per province to ensure that provinces with large and reasonably small number of projects are included; and type of land reform programme" (Business Enterprises, 2013:10).

Table 5.1 below summarises the distributions of sampled provinces and projects selected per province. The study area is shown in detail in the tables found in Appendices 1–6.

Table 5.1: Projects visited by province

Province	Number of RECAP farms	Number of projects visited
Gauteng	119	10
Eastern Cape	14	9
Limpopo	69	13
Free State	115	22
KwaZulu-Natal	108	24
North West	105	20
Total	**530**	**98**

Source: Business Enterprises (2013)

5.3 Data analysis

For the purpose of this study, the unit of analysis is the project manager. The adoption of the appropriate technique for analysis was based on the source and methods of gathering the data. Since this study made use of cross-sectional data derived at one point in time through the use of a questionnaire, quantitative analysis was adopted. The best method of measuring a programme's impact on socio-economic development remains a subject of debate among researchers. Many studies (Valente, 2009; Gordoncillo, 2012; Reyes, 2002) use panel data to estimate the impact, or make use of a control group in the case of pooled cross-section data. According to Wooldridge (2009), difference in difference method in case of pooled cross-section data or first difference in panel data are best methods of analysing a policy or programme. Unfortunately, the nature of our dataset (no panel data or control group) did not allow us to use these methods or to analyse the impact of the programme, as a whole, using regression.

Due to the data limitation stated above, the first two objectives were analysed using simple descriptive statistics in the form of frequencies, mean, and percentages, as well as graphs. Since our data are cross-sectional and include information on before and after RECAP for the same beneficiaries, descriptive statistics supported by a paired t-test were used to examine the impact of the programme on the economic well-being of its beneficiaries.

In this study, a paired sample t-test was used to determine whether there is a significant difference between the average values of before and after RECAP on the selected dependent variables:

- Crop production (measured in hectares under production).
- Livestock production (measured as number of livestock, excluding poultry).
- Employment (measured in number of people employed, part time and full time).
- Number of beneficiaries (People directly benefiting from the project and other rural dwellers benefiting from the project).

However, the limitation of the t-test is that it only shows a relationship between the variables and cannot explain quantitatively the influence of the explanatory variables on the dependent variable. Therefore, in our study, the t-test will only show whether there was a significant difference in the means of the economic variables (production level & employment) from before and after RECAP.

5.4 Empirical model

A binary choice model was used to investigate how the different components of RECAP (mentor/strategic partner, skills transfer and funding) improved the household food security of beneficiaries. Binary-choice models assume that individuals are faced with a choice between two alternatives and that the choice depends on identifiable characteristics. In this study, we want to determine the probability of being household food secure given a set of explanatory variables. For the purposes of this study, household food security entails that households have access to adequate food needed for a healthy life without requiring food assistance or other coping strategies.

According to Cunningham (2005), the current methods of assessing food insecurity include the qualitative method, FAO method, individual dietary survey, household income and expenditure survey. The qualitative method of assessing food security examines people's perceptions about energy inadequacy and food deprivation and provides a simple, direct measure of food insecurity and hunger that is context-specific (Kennedy, 2002).

The linear probability model, discriminant analysis, probit, or a logit model are the most commonly used models in cases where the dependent variable is a binary variable. The flaw of the linear probability model is that its fitted values are not constrained to lie in the unit interval. As a result, some predicted probabilities may have nonsensical values that are less than zero or greater than one. The drawback of the discriminant analysis is the fact that the assumption of multivariate normality on which it is based, is normally violated (Mohammed & Ortmann, 2005). There exists hardly any difference between the logit and probit models (Gujarati, 2003). Since the available computer software can easily perform logistic model, it was chosen. The logit model may be expressed as:

$$\text{Log } (P/ (1- P) = \alpha + \beta_1 *X \quad (1)$$

Where: P = 1 (if food secure); 1-P = 0 (if not food secure), α represents the constant, β represents the parameters to be estimated and X represents the set of explanatory variables. Taking the error term (ε) into account, the logit model becomes:

$$logit\ (y) = a + b1x1 + b2x2 + b3x3 + \ldots\ldots + \varepsilon \quad (2)$$

The following explanatory variables were specified in the logistic model to determine whether they have an influence on the beneficiaries' household food security:

Age: This variable represents the age of project managers in years. In this study, age was captured as a continuous variable. It is expected that the higher the age of a farmer, the more stable the economy of the farm household, because older people have relatively richer experiences of farming activities.

Number of beneficiaries: Number of beneficiaries was captured as a continuous variable that represents the number of people directly benefiting from the project. This is another factor expected to have influence on food security status of land reform beneficiaries. Increasing the number of beneficiaries tends to exert more pressure on consumption. Thus, a negative relationship between number of beneficiaries and food security is expected as food requirements increase in relation to the number of persons in the projects.

Project years: This is the age of the project in years (continuous variable). In this study, it is used as a proxy for the land reform beneficiaries' experience. The chance of success is higher for a farmer who has been engaged in farming operations for a number of years (Gunning *et al*., 1999).

Farm size: Farm size in the study is also a continuous variable. This variable refers to the total area of land in hectares per project. According to Van Der Veen (2010), food production can be increased extensively through expansion of areas under cultivation. With large farm size households can produce more and also diversify. If the farm is managed effectively, we expect a positive relationship between farm size and household food security. However, Binswanger et al., 1995 argues that there is a negative relationship between farm size and productivity. Bigger farms face many challenges, which include the problem of staff management (supervision) associated with employing hired labour, which can affect profitability.

Type of enterprise: Type of enterprise was captured as a dummy variable where respondents involved in either livestock production or crop production only were accorded a value of zero, and a value of one for those involved in both crop and livestock production. It is used as a proxy for diversification in the study. Farmers engaged in more than one enterprise are likely to enjoy increased farm income which improves their odds of being food secure compared with their counterpart.

Skills transfer: Skills transfer was captured as a dummy variable which took the value one if the respondent reported that they received some skills through the programme, and a value of zero if they did not receive any skills. It is expected that there exists a positive relationship between the skills level and household food security. This is because beneficiaries who had received technical skills are more likely to be efficient in production which raises their chances of being more food secure than those without the required skills (Bradstock, 2005; Mafora, 2014).

Funding: This represents the value of funding received by the project in Rands. This variable was captured as a continuous variable. Large capital inputs, like seed and fertiliser, machinery, and infrastructure development during the establishment phase of agricultural projects, present an important challenge to rural land reform. Land reform beneficiaries with financial support are more likely to be successful in farming and, therefore, are able to develop their socio-

economic status. Thus, we expect a positive relationship between funding and household food security (Bradstock, 2005; Grootaert *et al*., 1995).

Strategic partner/mentor: The variable was captured as a dummy variable, where projects with strategic partners/mentors have a value of one, and for those without strategic partners and mentors, a value of zero. For land reform beneficiaries to flourish, they need to be equipped with the necessary technical and managerial skills as well as have information on the market of their produce. Strategic partners and mentors are intended to provide farmers with these, so we expect a positive relationship between a farmer with a strategic partner or mentor and the household food security.

Location: This is also a dummy variable taking the value zero for projects in rural areas and one for projects in urban areas. It is used in the model as a proxy variable for infrastructure. Rural was selected as a reference category because it has the highest number of projects in the sample. Infrastructure development is crucial to "effective and lasting agrarian reform" (FAO, 2006). Most parts of the rural areas in the country are characterised by poor roads which present a clear and severe stumbling block for agricultural development. Therefore projects in urban areas are more likely to be food secure compared with those in rural areas.

5.5 Relations between research objectives, questions and analytical tools

Table 5.2 presents the linkages between the research objectives, research questions and the analytical approaches used in this study.

Table 5.2: Relations between research objectives, research questions and analytical tools

Research Objectives	Research Questions	Analytical tools
To analyse the effect of the RECAP on the income of beneficiaries.	Have land reform beneficiaries' income improved since RECAP?	Descriptive statistics
To assess the effectiveness of the RECAP interventions in empowering the beneficiaries.	Are the two RECAP interventions effective in empowering the beneficiaries?	Descriptive statistics
To examine the economic impact of RECAP on production and employment creation.	What are the economic impact of RECAP on the projects in terms of production and employment creation?	Descriptive statistics Cross tabulations Paired t-test
To identify the elements of RECAP that have positively contributed to the household food security of the beneficiaries.	Which elements of RECAP have positively contributed to the household food security of the beneficiaries?	Chi square Correlation matrix Binary logistic model

5.6 Summary

The source of data that will be used in this study is indicated and the sample composition outlined in detail. The variables, as well as data analysis methods, have also been described. These include the logistic regression models, t-tests, cross tabulation and the use of simple statistics. These results will be then represented on schematic diagrams, such as tables and graphs, to make interpretation easier.

CHAPTER 6

CHARACTERISTICS OF RESPONDENTS AND PROJECTS

This chapter presents and discusses the findings of the study. The chapter provides a descriptive analysis of the socio-economic characteristics of the respondents and characteristics of the sampled projects.

6.1 Respondent characteristics

Table 6.1 shows the distribution of respondents by age. The age of the respondents varied from 25 years to 93 years, with an average age of 51. A large proportion (65.3 %) of the sampled respondents fell in the age brackets of 41 to 60. The mean age of 51 is below 62, which is the average age of farmers in South Africa, according to Agri SA (2012). Beneficiaries younger than 30 years of age were classified as "the young", 30 to 59 as "middle aged", and 60 and above as "old". The majority (79.6 %) of these beneficiaries are of middle age and the number of respondents below 30 years of age was low (4.1 %), which shows that most people only choose to go farming later in life (see Figure 6.1).

Table 6.1: Distribution of respondents by age (n=98)

Age range (years)	**Frequency**	**Proportion (%)**
<30	4	4.1
30 – 40	13	13.3
41 – 50	30	30.6
51 – 60	34	34.7
>60	17	17.3
Average age (years)	**50.58**	
Maximum age (years)	**93**	
Minimum age (years)	**25**	
Standard deviation (years)	**11.04**	

Source: Survey data (2013)

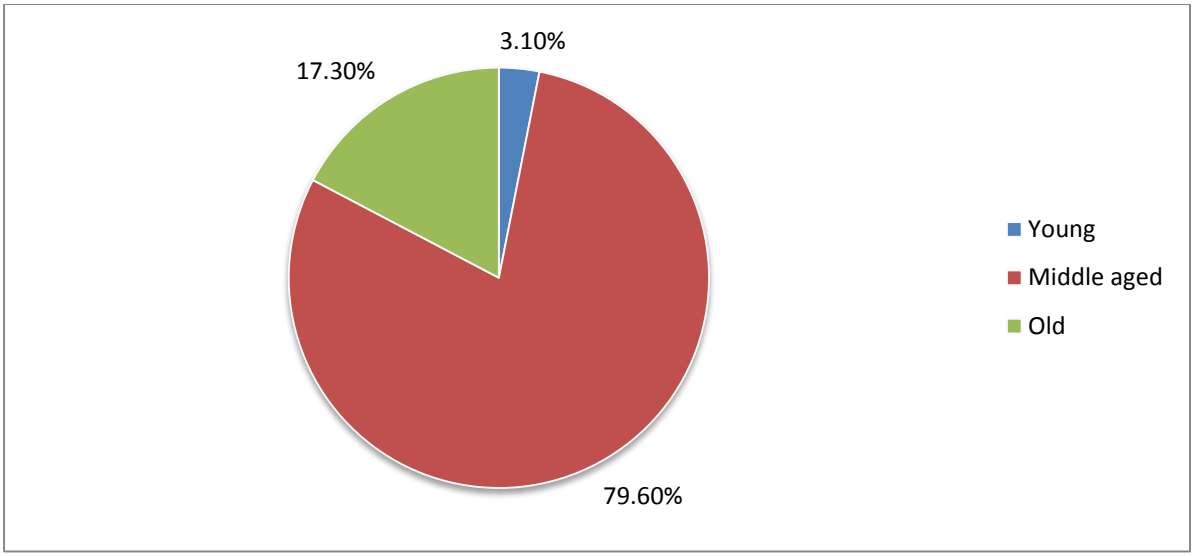

Figure 6.1: Age distribution of respondents

Table 6.2 shows that the majority (81.6 %) of the respondents were males. About 80 % of the respondents were household heads. Of all the project managers interviewed, only 14 % were female heads. The results show that females are still being left behind as beneficiaries of land reform.

