IMPACT OF PRO-ACTIVE LAND ACQUISITION STRATEGY PROJECTS (PLAS) ON THE LIVELIHOOD OF BENEFICIARIES IN DR KENNETH KAUNDA DISTRICT OF THE

NORTH WEST PROVINCE, SOUTH AFRICA

By

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Declaration

I declare that this dissertation for the degree of Master of Science in Agricultural Economics at the North West University, hereby submitted, has not previously been submitted either in the same or different form, for any other degree, at this university or any other university. It is my own work in design and execution and that all material contained herein has been duly acknowledged.

Signed: Khulekani Khumbulani Sithembiso Nxumalo ……

Date: November 2013

Dedication

This work is dedicated to my late father Mr. Philangenkosi Joseph Nxumalo, my primary motivation to the "love of education." May his soul continue to rest in peace.

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List of acronyms and abbreviations

ANC	African National Congress
BEE	Black Economic Empowerment
BLRM	Binary Logistic Regression Model
CRDP	Comprehensive Rural Development Programme
DFID	Department For International Development
DLA	Department of Land Affairs
DARD	Department of Agriculture and Rural Development
DRDLR	Department of Rural Development and Land Reform
HSRC	Human Sciences Research Council
RDP	Rural Development Programme
SLAG	Settlement and Land Acquisition Grant
LRAD	Land Redistribution for Agricultural Development
MALA	Ministry of Agriculture and Land Affairs
NWP	North West Province
PLAS	Pro-Active Land Acquisition Strategy
OLS	Ordinary Least Squares
RADP	Recapitalisation And Development Programme

Abstract

The fundamental objective of this study was to determine the impact of PLAS Land Reform Projects on the livelihood (financial, human, physical, natural and social capitals) of beneficiaries. The population of the study included all beneficiaries (97) of PLAS projects within Dr. Kenneth Kaunda District Municipality. Fifty four beneficiaries were randomly selected from all 36 projects and interviewed using a structured questionnaire. Data collected was sorted, coded and analysed using version 21 of the Statistical Package for Social Sciences (SPSS). Frequency count and percentage were used to summarize the data. The identified major constraints affecting PLAS projects were found to be: lack of resources (77.9%), lack of finance (77.8%), lack of water (77.8%), lack of incentives (66.7%), lack/poor infrastructure (64.8%) and high inputs cost (59.3%). The respondents indicated that lack of finance was caused by both lack of government support and inability to access credit from financial institutions, lack of assets and land ownership which could be used as security to secure loans.

Binary Logit Regression Model was used to determine factors influencing the impact of PLAS projects on the livelihood of beneficiaries. Five explanatory variables found to be statistically significant were: size of projects ($Z=2.905$: $P<0.05$), purchase price of projects ($Z=-2.258$: $P>0.01$), sufficient funding ($Z=1.657$: $P<0.01$), established market ($Z=2.552$: $P<0.01$) and age of farmers' ($Z=-2.697$: $P>0.05$). Wilcoxon Sign-rank Sum Test was used to determine the "before" and "after" impact of PLAS Land Redistribution projects on the livelihood (financial, human, physical, natural and social capitals) of beneficiaries. The findings showed that significant difference existed on the livelihood (social, financial, physical, natural and human capital) before and after participating in PLAS projects. The result indicated an inverse relationship in terms of the impact of PLAS projects on the livelihood of beneficiaries implying that discontinuation or no participation in PLAS projects could reduce livelihood capitals or negatively affect beneficiaries' livelihood.

Keywords: Land Reform. Projects. Beneficiaries. Livelihoods. Demographic. Socio-economic. Constraints. Perception.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Introduction and background

Agrarian Land Reform is traditionally confined to the redistribution of land. In a broader sense, it includes related changes in agricultural institutions, such as credit, rents, changing of laws and regulations or customs regarding land ownership (DRDLR, 2011). Although Agrarian Land Reform can result in low agricultural productivity, especially if it involves collectivisation, it may increase productivity when land is distributed to the passionate and active farmer (Adams, 2000). The South African Land reform refers to the transfer of land and agricultural enterprises to previously disadvantaged people in the fulfillment of the government's objectives to address the past injustice of land dispossession and promote BEE (DRDLR, 2011).

The objectives of the South African land reform programme includes redressing the injustices caused by past land reform policies, supplying both residential and productive land for the poorest section of the rural population, helping to raise incomes and productivity through the provision of support services and building the economy by generating large-scale employment and increasing rural incomes. The programme was/is intended to assist the urban and rural poor, farm workers, labour tenants, women, entrepreneurs and it targeted to redistribute 30% of agricultural land within five years (ANC, 1994). However, it has been indicated that since the democratic government came to power, it has not done enough to give the land reform programme the high priority given to the Reconstruction and Development Programme (RDP). Indeed, in the early 2000s, the government never allocated more than one percent of its total annual budget to the programme (Adams, 2000).

The South African Land Reform Programme has three main pillars; Land Restitution, Land Redistribution and Tenure Reform. Land Restitution deals specifically with historic right in land. It aims at returning land to people who were dispossessed as consequences of legislation such as the Native Land Act of 1913 and the Native Trust and Land Act of 1936. People who had been forcibly removed from their land during period of 1913 to 1994 were entitled to submit applications in order to get back their land. Tenure Reform deals with forms of land holdings.

The programme aims to introduce new systems of land holdings, land rights and forms of ownership while Land Redistribution Programme specifically aims at transforming the racial patterns of land ownership. The purpose of the Land Redistribution Programme is to provide the poor with land for residential and productive purposes in order to improve their livelihood (DRDLR, 2011).

Ellis (2000) defines livelihood as a particular way of living. He points out that livelihood system may include farming activities and income, non-farming activities and sources of income, off-farm activities, non-income related activities and non-activity related sources of income. According to Chambers and Conway (1999), "a livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural base.'' Hence, in this study, evaluation of PLAS land reform projects focus on what happens on the livelihood of beneficiaries after participating in the projects with respect to natural, financial, social and human capital.

1.2 Problem statement

There is a very high rate of distress or struggling land reform projects in South Africa and the situation has become a worrying feature. Between 1994 and 1999, the land redistribution programme was implemented through the Settlement/Land Acquisition Grant (SLAG). SLAG, the first programme to support land redistribution provided grants of R16 000 to qualified persons to purchase and develop agricultural land. Households that were earning less than R1 500 per month were targeted (DLA, 1997). There were three main problems cited with SLAG. First, because of the small size of the grant, groups were too large and frequently crippled by internal conflict and often, had members whose only function was to boost the numbers receiving grants without having any meaningful role in the project. Second, projects took too long to deliver; to some extent because they did not rely sufficiently on the applicants' own initiative and effort, and there was insufficient coordination between the provincial Land Affairs branches (known as Provincial Land Reform Offices) and the provincial Departments of Agriculture. There was also insufficient post-transfer support to projects. The overall concern was that too many redistribution projects were not economically viable, and linked to this; redistribution did not appear to provide a stepping stone into medium or large scale commercial

farming. The Settlement/Land Acquisition Grant's procedures were overwhelmingly bureaucratic and, consequently, remarkably slow. As a result, by the end of 2000, it failed to deliver a number of hectares that would meet the land redistribution target for the remaining years (up to march 2014). MALA (2005) reported that SLAG failed to make significant contributions to the development of semi-commercial and commercial black farmers. This "led to very little impact on rural employment creation or transformation of holding of agricultural land patterns." As a result, SLAG was halted in 1999 by the Department of Land Affairs (DLA) (now called Department of Rural Development and Land Reform) after policy review.

Land Redistribution for Agricultural Development (LRAD) was then introduced in 2001 to replace SLAG. LRAD aimed to improve nutrition and incomes of the rural poor, stimulate growth from agriculture, empower beneficiaries to improve their economic and social well-being, and to enable those presently accessing agricultural land in communal areas to use their land effectively and efficiently (DLA, 2001). LRAD was designed as a market-driven programme, providing larger grants to emerging black farmers with the aim of creating 70 000 black commercial farmers within 15 years. LRAD was seen as a programme for advancing the policy objective of distributing 30% of commercial agricultural land to previously disadvantaged persons by March 2014. The programme was also highly criticised for its low pace in transferring land to previously disadvantaged people. Lack of access to capital and market, poor infrastructure, lack of mentorship and limited financial management skills contributed to the failure of LRAD projects. These challenges needed to be addressed at both the programme and projects level. Mostly, beneficiaries of land reform are resource-poor; most of them did not have money left for input and operations after the LRAD grant to purchase land and were not provided with start-up capital or soft loans. As a result, most of the land was left unused and underutilised. Funds from the government were not allocated according to the needs of the farmers. All these challenges led to the phasing out of the programme in 2010 (DRDLR, 2011).

The Proactive Land Acquisition Strategy (PLAS) was launched in 2006 to replace LRAD. PLAS aims to support local government develop area-based planning and improve coordination among the institutions responsible for land reform. The objectives of PLAS are to contribute to growth, employment creation and equity (DLA, 2006). The new strategy aimed at speeding up the

transfer of land through the proactive acquisition of the land in the market by the government for redistribution purposes. Under PLAS, the land is only permanently transferred to beneficiaries after they have demonstrated their production capabilities in three seasons of monitoring by Agricultural officials (DLA, 2008). In 2008, the DRDLR introduced the "use it or lose it" principle which enables the government to repossess the land it judges as not being used productively. By not transferring the land directly to the beneficiaries, the government pressurises beneficiaries to use land according to government's command to avoid dispossession. For the government, productive use of the land means producing for the markets. However, demanding that beneficiaries demonstrate agricultural skills to qualify to receive the land discriminates against the poor and favours those with professional skills, experience and resources. The downside of it is that rather than developing the agricultural potential of the poor, the approach discriminates against them on the basis that they lack such potential. This approach was also seen as government's desire to increase the gap between the less fortunate and the rich (Hall, 2004).

The above scenarios of SLAG and LRAD posed a threat to the national food security/ poverty and contributed to loss of farm jobs. The PLAS Land Reform Sub-Programme has been implemented for over 7 years now and needs to be evaluated in order to ascertain if the set objectives are being achieved. Such evaluation will provide the correct basis for informed decision to steer the programme to achieve the desired results. This study focuses mainly on the land redistribution sub-programme with specific reference to PLAS land reform projects.

1.3 Research question(s)

Research questions in studies usually assume two forms: a central question and associated sub-questions. The researcher defines the central question as a broad question which asks for an exploration of the central phenomenon in a study. The central question is then followed by sub-questions which narrow the focus of the research, however, it leaves the questioning open (Creswell, 2009). The following was the central question that guided this study:

What are the impacts of PLAS Land Reform Projects on livelihoods (financial, social, human, physical and natural capital) of beneficiaries in Dr. Kenneth Kaunda District of the North West Province, South Africa?

To answer the central question, the following sub-questions were asked:

- What are the socio-economic characteristics of beneficiaries of PLAS land reform?
- What are the effects of participating in PLAS Land Reform Projects on the livelihood (natural, physical, social, financial and human capitals) of the beneficiaries?
- What are the factors influencing the impact of PLAS land reform projects on the livelihood (natural, physical, social, financial and human capitals) of the beneficiaries?
- What are perceptions of beneficiaries towards the Land Reform Projects?
- What are the main constraints faced by beneficiaries of PLAS Land Reform Projects?

1.4 Objectives of the research

The main objective of the study was to evaluate the impacts of land reform projects under the PLAS programme on the livelihood of beneficiaries in Dr. Kenneth Kaunda District of North West Province, South Africa. The specific objectives of the study were to:

- Determine the socio-economic characteristics of PLAS land reform beneficiaries;
- Evaluate the "before" and "after" impact of the projects on the livelihood (natural, physical, social, financial and human capitals) of the beneficiaries;
- Analyse the factors influencing the impact of the projects on the livelihood of the beneficiaries;

- Determine the perception of beneficiaries towards the impact of PLAS land reform projects on their livelihood, food security, and employment; and
- Analyse main constraints faced by beneficiaries of PLAS land reform projects.

1.5 Hypotheses

It was hypothesed that:

H_1: Socio-economic and demographic factors do not influence the impact of PLAS projects on the livelihood of the beneficiaries.

H_0: Socio-economic and demographic factors do influence the impact of PLAS projects on the livelihood of the beneficiaries.

H_1: There is no significant difference on the livelihood (financial, social, human, physical and natural capitals) of beneficiaries "before" and "after" participating in PLAS Land Reform Projects.

H_0: There is no significant difference on the livelihood (financial, social, human, physical and natural capitals) of beneficiaries "before" and "after" participating in PLAS Land Reform Projects.

1.6 Significance of the study

What happens after the delivery of land to the beneficiary is one of the most important and critical aspects of Land Reform Programme. Government officials, land reform beneficiaries, policy-makers, civil society and other relevant stakeholders need to engage in these issues because in many cases, the success of land reform is judged by what happens when land is given to the less fortunate or South African pro-poor people who never had access to agricultural land for productive purposes. This issue is important not only because of the amount of time and money that Government is putting into the implementation of land reform programme, but also because of the people of South Africa whose livelihood is dependent upon having access to land and its productive resources. If land reform programme is well planned and implemented, it has

the potential to improve the livelihoods of the beneficiaries, stabilise food security of the nation, create more jobs, alleviate poverty and contribute to local economic development.