Table 6.2: Gender and position held in the household (n=98)

	Gender of respondent		**Total**
	Male	Female	
Household head	68	11	**79 (80.6%)**
Not household head	12	7	**19 (19.4%)**
Total	**80 (81.6 %)**	**18 (18.4 %)**	**98**

Source: Survey data (2013)

Household size varies from 1 to 14. The average household size differs across the provinces, with Eastern Cape and Free State having the highest average size of 6.44 and 5.68 people per household, respectively. The results show that the average household size for the sample is 5.36 persons. Most of the provinces have an average size of more than 5 people per household, except for Gauteng which has an average household size of 3.9. The fact that the respondents in these provinces have larger households is not surprising, since they are predominantly rural provinces, only Gauteng in the sample is considered an urban province. According to Statistics South Africa (2014), urban areas are characterised by small household sizes, while tribal areas are dominated by large household sizes.

Table 6.3: Mean household size in the study area (n=98)

Province	Mean household size
Limpopo	5.23
Eastern Cape	6.44
Free State	5.68
KwaZulu-Natal	5.25
North West	5.45
Gauteng	3.90
Total	**5.36**

Source: Survey data (2013)

Most (72.4 %) of the respondents surveyed held the position of a project leader, while only 14.3 % were beneficiaries of the project. Furthermore, 14.3 % of the respondents held a position of a chairperson and only 7.1 % were just beneficiaries.

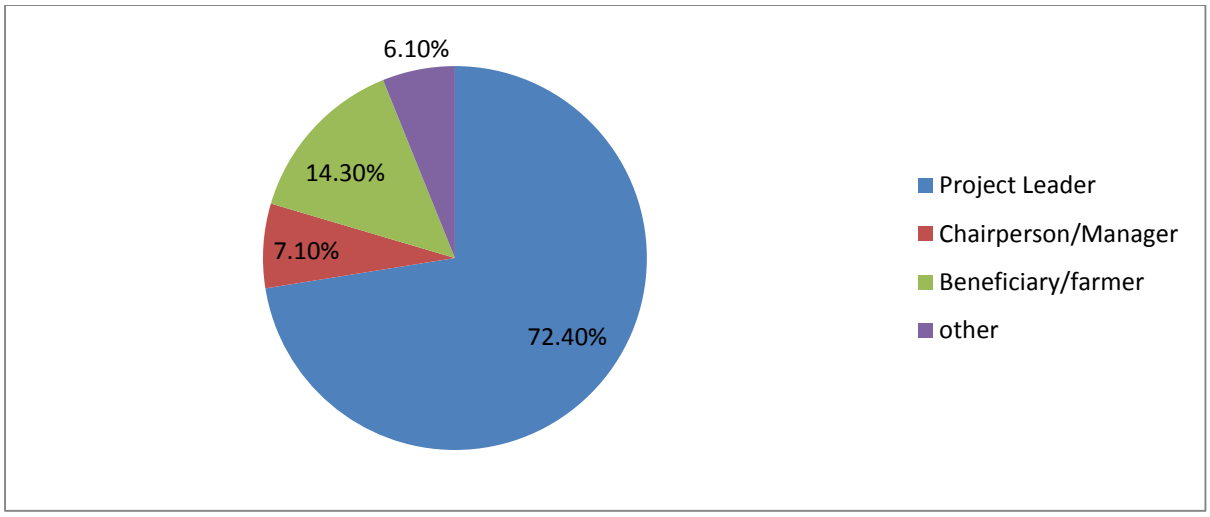

Figure 6.2: Position held by respondents

Employment status is important since it can indicate the amount of time spent on the farm by the respondents. The results (Table 6.4) indicate that the majority (82.7%) of the respondents were full-time farmers, while 9.2 % were part-timers on the farm. Only 1 % and 7.1 % were full-time farm employees and other, respectively.

Table 6.4: Employment status of respondent

Employment status	Frequency	(%)
Full-time farmer on this farm	81	82.7
Part-time farmer on this farm and on another farm	5	5.1
Part-time farmer on this farm and part time employee	4	4.1
Full-time employee	1	1.0
Other	7	7.1

Source: Survey data (2013)

6.2 Project characteristics

The study was carried out in six of the provinces of South Africa. Table 6.5 shows that the total number of projects included was 98, of which 24.5 %, 22.4 % and 20.4 % were from KwaZulu-Natal, Free State and North West provinces, respectively. Eastern Cape had the least number (9.2 %) of projects in the sample.

Table 6.5: Distribution of sampled projects by province (n=98)

Province	Frequency	Proportion (%)
Limpopo	13	13.3
Eastern Cape	9	9.2
Free State	22	22.4
KwaZulu-Natal	24	24.5
North West	20	20.4
Gauteng	10	10.2
Total	**98**	**100**

Source: Survey data (2013)

More than half (52 %) of the projects were under government ownership. Privately owned and projects under cooperation have almost the same percentage, with 16% that are privately owned and 15% under cooperation. The projects evaluated were categorised into three different groups: livestock, crops, and mixed farming. The results show that a large percentage (46.9 %) of the projects practised crop production, while only 31.6 % were involved in livestock farming. The rest (21.4 %) were practising mixed farming.

Table 6.6 presents details of sampled projects according to the type of land reform. A majority (84.7 %) of the projects are PLAS (45.9 %) or LRAD (38.8 %) farms. The other types of projects are not well represented in the sample. The project years ranged from less than 1 to 16

years, with an average of 6 years. Almost half (48 %) of the projects belong to the class interval of 3 to 6 years.

Table 6.6: Land reform project characteristics (n = 98)

Project characteristics	Frequency	Percentage (%)
Ownership		
Government	51	52.0
Private	16	16.3
Cooperation	15	15.3
CPA	8	8.2
Trust	5	5.1
Other	3	3.1
Enterprise		
Livestock	31	31.6
Crop production	46	46.9
Mixed (Other)	21	21.4
Land reform sub programme		
PLAS	45	45.9
LRAD	38	38.8
SLAG	3	3.1
Equity-sharing	4	4.1
Restitution	1	1.0
Private	3	3.1
Other	4	4.1
Project Years		
< 3years	13	13.3
3 – 6 years	47	48.0
7 – 10 years	23	23.5
11 and above	15	15.3

Source: Survey data (2013)

Table 6.7 presents information on the size of the projects. A majority (37.8 %) of the projects fall within the size category of 101 to 500 hectares. The average project size was 666.7 hectares per project. The smallest and largest project sizes were in Gauteng and Eastern Cape, with sizes of 2.7 and 12 215 hectares, respectively.

Table 6.7: Size of projects (n=98)

Project size (ha)	Number of Projects	(%)
1-20	8	8.2
21-50	8	8.2
51-100	7	7.1
101-500	37	37.8
501-1000	19	19.4
1001-5000	16	16.3
50001+	1	1.0
No Answer	2	2.0
Total	**98**	**100**
Average size (ha)	**666.71**	
Maximum size (ha)	**12215.00**	
Minimum size (ha)	**2.70**	
Standard deviation (ha)	**1384.54**	

Source: Survey data (2013)

Table 6.8 presents the number of beneficiaries on the sampled projects. The total number of beneficiaries varied from 1 to 160, with an average of 7 beneficiaries per project. The number of full-time beneficiaries ranged from 1 to 34, with an average of 3 beneficiaries per project. It should be noted that a large number of the beneficiaries are not active or full time in almost all of the provinces.

Table 6.8: Number of beneficiaries by province (n=98)

Province	Number of beneficiaries	Number of full-time beneficiaries
Limpopo	56	23
Eastern Cape	57	23
Free State	122	79
KwaZulu-Natal	154	80
North West	250	30
Gauteng	71	44
Total	**710**	**281**
Average	**7.32**	**3.06**
Maximum	**160**	**34**
Minimum	**1**	**1**
Standard deviation	**17.67**	**4.73**

Source: Survey data (2013)

6.3 Summary

The results presented in this chapter show that there are variations in the respondents' characteristics and characteristics of the sampled projects. Most of the beneficiaries were males and middle-aged. A significant number of respondents were project leaders and full-time farmers on the projects. A majority of the projects were PLAS projects and more than half of them were owned by the government and mainly practising crop production. The results also show that a majority of the projects fall within the size category of 101 to 500 hectares and the average project size was 666.7 hectares per project.

CHAPTER 7

STUDY RESULTS: INCOME AND STRATEGIC INTERVENTIONS

This chapter presents the results on project's income and strategic interventions. The effect of the Recapitalisation and Development Programme on income of beneficiaries is presented first, followed by the effectiveness of the RECAP interventions (strategic partnership and mentorship) in empowering beneficiaries.

7.1 Income

This section provides the sources of income as well as, income from farm and non-farm activities. In this study, farm income refers to income derived from the sale of farm produce; and non-farm income refers to on-farm income not generated through agricultural activities.

7.1.1 Sources of income

The results show that only 68 out of the 98 projects (69.4 %) have farm incomes, which means that 30 projects (30.6 %) were not generating an income. This is attributable to the fact that a large number of these projects are still in their development phase. This is a huge success, when comparing with previous assessments of land reform projects (Anseew and Mathebula 2008; Mafora, 2014) which showed that a large number of the projects were non-operational. Figure 7.1 shows that the highest proportion of projects generating farm income is in the North West (90 %), followed by KwaZulu-Natal and Gauteng, with 75 % and 70 %, respectively. Free State and Eastern Cape have the least proportion of projects with farm incomes, at 54.5 % and 55.6 %, respectively. Some of the farms (9 %) are also generating income from non-farm activities, such as renting of portion of the farms, ecotourism, etc. Almost all the provinces have at least one project generating income from non-farm activities, with the exception of Eastern Cape.

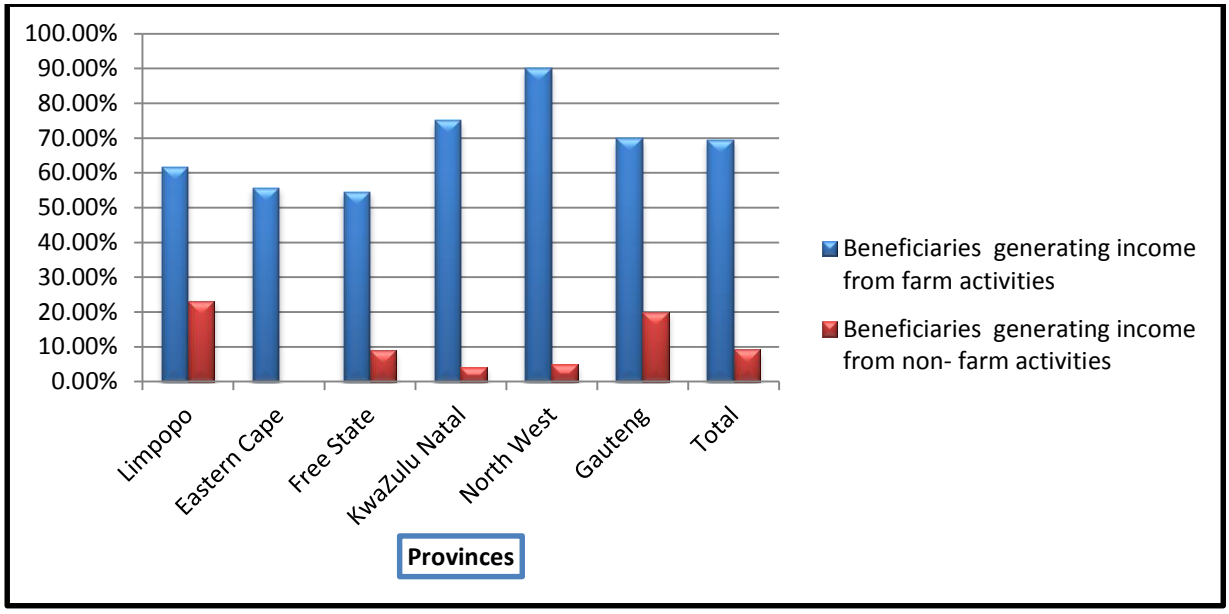

Figure 7.1: Proportion of beneficiaries generating farm income and non-farm income

7.1.2 Income from farm and non-farm activities

The farm production income on the RECAP projects is R1.45 million, on average, when all RECAP projects are taken into account. Considering only income generating projects, the average income increases to R2.08 million (Table 7.1). Limpopo has the highest overall income of R2.41 million per project, or R3.92 million for producing farms, followed by North West with R2.20 million per project, or R2.47 million per project for producing farms. These average incomes for these provinces are relatively high, as a result of one farm in each province which is doing well. The lowest average income of R188 120 per project is found in Gauteng (which is made up of mostly high intensity crops/horticulture), which increases to R268 743 when only income producing farms are included.

Table 7.1: Farm production income on RECAP projects by province (R)

	Limpopo	Eastern Cape	Free State	KwaZulu -Natal	North West	Gauteng	Total
Total income	31 324042	4 777700	26 213225	33 112757	44 436780	1 881 200	141 745704
Average income (n=98)	2 409 542	530 855	1 191 510	1 379 698	2 221 839	188 120	1 446 384
Average income (n=68)	3 915 505	955 540	2 184 435	1 839 598	2 468 710	268 743	2 084 495
Maximum income	30 240000	3 614500	17 100000	5 180000	28788480	918 000	30240000
Standard deviation	8 363773	1189 436	3 639072	1 619472	6 732946	310 179	4 653293

Source: Business Enterprises (2013)

Table 7.2 present the income from on-farm non-agricultural activities such as ecotourism and leasing out of land. The results show that about 9.18 % of all the RECAP farms practise non-agricultural activities, with an income of R4114 per project. This increases to R44 806 per project when only non-agricultural income-generating farms are taken into account. The highest income from non-agricultural activities is in Free State, with an average income of R11 369 per project for all farms, or R125 000 for farms with non-agricultural income (only one of the two farms is generating the income in the Free State. As expected, Eastern Cape farms have a zero income, since there are no farms engaged in non-agricultural activities.

Table 7.2: Income from non-farm activities on RECAP (R)

	Limpopo	Eastern Cape	Free State	KwaZulu -Natal	North West	Gauteng	Total
Total income	36 000	0	250 000	75 000	37 500	4 600	403 250
Average income (n=98)	2 769	0	11 369	3125	1 875	460	4 114
Average income (n=9)	12 000	0	125 000	75 000	37 500	2 300	44 806
Maximum income	30 000	0	250 000	75 000	37 500	4000	250 000
Standard deviation	8267	0	53 299	15 309	8 385	1 258	36 633

Source: Business Enterprises (2013)

The results showed that farming operations were in progress on 68 of the 98 projects. The remaining 30 projects have not realised an income yet, because these projects were still in their development phase. The farm production income on the RECAP projects was R1.44 million per annum, on average, when all RECAP projects were taken into account and this increased to R2.08 million per project for farm income-generating farms. This is promising, compared with previous assessments of land reform projects. A study carried out by Anseew and Mathebula (2008), a year before RECAP was implemented, found that the average gross income of land reform projects was R37 147 per projects. Over 51.2% of the project assessed had no income. Therefore, taking this fact into consideration, the hypothesis that participation in the Recapitalisation and Development Programme has resulted in an improvement in the income of land reform beneficiaries is accepted.

7.2 RECAP strategic intervention

Two strategic interventions (mentorship and strategic partnership) have been adopted under the RECAP. This section provides an overview of the strategic intervention in the selected projects, roles of these interventions as perceived by the beneficiaries and their satisfaction level. The effectiveness of strategic interventions in empowering beneficiaries is also discussed.

7.2.1 Mentors/strategic partners

Table 7.3 presents the number and proportion of mentors and strategic partners by province. Overall, 48 % of the RECAP farms had a strategic partner and 37 % of the farms had a mentor. Only 3 % had neither a strategic partner nor mentor, and 5 % had both a strategic partner and a mentor. Some of the projects without strategic partners or mentors are found in 3 of the 6 provinces; KwaZulu-Natal, North West and Gauteng. The proportion of mentors to strategic partners varies across the provinces, with Limpopo, Eastern Cape and Gauteng mostly having mentors, and Free State, KwaZulu-Natal and North West having a high percentage of strategic partners (see Figure 7.2).

Table 7.3: Number and proportion of mentors and strategic partners (n=98)

		Limpopo	Eastern Cape	Free State	KwaZulu -Natal	North West	Gauteng	Total
Mentor	**No.**	12	6	6	3	3	6	36
	%	92.31	66.67	27.27	12.50	15.00	60.00	36.73
Strategic partners	**No.**	0	2	16	16	11	2	47
	%	0.00	22.22	72.73	66.67	55.00	20.00	47.96
Both	**No.**	1	0	0	2	0	0	3
	%	7.69	0.00	0.00	8.33	0.00	0.00	3.06
None	**No.**	0	0	0	1	3	1	5
	%	0.00	0.00	0.00	4.17	15.00	10.00	5.10
No answer	**No.**	0	1	0	2	3	1	7
	%	0.00	11.11	0.00	8.33	15.00	10.00	7.14

Source: Survey data (2013)

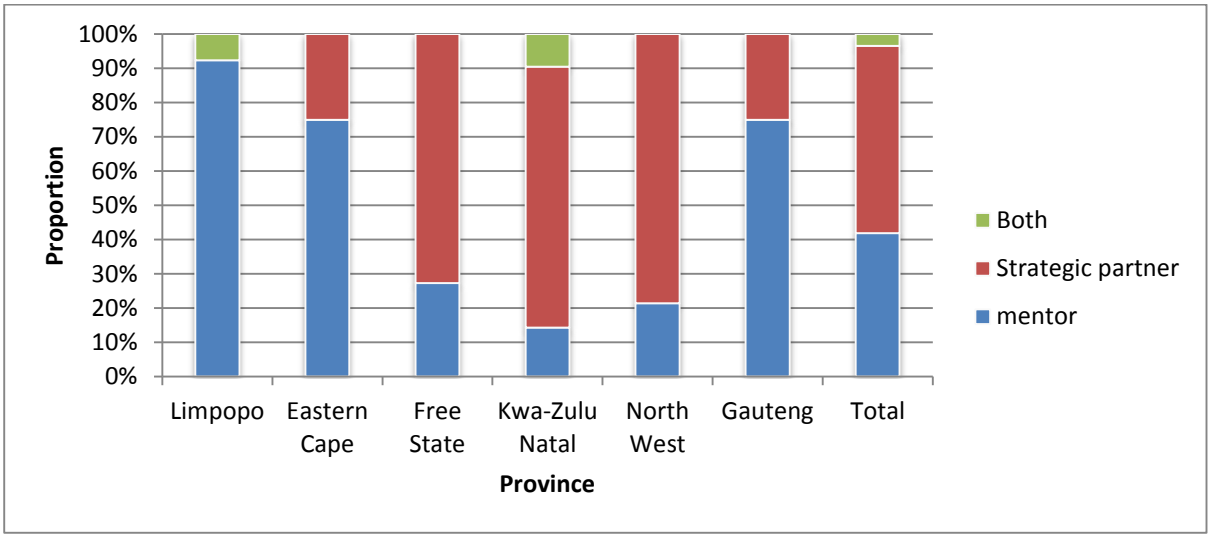

Figure 7.2: Proportion of mentors to strategic partners (n=86)

Figure 7.3 shows the level of beneficiaries' satisfaction with respect to current strategic partners and mentors. The results indicate that a majority (more than 50 %) of the beneficiaries were not satisfied with their relationship with strategic partners and mentors. About 46 % of the respondents indicated that they are satisfied with their strategic partners/mentors. The percentage of beneficiaries who are satisfied differs significantly across the provinces, with the Free State having the least (32 %) and Eastern Cape having the most (78 %) satisfied beneficiaries.

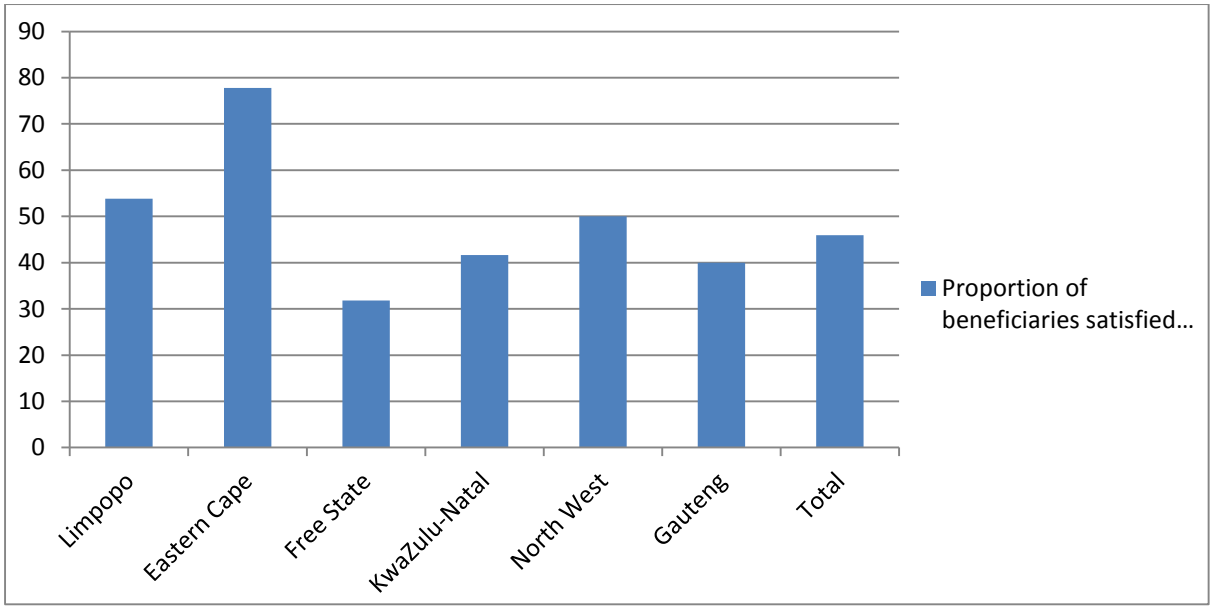

Figure 7.3: Beneficiaries' satisfaction with mentorship and strategic partnership

7.2.2 The role of strategic partners and mentors as perceived by the beneficiaries

Table 7.4 shows the main roles of strategic partners and mentors in the projects. A large proportion of beneficiaries (46 %) identified providing technical expertise as the main role played by mentors and strategic partners. About 23 % of the respondents felt that they provided output markets to beneficiaries. Only 21 % of the beneficiaries associated strategic partners and mentors with the transfer of farm management skills. A small proportion of beneficiaries indicated that provision of funds and input markets are the main roles of strategic partners and mentors (16 % and 10 %, respectively). Most of the beneficiaries who indicated input markets and provision of funds as the main roles were in KwaZulu-Natal and this is linked mostly to the sugar cane industry.