The discussion of how land reform projects contribute to the livelihood of the beneficiaries is crucial in Dr. Kenneth Kaunda District, North West Province as well as in South Africa because most of the land is rural and claimed by black communities who never had the opportunity to access land and its productive resources. When it comes to planning for local economic development, land becomes the most critical resource as the province's economic pillars are Agriculture and Mining which both depends on land. Therefore, it is the intention of this study to contribute to the debate around the impact of land reform projects on the livelihood of the beneficiaries. It is hoped that findings from this study will contribute to informing Government Officials, policy makers, civil society and planners on how to develop a coherent strategy for effective land reform projects which contributes positively on the livelihood of the beneficiaries.

1.7 Ethical considerations

According to Weisner (2005:32), research ethics are described as a set of moral principles that offer rules and behavioural expectations about the most correct conduct. Ethics provide a researcher with a guideline to moral conduct in order to prevent scientific misconduct. The ethical considerations and guidelines as proposed by the author were addressed at all stages of the study. In compliance with the regulations of the North West University, standardisation and uniformity was adopted for the study procedure for all the respondents. Permission to include land reform projects and beneficiaries was obtained from the Land Reform District Office manager and Projects Officers from the Department of Rural Development and Land Reform. They were consulted and informed about the objective of the research project. Respondents' information was treated as confidential and the results were used for the research purpose only. The respondents were treated with respect, dignity, the research objectives were outlined and interviews only focused on issues related to the study.

1.8 Study outline

This dissertation is organised into five chapters, including this introductory Chapter. The remaining chapters are as follows: Chapter two covers the literature review of the study, Chapter three consists of the methodology. It describes the study area, population of the study, sample size and sampling procedures, method of data collection and analyses. It clearly states how the objectives of the study will be achieved. Chapter four presents the results and discussion of the study. It indicates the impact of land reform projects on the livelihood of beneficiaries. Chapter five is the concluding chapter of the study. It summarises the study, describes the major findings emanating from it and states the recommendations emanating from the study for future intervention programmes.

1.9 Summary of chapter one

This chapter presented the introduction and the background of the South African land reform programme. The problem statement which was a motivational factor for conducting the study was discussed in detail. Research questions and objectives of the study were identified and clearly stated. The hypotheses of the study were that: Socio-economic and demographic factors does not influence the livelihood impact of project beneficiaries; there is no significant difference on the livelihood (financial, social, human, physical and natural capitals) of beneficiaries "before" and "after" participating in PLAS Land Reform Projects.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the background of the South African land reform programme, its success and challenges. It also reviews literature on the South African land reform programme, Land redistribution programme, Settlement/land acquisitions grant (SLAG), Land Redistribution for Agricultural Development (LRAD), Land Restitution Programme, Land Tenure Programme and Pro-active Land Acquisition Strategy (PLAS) which is the main focus this study. Challenges faced by land reform projects in South Africa, impact of land reform on beneficiaries: an international perspective, access to Operational capital, access to Markets, need for agricultural credits, need for skills and education and need for agricultural extension services or supports were also reviewed.

2.2 Theoretical and conceptual literature of Land Reform

Land reform refers to transfer of ownership from the more powerful to the less powerful such as from a relatively small number of wealthy owners with extensive land holdings to individual ownership by those who work the land. Such transfers of ownership may be with or without compensation; compensation may vary from token amounts to the full value of the land. Land reform may also entail the transfer of land from individual ownership even peasant ownership in smallholdings to government-owned collective farms; it has also, in other times and places, referred to the exact opposite: division of government-owned collective farms into smallholdings. In South Africa, there are three-pronged land reform policy to redress the historical injustice of land dispossession, denial of access to land and forced removals: Land Restitution which seeks to restore land ownership or compensate those forced off land during white rule, Land Redistribution of mainly agricultural land, which seek to redress the discriminatory colonial and apartheid policies by providing the disadvantaged and poor with access to agricultural land for productive purposes, Land Tenure reform which focus on securing tenure for all South Africans (Sibanda, 2001).

A number of studies have argued that a more distribution of land would improve social and political stability and participation in the democratic decision making process. Deininger (1999) provide a theoretical underpinning for such a relationship between distribution and provision of public goods (including social cohesion). Banerjee et al. (2002) study the state of West Bengal, where the reforms were successfully implemented, and using a district level data found that tenancy reforms improved agricultural productivity. Bardhan and Mookherjee (2007) using village level data from West Bengal, also find significant impact of the land reforms on farm productivity. Deininger et al. (2008) using state-level variation in reform implementation, also find that the land reforms had a significant and positive impact on income growth and accumulation of human and physical capital in the reform households. In all, there is evidence of a significant impact of reform in West Bengal on farm productivity and poverty levels. Reforms transfer wealth, and therefore producers who had earlier been prevented from making investments, in physical and human capital, due to credit constraints, increased the level of land-related investment as well as an impact on investment in physical or human capital (Gersbach & Siemers, 2005).

2.3 Review of past studies on land reform in selected countries

2.3.1 Land reform in South America

In South America, land reform is a major problem because enormous tracts of land (Latifundios) are concentrated in very few hands with labourers no better off than serfs. Although the revolution in Mexico resulted in land reform (1917), the programme of Redistribution of land is still only partially completed. A land reform law also followed the Bolivian revolution of 1952, but by 1970, only 45% of the peasant families had received titles to land. One of the most complete agrarian reforms in Latin America took place in Cuba, where land reform was one of the main platforms of the 1959 revolution. Large land holdings were expropriated by the National Institute for Land Reform; however, most of them are managed by government officials and have not yet been redistributed. The remaining agricultural land is limited to a ceiling with tenants gaining ownership rights (Barraclough, 1999).

2.3.2 Land reform in Brazil

Brazil embarked on selective expropriation with compensation; viable family small holder farms receiving government support; serving domestic markets, while large scale commercial farms serve exports markets; and, combined market-related strategies with traditional land management systems, in a complementary manner. The lessons emanating from the Brazilian experience with the implementation of the land and agrarian reform programme are illuminating. In Brazil, the opposite practice in the implementation of the land and agrarian reform programme has been the order of the day. The beneficiaries of the land and agrarian reform in Brazil have been actively involved in negotiations with the land owners over the purchase of land. In their negotiations with the landed gentry for the purchase of land, they had the power to walk away when the land owners became unreasonable by demanding high prices for the land. In so doing, the beneficiaries of the land and agrarian reform in Brazil have been able to bring down the prices of land through the use of their power of walking away from negotiations. In bringing down the prices of land, they have been able to save money for development and investment purposes on their newly acquired land (Department of Rural Development and Land Reform, 2011).

2.3.3 Land reform in Chile

Chile expropriated large farms in the 1960s, turning them into co-operatives for peasants and small farmers. There was a reversal in 1974, with the re-instatement of elite family farms. Regulatory reforms were introduced on land rentals and subdivisions in the 1980s. Chile's land reform (1970-73) was reversed with the overthrow of the Socialist Salvador Allende. The number of peasants owning land was on the increase but nearly all of the new landowners were still poor. Even though many land reforms were often implemented in a way that reduced their possible impact on equity and efficiency, there is growing evidence all over the world that redistributive land reform help reduce poverty, increase efficiency, and establish the basis for sustainable growth (Bellisario, 2007).

2.3.4 Land reform in Asia

China's Communist revolution in 1949 led, after the wholesale transfer of land, to small peasants, to the amalgamation of peasant co-operatives into larger communes. In attempt to establish socialist agriculture prior to mechanization, the communes were much criticized by the Soviet

Union. They proved inefficient, causing stagnation in agricultural productivity and China later abolished them. By 1980, China was rapidly returning land to individual smallholders and promoting market-oriented agriculture with marked success. In other parts of the world; in Asia, especially in such densely populated areas as the Indian subcontinent, agitation has been mainly for redistribution among landless laborers; for security of tenure; and for the elimination of middlemen, oppressive rents, and usurious interest. Agrarian reforms began in Japan during the Meiji Restoration (1868-1912), when feudal fiefs and stipends were abolished. After World War II, the United States occupation forces supervised further land reform. As a result, by 1949, over 80% of Japan's tenanted land had been transferred from absentee landlords to tenant cultivators. In India and Pakistan, similar programmes of agrarian reform were attempted, though with less success (Phillip, 2001).

2.3.5 Land reform in Zimbabwe

Land and agrarian reform problems in SADC member states have the potential of promoting economic growth. In some countries such as Zimbabwe, Namibia and South Africa, racially-based land ownership patterns led to discriminatory land use and tenure policies, practices and laws. Attempts to change these patterns have proved to be difficult and have become a source of political and economic divergence. A major constraint member states face is the lack of the capacity of implementing land and agrarian reforms in an efficient manner. Poor information sharing also affects the quality of dialogue between governments and other stakeholders, leading to suspicion and mistrust, even where land reform policies are well intentioned. Member states have expressed frustration with the slow pace of market-assisted norms of land acquisition on alternative models as an area of concern (SADC, 2007). Zimbabwe gained independence in 1980 and did not carry out radical changes regarding the unequal distribution of land ownership between white commercial farmers and blacks. In 1981, Zimbabwe argued that the provision of adequate foreign funds for land purchases was not forthcoming, as promised in 1979 by the United Kingdom and the United States of America. The United Kingdom pledged that it would finance the purchase price of land for land reform purposes. However, any commercial farmer who wanted to sell his land had to first offer it to the Zimbabwean government. When the government of Zimbabwe was not willing to buy such land, the farmers were then allowed to sell the land in the open market (Sibanda, 2001).

2.3.6 Land reform in Namibia

Under previous Apartheid policies, access to land was reserved for white farmers. This underlines the fact that access to productive land and agricultural resources were structured along racial lines. At independence in 1990, the new government of Namibia inherited a highly racially skewed land distribution. Colonial land dispossession left indigenous communities with little over 40 percent of agricultural land. The pattern of poverty in Namibia mirrors the unequal distribution of land and economic inequalities. The Namibian government adopted the principle of market-based approach (willing-buyer, willing seller model) in redressing the inequalities created by past apartheid policies. The rate of transfer of land in Namibia has been slow. Its impact on rural poverty in the long-term will be limited. Land reform in Namibia is divided into four main components, namely: redistributive land reform; tenure reform; development of unutilized communal land; and the affirmative action loan scheme. Beneficiaries of land reform should be poor landless Namibian citizens (SARP, 2001).

2.3.7 Land reform in Kenya

The Republic of Kenya covers an area of approximately 582,646 square kilometers. According to the 1999 census the Kenyan population is estimated at about 28 million people. Land is one of the most important economic resources in Kenya as it is the base upon which activities like agriculture is carried out. It is the most important economic resource required for the creation of wealth. Land ownership and control brings economic power. The importance of land in human life makes it the main reason for the struggle for Kenya's independence from British colonial rule. Land has been, and will continue to be, the mainstay of Kenya's economy. About 80% of the Kenyan population lives in rural areas and derive their livelihood from agriculture. The sector is therefore, the main source of national income, employment creation for over 80% of the population and has continued to play significant role in the social and economic development of the country (Njuguna et al., n.d.).

2.2 Background to the South African land reform programme

According to Lahiff and Rugege (2002), Land Reform Policies of South Africa's first non-racial democratic government began with the Constitution and the Reconstruction and Development Programme. Jacobs, Lahiff and Hall (2003) found that since 1994, South Africa has been

involved in several sub-programmes of land reform. The land reform programme is designed to redress the imbalances in land holding patterns which occurred prior to the introduction of democracy in South Africa. It is also intended to secure the land rights of historically disadvantaged people. Through the Bill of Rights, Chapter 2 of the 1996 Constitution of the Republic of South Africa spells out the legal basis for land reform. Section 25 of the Constitution makes provision for the expropriation of property only in terms of "a law of general application", for a public purpose or in the public interest, subject to just and equitable compensation. Section 25 (4) states that "the public interest includes the nation's commitment to land reform and to reforms to bring about equitable access to all South Africa's natural resources". This framework can be divided into three broad areas which are Redistribution, based on a system of discretionary grants that assist certain categories of people to acquire land through the market, Land Restitution, which provides relief for certain categories of victims of forced dispossession; and Tenure reform, intended to secure and extend the tenure rights of the victims of past discriminatory practices. The South African Constitution (1996) clarifies the issue of land reform very clear. According to Sections 25 (5 - 7), "The state must take reasonable legislative and other measures, within its available resources, to foster conditions which enable citizens to gain access to land on an equitable basis; a person or community whose tenure of land is legally insecure as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either a tenure which is legally secure or a comparable redress; and a person or community disposed of property after 19 June 1913 as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to restitution of that property or to equitable redress."

Lahiff (2003:39) argues that the first democratically elected government inherited one of the world's most racially skewed land distribution. Approximately 82 million hectares which was divided into 60 000 farm units was in white ownership while over 13 million people owned 13% of the country's arable land. To date, the historical imbalances in Land reform have not been adequately addressed. The government of South Africa believes in the use of a free market mechanism, a highly controlled public spending and minimal intervention in the economy (market-based, demand approach). A lot of progress has been made on restitution on Land Rights according to Act 22 of 1994. This made provisions of rights to land for people or

community disposed of land under the racially based discriminatory legislation after 19 June 1913. In March 2002, 29 877 claims had been settled representing 56 245 households. This covered a total of 427 337 hectares with a total cost of R15 Billion. The total financial compensation paid out was R938 million (Deininger, 2003; Hall, 2003; Lahiff, 2001). Lahiff (2003:46) maintains that the progress in the rural areas was very slow and some critics have questioned whether the government still has adequate capacity to deal with the disparities and queries of people currently settled in the rural areas. Adams (2000) found out that the Land Reform in South Africa was not really meant to redistribute land but to compensate people who were affected by apartheid laws. All land transactions were on a willing buyer willing seller basis. The process was made possible by the Settlement Land Acquisition Grant (SLAG). Deininger (2003), point out that the South African Land Reform was mainly criticised for its failure to address issues related to livelihoods, creating employment, household food security and development in the rural areas.

2.3 Overview of South Africa's Land redistribution programme

The Land Redistribution Programme aims to redistribute land to South Africa's landless poor, labour tenants, farm workers and emerging farmers for residential and productive uses, to improve their livelihoods and quality of life. The programme was designed to be flexible in order to react to the demands of different stakeholders, but in practice, it has been difficulty for this to happen. Also, the government accepted the principle of land transactions being voluntary and they are based on the principle of a 'willing seller' and a 'willing buyer'. This policy contributed to slowing the pace of the land redistribution programme (DLA, 1997). The purpose of the land redistribution programme is to provide the poor with access to land for residential and productive uses, in order to improve their income and quality of life. The programme aims to assist the South African poor, disadvantaged communities and individuals, labour tenants, farm workers, women and emerging farmers. Redistributive land reform is based largely on willing buyer willing-seller arrangements. However, government assists in the purchase of land, but, in general, not to be the buyer or the owner. Rather, it makes land acquisition grants available and support and finance the required planning process (DLA, 1997). The South Africa's land redistribution programme has been implemented through three programmes: SLAG, LRAD and PLAS.

2.3.1 Settlement/land acquisition grant (SLAG)

The first redistribution programme, run from 1995 to 1999, was structured around the Settlement/Land Acquisition Grant. In terms of the Settlement/Land Acquisition Grant Programme, historically disadvantaged South Africans, who were landless and poor, could apply for a cash grant of R16 000 per household to purchase and develop farmland. Only households earning below R 1 500 were eligible for these grants. In practice, beneficiary households had to pool their grants in order to buy a whole farm from a willing seller. The group would establish a legal entity, usually a community land trust or communal property association that was formally registered as the owner of the property. In most cases, farms financed with land grants and settled by groups of up to 500 households-were too small to support all beneficiaries as full-time farmers. The Provision of the Land and Assistance Act, 126 of 1993, enables the government to make grants to beneficiaries satisfying specific eligibility criteria (Turner & Ibsen, 2000).

2.3.2 Land Redistribution for Agricultural Development (LRAD)

Land Redistribution for Agricultural Development (LRAD) was introduced in 2001 and ran until 2010. The programme, that comprises a government grant and requires a contribution in kind or in cash from beneficiaries, aimed at enhancing the effectiveness of redistribution as well as contributing to the objective of transferring 30 percent of the country's agricultural land to black ownership by 2015 (MALA, 2001). The strategic objectives of the Land Redistribution for Agricultural Development, which are to be achieved in 15 years from 2000, were to increase access to agricultural land by previously disadvantaged persons and to contribute to the redistribution of approximately 30% of the country's commercial agricultural land; contribute to relieving the congestion in over-crowded former homeland areas to improve nutrition and incomes of the rural poor who want to farm on any scale; overcome the legacy of past racial and gender discrimination in ownership of farm land; facilitate structural change over the long term by assisting black people who want to establish small and medium-sized farms to stimulate growth from agriculture, create stronger linkages between farm and off-farm income-generating activities; and expand opportunities for promising young people who stay in rural areas and empower beneficiaries to improve their economic and social well-being (DLA, 2001).

2.3.3 The Pro-active Land Acquisition Strategy (PLAS)

PLAS was adopted as official policy in 2006. The state became the 'willing buyer' of Land for redistribution, by actively using market opportunities where they arise and, in some instances, approaching land owners for them to sell. Under this approach, the state buys land directly from owners rather than issuing grants to applicants to buy. This state-owned land can then be allocated on a leasehold basis for three to five years, following which the lessee may be allowed an option to purchase. The proactive intervention by the state in the land market is in advance on the limitations of the 'willing buyer, willing seller' model (DLA, 2006). However, three problems have been identified with this approach. First, and most crucially, acquisitions have been directed by offers of land for sale, rather than coherent plans to address identified needs and identifying of land that is strategically located in terms of market and resources. To avoid problems of inappropriate acquisitions, it will be important to provide a clear framework within which decisions can be made about where land will be bought and for whom. Second, PLAS appears to be aimed at meeting the land needs of the poor, more in particular, for those cash leasehold may be inappropriate, unless grants can be used to pay leases; secure tenure equivalent to ownership may be better suited to this target group. Third, the leasehold model creates an administrative burden for the government for which it does not have the capacity at present, if previous experience with land administration is anything to go by (Hall, 2008).

2.4 Land Restitution Programme

According to Sibanda (2001), this programme deals with claims lodged in terms of the *Restitution of Land Rights Act, 22 of 1994*, under which a person or community dispossessed of property after 19 June 1913, the date of the Natives Land Act, as a result of racially discriminatory laws or practice, is entitled to lodge a claim for restitution of that property or comparable redress. It therefore, focuses on dealing with the injustices of apartheid most directly. The Restitution of the Land Rights Act of 1994 provides for priority treatments for those who lost their land after 1913, i.e. after the Native Land Act, as a result of racially discriminatory legislation and who were not fairly compensated. This includes people who were forcefully removed from areas that were previously predominated by black people who often held freehold or other rights to the land in what became "white South Africa" after 1913 and people who were moved as a result of the Group Areas Act.

2.5 Land Tenure Programme

"This programme aims to provide people with secure tenure where they live, to prevent arbitrary evictions and fulfill the constitutional requirement that all South Africans have access to land legally. *The Land Reform (Labour Tenants) Act, 1996 (Act No.3 of 1996)* provides for the protection of the rights of labour tenants and gives them the right to claim land. *The Interim Protection of Informal Land Rights Act, 1996 (Act No. 31 of 1996)* was passed as an interim measure to protect people in the former "homelands" against abuses of their land rights by corrupt chiefs, administrative measures or property developers who fail to consult the occupiers of affected land, while a new more comprehensive law was being prepared. *The Extension of Security of Tenure Act* of 1997 aims to protect people who live on land with the consent of the owner or person in charge against unfair eviction and create long-term tenure security through on-or-off-site settlement assisted by a government grant and the landowner" (Sibanda, 2001).

2.6 Challenges faced by land reform projects in South Africa

Land reform beneficiaries face various challenges which include; a lack of access to capital, the market, poor infrastructure, a lack of competent mentorship and limited financial management skills contributed to the failure of the projects. Mostly, beneficiaries of land reform are resource-poor, and since most of them do not have money left for inputs since they are not provided with start-up capital, as a result most land is left unused and underutilised. They also face various challenges when attempting to establish a market. The absence of a long-term or secure contract increases the risk that producers may not sell the goods they produce. Furthermore, the price they may obtain for their goods is unknown making it very difficult to project profitability of one good as opposed to another. Transport costs also remain a significant restriction on the ability of a single relatively small supplier to access more lucrative markets in other areas which is believed to be caused by land which is not strategically located (Cousins, 2005).

2.7 Impact of land reform on the beneficiaries: an international perspective

There is a very strong view or perception that many land reform projects were implemented in a way that reduced their possible impact on equity and efficiency. There is growing evidence from all over the world that redistributive land reform helped reduce poverty, increase efficiency and establishes the basis for sustainable growth. In the Philippines, land reform beneficiaries have invested more in their children's education than non-beneficiaries and increased their levels of assets at about three times the rate of non-beneficiaries and this plays a major role on sustainable livelihood more in particular, those who are direct beneficiaries of land reform (Deininger et al., 2000). Implementation of land reform has proven to have the potential of improving livelihood as it targets the most unproductive areas, thus leading to considerable productivity increases. In Brazil, land reform has proven to be economically viable, having a scope of increasing beneficiaries' income up to 5 fold (Buinainain et al., 1999). In South Africa, land reform has experienced a lot of problems on implementation but it offers an opportunity to the poor, hence play a major role on improving the livelihoods of previously disadvantaged people (Deininger & May, 2000).

2.8 Access to operational capital

When land is transferred to land reform beneficiaries, they need access to capital, particularly, financial capital. Lack of access to financial services is the major constraint for farmers, especially, land reform farmers. It affects their ability to participate in value added markets. It significantly affects emerging farmers and land reform beneficiaries in terms of settlement and production (SIS, 2007). According to Jacobs (2003), an effective land reform programme needs adequate support in terms of finance in order to achieve sustainable production. Access to finance enables farmers to purchase production inputs such as certified seeds, fertilizers and fixed improvements in their respective farms. Providing grants to acquire land without necessary support in terms of finance and skills may result in a loss of production potential. Modern farming requires large capital for equipment, bulk seed supplies, marketing but land reform beneficiaries lack such capital. Hence, most land reform projects in South Africa are underutilised and unused (SIS, 2007).

2.9 Access to markets

Farmers need marketing skills to survive in a highly competitive environment (Al-Rimawi et al, 2004). Availability of market information enables farmers to check on the prices they receive *vis-à-vis* the prevailing market prices. Access to market information helps farmers to make informed farm decisions (Mwakaje, 2010). Land reform beneficiaries face a number of obstacles when trying to establish markets for their produce and these challenges in turn, highly influence their approach to production and marketing (Williams & Van Zyl, 2008). Lack of market and information play a critical role on improving farming of emerging farmers and land reform beneficiaries. Lack of market, inconsistent production, small quantities of produce and less quality are all factors that limit market access by land reform beneficiaries (Senyolo et al., 2009). According to Setboonsarng (2008), lack of access to market information is one of the major contributing factors to low development of market accessibility. Lack of information prevents farmers from planning and marketing their produce effectively. This puts them at risk of losing considerable income if prices fluctuate; more so, if they fluctuate downwards. Land reform beneficiaries in NWP use various channels to sell their produce. In most cases, they sell their produce at auctions and to local buyers and often do not get appropriate return for their products. Bifarin and Moyinjesu (2008) state that efficient marketing systems ensure that the producer sells almost all produce and the consumer too is sure of getting what he wants throughout the year. According to Hendricks and Fraser (2003), developing countries are generally characterised by the inefficiency of their marketing system and as a result, are faced with a vicious circle: if the farmer does not receive an economic return from the sale of his surplus production, he will tend to produce at a subsistence level. Small-scale farmers in South Africa still experience problems in trying to access resource and commodity markets. Their access to fresh produce markets, livestock markets such as auctions and grain markets is still limited. Households often exchange agricultural products for processed products as an alternative form of market access (Makhuru & Mokoena, 2003). Makhuru et al. (2003) further argue that there is lack of market information in the rural areas and also a lack of means of effectively disseminating information.

2.10 Need for agricultural credits

Bifarin and Moyinjesu (2008) define agricultural credit as the process of obtaining control over the use of money, goods and services in the present, in exchange for a promise to repay at a future date. It is a necessary input and in most cases, the first essential factor in agricultural production and in other various aspects of farm operations. With credit availability, farmers can secure farm inputs, equipment and hire additional labour (Adegbite et al., 2008). Gana et al. (2009) reported that farm credit is not necessitated by limitations of self-finance, but also by uncertainties pertaining to the level of output and time lag between input and output. According to Bifarin and Moyinjesu (2008), an efficient credit system is a pre-condition for effective fulfillment of agricultural roles of generating internal capital through savings, production of sufficient and high quality food for the growing population, providing raw materials for industries and generation of foreign exchange earnings through exports. Hence, agricultural credit is very important not only for fostering agricultural development but also in improving efficiency, as this will motivate increased productivity in the agricultural sector.

According to Zimmerman (2000), credit markets are notoriously thin or absent in rural South Africa. He further reported that credit "stokvels" are out of reach for the poor and formal credits are impossible for them to attain. Small-scale farmers' access to finance therefore remains a problem in South Africa. For commercial banks to lend money, they need security, which in most cases are not available to small-scale farmers and land reform beneficiaries (AgriNEWS, 2007).

Most funds available for agricultural support are distributed through the Comprehensive Agricultural Support Programme (CASP). The CASP 2009/2010 budget was R628 million, for 2010/2011 it was R758 million. But while more money is spent on agricultural support every year, fewer people are benefiting from this support. The most recent information showed that despite CASP and other support types like extension or the Micro-Agricultural Finance Institution of South Africa (MAFISA), less than 13% of small-scale farmers receive support. Instead of equal fund distribution, it seems that only few farmers received a lot of support while the majority did not receive any financial support (Erasmus, 2010).

2.11 Need for skills and education

Adult education in agriculture relates to life-long learning and is extremely important and cannot be denied (Trede & Whitaker, 2000). According to Adesoji et al. (2006), successful and result-orientated farming requires the skill and knowledge of the farmers, which can only be attained/ achieved through the right training. Adesoji et al. (2006) further stated that training is acquisition of the best way of utilising knowledge and skill. Thus, training is an essential resource, which will direct knowledge and skill towards production. Faure and Kleene (2004) stated that there is a need for new information and training facilities for farmers to enable them improve their management capacity, taking into account the technical, organisational, economic and financial aspects of farming. Thus, the high risk and high technology nature of business requires sound business management skills. Knowledge of farm management principles provides farm operators with a basis for sound decision-making and helps them to solve economic problems associated with maximisation of returns and minimisation of costs (Al-Riwari et al., 20004). Apart from land redistribution, the South African government should consider encouraging and educating farmers on the necessity of land reform. There should be an incentive for farmers who volunteer to mentor the land reform beneficiaries or emerging farmers from historically disadvantaged communities (Seokoma, 2007). It is important to organise institutional support structures aimed at ensuring that farmers receive information and acquire skills capable of assisting them to adopt new technologies as well as comply with new regulations (AgriNEWS, 2007).