Table 7.4: The roles of the mentors/strategic partners

		Limpopo	Eastern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Total
Funding	No.	1	1	3	9	1	1	16
	%	7.69	11.11	13.64	37.50	5.00	10.00	16.33
Provide technical expertise	No.	8	7	11	11	4	4	45
	%	61.54	77.78	50.00	45.83	20.00	40.00	45.92
Farm management	No.	2	3	8	3	2	3	21
	%	15.38	33.33	36.36	12.50	10,00	30.00	21.43
Provide output markets	No.	3	2	3	12	0	3	23
	%	23.08	22.22	13.64	50.00	0.00	30.00	23.47
Provide input markets	No.	0	0	1	8	0	1	10
	%	0.00	0.00	4.55	33.33	0.00	10.00	10.20
Other roles	No.	0	1	9	11	5	0	26
	%	0.00	11.11	40.91	45.83	25.00	0.00	26.53

Source: Business Enterprises (2013)

Table 7.5 shows satisfaction levels of beneficiaries with specific roles performed by the strategic partners/mentors. In general, about 67 % of the beneficiaries were satisfied with the strategic partners' and mentors' roles. However, this varies from province to province, with the Free State being the most dissatisfied province with the overall roles of mentors and strategic partners, which may be credited to strategic partners/mentors taking total control of decision making and management of projects. About 80 % and 100 % of the beneficiaries in Eastern Cape and Gauteng, respectively, were satisfied with the overall roles of the mentors and strategic partners.

Beneficiaries indicated that they were most satisfied with the roles strategic partners and mentors play in providing output markets and funding (83 % and 76 %, respectively). The levels of satisfaction also differ from across provinces with regard to technical skills transfer: beneficiaries in the Free State had the lowest level of satisfaction, while the level of satisfaction was high in North West and Gauteng (75 % and 100 %, respectively). The level of satisfaction with regard to management training varies from 50 % in Limpopo, Free State and North West, to 100 % in Eastern Cape and Gauteng.

Table 7.5: Satisfaction with the roles of mentors/strategic partners

	Limpopo	Eastern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Total
Funding	100	100	0	80.00	-	100	76.00
Provide technical expertise	50	100	30.77	42.00	75.00	100	66.24
Farm management	50	100	50.00	75.00	50.00	100	70.83
Provide output markets	100	100	66.67	75.00	-	100	88.33
Provide input market	-	-	0	88.00	-	100	62.50
Other roles	-	0	16.67	57.00	28.57	-	25.59
Overall satisfaction	75.00	80.00	27.35	69.00	51.19	100	67.15

Source: Business Enterprises (2013)

7.2.3 Effectiveness of strategic partner and mentor in empowering beneficiaries

Table 7.6 shows the number and proportion of respondents who responded with a positive answer when asked if RECAP had improved their access to market, transfer of skills, and social status.

Market access

One of the objectives of RECAP is to graduate small farmers in to commercial farmers. It is assumed that pairing farmers with strategic partners will lead to commercialisation. Increased participation or access to markets is crucial to the commercialisation process of emerging farmers. The results from Table 7.6 show that 39 % of all the beneficiaries interviewed confirmed that their access to markets improved due to RECAP. This is equivalent to 47 % of all farmers benefiting from RECAP. About 71 % of beneficiaries in KwaZulu-Natal indicated that market access improved after the implementation of the programme, while there was no improvement in Gauteng on market access that could be credited to RECAP. Limpopo had the highest proportion (88 %), when considering only farmers who had benefited from RECAP.

Table 7.6: Effect of strategic partners/mentors on market access

Province	Improved (No.)	Improved (%)	% of all respondents
Limpopo	7	87.50	53.85
Eastern Cape	3	42.86	33.33
Free State	10	45.45	45.45
KwaZulu-Natal	17	70.83	70.83
North West	2	15.38	10.00
Gauteng	0	0.00	0.00
All provinces	**39**	**47.56**	**39.80**

Source: Survey data (2013)

Skills transfer

One of the important roles of strategic partners and mentors is to transfer technical and business skills to the beneficiaries of the programme. According to the results, a small proportion (34 %) of all beneficiaries acknowledged that they received technical and managerial skills through the programme, which is about 44 % of all farmers who benefited from RECAP, which is still low, signifying that the programme has not been effective in transferring skills to beneficiaries.

Table 7.7: Effect of strategic partners/mentors on skill transfer

Province	Improved (No.)	Improved (%)	% of all respondents
Limpopo	9	75.00	69.23
Eastern Cape	4	57.14	44.44
Free State	11	50.00	50.00
KwaZulu-Natal	6	27.27	25.00
North West	4	33.33	20.00
Gauteng	1	33.33	10.00
All provinces	**35**	**44.87**	**35.71**

Source: Survey data (2013)

Social status

The results clearly show that the programme has had a great impact on beneficiaries' social status. The percentage of all respondents signifying that their social status had improved as a result of the programme was about 55 %, representing 69 % of all farmers benefiting from RECAP. Possibly, such an increase could be attributed to the RECAP grants being used by beneficiaries to buy material assets, such as tractors, housing, bakkies, etc., thus resulting in improvement of their social status in the community.

Table 7.8: Effect of strategic partners/mentors on social status

Province	Improved (No.)	Improved (%)	% of all respondents
Limpopo	8	66.67	61.53
Eastern Cape	6	85.71	66.67
Free State	11	52.38	50.00
KwaZulu-Natal	17	77.27	70.83
North West	10	76.92	50.00
Gauteng	2	66.67	20.00
All provinces	**54**	**69.23**	**55.10**

Source: Survey data (2013)

The effectiveness of strategic interventions varies from province to province. There are serious problems with the transfer of management and technical skills to beneficiaries and establishment of market linkages. For this reason, the hypothesis that RECAP interventions (strategic partnership and mentorship) have been effective in empowering the beneficiaries is rejected.

7.3 Summary

The results showed that farming operations were in progress on 68 of the 98 projects. The remaining 30 projects have not realised an income yet, which is attributable to the reality that the large number of these projects are still in their development phase. This is a promising, when compared with previous assessments of land reform projects which showed that a large number of those projects were non-operational. The farm production income on the RECAP projects was R1.44 million per annum, on average, when all RECAP projects were taken into account. The average income increased to R2.08 million per project for farm income-generating farms. The effectiveness of strategic interventions seems to vary from province to province. Of the six provinces sampled, the interventions seem to work better in the Eastern Cape. Beneficiaries in the Free State are most dissatisfied with their strategic partners/mentors. Beneficiaries indicated that the overall impact of RECAP on market access and skills transfer was rather low, while its impact on social status was higher.

CHAPTER 8

STUDY RESULTS: ECONOMIC IMPACT OF THE RECAPITALISATION AND DEVELOPMENT PROGRAMME

The chapter presents the economic impact of the Recapitalisation and Development Programme in terms of agricultural production and employment creation, which are two of the objectives of the programme. Graphical presentations of the results are presented first, followed by the paired t-test results.

8.1 Economic impact of RECAP

As shown in Table 8.1, the programme's utmost impact is economic. Of the 98 respondents, 72 % indicated that they had experienced improvement in their economic well-being as a result of RECAP. The economic impact of the programme will be further analysed in the section below in terms of production and employment creation.

Table 8.1: RECAP impact on the economic status of the beneficiaries

Province	Improved (No.)	Improved (%)	% of all respondents
Limpopo	9	75	69.23
Eastern Cape	6	85.71	66.67
Free State	12	54.55	54.55
KwaZulu-Natal	18	81.82	75.00
North West	10	76.92	50.00
Gauteng	2	66.67	20.00
All provinces	**57**	**72.15**	**58.16**

Source: Survey data (2013)

8.1.1 Production

To study the impact of the programme on production levels, it is important to look at the trends before RECAP was implemented and compare them with production trends after implementing the programme. This allows conclusions to be drawn as to whether or not the programme is associated with the change in production levels.

Figure 8.1 presents the agricultural production levels of the sampled projects before and after RECAP. The results show that both livestock and crop production has continuously increased from acquisition of the farms to the present. It is, however, important to note that for livestock, the herd size has been increasing at a slow pace and that crop production had been somewhat stagnant before RECAP, while after RECAP a significant increase can be noted for both categories of production. These statistics clearly suggest that both crop and livestock production significantly increased after RECAP was implemented. However, without taking the value of production into account, the programme sustainability is still questionable.

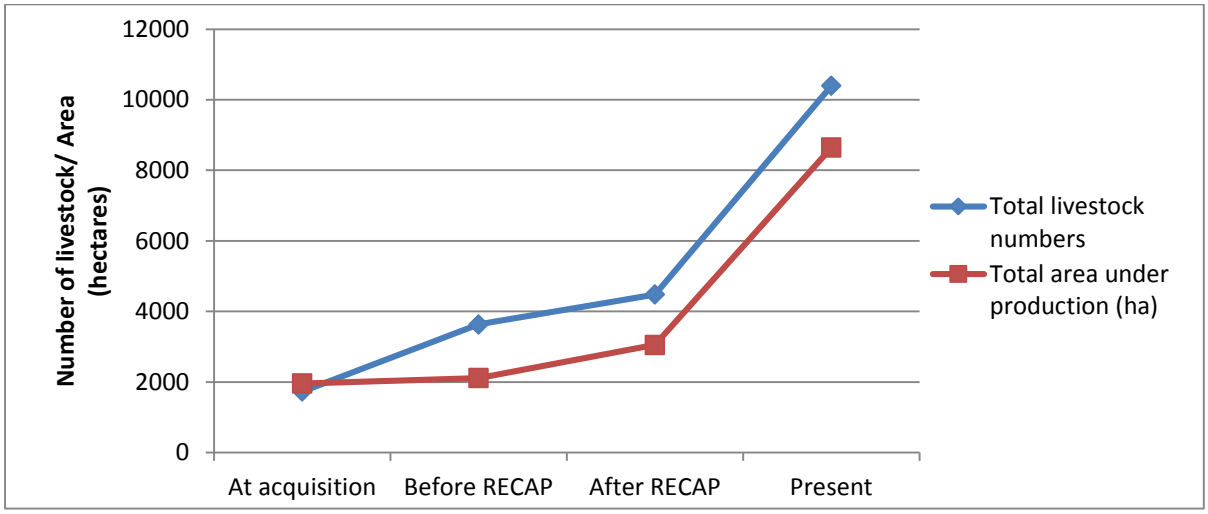

Figure 8.1: Agricultural production on RECAP farms from acquisition to present (n=49)
Source: Business Enterprises (2013)

Figure 8.2 shows the growth in livestock numbers on RECAP farms by province. The number of livestock in Gauteng and North West showed an increasing trend after acquisition of the farm; however, before RECAP the herd size was decreasing in both provinces. KwaZulu-Natal and Limpopo experienced a drop in livestock numbers soon after acquisition to nearly zero levels and was at a plateau before the programme was implemented. For the Free State and Eastern Cape, the increase in herd size has continued since acquisition of the farm. The graph also indicates that after the programme was implemented; all the provinces had a similar upward trend. However, Free State shows a more pronounced increase which could be attributed to the emphasis being put in this province on livestock, therefore RECAP has added to the beneficiaries' already existing livestock herd.