2.12 Need for agricultural extension services or supports

Extension is a type of education which is functional rather than formal. It is better provided by extension workers whose main task is to convey information in a meaningful form to farmers (Ozowa, 2009). Through agricultural extension, farmers are informed of improved farming practices as well as new technical and economic possibilities that could be of great benefit if adopted. Hence, the ingredients to success in agricultural transformation through extension must include the fact that extension must have something to extend such as; new technology and practice and innovations must be effectively communicated to farmers (Adeola et al., 2008). Salin and Age (2009) argue that sustained high levels of agricultural production and income are not possible without an effective agricultural extension service supported by agricultural research

that is relevant to farmers' needs. They believe that agricultural extension is a desirable institution for the development of sustainable agricultural production system and food security.

Morris (2007) points out that in many developing countries, agricultural development is hinged on extension services by helping farmers to identify and link with research on their production problems. They also provide awareness on opportunities for improvement of farm yields, leading to increased income and improved standard of living through the dissemination of information. Black farmers in South Africa have been historically neglected and are still under-serviced by the government and other agricultural extension services. Stroebel et al. (2009) suggested that extension services and mentors must contribute towards ensuring that land reform projects or farms that were transferred to new entrants remain productive.

2.13 Summary of chapter two

Chapter two presented a background to the South African land reform programme. An overview of South Africa's Land redistribution programme (Settlement/land acquisition grant (SLAG), Land Redistribution for Agricultural Development (LRAD), and Proactive Land Acquisition Strategy (PLAS) (which is the main focus this study) were also examined. Land Restitution Programme; Land Tenure Programme; Challenges faced by land reform projects in South Africa; the impact of land reform on the beneficiaries: an international perspective; access to Operational capital; access to Markets; need for agricultural credits; need for skills and education and need for agricultural extension services or supports were reviewed in detail.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the study area where the research was conducted, the research design, population of the study, sampling size and procedures, data collection instrument and methods of data analysis are presented and discussed in detail.

3.2 Study area

The North West Province (NWP) covers an area of approximately 116 180 km^2 which brings the population density to approximately 30 people per km^2. The Statistics South Africa (Stats SA) mid-year population estimate of 2006 puts the North West population at 3.858 million. The province is largely rural in nature, and approximately 66% of its population lives in non-urban areas. The provincial economy contributed about 5% to the South African economy in 2004. Agriculture contributes 3.4% to GDP nationally and plays a vital role in the economy of the province. It provides 8% of the province's employment opportunities. Apart from mining, agriculture is the only sector in which North West is acknowledged to have a comparative advantage over other provinces (SSA, 2012).

The study was conducted in Dr. Kenneth Kaunda District Municipality. The main economic activity in Dr. Kenneth Kaunda District Municipality of the Northwest Province is Agriculture, producing mainly crops and livestock. Temperatures range from 17° to 31°C (62° to 88°F) in the summer and from 3° to 21°C (37° to 70°F) in the winter. Annual rainfall totals about 360 mm (about 14 in), with almost all of it happening during the summer months, between October and April. The majority of its 599 674 people speak Setswana (Census, 2001). The district code is DC40. The district was formerly known as the Southern District Municipality. It was later renamed after Kenneth Kaunda, the first President of Zambia. The district is divided into four local municipalities which are Ventersdorp, Tlokwe, City of Matlosana, and Maquassi Hills. The Kaunda District is surrounded (clockwise) by Bojanala Platinum District Municipality, to the North West by Rand District Municipality (Gauteng province), to the east Sedibeng District Municipality (Gauteng province), to the east by Fezile Dabi District Municipality (Free State

province), to the south-east by Lejweleputswa District Municipality (Free State province), to the south by Dr. Ruth Segomotsi Mompati District Municipality, to the south-west by Ngaka Modiri Molema District Municipality of the North-West Province (SSA, 2003).

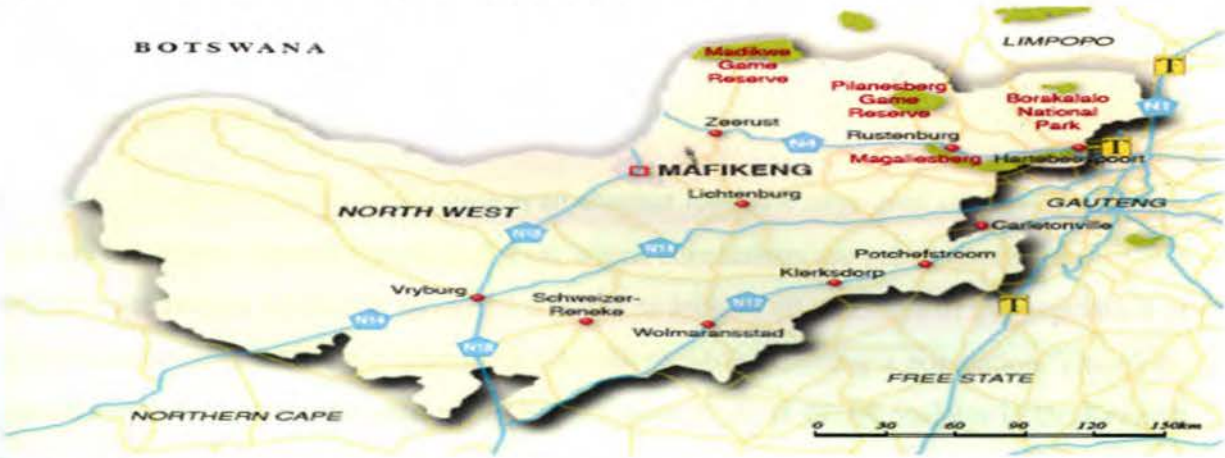

Figure 3.1 North West Province Map Source: Statistics South Africa (2005)

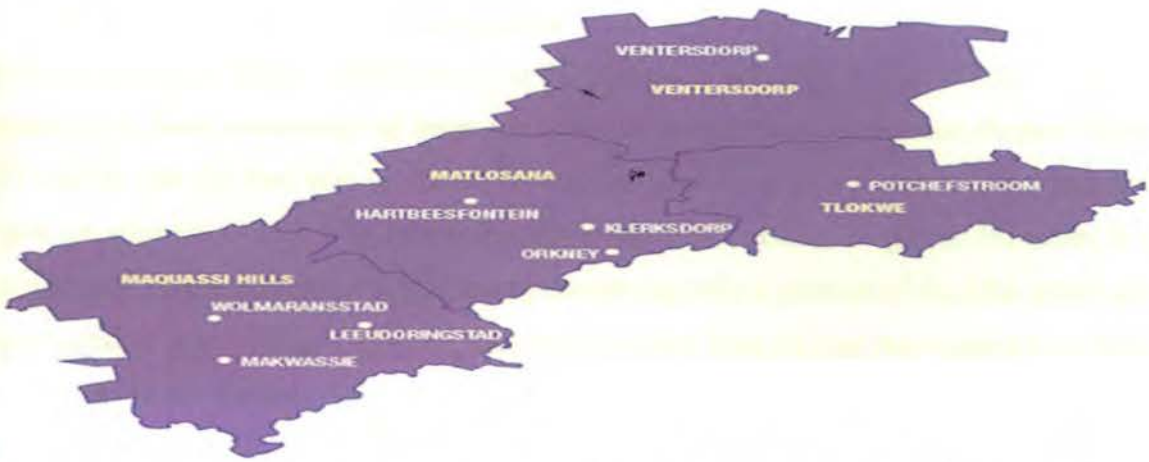

Figure 3.2: Dr. Kenneth Kaunda District Map Source: Statistics South Africa (2005)

3.3 Research design

According to Babbie and Mouton (2001:647), a research design is a plan or structured framework of how you intend conducting the research process in order to solve the research problem. This study is empirical in nature as it addresses a real life problem. As such primary data was used. According to David and Sutton (2004:69), primary research involves the researcher undertaking the data collection himself and the secondary data involves the researcher identifying an existing dataset which has been collected from a previous study. In this study,

primary data was collected through interviews using semi structured questionnaire. Books, publications, articles, South African legislation and policies were reviewed for secondary data. The researcher used the beneficiaries of PLAS land reform projects as participants in order to investigate the phenomenon under consideration.

3.4 Population of the study

According to Newman (2006), population is an abstract idea of a large pool of many cases from which the researcher draws a sample and from which conclusions are generalised. The size of a population determines whether it would be possible to include all members of the population or not. Time and cost-effectiveness need to be considered when choosing a population. Therefore, the population of the study included all 97 beneficiaries of all 36 PLAS projects in Dr. Kenneth Kaunda District municipality of the North West Province, South Africa.

3.5 Sampling size and sampling procedures

Sampling according to Babbie (2001) refers to the process of selecting things or objects when it is impossible to have knowledge of large collection of these objects. Bless and Hogson Smith (1995) explain that the best way to collect information about a group or persons or things that will give an accurate picture is to examine every single element of such group. However, it is also possible to obtain accurate conclusions by examining only a portion of the total group and that is referred to as sampling. Therefore, data was collected from all four municipalities existing within Dr. Kenneth Kaunda District Municipality. There were only 36 PLAS land reform projects in the district. Fifty-four out of 97 beneficiaries were selected from all projects through stratified random sampling hence; the sample size was a true reflection of the population.

3.6 Data collection instrument

A structured questionnaire was developed based on the objectives of the study to collect data from the land reform beneficiaries. The researcher conducted the interviews in order to be able to explain the questions thoroughly to respondents. The interviews were conducted face-to-face with beneficiaries. This enabled the researcher to collect some information which was initially left out of the questionnaire. The questionnaire was divided into five sections based on the study objectives.

3.7 Method of data analysis

Data collected was sorted, coded and analysed using version 21.0 of Statistical Package for Social Sciences (SPSS). Demographic and socioeconomic factors of beneficiaries of PLAS land reform projects, perception of beneficiaries towards the impact of land reform projects on their livelihood, food security and employment and constraints faced by PLAS land reform projects and beneficiaries were analysed and summarised using frequency count, percentage and tables.

A Wilcoxon Sign-rank Sum Test was used to analyse the "before" and "after" effect of PLAS land reform projects on livelihood (Human, Financial, Physical, Natural and Social capital) of the beneficiaries. The Wilcoxon Signed-rank Sum Test applies to two-sample designs involving repeated measures, matched pairs, or "before" and "after" measures like the t-test for correlated samples. The Wilcoxon Signed-rank Test is non-parametric version of a paired samples t-test. The Wilcoxon Signed-rank Sum Test as used by a researcher does not assume that the difference between the two variables is interval or normally distributed (but assumes the difference is ordinal). The test is robust and highly efficient for moderate- to heavy tailed underlying distributions. In particular, it is a real improvement over the sign test and is almost fully efficient when the underlying distribution is normal. Wilcoxon signed-rank statistics can be computed as sign statistic of the pair-wise averages of data (Hettmaspherger et.al., 1997). The framework of the livelihood impact indicators and their measurement are presented in Table 3.1.

TABLE 3.1: Framework of the livelihood impact indicators and their measurements that were used in the Wilcoxon signed-rank statistics

Human capital	**Before the project**		**After the project**	
Ranks	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Vocational training	"	"	"	"
Extension services	"	"	"	"
Skills training	"	"	"	"
Project management training	"	"	"	"
Veld management skills	"	"	"	"
Grazing management skills	"	"	"	"
Vegetable management skills	"	"	"	"
Grain management skills	"	"	"	"
Livestock management skills	"	"	"	"
Poultry management skills	"	"	"	"
Piggery management skills	"	"	"	"
Veld management skills	"	"	"	"
Disease treatment skills	"	"	"	"
Water management skills	"	"	"	"
Soil management skills	"	"	"	"
Employment	"	"	"	"
Food security	"	"	"	"
Level of education	"	"	"	"
Innovative and creative thinking	"	"	"	"
Knowledge of farm management	"	"	"	"
Decision-making skills	"	"	"	"
Marketing skills/ strategy	"	"	"	"
Ability to sell product	"	"	"	"
Record keeping	"	"	"	"
Financial management skills	"	"	"	"
Price determination skills	"	"	"	"
Natural capital	**Before the project**		**After the project**	
Ranks	**High**	**Low**	**High**	**Low**
Land	"	"	"	"
Planted pasture	"	"	"	"
Natural pasture	"	"	"	"
Water	"	"	"	"
Payment for water	"	"	"	"
Payment for land	"	"	"	"
Social capital	**Before the project**		**After the project**	
Ranks	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Network with financial institutions	"	"	"	"
Network with other farmers'	"	"	"	"
Network with government relevant department	"	"	"	"
Network with farmers association	"	"	"	"

Network with Farmers' cooperative	"	"	"	"
Network with other production group(NGOs and civic group	"	"	"	"
Network with professional organisation	"	"	"	"
Network with farmers' unions	"	"	"	"
Network with Village committee	"	"	"	"
Network with Religious groups	"	"	"	"
Network with Cultural associations	"	"	"	"
Financial capital	**Before the project**		**After the project**	
Ranks	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Bank credit accessibility	"	"	"	"
Cooperative finance	"	"	"	"
Money lender finance	"	"	"	"
Personal savings	"	"	"	"
Government subsidies	"	"	"	"
Government grants	"	"	"	"
Relatives finance	"	"	"	"
Farm income	"	"	"	"
Physical capital	**Before the project**		**After the project**	
Ranks	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Transport	"	"	"	"
Established Market	"	"	"	"
Auction	"	"	"	"
Road accessibility	"	"	"	"
Electricity availability	"	"	"	"
Storage facilities availability	"	"	"	"
Fencing	"	"	"	"
Animal handling facilities	"	"	"	"
Irrigation infrastructure	"	"	"	"
Deeping infrastructure	"	"	"	"
Breeding infrastructure	"	"	"	"
Production infrastructure	"	"	"	"
Telephone infrastructure	"	"	"	"

Source: own classification

High F (%) - Proportion of beneficiaries whose projects had positive impact on their livelihood

Low F (%) - proportion of beneficiaries whose projects had less impact on their livelihood

The Binary Logistic Regression Model (BLRM) was used to analyse the factors influencing the impact of PLAS land reform projects on the livelihood of the beneficiaries. Binomial or Binary Logistic regression is a form of regression which is used when the dependent variable is dichotomous and independent variables are of any type. In BLRM, a single outcome variable Y_i *(i=1, ..., n)* follows a Bernoulli probability function that takes on the value 1 with probability $P_i$and 0 with probability 1-P_i. P_i/1-P_i (Greene, 2003). The Bernoulli probability function can be expressed as:

$$Y_i \Theta Bernoulli(Y_i / P_i) \qquad (1)$$

or

$$In\left[\frac{P_i(Y_i = 1)}{1 - P_i(Y_i = 1)}\right] = In\ (Odds) = \alpha_0 + \sum_{k=1}^{k} \beta_k X_{ik} \qquad (2)$$

Logistic regression applies maximum likelihood estimation after transforming the dependent into a logit variable. Logistic regression has many analogies to OLS regression: logit coefficients correspond to b coefficients in the logistic regression equation, the standardised logit coefficients correspond to beta weights and a Pseudo R^2 statistic is available to summarise the strength of the relationship. Unlike OLS regression, however, logistic regression does not assume linearity of relationship between the independent and dependent variables, does not require normally distributed variables, does not assume homoscedasticity and in general, has less stringent requirements. It does, however, require that observations be independent and that the independent variables be linearly related to the logit of the dependent (Hosmer & Lemeshow, 1989).

This method has been used by researchers to analyse similar studies on livestock farmers' choices in decision making on the impacts of climate change (Seo et. al., 2005). The main advantage of the BLRM over other models of discrete and limited dependent variables is that, it allows the analysis of decisions across two categories, allowing the determination of choice probabilities from different categories. In addition, its likelihood function, which is globally concave, makes it easy to compute. However, the main limitation is the independence of irrelevant alternative properties, which states that the ratio of the probabilities of choosing any

two alternatives is independent of the attributes of any other alternatives in the available choice selections (Deressa et al., 2009).

The dependent variable of this study is dichotomous by classifying beneficiaries with improved livelihood after participating in PLAS land reform projects as Y=1 and those beneficiaries with livelihood not improved as Y=0. Therefore, beneficiaries who indicated positive impact of projects on their livelihood were indicated as 2 or 1 otherwise. The independent variables that were considered are presented in Table 3.2.

ABLE 3.2: Independent variables used in the Binary Logistic Regression Model (BLRM)

Variable	Description and value	Expected sign
X_1 = Gender	Gender of respondents. (Male=1, Female=0)	positive
X_2 = Age in years	Continuous	Negative
X_3= Household headship	(Male = 1, 0 = otherwise)	Positive
X_4= Number of dependents	Continuous	positive
X_5=Farming experience in years	Continuous	positive
X_6=Use hired labour	Yes=1, No=0)	Positive
X_7=Member of famer cooperative	(Member=1, 0 not a member)	Positive
X_8=optimum size of the farm in hectares	(Yes=1, No=0)	Positive
X_9=Do you have water available on the farm?	(Yes=1, No=0)	Positive
X_{10}=High rent price?	(Yes=1, Otherwise=0)	Negative
X_{11}=Electricity available on the farm?	(Yes=1, Otherwise=0)	Positive
X_{12}=Enough annual income from project?	(Yes=1, Otherwise=0)	Positive
X_{13}=Is extension officer source of information?	(Yes=1, Otherwise=0)	Positive
X_{14}=Involved in non-farming activities for non-farm income?	(Yes=1, 0=Otherwise).	Negative
X_{15}=received sufficient funding through RADP	(Yes=1, 0=Otherwise	Positive
Have established market	(Yes=1, 0=Otherwise)	Positive
Purchase price of the project?	Continuous	Negative

3.8. Summary of chapter three

This chapter described the study area where the research was conducted which is, Dr. Kenneth Kaunda municipality of the North West Province, South Africa. This chapter also described the population of the study, sampling size and procedures, data collection instrument and method of data analysis. The types of measurements to which the variables were subjected to and the analytical tools applied were also explored. Primary data was collected using a questionnaire while secondary data was obtained from role players of the project and desktop information. The Statistical Package for Social Science (SPSS) version 21 computer programme was used in analysing the data. Binary Logit Regression Model was used to analyse factors influencing the impact of PLAS projects on livelihood (financial, social, natural, human, and physical capitals) of beneficiaries while Wilcoxon Sign-rank Sum Test was used in analysing the "before and after" impact of PLAS projects on beneficiaries livelihood(financial, social, natural, human and physical capitals).

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of data the analysis and discussions of the study. It is organised into five sections: the demographic and personal characteristics of PLAS beneficiaries; the results and discussion of Wilcoxon Sign-Rank Sum Test on livelihood (natural, physical, social, financial and human) described by the frequency distribution and percentages; the inferential analysis of the data using Binary Logit Regression model; perception of beneficiaries towards the impact of PLAS projects on their livelihood; and constraints faced by PLAS projects beneficiaries.

4.2 Demographic characteristics of respondents

4.2.1 *Age and Gender of respondents*

The demographic characteristics of respondents are presented in Table 4.1. The results show that most (54%) of farmers were above 50 years of age and 7.5% were less than 30 years of age. The small percentage of young people participating in PLAS projects may be as a result of their perception that agricultural related projects are for old people. This finding poses a threat to future of agriculture and national food security as most farmers are old. This finding is consistent with that of Anyanwu (1992) who stated that younger men have no interest in agricultural activities. Hence, most of them within rural areas or farms flock to big cities in South Africa to look for better lives and jobs that will sustain their livelihood.

4.2.2 Number of beneficiaries per project

The findings in Table 4.1 show that most projects (75%) had one beneficiary while 25% had more than one beneficiary per project. One of the reasons LRAD programmes were phased out and replaced with PLAS was because of conflict in projects with more beneficiaries. Therefore, Department of Rural Development and Land Reform (DRDLR) took a decision to reduce or to have only one or two beneficiaries per project with the aim of eliminating conflicts as it affects productivity and stability within the projects. The highest number of beneficiaries per project was 35. This was LRAD project and the DRDLR bought it back from the same beneficiaries with the

aim to revive it as there was nothing happening with regards to productivity. The results in Table 4.1 also indicate that the total number of beneficiaries in all projects was 97 of which 64% were males, 36% females with 31% youths. This can be attributed to the perception of Africans, South Africans in particular, that agriculture is for male and women are expected to perform domestic activities in the household. Hence, women are not given equal opportunities as men to participate in agriculture including LRAD and PLAS projects. This finding is consistent with that of Antwi and Oladele (2013) which found that majority (54%) of beneficiaries in the study of performance of LRAD projects in Ngaka Modiri Molema were men and 46% women. Moloi (2008) stated that a lot has been achieved with respect to gender equality but redistribution of resources and power has not shifted the structural forces with respect to the oppression of women. Thus, there is still a need to enhance and emphasise more on women involvement in agricultural projects such as LRAD and PLAS.

4.2.3 *Ethnic group and marital status of respondents*

The results as presented in Table 4.1 show the ethnic group and marital status of respondents. It indicates that majority (98%) of respondents were African blacks (Tswana, Xhosa, Sotho and Zulu tribes) and only 2% of coloureds. This is similar to the finding of Aliber (2009) which reported that majority (79%) of the population of Dr. Kenneth Kaunda District is composed of African Black and other groups share 21% of the population. The results also indicate that most (61%) respondents were married and 20, 13 and 6% for single, widowed and divorced respectively. This high percentage of married people can be attributed to the fact that most (78%) respondents were old people and family-orientated. According to Alfred and Odefadehan (2007), the marital status of farmers could be regarded as a true reflection of their age groups.

4.2.4 *Educational background of respondents*

The findings in Table 4.1 show the educational background of respondents in the study area. Access to education is an essential tool in promoting a sustainable economy, household and society. Education may have a long term effect or influence on agricultural productivity. it is assumed that trained people are the key to development. Therefore, it is important to provide adequate investment in education as it is widely believed that the educational level of farmers will enhance their information-seeking behaviour, type of enterprise they choose as well as adoption of

agricultural innovations (Tekane & Oladele, 2011). The finding shows that 18% of respondents do not have formal education while only 15% managed tertiary education. This finding is not in line with that of Antwi et al. (2013) which stated that 46% of LRAD beneficiaries had educational level below matric and 28% had matric while about 26% of the beneficiaries had tertiary level education. The finding of the study implies that there is high illiteracy level among beneficiaries. This may be due to financial constraints and effects of apartheid era that started after 1913; as a result, many black people in South Africa never got fair chance to be engaged in formal education. However, 28 and 39% of respondents had primary and secondary education respectively. This finding shows that majority of respondents have at least primary education. This finding is similar to that of Banmeke and Omoregbee (2009) who found out that majority of farmers have primary level of education.

4.2.5 *Household size and number of dependents*

The results in Table 4.1 indicate the household size and number of dependents of PLAS project beneficiaries. It was found that household sizes of less than 6 members was 28% and those with more than 6 members was 72%. It also revealed that respondents with number of dependents less than 3 members was 24%, those with dependents between 3 and 6 was 17% and 59% for those with more than 6 dependents. These high household sizes may be as a result of high illiteracy level among the respondents. Thus, residents lack knowledge with respect to the use of birth control methods which has led to high birth rates and unplanned teenage pregnancy within the District.

Table 4.1: Demographic characteristics of PLAS project beneficiaries (n=54)

Age of respondents	**Frequency**	**Percent**
Less than 30	4	7.5
31- 40	9	16.7
41- 50	12	22.4
Above 50	29	54
Total	54	100
Population group	**frequency**	**Percent**
Black African	53	98.1
Coloured	1	1.9
Total	54	100
Total No. of project beneficiaries	**Frequency**	**Percent**
No. males amongst beneficiaries	*62*	*64*
No. females among beneficiaries	*35*	*36*
Total no. of beneficiaries	97	100
No. of youth among project beneficiaries	30	31
No. of old aged amongst beneficiaries	67	69
Total	97	100
No. of beneficiaries per project	**Frequency**	**Percent**
Only 1	27	75
More than 1 beneficiaries	9	25
Total	36	100
Marital status of respondents	**Frequency**	**Percent**
Married	33	61
Single	11	20
Widowed	7	13
Divorced	3	6
Total	54	100
Educational qualification of respondents	**frequency**	**Percent**
None	10	18
Primary	15	28
Secondary	21	39
Tertiary	8	15
Total	54	100
Household size of respondents	**Frequency**	**Percent**
Less than 6	15	28
6 and above	39	72
Total	54	100
No. of dependents	**Frequency**	**Percent**
Less than 3	13	24
3- 6	9	17
Above 6	32	59
Total	54	100

4.3 Socio-economic aspects of the respondents

Famer's socioeconomic aspects are about the social and economic experiences that influence and shape farmers' personality, attitude and lifestyle. The socio-economic status of respondents as presented in Table 4.2 include; the sizes of PLAS projects in the district (in hectares), farming experience among the respondents, sources of information, beneficiaries residing within and outside projects premises, accessibility to formal and informal markets.

4.3.1 Sizes of *PLAS projects in the district (in hectares)*

The range of sizes of land available to the projects is presented in Table 4. 2. The sizes of the land at the disposal of the beneficiaries ranged between 55.7 and 1500 hectares. Sixty one percent of respondents had land sizes of less than 500 hectares, 17% had land sizes between 500 and 1000 hectares while 22% had more than 1000 ha.

4.3.2 Farming experience among the respondents

Number of years spent in farming may serve as a measure of farming experience and as a direct indicator of production knowledge and individual expertise to some extent. The results as indicated in Table 4.2 revealed that majority (67%) of respondents had farming experience of more than 10 years, 22% had between 6 and 10 years' experience while 11% had less than 6 years of farming experience. The results indicate that the PLAS beneficiaries are experienced farmers who are aware of benefits that come from agricultural projects. However, this finding is not similar to that of Bayene (2008) which stated that participation of farmers in agricultural projects decreases with increasing experience because as the farmer grows older, he/she tends to lose propensity to commercialise or to produce for the market and practice subsistence farming.

4.3.3 Sources of information of respondents

The findings in Table 4.2 revealed that majority (76%) of respondents had access to extension agents while 15 and 9% use radio and internet respectively as their sources of information. The possible reason is that, majority of the farmers were old people with low level of education and as a result, they cannot read or use the internet while they can interact with extension officers using their own languages. The finding is consistent with Opara (2008) who found that majority (88.2%) of farmers preferred the extension agent to other sources of information. However, Mohammed et

al. (2005) in a survey of 186 commercial farmers conducted between November 2002 and February 2003, stated that farmers' main source of information vary according to the type of enterprise. They found that poultry and dairy farmers depend largely on information provided by veterinarians while horticulture and crop farmers rely mainly on advice from extension agents.