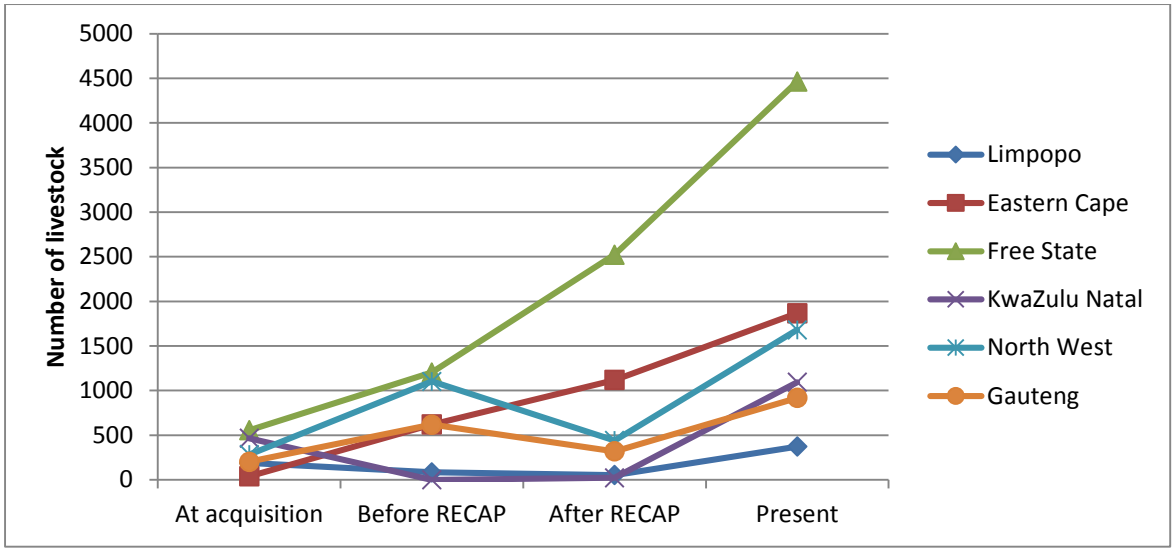

Figure 8.2: Growth in livestock numbers on RECAP farms

Source: Business Enterprises (2013)

Figure 8.3 shows the growth in area under crop production on RECAP farms by province. The results show that crop production was stagnant in most of the provinces (North West, Limpopo, Gauteng and Eastern Cape), with a drop in the Free State soon after the acquisition of the farms. RECAP has been able to address this stagnant growth, resulting in an increase in the area under production after RECAP. Eastern Cape experienced a significant increase, compared with the other provinces, as most of the RECAP funds were invested in field crops. KwaZulu-Natal is the only province that showed a continuous growth in crop production from acquisition till the present. This could also be credited to the previously active sugar cane production in the province and the additional weight put on sugar cane production by RECAP.

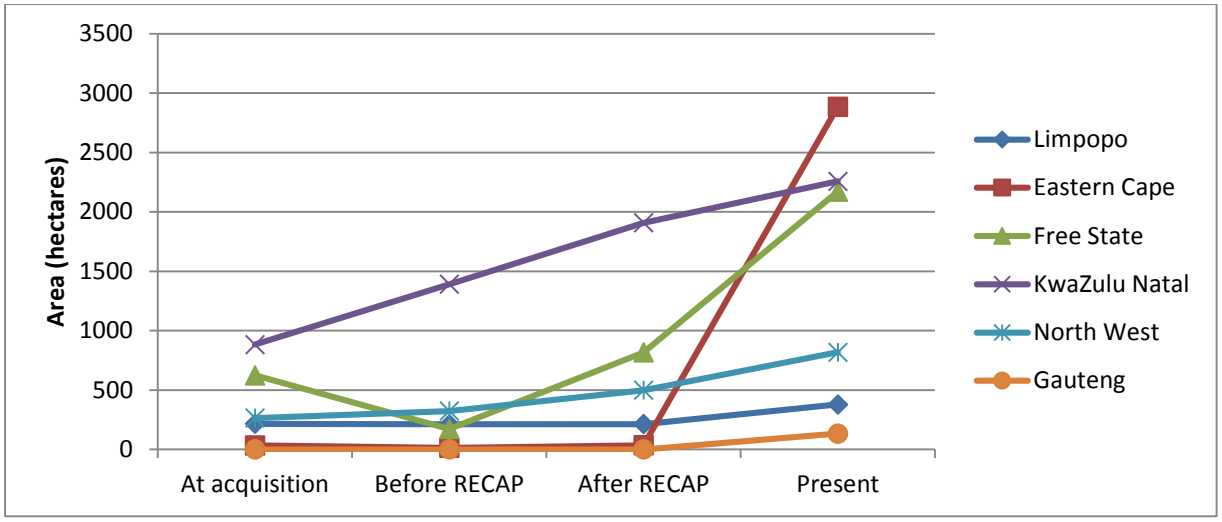

Figure 8.3: Growth in area under crop production on RECAP farms (ha)

Source: Business Enterprises (2013)

8.1.2 Employment creation

Employment creation is one of the objectives of RECAP and it is a key element in labour-intensive sectors like agriculture. Table 8.2 shows how RECAP has impacted on employment. Through RECAP intervention, the total number of jobs created amounts to 549 jobs on the projects included in the evaluation (116 full-time and 433 part-time jobs). The results indicate a 53 % increase in number of jobs after RECAP was implemented. This increase was mainly realised in temporary jobs (94%) whilst only a 20 % increase was realised in full-time jobs. Even though the results seems positive, the number of jobs created is still low when weighed against the amount of RECAP funding spent on the projects. Approximately R141 million has been invested on the RECAP projects included in the evaluation.

Table 8.2: RECAP impact on employment creation before and after RECAP (n=98)

	Before RECAP	**After RECAP**	**(%) Change**
Number of full-time employees	566	682	20.49
Number of part-time employees	456	889	94.96
Number of total employees	**1022**	**1571**	**53.72**

Source: Survey data (2013)

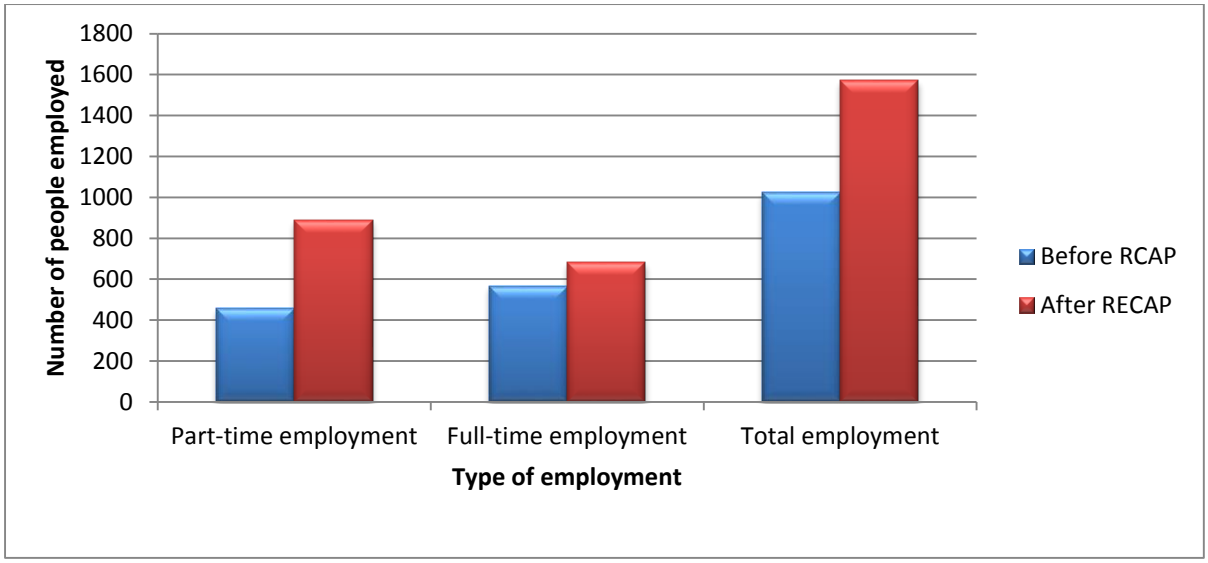

Figure 8.4: Employment creation through RECAP

Source: Business Enterprises (2013)

Table 8.3 and Figure 8.5 present the impact of RECAP on employment creation by province. The results show that KwaZulu-Natal, in general, have the highest number of employees before and after RECAP which could be attributed to the fact that almost all the projects are involve in sugarcane production. Sugarcane production is highly labour intensive especially for emergent farmers who are still dependent on manual labour. RECAP's impact on employment creation was more noticeable in Limpopo and Eastern Cape (234 % and 168 %, respectively). Free State was the province with the lowest percentage increase (1 %) in the total number of jobs created. While all the provinces experienced an increase in the number of part-time jobs, the same cannot be said for full-time jobs. There was a slight decline in Gauteng (-3.15 %) and zero increase in Free State with regard to full-time employment. These variations are strongly linked to the type of agricultural activity in the different provinces, for example Free State has mostly cattle enterprises which are the least labour-intensive enterprise. However, it's surprising that there's been a fall in employment in Gauteng, taking in to account that most farming enterprises are relatively labour intensive.