4.3.4 Beneficiaries residing within and outside project premises

The findings in Table 4.2 show that majority (63%) of beneficiaries live within premises of projects permanently while 37% of them stay outside the premises of the projects. Majority (45%) of respondents cited working on other places such as nearby farms as the main reasons for not staying on project premises permanently, 35% reported that farm houses were already vandalised by the time they took over the project and 20% indicated that they had no farm houses at all. This finding contributed to low productivity in some projects as beneficiaries spend some of their time and resources travelling in and out of the farms daily. Not staying full time on projects premises also expose PLAS projects to theft and vandalism of available assets and property.

4.3.6 Accessibility to formal and informal market

The results in Table 4.2 show farmers accessibility to formal and informal market. It revealed that most (80%) beneficiaries had no access to the market. However, most (60%) market their produce in auctions; 20% indicated that they market their produce to the surrounding communities (informal market) and only 20% have established market (formal market). Relying on the auctions is considered as a shortcoming and a setback as it negatively affects proper planning and accurate projections as beneficiaries had no influence on price.

Table 4.2: Socio-economic factors of PLAS projects beneficiaries (n=54)

Farm size (in hectors)	**Frequency**	**Percent**
Less than 500	33	61
500- 1000	9	17
Above 1000	12	22
Total	54	100
Farming experience (in years)	**Frequency**	**Percent**
Less than 6 years	6	11
6- 10 years	12	22
Above 10 years	36	67
Total	54	100
Involved in non-farming activities	**Frequency**	**Percent**
Involved	26	48
Not involved	28	52
Project officer/extension agent	41	76
Newspaper/radio	8	15
Internet	5	9
Total	54	100
Living on project premises permanently	Yes	63
	No	37
	Total	100
Main reasons for not staying in projects premises permanently	Vandalised houses	35
	Working on other places	45
	No farm house	20
	Total	100
Accessibility to market	Established market	20
	Auction	60
	surrounding community	20
	Total	100

4.4 Livelihood impact of PLAS projects on beneficiaries

The main focus of this study was to evaluate the changes with respect to what happens to beneficiaries' livelihood after participating in PLAS projects. A livelihood is a means of making a living. It encompasses people's capabilities, assets, income and activities required to secure the necessities of life. A livelihood is sustainable when it enables people to cope with and recover from shocks and stresses (such as natural disasters and economic or social) and enhance their well-being and that of future generations without undermining the natural environment or resource-base (Department For International Development (DFID), 1999). The respective types of livelihood capital as presented and discussed in this study are; financial capital, human capital, natural capital, physical capital and social capital.

4.4.1 Financial capital impacts of PLAS projects on livelihood of beneficiaries

Financial capital is about financial resources that people use to improve their livelihood standards. There are two main sources of financial capital which are: available stocks (mostly current assets) such as livestock ready for sale, savings, stored grains, etc. and regular inflows of money: the most common types of inflows are farm income and grants. Financial capital is believed to be the most versatile of the five livelihood capitals as it can easily be changed into other types of capital. It can also be used for direct achievement of livelihood (DFID, 1999). However, it is also the capital that tends to be the least available to farmers, especially PLAS projects beneficiaries. The financial capital indicators discussed include; accessibility to bank credits, accessibility to cooperatives, government subsidies, personal savings, accessibility of resources from money lenders/relatives, government grants (RADP) and income from farming with respect to different enterprises, loans and government investment in the projects. The result of financial capital impacts on livelihood of beneficiaries is presented in Table 4.3.

4.4.1.1 *Accessibility to Bank credits*

The impact of PLAS projects on livelihood financial capital is presented in Table 4.3. The results indicate that the number of farmers who had access to bank credits decreased from 13% before the projects to 9.3% after beneficiaries participated in the projects. The scenario shows that beneficiaries are worse off in terms of credit access after participating in the projects. This may be due to the fact that projects are not yet transferred to their names as they are only renting from government. Access to credits need collateral, mostly in the form of land ownership of which PLAS beneficiaries do not possess. Hence, they cannot use the land and its assets as security when requesting for loans from banks. Credit is very important in that it helps farmers to acquire all the necessary inputs in right quantities and qualities at the right time. Farmers indicated that finance is inadequate and hinder their ability to pay for water, electricity, operating and maintenance costs of their respective farming activities.

4.4.1.2 *Financial accessibility to cooperatives and government subsidies*

Cooperative membership among beneficiaries improved from 3.7% before the projects to 14.8% after participating in the projects. Government subsidies also increased from 9.3% before the projects to 13% after the projects. Even though the change is positive in both cooperatives and government subsidies; it is still very little overall indicating that a lot needs to be done in order to improve productivity. Respondents reported that inputs cost are very high, therefore government, NGOs and other professional production group need to channel their energy and resources to subsidising agricultural inputs and other critical basic needs of beneficiaries such as water and electricity.

4.4.1.3 *Personal savings*

The findings as presented in Table 4.5 show personal savings of beneficiaries before and after the projects. It indicates that personal savings increased from 22.2% before the projects to 44.4% after participating in the projects. The scenario clearly indicates that most beneficiaries are worse off in terms of savings. This may be due to the fact that they spend some of their resources buying expensive agricultural inputs, transport cost as some of them are not staying within premises of the projects due to lack or poor housing infrastructure in PLAS projects.

4.4.1.4 *Accessibility of resources from money lenders and relatives*

The findings in Table 4.3 indicate that accessing resources/credit from money lenders and relatives decreased from 11.1% before the projects to 3.7% after beneficiaries' participation in the projects and 18.5% before the projects to 16.7% after the projects respectively. Respondents reported that their relatives and money lenders lost trust in them because of inconsistency in paying back the money on the due dates because of low farm income and unreliability of auction markets as most of them do not have established markets to sell their produce.

4.4.1.5 *Government grants (Recapitalisation and Development Programme)*

The findings in Table 4.3 show that government grant (Recapitalisation and Development Programme) increased up to 19% since the inception of the PLAS projects. These findings indicate that, out of the 36 projects, only 7 projects received financial assistance from government through RADP. The scenario indicates a need for more support mechanism in terms of financial

capital resource requirements. Beneficiaries also reported that financial assistance can solve more than half of the problems/challenges within the PLAS projects because financial capital is the most versatile of the five livelihood capitals as it can easily be changed into other types of capital and can be used for direct achievement of livelihood.

4.4.1.6 Market access

The findings in Table 4.3 indicate that market access improved from 3.7% before the projects to 37% after the projects. Access to market has a direct impact on beneficiaries' financial capital livelihood. Beneficiaries therefore, should be linked to the private sector to gain information on new technologies and secure high value markets for their produce. Adequate access of beneficiaries to market information can influence their participation in high value markets.

Table 4.3: Impact of PLAS projects on financial capital (n=54)

Financial capital	Before the project		After the project	
Levels	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Credit accessibility from financial institution	7 (13)	47 (87)	5(9.3)	49 (90.7)
Membership of Cooperative	2 (3.7)	52 (96.3)	8 (14.8)	46 (85.2)
Credit accessibility from Money lender	6 (11.1)	48 (98.9)	2 (3.7)	52 (96.3)
Personal savings	24 (44.4)	30 (55.6)	12 (22.2)	42 (77.8)
Government subsidies	5(9.3)	49 (90.7)	7 (13)	49 (90.7)
Accessing government grants	1 (1.9)	53 (98.1)	14 (25.9)	40 (74.1)
Accessing credit from relatives	10 (18.5)	44 (81.5)	9 (16.7)	45 (83.3)
Gross income	12(22.2)	42(77.8)	29(53.7)	25(46.3)
Marketing access	2(3.7)	52(96.3)	20(37)	34(63)

4.4.1.7 Beneficiaries income from respective farm enterprises

Farm income is generated by selling farm produce either in formal or informal markets. The results on farm income status of the PLAS projects are presented in Table 4.4.

a) Income from cattle enterprise

The results as presented in Table 4.4 indicate income from cattle enterprise. In all the 36 projects, 72% were engaged in cattle production. This may be due to the climatic condition in the North West Province which is highly favourable for cattle production. It may also be that cattle do not require intensive caring at highest level, not easily stolen and easy to manage compared to

small stock. Out of the 26 projects, 56% projects had between 1 and 50 cattle while 6% of the projects had more than 100 cattle. In terms of income, the results indicate that 50% projects generate income of between R11 000 and R30 000 annually while 8% of the projects generate less than R10 000; 35% of the projects generate more than R30 000 annual income; only 7% of the projects earn no income.

b) Income from maize enterprise

The results presented in Table 4.4 show incomes from Maize enterprise. In all the 36 projects, 53% produce maize making it the second most practised enterprise. The reason may be that in South Africa, maize is considered a staple food as there are many sub-products that come from maize such as mealy meal, corn grain and corn flakes. In terms of income, the results show that 42% of the projects generate annual income of between R11 000 and R30 000; 21% of the projects generate income of more than R30 000; only 5% of the project earn less than R10 000 annually. The results show that 32% of the projects had no income at all due to lack of financial support and post-settlement support.

c) Income from sheep enterprise

The results as presented in Table 4.4 show income from sheep enterprise. In all the 36 the projects, 36% were engaged in sheep production, making it the third most practised enterprise in the study area. This may be due to the fact that sheep and mutton are more marketable as people often prefer to use it for different occasions such parties, weddings and cultural events. In terms of income, out of 13 projects, majority (46%) of the projects generate an income of less than R10 000, 31% projects generate incomes between R11 000 and R30 000 and 23% projects generate more than R30 000 annual income. This clearly indicates that there is a weak earning power with regards to sheep production in the study area. These indicate a need to support PLAS beneficiaries to be more business-minded and not just practice subsistence farming but have propensity to commercialise.

d) Income from sunflower

The results in Table 4.4 indicate income from sunflower. In all the 36 projects, 28% of the projects were involved in sunflower production. Out of 10 projects, 60% of the sunflower projects use less than 50 hectares, 30% of the sunflower projects use between 51 and 100 hectares and only 10% of the sunflower project cultivated more than 100 hectares. Respondents reported that, lack of resources, high inputs cost and poor infrastructure forced them to cultivate less than 50 hectares. The other reason was that most beneficiaries practise mix farming to reduce production and marketing risks, hence they use some hectares for other enterprises. In terms of income, the results show that 40% of the projects generate an annual income between R11 000 and R30 000, while 30% of the projects generate no income at all. The results show that only 20% of the projects make annual income of more than R30 000.

e) Income from vegetable enterprise

The results presented in Table 4.4 indicate income from vegetable. In all the 36 projects, only 8% of the projects were involved in vegetable production. The results revealed that 33% of the vegetable projects cultivated less than 5 hectares and 67% of the vegetable projects cultivated more than 5 hectares. In terms of income, the findings show that 33% of the vegetable projects generate less than R5000 annually and 67% of the vegetable projects generate more than R5000 annually. This is one of the two least practised enterprises in the study area. The scenario poses a threat to both national and household food security as most people depend more on vegetables for a balanced diet.

f) Income from goat enterprise

The results show that in all the 36 projects, only 19% are involved in goat production. It was found that 57% of the goat enterprises have more than 50 goats and 29% have less than 50 goats. In terms of income, 57% of the goat projects generate between R1000 and R10 000, 43% of the goat projects generate more than R10 000 annually while 14% had no income.

g) Income from pig enterprise

In all the 36 projects, only 11% of the projects are involved in pig production. In all the pig projects, 25% have less than 10 pigs and 75% have more than 10 pigs. In term of income, 25% of

the pig project earned less than R10 000 annually; 50% of the projects earned between R10 000 and R20 000 annually and 75% of the projects earned more than R10 000 per year.

h) Income from poultry enterprise

In all the 36 projects, only 8% of the projects are involved in poultry production. In all the poultry projects, 33% have the carrying capacity of less than 10 000 and 67% of the projects have a carrying capacity of more than 100 000. This may be due to Labour, capital intensive required in this enterprise. It also requires a lot of expertise for both general Labour and at managerial level of which most PLAS beneficiaries cannot afford as they do not have enough resources, capital and skills to engage in such demanding enterprise. In terms of income, the results show that 67% of the projects earned more than R5000.00 and 33% earned less than R5000.00.

Table 4.4: Respondents income from projects (n=54)

No. of animals	Cattle enterprise				
	Frequency	Percent	Income from cattle (26 projects)	frequency	percentage
1-50	20	77	R1000-R10000	2	8
51-100	4	15	R11000-R30000	13	50
>100	2	8	>30000.00	9	35
Total	26	100	No income	2	8
Hectares	Maize enterprise				
	Frequency	Percent	Income from maize (19 projects)	frequency	percentage
1-50	10	53	R1000-R10000	1	5
51-100	2	11	R11000-R30000	8	42
>100	7	37	>30000.00	4	21
Total	19	100	No income	6	32
No. of animals	Sheep enterprise				
	Frequency	Percent	Income from sheep (19 projects)	frequency	percentage
1-50	2	15	R1000-R10000	6	46
51-100	7	54	R11000-R30000	4	31
>100	4	31	>30000.00	3	23
Total	13	100	No income	0	0
Hectares	Sunflower enterprise				
	Frequency	Percent	Income from sunflower	frequency	percentage
1-50	6	60	R1000-R10000	1	10
51-100	1	10	R11000-R30000	4	40
>100	3	30	>30000.00	2	20
Total	10	100	No income	3	30
Hectares	Vegetable enterprise				
	Frequency	Percent	Income from vegetable	frequency	percentage
1-5	1	33	<50000	1	33
6-10	2	67	>50000	2	67
No. of animals	Goat enterprise				
	Frequency	Percent	Income from sunflower	frequency	percentage
1-50	3	43	R1000-R10000	4	57
>50	4	57	>R10000	2	29
Total	7	100	No income	1	14
No. of animals	Piggery enterprise				
	Frequency	Percent	Income from pigs	frequency	percentage
<10 pigs	1	25	<10000	1	25
>10 pigs	3	75	10000-20000	2	50
Total	4	100	No income	1	25
No. of animals	Poultry enterprise				
	Frequency	Percent	Income from poultry	frequency	percentage
<10000	1	33	<50000	2	67
>10000	2	67	>50000	1	33
Total	3	100	Total	3	100

4.4.1.8 Other sources of income of respondents

The results in Table 4.5 indicate respondents' other sources of income. It was found that majority (56%) of respondents' other sources of income were social grants followed by 22% from salaries (which represent those who are either government employees or private sector employees) and 22% from self-owned non-agricultural businesses. The high grant income source may be due to the fact that most of the beneficiaries are old people who qualify for pension and again, it shows that most of them are not making enough money from PLAS projects for sustainable livelihood. Hence, they are engaged in non-farming activities in order to boost their income. This result is consistent with that of Nxumalo and Oladele (2013) who found that majority (56.7%) of farmers' other sources of income were from social welfare (grant).

Table: 4.5. Other sources of income of respondents (n=54)

Other sources of income	Frequency	Percent
Social Grants	30	56
Salaries (government and private sectors)	12	22
Other business	12	22
Total	54	100

4.4.1.9 Accessibility of loans and Government investments in PLAS projects

The results in Table 4.6 indicate government investments in the projects in terms of the purchase prices of the projects and financial assistance through the Recapitalisation and Development Programme (RADP) as well as the projects that managed to acquire loans from financial institutions.

a) Status of Recapitalisation and Development Programme (RADP)

The results in Table 4.6 show that only 19% of the projects are currently assisted financially under the Recapitalisation and Development Programme (RADP) and majority (81%) were still to receive financial assistance. The amount that has been spent by government through RADP on the projects is R65 300 000.00 (distributed among seven projects that were recapitalised). These finding show that very little has been done in the district with respect to post-settlement support and financial assistance in PLAS projects. PLAS beneficiaries reported this as one of the contributing factors to no or low productivity in most of the projects as they do not have

resources or start-up capital for sustainable production. Post-settlement support and financial assistance is critical to PLAS projects as it assists the beneficiaries to maintain productivity at optimum level. Therefore, without financial support, the projects are most likely to fail as financial capital is regarded as the engine of the other four livelihood capitals.

b) Purchase price of the projects

The results in Table 4.6 also indicate the purchase price of all the projects. It shows that the total cost of all the projects amounted to R231, 560,944. Therefore, on average the government spent R6 432 246.944 for each project. The figure is overwhelmingly high and has led government to consider phasing out the "willing buyer, willing seller land reform policy" and proposing "Just and equitable land reform policy" which will allow government to have a say on the price of projects or land. The "willing buyer, willing seller land reform policy" is believed to have contributed to the setback of transferring land to previously disadvantaged people as it allows the current holders of land to inflate the prices of their farms.

c) Accessibility of loans by beneficiaries

The results in Table 4.6 indicate that only 7% of beneficiaries who once acquired loans from financial institutions and majority (93%) never received loans. These can be attributed to the fact that access to credits need collateral, mostly in the form of land ownership of which PLAS beneficiaries do not possess as they are not given title deeds of the projects. Hence, they cannot use land and its valuable assets as security when requesting or applying for loans from banking institutions. Credit is very important in that, it helps farmers to acquire all the necessary inputs in right quantities and qualities at the right time. The farmers indicated that operating capital is inadequate; as a result, hinders their ability to pay for water, electricity, maintenance of daily farm activities and improving production in their respective farms.

Table 4.6: Loans and Government investment in the projects (n=54)

Items	Amount		Average/project	
Farm purchase price	R231 560 890		R6 432 246.944	
Received government grant (Recapitalisation and Development Funding)	**Frequency**		**Amount spent**	**Average/ project**
	Yes	7	R65 300 000	R9 328 571
	No	29		
Loans accessibility	Yes		7	
	No		93	

4.4.1.10 Wilcoxon Sign-Rank Sum Test results on financial capital impact among beneficiaries

The results as presented in Table 4.7 show the Wilcoxon Sign-Rank Sum Test results on financial capital. In all 10 financial capital indicators that were considered, 7 indicators showed that significant difference exists in livelihood financial capital before and after participating in PLAS projects. The significant variables were: membership of cooperative (Z=-2.121), personal savings (Z=-2.121), government subsidies (Z=-3.606), government grants (Z=-4.234), market access (Z=-5.000), gross income (Z=-5.385) and price determination skills (Z=-4.359). The outcomes indicate inverse relationship between PLAS projects and livelihood financial capital. This implies that discontinuation or no participation in PLAS projects will reduce financial capital of beneficiaries with respect to the afore-mentioned sub-variables of financial capital. Therefore, the significant variables should be the core of strategies that are aimed at improving the livelihood of PLAS beneficiaries as financial capital is the engine of the other four livelihood capitals.

Table 4.7: Wilcoxon Sign-Rank Sum Test results on financial capital (n=54)

Financial capital		N	Mean Rank	Sum of Ranks	Z	P
Accessibility credit from financial institutions before and after the project	Negative Ranks	2	3.50	7	-.816	0.414
	Positive Ranks	4	3.50	14		
	Ties	48				
	Total	54				
Participating in cooperative before and after the project	Negative Ranks	1	4.50	4.50	-2.121	**0.034***
	Positive Ranks	7	4.50	31.50		
	Ties	46				
	Total	54				
Accessing credit from money lender before and after the project	Negative Ranks	6	4.50	27	-1.414	0.157
	Positive Ranks	2	4.50	9		
	Ties	46				
	Total	54				
Personal savings before and after the project	Negative Ranks	11	17.50	192.50	-2.058	**0.040****
	Positive Ranks	23	17.50	402.50		
	Ties	20				
	Total	54				
Accessing government subsidies before and after the project	Negative Ranks	1	4.50	4.50	-2.121	**0.034****
	Positive Ranks	7	4.50	31.50		
	Total	46				
	Ties	54				
Accessing government grants before and after the project	Negative Ranks	0	0.00	0.00	-3.606	**0 .000*****
	Positive Ranks	13	7.00	91.00		
	Ties	41				
	Total	54				
Accessing credit from relatives before and after the project	Negative Ranks	6	6.00	36.00	-3.302	0 .763
	Positive Ranks	5	6.00	30.00		
	Ties	43				
	Total	54				
Gross income before and after the project	Negative Ranks	11	20.00	220.00	-2.722	**0.006***
	Positive Ranks	28	20.00	560.00		
	Ties	15				
	Total	54				
Price determination skills before and after the project	Negative Ranks	0	0.00	0.00	-4.359	**0.000*****
	Positive Ranks	19	10.00	190.00		
	Ties	35				
	Total	54				
Market access before and after the project	Negative Ranks	0	0.00	0.00	-5.000	**0.000*****
	Positive Ranks	25	13.00	325.00		
	Ties	29				
	Total	54				

4.4.2 Impact of PLAS projects on human capital among beneficiaries

Human capital status of the beneficiaries is presented in Table 4.8. Human capital is about empowerment through both formal and informal education. The other way of promoting education is to enhance accessibility and increase its value, by helping to open up opportunities

for those who have invested in education (DFID, 1999). However, this may require extending access to financial capital thereby, enabling people to put their knowledge to productive use. Beneficiaries will be effective only when training provided is relevant to the practice enterprise in their respective PLAS projects. One way to ensure this is to adopt participatory processes of knowledge generation that build upon and complement existing local knowledge.

4.4.2.1 Vocational, project management, veld management and vegetable management skills

The results of the study (Table 4.8) show that vocational skills received by PLAS farmers in the study area improved from 3.7% before the projects to 33.3% after the projects. Project management, veld management, grazing management and vegetable management skills showed improvement from 1.9% before the project to 25.9% after participating in the project. The beneficiaries indicated that they received some of the training in the form of workshops; however, some of the trainings were not related to the type of enterprise in their farms. Some of the beneficiaries attributed the low productivity on the farms to the lack of afore-mentioned skills. This finding indicates a lack of strategic support mechanisms needed to improve productivity and management skills of beneficiaries.

4.4.2.2 *Record keeping skills*

Record keeping skills is very critical in both emerging and commercial farming as it helps farmers to make informed managerial decisions regularly in terms of production, marketing, financial and human resource aspects of the farm. The results in Table 4.8 show the number of beneficiaries who keep farm records. It was impressive to observe that number of beneficiaries keeping farm records improved from 5.6% before the projects to 59.3% after participating in the projects. However, the researcher observed that the standard of the farm records kept by most of the farmers was very low and may serve no useful purpose. The scenario clearly indicates the need for farm record keeping training of PLAS beneficiaries.

4.4.2.3 Grain, Livestock, Poultry and Piggery management skills

The efficient and effective planning, implementation and controlling of farming activities are very critical for successful farming. The results in Table 4.8 show that grain management skills improved from 24.1% before the projects to 61.1% after beneficiaries participated in the PLAS

projects. Livestock management skills also increased from 25.9% before the projects to 66.7% after participating in the PLAS projects. Poultry management skills increased from 7.4% before the projects to 25.9% after beneficiaries participated in the projects. Piggery management skills among beneficiaries improved from 5.6% before the projects to 29.6% after beneficiaries participated in the projects.

4.4.2.4 Soil and water management skills

Soil and water management skills are also very critical to successful PLAS projects as farming depends entirely to the availability of water at all times and the soil needs to be maintained in good quality for future generations. The results in Table 4.8 indicate that soil management skills among beneficiaries improved from 13% before the projects to 37% after beneficiaries participated in the PLAS projects. The findings also indicate that water management skills improved from 3.7% before the projects to 37% after beneficiaries participated in the projects. The scenario shows that more training is still needed with regard to water and soil management skills as the two indicators are critical for long-term sustainable farming.

4.4.2.5 Educational level and food security status of the respondents

The results in Table 4.8 indicate that educational level among beneficiaries improved from 7.4% before the projects to 13% after beneficiaries participated in the projects. However, respondents reported that most of the trainings received were through workshops and some were not relevant to the enterprises that they practised in their farms. The findings also indicate that food security among beneficiaries improved from 11.1% before the projects to 61.1% after the projects. One of the important impacts expected of the PLAS projects is to ensure food security among beneficiaries.

4.4.2.6 Knowledge of farm management, decision-making skill and creative thinking

The findings in Table 4.8 indicate that knowledge of farm management among respondents improved from 3.7% before the projects to 37% after the projects. Innovative and creative thinking also improved from 11.1% before the projects to 70.4% after beneficiaries participated in the projects. Decision-making skill also improved from 7.4% before the projects to 59.3% after the projects. However, the improvements of these indicators alone do not have much impact in terms

of effective and efficient production in PLAS projects if not complemented by financial capital support.

4.4.2.7 Financial management skill and ability to sell product

The results in Table 4.8 indicate that financial management skills among respondents improved from 9.3% before the projects to 35.2% after beneficiaries participated in the projects. Financial capital is believed to be the most versatile of the five livelihood capitals as it can easily be changed into other types of capital and can be used for direct achievement of livelihood. Therefore, government needs to enhance trainings related to finance in order to improve financial management among PLAS beneficiaries. The findings also indicate that beneficiaries' ability to sell product improved from 3.7% before the projects to 50% after beneficiaries' participation in the projects.

Table 4.8: Impact of PLAS projects on human capital (n=54)

Human capital	**Before the project**		**After the project**	
Levels	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Vocational training	2 (3.7)	51 (94.4)	18 (33.3)	36 (66.7)
Extension services	2 (3.7)	51 (96.3)	41 (76)	13(24)
Technical training	8 (14.8)	46 (83.3)	25 (46.3)	29 (53.7)
Project management training	1(1.9)	53(98.1)	14(25.9)	40(74.1)
Veld management training	1(1.9)	53(98.1)	14(25.9)	40(74.1)
Grazing management training	1(1.9)	53(98.1)	14(25.9)	40(74.1)
Vegetable management training	1(1.9)	53(98.1)	14(25.9)	40(74.1)
Grain management skills	13(24.1)	41(75.9)	33(61.1)	21(38.9)
Livestock management skills	14(25.9)	40(74.1)	36(66.7)	18(33.3)
Poultry management skills	4(7.4)	50(92.6)	14(25.9)	40(74.1)
Piggery management skills	3(5.6)	51(94.4)	16(29.6)	38(70.4)
Disease treatment skills	21(38.9)	33(61.1)	47(87)	7(13)
Water management skills	2(3.7)	52(96.3)	20(37)	34(63)
Soil management skills	7(13)	47(87)	20(37)	34(63)
Food security	6(11.1)	48(88.9)	33(61.1)	21(38.9)
Level of education	4(7.4)	50(92.6)	7(13)	47(87)
Innovative and creative thinking	6(11.1)	48(88.9)	38(70.4)	16(29.6)
Knowledge of farm management	2(3.7)	52(96.3)	20(37)	34(63)
Decision-making skills	4(7.4)	50(92.6)	32(59.3)	22(40.7)
Record keeping	3(5.6)	51(94.4)	32(59.3)	22(40.7)
Ability to sell product	2(3.7)	52(96.3)	27(50)	27(50)
Financial management training	5 (9.3)	49 (90.7)	19 (35.2)	35 (64.8)

4.4.2.8 Employment created by the projects

One of the major impacts expected from the PLAS projects is job creation which plays a major role on poverty alleviation. The findings on employment created by the projects are presented in Table 4.9. In all, 165 jobs were created by the PLAS projects in the study area. It was delightful to observe that majority (65%) of these jobs were permanent mainly for direct project beneficiaries while 35% were temporary jobs. The creation of employment by projects was seen to play an important role in extending the benefits of the project to the community at large given that many people were involved. This helped in alleviating the poverty levels of the employees of the projects from the surrounding communities who would otherwise not be employed. The temporary jobs were normally created during land preparation, planting, weeding and harvesting activities especially for maize, sunflower and cattle production. The managers in some of the projects reported that the achievements in their projects helped the beneficiaries to realise their potential and instilled a sense of ownership, responsibility and high self-esteem. The PLAS projects also made some positive impacts on the surrounding communities such as: selling some of their agricultural produce to the surrounding communities; supplying local shops with fresh and quality products; and creation of both permanent and temporary jobs. It is believed that more positive impact of these projects on beneficiaries and society at large could be realised if all projects can operate effectively and efficiently. However, it was depressing to observe that only 10% of jobs created were for females indicating that a lot still needs to be done with respect to women involvement in PLAS projects or agricultural projects in general.