Table 8.3: Employment on farms before and after RECAP by province (n=98)

Province		Before RECAP	After RECAP	Change	(%) Change
Limpopo	Full-time employment	31	72	41	132.26
	Part-time employment	4	45	41	1025.00
	Total employment	**35**	**117**	**82**	**234.29**
Eastern Cape	Full-time employment	23	35	12	52.17
	Part-time employment	5	40	35	700.00
	Total employment	**28**	**75**	**47**	**167.86**
Free State	Full-time employment	99	99	0	0.00
	Part-time employment	6	8	2	33.33
	Total employment	**105**	**107**	**2**	**1.90**
KwaZulu-Natal	Full-time employment	245	280	35	14.29
	Part-time employment	305	575	270	88.52
	Total employment	**550**	**855**	**305**	**55.45**
North West	Full-time employment	73	104	31	57.81
	Part-time employment	55	98	43	78.18
	Total employment	**128**	**202**	**74**	**57.81**
Gauteng	Full-time employment	95	92	-3	-3.15
	Part-time employment	**81**	**123**	42	51.85
	Total employment	**176**	**215**	**39**	**22.15**

Source: Survey data (2013)

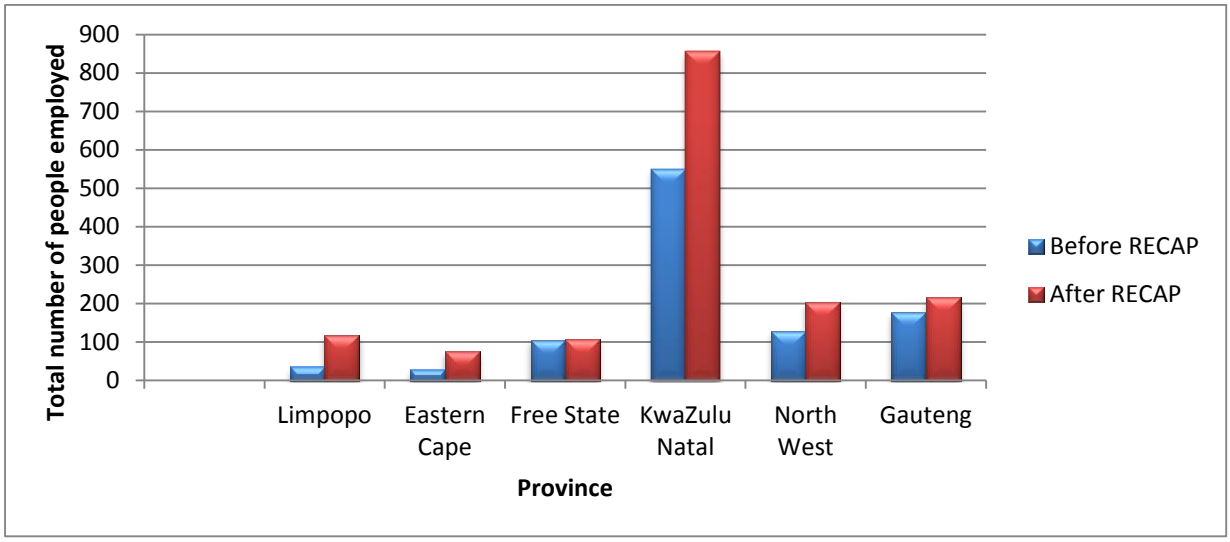

Figure 8.5: Number of jobs created through RECAP per province

Source: Business Enterprises (2013)

8.2 Results of t-test

The results from the descriptive statistics (graphs) clearly suggest that both production and employment increased after RECAP was implemented. To obtain whether the increase was statistically significance, a paired sample t-test was employed. The paired sample t-test was used to determine whether there is a significant difference between the mean values of before and after RECAP on the following variables: production (crop production in hectares and livestock numbers), employment (measured in total number of people employed, part-time and full-time), and beneficiaries (number of beneficiaries directly benefiting from the project and those indirectly benefiting from the project).

The hypotheses to be tested are:

- The null hypothesis: H0: There is no difference in the variable (production, employment, and beneficiaries) mean before and after RECAP.
- An alternative hypothesis: H1: There is a difference in the variable (production, employment, and beneficiaries) mean before and after RECAP.

Table 8.4 shows the results from the paired t-test results

Production

As shown in Table 8.4, the t-test results show that in terms of production, there is strong evidence ($p < 0.05$) that there has been a statistically significant increase in numbers of livestock and the area under crop production after RECAP, compared with before RECAP. Since ($p < 0.05$), the null hypothesis is rejected. The results are not only statistically significant but also practically different. Livestock and crop production increased after RECAP by approximately 98.92 livestock and 103.78 hectares, respectively. Through the RECAP interventions, the beneficiaries are able to gain technical skills and, therefore, are able to expand the areas under cultivation. Having access to output markets also motivates the beneficiaries to produce more. This increase, however, does not take into account the value of production.

Employment

In terms of employment generation, there was a significant difference between total employment, full-time and part-time employment before and after RECAP. Since ($p < 0.01$), we reject the null hypothesis. On average, total employment was 9.28 higher after RECAP. There is evidence to suggest that a higher increase in the number of jobs was realised in part-time jobs (7.57 employees) than in full-time jobs (2.29 employees).

Number of beneficiaries

The number of direct beneficiaries increased by 7.18 beneficiaries after RECAP was implemented. This difference between before and after the programme is statistically significant ($p < 0.01$). On the contrary, there was no significant difference between before and after RECAP in terms of the number of indirect beneficiaries ($p > 0.10$). Therefore, we fail to reject the null hypothesis.

The paired t-test results confirm that after RECAP, the projects were significantly ahead in terms of production, livestock numbers, employment and number of beneficiaries, compared with before RECAP. Thus, RECAP has succeeded in achieving two of its main objectives in these projects: to increase production and create employment opportunities. Therefore, we accept the hypothesis that participation in the Recapitalisation and Development Programme has resulted in an improvement in production and employment creation.

Table 8.4: Paired t-test results

Variable	Before RECAP	After RECAP	t-statistics
Production			
Livestock numbers	106.14	205.06	-2.614**
Crop production (hectares)	33.29	137.07	-2.226**
Employment			
Total employment	15.27	24.55	-3.895***
Full-time employment	8.54	10.83	-2.713***
Part-time employment	7.98	15.49	-3.128***
Beneficiaries			
Number of direct beneficiaries	12.49	19.67	-3.083***
Number of indirect beneficiaries	2.91	3.14	-1.435

Note: *significant at 10 %, ** significant at 5 %, ***significant at 1 %

8.3 Summary

The results from the descriptive statistics (graphs) concur with the paired t-test results that there has been a significant increase in farm production level (in terms of crop production and the number of livestock), number of beneficiaries directly benefiting from the project, and employment (especially temporary employment) after RECAP. Even though the results seem positive, the number of jobs created is still low when weighed against the amount spent on the projects and the sustainability of production is not verified. However, the number of jobs created is still low when weighed against the amount of RECAP funding spent on the projects.

CHAPTER 9

STUDY RESULTS: FACTORS CONTRIBUTING TO HOUSEHOLD FOOD SECURITY

This chapter presents the study's empirical results on factors affecting household food security. Descriptive statistics for the variables used in the econometric model are presented first, followed by a discussion of the correlation matrix for these variables. The chapter concludes by presenting the results and discussion of the logistic regression analysis.

9.1 Descriptive statistics for the variables used in the logistic regression model

Most (58 %) of the farmers who benefited from RECAP believe that the programme has increased both the quantity and variety of food available to the beneficiaries and their families (food security). This represents the dependent variable. Table 9.1 presents a summary of the descriptive statistics for the explanatory variables used in the model. The average age of beneficiaries, household size and the project years (number of years since the farm was acquired) did not significantly differ between the two groups: those who were food secure and those who were not. The size of the farm and the number of beneficiaries were higher for the group that did not realise an improvement in their food diet; however, the differences in the average farm sizes and number of beneficiaries between the two groups were not statistically significant. The average amount of funding was also higher for those who experienced an improvement in their food diet and the difference in the mean sizes between the two groups was statistically significant.

About 36 % of the beneficiaries who benefited from RECAP indicated that they had benefited through skills transfer and a large proportion (80 %) of these experienced a positive change in their food diet, compared with only 28.6 % of those who received no skills but had experienced a positive impact on their food security. The differences in the two groups are statistically significant. In terms of the number of enterprises, it can be noticed that a higher proportion of the projects involved in more than one enterprise were food secure and the difference between the two groups is statistically significant. Having a mentor/strategic partner and location (rural or urban) were not statistically significantly different between the two groups.

Table 9.1: Descriptive statistics for variables used in the logistic regression

Continuous variables					
	Household Food security				
		Total	**Yes**	**No**	
Variable	**Unit**	**Sample mean**	**Mean**	**Mean**	**t-statistic**
Age	Years	50.28	52.28	49.08	-1.442
Farm size	Hectares	666.7122	532.4873	785.1460	0.891
Project years	Age of projects (years)	6.14	5.72	6.31	1.235
Beneficiaries	Number of beneficiaries	7.32	4.39	9.96	1.561
Funding	Value of funding (R)	3 556 563	3824 337.97	1268066.41	-2.370**
Categorical variables					
	Household Food security				
Variable	**Unit**	**% of total sample**	**% with yes response**	**% with no response**	**Chi square value**
Enterprise	Crop/livestock production = 0	61.22	41.7	58.3	101.762***
	Mixed = 1	38.78	55.3	47.7	
Strategic/mentor	No	12.2	25	75	2.643
	Yes	87.8	50	50	
Skill transfer	No	64.29	28.6	71.4	124.381***
	Yes	35.71	80	20	
Location	Rural	86.7	47.1	52.9	0.004
	Urban	13.3	46.2	53	

Source: Survey data (2013)

** Statistical significance at the 5 % level.

*** Statistical significance at the 1 % level.

9.2 Correlation of explanatory variables used in the logistic regression model

Before a logistic regression model was fitted, a correlation matrix was computed for all the variables in the model to test for multicollinearity. Multicollinearity is a statistical phenomenon in which there exists a perfect or exact relationship between the variables. Large correlation coefficients in the correlation matrix of variables indicate the presence of multicollinearity. The presence of multicollinearity inflates the variances of the parameter estimates, leading to unreliable and unstable estimates of regression coefficients (β) (Wooldridge, 2009). Table 9.2 presents the estimated correlation coefficients for the variables used in the logistic regression model.

Household food security (dependent variable) was only significantly positively correlated ($P < 0.01$) with the transfer of skills. This is because beneficiaries who had received technical skills are more likely to be efficient in production, which raises their chances of being more food secure compared with those without the required skills. The transfer of skills was also significantly positively related with funding and having a mentor or strategic partner ($p < 0.05$). Having a mentor or strategic partner increases the chances of transferring technical skills to the beneficiaries. The positive and significant relationship between skills and funding, results from the fact that farmers with funding are already engaged in farming operations. Therefore, are able to gain skills in the process compared with those who are still to receive funding.

Skill transfer had a negative and significant relationship with project years. This may be due to the fact that a majority of the land reform projects were unproductive prior to 2009, and thus received a mentor as a RECAP requirement. In addition, the results show that statistically significant and negative relationships were detected between having a mentor/strategic partner and number of beneficiaries ($p < 0.01$) and having a mentor/strategic partner and farm size ($p < 0.01$). The negative relationship between mentor/strategic partner and number of beneficiaries as well as farm size may results from the fact that large projects and a high number of beneficiaries per projects may be less attractive to strategic partners/mentors as they are assumed to be difficult to manage.

Having a mentor/strategic partner was significantly positively correlated with location ($P<0.05$). Projects located in urban areas were likely to have strategic partners/mentors due to accessibility of the projects. Similarly, age is also positively and significantly ($p < 0.01$) related to project years. The reason behind this could be that older beneficiaries are more likely to have

owned the farm for longer periods than younger beneficiaries would have. The correlation matrix clearly indicates some significant relationships between the explanatory variables. However, since the maximum correlation coefficient was |0.331|, these associations amongst the independent variables were not considered a problem in obtaining consistent parameter coefficients from the logistic regression, as the variables were sensibly independent of one another.

Table 9.2: Correlation matrix of variables used in the logistic regression model

	Food security	**Age**	**Farm size**	**Project years**	**Ben.**	**Fund**	**Enter-prises**	**mentor**	**Skills**	**Loc.**
Food security	**1**									
Age	.112	1								
Farm size	-.127	.149	1							
Pr. years	-.139	.331***	-.029	1						
Ben.	-.215	.075	.084	.173	1					
Fund	.199	-.112	.119	-.203	.089	1				
Enter-prises	.036	-.028	.090	.010	-.032	-.071	1			
mentor	-.009	.082	-.317***	.117	-.227**	.061	.032	1		
Skills	.225***	.088	-.094	-.207**	-.089	.254**	.015	.213**	1	
Loc.	-.010	-.021	-.015	-.068	-.090	.005	.083	.146**	-.301	1

Source: Survey data (2013)

** Statistical significance at the 5 % level.

*** Statistical significance at the 1 % level.

9.3 Empirical results

The logistic regression model was estimated using SPSS and the results are presented in Table 9.3. The chi-square value ($\chi^{2)}$ of 35.370 is statistically significant ($p<0.01$), suggesting that the explanatory variables explain variation in household food security quite well. The estimated model correctly predicted about 85.7 % and 77.3 % of whether Recapitalisation and Development Programme beneficiaries' food security improved or did not, respectively. The overall correct prediction rate of the model was almost 82 %. The Pseudo R-square was 0.679,

which implies that almost 68 % of the variation in the dependent variable is being explained by the explanatory variables.

Table 9.3: Results from the logistic regression

Dependent variable: Food security (1 = food secure and 0 = not food secure)

Variable	Coefficient	S.E	P-value	Exp(B)
Constant	-5.992	2.913	0.042	0.033
Age	0.084*	0.045	0.064	1.088
Farm size	-0.002*	0.001	0.095	0.998
Project years	0.067	0.153	0.664	1.069
Beneficiaries	-0.110*	0.059	0.059	0.896
Funding	0.000**	0.000	0.040	1.000
Enterprise	-0.142	0.813	0.861	0.867
Strategic/mentor	-1.526	1.271	0.230	0.217
Skills	3.701***	1.414	0.009	40.484
Location	1.435	1.540	0.351	4.200

N = 79; Chi Square (14df) 35.370***; -2 log likelihood = 33.223; Pseudo R square = 0.679
Correct prediction: Food secure = 85.7%; not food secure = 77.3%; Overall model = 82%

Source: Survey data (2013)

* Statistical significance at the 10 %level.
** Statistical significance at the 5 % level.
*** Statistical significance at the 1 % level.

Among the nine variables considered in the model, five were found to have a significant impact on food security. These include age, farm size, number of beneficiaries, fund amount and skills transfer. The coefficients of project years, enterprise, strategic partner/mentor and location were not statistically significant in explaining the impact on food security of RECAP beneficiaries. All the explanatory variables had the expected signs, with the exception of the fund amount. The statistically significant results of this analysis are discussed below.

The results of the logistic regression model suggest that age was positive and significant, at the 10 % level. The results are in line with our a priori expectation. A one-unit (year) increase in the age of a farmer increases the likelihood of being food secure by 1.088. This result is consistent with a priori expectation and may be attributable to the fact that as a farmer ages and

gains experience, he or she may become more productive with improved technical and managerial ability, which in turn increases income and food expenditure. Some studies, such as that by Valente (2009), use household head age and its square, because they believe that production increases with age until it reaches a maximum, and then starts to fall. However, this theory was not tested in this study.

The negative, statistically significant farm size coefficient indicates that as the size of the farm (in hectares) increases by one unit, the likelihood that RECAP beneficiaries will be food secure decreases by 0.998. The results are inconsistent with a priori expectation of a positive farm size–food security relationship and findings by Aidoo *et al*. (2013) and Gordoncillo *et al.* (2012), who found farm size to be positively related to household food security.

The number of beneficiaries had a negative and significant relationship with food security, at 10 % level, implying that the probability of attaining a positive impact on food security by RECAP beneficiaries decreases with an increase in the number of beneficiaries. The odd ratio in favour of a positive impact decreases by the factor 0.896 as the number of beneficiaries increases by one member, *ceteris paribus*. This is because an increase in the number of beneficiaries tends to exert more pressure on consumption. As the number of persons in the project increases, income per head and food consumption per head are reduced. This outcome is consistent with a study conducted by Mafora (2014), who found a negative relationship between the number of beneficiaries and food security.

The coefficient of fund amount is statistically significant and the odds ratio is equal to one, which means that there is a 50/50 chance that the fund provided to beneficiaries will have a positive impact on food security, or no impact at all, with a one-unit (R) change in the amount of funds received. These results are not in line with the a priori expectation and in contrast to results of previous studies (Bradstock, 2005; Grootaert *et al*., 1995; Spio, 2003) that argue that, in order for agricultural development to be effective as a poverty alleviating tool, it requires adequate funding. The results from the study may differ because a number of projects who received funding are still in the development phase and had not yet realised an impact on food security.

The skills transfer coefficient was positive and significant. It is worth noting that of the RECAP beneficiaries; only 35.71 % indicated that they had benefited from RECAP through skills

transfer. This means receiving skills (such as technical, managerial, marketing skills, etc.) raises the odds of RECAP beneficiaries achieving food security by 40.484 times, compared with those who did not receive any skills transfer. The findings of this study support the analysis made by a number of other studies (Rungasamy, 2011; Kirsten & Machethe, 2005; Zimmerman, 2000; Lopez & Valdes, 2000) regarding the importance of skills development in the success of a land reform programme as a poverty alleviating tool.

The results from the logistic model reveal that only two (funding and skills development) of the three components of RECAP included in the study were significant in increasing the probability of beneficiaries' attaining food security. An important observation from the regression results is that the strategic partner/mentor coefficient was not statistically significant. The results imply that having a strategic partner or mentor did not contribute to beneficiaries attaining household food security. This could possibly be influenced by the fact that most beneficiaries are not happy about their mentors and strategic partners, which is indicated by the low levels of satisfaction. According to Business Enterprises (2013), beneficiaries were of the view that the mentors/strategic partners were 'imposed' by the DRDLR and that some of the strategic partners/mentors do not deliver on the role as expected, as many of them do not have enough experience and basically serve only as procurement agents. Therefore, we accept the hypothesis that RECAP has contributed most to household food security of beneficiaries where projects were provided with skills. There's a 50:50 chance that the funding provided to beneficiaries will have a positive impact on food security. However, the hypothesis that RECAP has contributed most to household food security of beneficiaries where projects were provided with a strategic partner/mentor is rejected.

9.4 Summary of the results

The results from the empirical findings show a statistically significant model, signifying that the independent variables explained the variation in the impact on food security quite well. Most of the explanatory variables were significant in explaining the food security status. These include age, farm size, number of beneficiaries, fund amount and skills transfer. The results from the logistic model reveal that only two (funding and skills development) of the three components of RECAP included in the study were significant in increasing the probability of beneficiaries' attaining food security. However, funding showed a 50:50 chance that funding

provided to beneficiaries will have a positive impact on food security. This may be due to the fact that a number of projects who received funding are still in the development phase and had not yet realised an impact on food security.

CHAPTER 10

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter reviews the summary of the study. The chapter re-examines the objectives that guided this study and summarises the major findings related to each objective. Conclusions drawn from the findings and recommendations are also presented. Furthermore, the limitations of the study are identified, as well as recommendations for future research.

10.1 Summary of findings

- *Effect of RECAP on income.* The first objective of this study was to analyse the effect of the Recapitalisation and Development Programme on income of beneficiaries. The study shows that the largest portion of the disbursed funds was invested in field crops, which were found to be dominant in most provinces, except in the Free State and Gauteng. Cattle production investment was second and it surpassed crop production investment in the Free State. Poultry was also found to be an important enterprise within RECAP, particularly in the North West and Limpopo provinces. The results also showed that farming operations were in progress on 68 of the 98 projects. The remaining 30 projects have not realised an income yet, which is attributable to the reality that a large number of these projects are still in their development phase. This is a huge success, when compared with previous assessments of land reform projects which showed that a large number of the projects were non-operational. The average farm production income of the RECAP projects was R1.44 million per annum. The average income increased to R2.08 million per project when only income-generating farms are taken into consideration. The number of farms generating income from non-farm activities was rather low (only 9 out of 98 projects).
- *Effectiveness of RECAP interventions.* The second objective was to assess the effectiveness of the RECAP interventions (strategic partnership and mentorship) in empowering beneficiaries. The strategic interventions are not resulting in broad-based capacitation. There are serious problems with the transfer of skills (management and technical) to beneficiaries and the establishment of market linkages. The effectiveness of strategic interventions seems to vary from province to province. Of the six provinces

sampled, the interventions seem to work better in Eastern Cape, while beneficiaries in the Free State are most dissatisfied with their strategic partners/mentors.

- *Economic impact of RECAP*. The third objective of this study was to examine the economic impact of the Recapitalisation and Development Programme in areas such as production level and employment creation. The descriptive analyses (graphs) illustrated the indicative trend in terms of the economic variables. After RECAP was implemented on the farms, overall production in terms of crop and livestock production increased. RECAP has had a positive effect on agricultural production on most farms across the six provinces. A total of 549 jobs (116 full-time and 433 part-time) were created on the 98 projects covered after RECAP was implemented. The results from the descriptive statistics were also validated by the paired t-test results which showed a significant increase in the said socio-economic characteristics of beneficiaries after RECAP, compared with before RECAP. This means that RECAP has made some advancement towards achieving its intended objectives. However, the number of employment opportunities generated was too small to justify the amount of RECAP funds invested, and mainly resulted in part-time employment.
- *Contribution of RECAP to household food security.* The last objective of this study was to identify the components of the Recapitalisation and Development Programme that have positively contributed to the household food security of the beneficiaries. Most (58 %) of the farmers who benefited from RECAP believed that the programme has increased both the quantity and variety of food available to the beneficiaries and their families. The explanatory variables included the following; age, farm size, project years (experience), number of beneficiaries, type of enterprise, location, RECAP funding (amount), having a strategic partner/mentor, and skills transfer. The empirical results showed a statistically significant model, suggesting that the explanatory variables explain variation in the impact on food security quite well. Most of the explanatory variables were significant in explaining the impact on food security. The results from the logistic model revealed that only two (funding and skills transfer) of the three components of RECAP included in the study were significant in improving the household food security of beneficiaries'. Surprisingly, having a strategic partner/mentor was found to be insignificant.

10.2 Conclusions and recommendations

The main contribution of the study was to analyse whether RECAP has positively contributed to the socio-economic status of the beneficiaries. The findings above show that RECAP has made some progress towards improving the socio-economic status of land reform beneficiaries, particularly in terms of income and production, although much still needs to be done to ensure the programme achieves its intended objectives.

From the results, we can conclude as follows:

- *Most of the beneficiaries are dependent on farm production income and only a few generate income from non-farm activities.* While agriculture plays a key role in socio-economic development**,** more attention should be given to the promotion of non-farm activities, especially those that are linked to the smallholder agricultural sector. Strengthening of farm-nonfarm linkages is likely to improve the results in terms of employment and income generation. Therefore, diverse strategies need to be developed and included under the programme to ensure that each project reaches its utmost potential.
- *The number of employment opportunities created was too small, when compared with the amount of RECAP funds invested, and resulted mainly in part-time jobs.* To address this, much emphasis needs to be paid to job creation as a condition for receiving RECAP assistance on the part of beneficiaries. Engaging in farm and non-farm activities creates more productive and decent employment activities. Diversification through small and medium agro-enterprises should be adopted to build resilient livelihoods as a result creating non-farm employment opportunities for the poor.
- *The strategic interventions are not accomplishing the intended objectives of RECAP.* Strategic partners and mentors are failing to transfer management and technical skills to beneficiaries, or to establish of market linkages. It is, therefore, not surprising that the level of satisfaction of the beneficiaries regarding their mentors and strategic partners is quite low. Beneficiary skills development is associated with an increase in production and productivity. Therefore, making sure that strategic interventions transfer the necessary skills is of paramount importance. To ensure effective skills transfer, the criteria for strategic partner and mentor selection need to be reviewed to make sure that only those that are competent, with appropriate qualifications and skills, and are devoted to RECAP objectives are selected. This will require strategic

partners/mentors to be allocated to an enterprise within their field of expertise. Ensuring that the strategic partners and mentors are easily accessible to the beneficiaries and have the right attitude is also important.

10.3 Limitations of the study and recommendations for future research

The best method of measuring a programme's impact on socio-economic development remains a subject of debate among researchers. Many studies (Valente, 2009; Gordoncillo, 2012; Reyes, 2002) use panel data to estimate the impact, or make use of a control group in the case of pooled cross-section data. According to Wooldridge (2009), difference in difference method in case of pooled cross-section data or first difference in panel data are best methods of analysing a policy or programme. Unfortunately, the nature of our dataset (no panel data or control group) did not allow us to use these methods or to analyse the impact of the programme, as a whole, using regression. Therefore, there is still a need for a future study to be undertaken which will apply the methods of analysis mentioned above, which is what the writer aims to do in the near future.

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APPENDICES

Appendix (i): Details of selected projects in the Eastern Cape

District Municipality	Local Municipality	Project	Rural/ urban	Type of mentor/strategic partner	Enterprise	status
Cacadu	Sunday River	Kommando Kraal	Rural	Corporate	Citrus (oranges	Planning
	Sunday River	Nebraska	Rural	Corporate	Citrus (oranges	Production
Amatole	Amahlati	Jojo Farming	Rural	Academic	Poultry	Production
	Buffalo city	Portion 4 of Montra Farm	Urban	Individual	Tomatoes	Planning
	Buffalo city	Siyavuselela Agricultural Cooperative	Urban	Individual	Tomatoes	Production
OR Tambo	Ngquza Hill	Magwa Tea Cooperative	Rural		Tea	Planning
Ukhalamba	Sengu	Lanflo Project	Rural	Cooperative	Beef cattle sheep	Production
		Malibuye farmers Trust	Rural	Cooperative	Beef cattle, sheep	Production
	Maletswai	Vezemafa CPA	Rural	Cooperative	Beef cattle, sheep	Production

Source: Business Enterprises (2013)

Appendix (ii): Details of selected projects in the Free State

District Municipality	Local Municipality	Project	Rural/ Urban	Type of mentor/s trategic	Enterprise	Status
Xhariep	Kopanong	Pro-Active Brandewynsku	Rural	Corporate	Cattle, sheep	Production
	Kopanong	Pro-Active Vlakwater	Rural	Corporate	Cattle, sheep	Production
Lejweleputswa	Masilonyana	Pro-Active Fonteinloop	Rural	Corporate	Maize	Production
	Matjhabeng	Thakamakgoa	Rural	Corporate	Maize, sunflower	Production
	Tokologo	Pro Active Kroomspru	Rural	Corporate	Beef cattle,	Implementation
	Tokologo	ProActive Korrelkop	Rural	Corporate	Maize	Implementation
	Tswelopele	Dabulamanzi	Rural	Individual	Maize, potatoes, cattle	Production
	Nala	Mafabatho	Rural	Corporate	Maize, sunflower	Production
	Matjhabeng	Gelukspan	Rural	Corporate	Poultry (broilers)	Production
		Pro-Active Uitkyk	Rural	Corporate	Beef cattle	Production
Motheo	Mangaung	ProActive Vergezich	Urban	Corporate	Maize, Sunflower	Production
		Pro Active Gelukshoek	Urban	Corporate	Maize Sunflower	Production
		Pro Active Cecilia	Urban	Corporate	Beef cattle	Production
	Thaba Nchu	Pro Active Eaton	Urban	Corporate	Maize Sunflower	Production
	Mangaung	Swartkoppies	Urban	Corporate	Beef cattle	Production
Thabo Mofutsanyana	Setsoto	Pro Active Astoria	Rural	Corporate	Maize, sunflower	Production
	Setsoto	Zoopjefonten farm	Rural	Corporate	Beef cattle	Production
	Dihlabeng	Pro Active	Rural	corporate	Beef cattle	Implementation
	Nketoana	Pro Active Bronkhorstfont ein	Rural	Corporate	Maize, sunflower	Production
Fezile Dabi	Moqhaka	Pro Active Zandfontei n	Rural	Corporate	Maize, Sunflower	Production
	Ngwathe	Heilbron	Rural	Corporate	Poultry	Production
	Ngwathe	Itekeng	Rural	Corporate	Livestock	Production

Source: Business Enterprises (2013)

Appendix (iii): Details of selected projects in Gauteng

District Municipality	Local Municipality	Project	Rural/ Urban	Type of mentor/s trategic	Enterprise	Status
Ekurhule ni Metro	Boksburg	Siyavuna	Urban	Individual	Vegetables	Planning
Sedibeng	Mid-Vaal	African Plant Biotechnologies	Rural	None	Vegetables	Planning
	Vanderbijl Park	Vlakplaas 53	Rural	None	Maize, layers	Production
	Emfuleni	Blesbokfontein	Rural	Individual	Maize, Pigs	Production
	Lesedi	Leeuwfontein (Portion 11)	Rural	Individual	Beef Cattle	Planning
City of Tshwan	Tshwane North	Kromdraai portion 38	Urban	Individual	Pigs	planning
Metsweding	Makeng Badi mane	Bubis Trading	Rural	Individual	Maize, Sweet potatoes	Production
	Kungwini	Vaalbank occupiers	Rural	Individual	Maize, Sweet potatoes	Planning
West Rand	Randfontein	Daba	Rural	Individual	Beef Cattle,sheep	Production
	Westonaria	Bambanani Fruits BEE	Rural	Individual	Peaches plums	Production

Source: Business Enterprises (2013)

Appendix (iv): Details of selected projects in Limpopo

District Municipality	Local Municipality	Project	Rural/ urban	Type of strategic partner/mentor	Enterprise	Status
Capricon	Polokwane	African Indian	Rural	Individual	Vegetables and goats	Production
		Nakatha	Rural	Joint Education	Broilers	Production
	Blouberg	Matlabeke	Rural	Farmer	Beef cattle, goats, game,poultry	Production
Waterberg	Lephalalele	Ditlou le Dinare	Rural	Farmer	Layers, vegetables, lucerne	Production
	Lephalalele	Babirwa	Rural	None	Vegetables, beef cattle and layers	Production
	Belabela	Molefi Trust	Rural	None	Beef cattle, goats	Production
	Mookgopong	Ndilo – Muthathe	Rural	Farmer	Beef cattle and game	Production
Vhembe	Makhado	Kharishume Poultry	Rural	None	Poultry,maize, vegetables	Planning
Mopani	Greater Tzaneen	Kwena Projects	Rural	Farmer	Maize,goats, banana	Production
		Makatleni Trust	Rural	Farmer	Mangoes and avocadoes	Production
		Machima na Trust	Rural	Farmer	Broilers, mangoes	Production
	Letaba	Modderspruit Forestry	Rural	Farmer	Forestry	Production
Sekhukhune	Elias Motsoaledi	Kopano disabled cooperative	Rural	Farmer	Vegetables	Production

Source: Business Enterprises (2013)

Appendix (v): Details of selected projects in KwaZulu-Natal

District Municipality	Local Municipality	Project	Rural/ Urban	Type of mentor/s trategic	Enterprise	Status
Sisonke	Ingwe	Kwazamani farm	Rural	Corporate	Sugarcane	Production
	Ubuhlebesia	Mjila	Rural	Corporate	Sugarcane	Production
Umgungundlovu	Mpofana	Hlanganani	Rural	Corporate	Vegetables	Planning
	Mkhambathini	Valsch River	Rural		Citrus	Planning
	Ndwendwe	Malungisa Sugar farm	Rural	Corporate	Sugarcane	Production
		Kwabinda/Ptn 13&15 Sprowston	Rural	Corporate	Sugarcane	Production
		Aubrey Laing cc	Urban	Corporate		Production
	Kwadukuza	Sentara Investment CC	Rural	Corporate	Sugarcane	Production
		Gumbi and Family Cane Farm CC	Rural	Corporate	Sugarcane	Production
	Umlazi	Khanya Kude Sugar Estate	Rural	Corporate	Sugarcane	Production
Ugu	Vulamehlo	Equeefa-Majola	Rural	Corporate	Sugarcane	Production
		Nqobile Sugar Estates	Rural	Corporate	Sugarcane	Production
		Dlala Farm	Rural	Corporate	Sugarcane	Production
		Thembinkosi Farm	Rural	Corporate	Sugarcane	Production
		ZwideSugar Estate	Rural	Corporate	Sugarcane	Production
Zululand	Abaqulusi	Liberty farmers co- op	Urban	Individual	Maize, dairy cattle	Production
Amajuba	Newcastle	Nizenande	Urban	Individual	Poultry	Implementation
	Ntambanana	Needmore project	Urban	Corporate	Sugarcane	Production
		Isibusiso Project	Rural	Corporate	Sugarcane	Production
	Umlalazi	Magalela farm	Rural	Corporate	Sugarcane	Production
	Umfolozi	Ekusasalethu/Jengro Estate	Rural	Corporate	Sugarcane	Production
	Mbonambi	Nsombosi	Rural	Corporate	Sugarcane	Production
Umkhanyakude	Mtubatuba	Mokana	Rural	Corporate	Sugarcane	Production
Uthukela	Umtshezi	Sunnyside farm	Rural	Individual	Sugarcane	Production

Source: Business Enterprises (2013)

Appendix (vi): Details of selected projects in North West

District Municipality	Local Municipality	Project	Rural/ Urban	Type of mentor/strategic partner	Enterprise	Status
Bojanala	Madibeng	Hartbeespoort 166	Rural	Corporate	Beef, maize, poultry and vegetables	Implementation
		Hartbeespoort 780	Rural	Corporate	Beef cattle, vegetables	Planning
		Hartbeespoort 876	Rural		Broilers, vegetables	Implementation
		Mosaikwena	Rural	Corporate	Horticulture	Production
	Koster	Shumani Broiler Production	Rural	Corporate	Poultry	Production
	Kgetleng	Khuphuka-Salga Projects	Rural	Corporate	Poultry, beef cattle	Production
Dr Kenneth Kaunda	Matlosana	Tshwaragana ng	Rural	Corporate	Beef cattle	Planning
		Mojakhomo Project	Rural	Corporate	Poultry	Production
	Ventersdorp	Morgenzon	Rural	Corporate	Maize and beef cattle	Production
Ngaka Modiri	Ditsobotla	Kliplaagte	Rural		Beef cattle, sheep, maize and sunflower	Production
		Nkaikela	Rural		Maize, sunflower	Production
		Vaalbank	Rural	Corporate	Maize, sunflower, beef	Production
	Tswaing	Bamboo Rock	Rural	Individual	Maize, sunflower	Planning
		Vukandukuze mpi Security	Rural		Maize, sunflower, beef cattle	Production
		Batuka Farming Project	Rural	Individual	Beef cattle	Production
Dr. Ruth S. Mopati	Molopo	Montana	Rural	Corporate	Beef cattle, game	Production
		Rochele	Rural		Beef cattle, sheep, goats and horses	Planning
		Soetasbes	Rural	Individual	Beef cattle	Implementation
	Taung	Reilvilo	Rural	Corporate	Beef cattle, sheep and goats	Production
		Kgomo Bokamoso Coop (Panfontein)	Rural	Corporate	Beef cattle, sheep and goats	Production

Source: Business Enterprises (2013)