Table 4.9: Employment created by the projects

Gender	**Male**		**Female**	
Type	Jobs created	Percent	Jobs created	Percent
Permanent	104	67	4	40
Temporary	51	33	6	60
Total	155	100	10	100

4.4.2.9 Wilcoxon Sign-Rank Sum Test results on human capital among beneficiaries

The results as indicated in Table 4.10 show the Wilcoxon sign rank test results on human capital. All 21 variables considered under human capital showed that significant difference exists in human capital before and after PLAS projects. The findings show that there is a negative relationship between PLAS projects and livelihood human capital. This implies that the discontinuation or non-participation in PLAS projects will reduce human capital with specific reference to all sub-variables considered under human capital.

Table 4.10: Wilcoxon Sign-Rank Sum Test results on human capital (n=54)

Human capital		N	Mean Rank	Sum of Ranks	Z	P
Vocational skills before and after the project	Negative Ranks	0	0.00	0.00	-4.00	**0.000*** **
	Positive Ranks	16	8.50	135.00		
	Ties	37				
	Total	54				
Extension services before and after the project	Negative Ranks	0	0.00	0.00	-6.083	**0.000*** **
	Positive Ranks	37	19.00	703.00		
	Ties	16				
	Total	54				
Technical training before and after the project	Negative Ranks	1	18.00	18.00	-3.273	**0.000*** **
	Positive Ranks	17	9.00	153.00		
	Ties	36				
	Total	54				
Project management skills before and after the project	Negative Ranks	1	7.50	7.50	-3.207	**0.000*** **
	Positive Ranks	13	7.50	97.50		
	Ties	40				
	Total	54				
Veld management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.796	**0.000*** **
	Positive Ranks	23	12.00	276.00		
	Ties	31				
	Total	54				
Grazing management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.583	**0.000*** **
	Positive Ranks	21	11.00	231.00		
	Ties	33				
	Total	54				
Vegetable management skills before and after the project	Negative Ranks	0	0.00	0.00	-2.828	**0.005***
	Positive Ranks	8	4.50	36.00		
	Ties	46				
	Total	54				
Grain management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.472	**0.000*** **
	Positive Ranks	20	10.50	210.00		
	Ties	34				
	Total	54				
Livestock management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.690	**0.000*** **
	Positive Ranks	22	11.50	253.00		
	Ties	32				
	Total	54				

Poultry management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.690	**0.000*** **
	Positive Ranks	10	5.50	55.00		
	Ties	44				
	Total	54				
Piggery management skills before and after the project	Negative Ranks	0	0.00	0.00	-3.606	**0.000*** **
	Positive Ranks	13	7.00	91.00		
	Ties	41				
	Total	54				
Veld management skills before and after the project	Negative Ranks	0	0.00	0.00	-4.025	**0.000*** **
	Positive Ranks	18	9.50	171.00		
	Ties	36				
	Total	54				
Disease treatment skills before and after the project	Negative Ranks	0	0.00	0.00	-5.099	**0.000*** **
	Positive Ranks	26	13.50	351.00		
	Ties	28				
	Total	54				
Water management skills before and after the project	Negative Ranks	1	0.00	0.00	-4.025	**0.000*** **
	Positive Ranks	19	7.00	91.00		
	Ties	34				
	Total	54				
Soil management skills before and after the project	Negative Ranks	0	0.00	0.00	-6.606	**0.000*** **
	Positive Ranks	13	7.00	91.00		
	Ties	41				
	Total	54				
Employment before and after the project	Negative Ranks	1	19.50	19.50	-5.840	**0.000*** **
	Positive Ranks	37	19.50	721.50		
	Ties	16				
	Total	54				
Food security before and after the project	Negative Ranks	4	18.00	72.00	-4.564	**0.000*** **
	Positive Ranks	31	18.00	558.00		
	Ties	19				
	Total	54				
Level of education before and after the project	Negative Ranks	0	0.00	0.00	-1.732	**0.083****
	Positive Ranks	3	2.00	6.00		
	Ties	51				
	Total	54				
Innovative and creative thinking before and after the project	Negative Ranks	0	0.00	0.00	-5.657	**0.000*** **
	Positive Ranks	32	16.50	528.00		
	Ties	22				
	Total	54				
Knowledge of farm management before and after the project	Negative Ranks	0	0.00	0.00	-5.578	**0.000*** **
	Positive Ranks	32	16.50	528.00		
	Ties	22				
	Total	54				
Decision making skills before and after the project	Negative Ranks	0	0.00	0.00	-5.292	**0.000*** **
	Positive Ranks	28	14.50	406.00		
	Ties	26				
	Total	54				
Record keeping skills before and after the project	Negative Ranks	0	.00	0.00	-5.385	**0 .000*** **
	Positive Ranks	29	15.00	435.00		
	Ties	25				
	Total	54				

4.4.3 Impact of PLAS projects on physical capital among beneficiaries

Physical capital comprises the basic infrastructure and goods needed by farmers for production in order to support productivity in their respective farms or projects. Infrastructure consists of changes to the physical environment that help people to meet their basic needs and to be more productive. Producer goods are the tools and equipment that people use to function more productively. It is commonly a public good that is used without direct payment. However, exceptions may include shelter, which may be privately-owned, and some other infrastructure that is accessed for a fee related to usage such as roads, water and electricity (DFID, 1999). The components of physical capital discussed below include; accessibility to transport, established market, accessibility to auctions, road accessibility and storage infrastructure.

4.4.3.1 Accessibility to transport

Transport is very critical for some important farm activities such as carrying inputs, implement and farm produce to the market. The results presented in Table 4.11 indicate the impact on physical capital of beneficiaries. The results indicate that transport infrastructure improved from 11.1% before the projects to 24% after beneficiaries' participation in the projects. However, majority (76%) of respondents have not experienced such benefit as they still rely on public transport and hired transport in case of special transportation needed to and from the project premises.

4.4.3.2 Access to established market

In many farming activities, the market is always the adjudicator. The market determines the financial returns from farm business and thus, affects its sustainability. The results indicate that established market improved from 3.7% before the projects to 24% after the projects. It was noted that projects with established markets are mostly those that are currently assisted financially by government through (RADP). The programme helped the beneficiaries in terms of quality and quantity of the produce. Hence, they managed to meet the required standard to secure marketing contracts.

4.4.3.3 *Accessibility to livestock auction markets*

The results as presented in Table 4.11 show that accessibility to livestock auction market improved from 5.6% before the projects to 65% after beneficiaries participated in the projects. However, respondents reported that it is not their choice to market their produce at auctions but its desperation caused by lack of alternative high value markets. Auctions are often seen as a shortcoming by respondents as they are not sure of what to expect in terms of revenues. This affects the projects in terms of planning, projections and makes it difficult to predict the expected returns.

4.4.3.4 *Road accessibility*

The outcome also indicates that road accessibility improved from 35.2% before the projects to 65% after beneficiaries participated in the projects. The scenario clearly indicates that most farms/projects are strategically located as majority are not too far from main roads or tarred roads. However, the roads that directly link the farms to the villages or towns are not in good condition. This affects business for those farmers who sell their produce at the farm gates as their farms are not easily accessible.

4.4.3.5 *Storage infrastructure*

Storage facilities are very important to farmers in that, it helps to spread supply over long period for better prices. Inputs such as fertilizers, tools, feed and farm produce are kept safely in the storage facilities. The results presented in Table 4.11 indicate the scenario on storage facilities of all the (36) projects. The results show that only 18% of projects have access to storage facilities. It was observed that most of the projects had storage facilities but as a result of lack of sense of ownership, poor monitoring mechanism and lack of finance to maintain the storage infrastructure, the infrastructure has deteriorated beyond reasonable standard. Thus, renovating the current existing storage infrastructure may cost even more than buying or installing new ones.

4.4.3.6 Electricity availability in PLAS projects

The findings in Table 4.11 show that electricity accessibility among respondents improved from 18.5% before the projects to 63% after beneficiaries participated in the projects. However respondents were concerned about the high cost of electricity which does not favour them as they have to spend much of their financial resources on electricity. This finding indicates a need for government and NGOs to subsidise the basic needs of the PLAS projects such as electricity and water.

4.4.3.7 Fence infrastructure of PLAS projects

The results as presented in Table 4.11 show that fencing infrastructure improved from 7.4% before PLAS projects to 42.6% after beneficiaries participated in the projects. This finding indicates that most projects are poorly fenced and this exposes the farms to theft and vandalism of the available assets.

Table 4.11: Impact of PLAS project on physical capital (n=54)

Physical capital	Before the project		After the project	
Levels	High F (%)	Low F (%)	High F (%)	Low F (%)
Transport	6 (11.1)	48(88.9)	13(24)	41(35.2)
Established Market	2 (3.7)	51 (94.4	13(24)	41(44.4))
Livestock auction markets	3(5.6)	51(94.4)	35(65)	19(53.7)
Road accessibility	19(35.2)	35(64.8)	35(65)	19(44)
Electricity availability	10(18.5)	44(81.5)	34(63)	20(37)
Storage facilities availability	0(0)	54(100)	10(18.5)	44(81.5)
Fence infrastructure	4(7.4)	50(92.6)	23(42.6)	31(57.4)
Animal handling facilities	1(1.9)	53(98.1)	14(25.9)	40(74.1)
Irrigation infrastructure	0(0)	54(100)	5(9.3)	49(90.7)
Deeping infrastructure	0(0)	54(100)	3(5.6)	51(94.4)
Breeding infrastructure	0(0)	54(100)	7(13)	47(87)
Production infrastructure	0(0)	54(100)	23(42.6)	31(57.4)
Telephone infrastructure	31(57.4)	23(42.6)	40(74.1)	14(25.9)

4.4.3.8 Wilcoxon Sign-Rank Sum Test results on physical capital

The results in Table 4.12 indicate the Wilcoxon sign rank test results on physical capital. In all 13 variables considered under physical capital, 12 variables showed that significant difference exist in physical capital before and after PLAS projects. However, the impact of PLAS projects and livelihood physical capital were negatively related implying that discontinuation or no

participation will decrease physical capital with specific reference to all 12 significant sub-variables of livelihood physical capital.

Table 4.12: Wilcoxon Sign Rank Sum Test results on physical capital (n=54)

Physical capital		N	Mean Rank	Sum of Ranks	Z	P
Transport before and after the project	Negative Ranks	1	16.00	16.00	-5.209	**0.000*** **
	Positive Ranks	30	16.00	480.00		
	Ties	23				
	Total	54				
Established Market before and after the project	Negative Ranks	0	0.000	0.00	-4.899	**0.000*** **
	Positive Ranks	24	12.50	300.00		
	Ties	30				
	Total	54				
Auction before and after the project	Negative Ranks	1	12.50	12.50	-4.491	**0.000*** **
	Positive Ranks	23	12.50	287.50		
	Ties	30				
	Total	54				
Road accessibility before and after the project	Negative Ranks	1	15.00	15.00	-5.014	**0.000*** **
	Positive Ranks	28	15.00	420.00		
	Ties	25				
	Total	54				
Electricity availability before and after the project	Negative Ranks	1	13.00	13.50	-4.707	**0.000*** **
	Positive Ranks	25	13.50	337.50		
	Ties	28				
	Total	54				
Storage facilities availability before and after the project	Negative Ranks	0	0.00	0.00	-3.162	**0.002***
	Positive Ranks	10	5.50	55.00		
	Ties	44				
	Total	54				
Fencing before and after the project	Negative Ranks	0	0.00	0.00	-4.359	**0.000*** **
	Positive Ranks	19	10.00	190.00		
	Ties	35				
	Total	54				
Animal handling facilities before and after the project	Negative Ranks	1	8.00	8.00	-3.357	**0.001***
	Positive Ranks	14	8.00	112.00		
	Ties	39				
	Total	54				
Irrigation infrastructure before and after the project	Negative Ranks	0	0.00	0.00	-2.236	**0.025****
	Positive Ranks	5	3.00	15.00		
	Ties	49				
	Total	54				
Deeping infrastructure before and after the project	Negative Ranks	0	0.00	0.00	-1.732	0.83
	Positive Ranks	3	2.00	6.00		
	Ties	51				
	Total	54				
Breeding infrastructure before and after the project	Negative Ranks	0	0.00	0.00	-2.646	**0.008***
	Positive Ranks	7	4.00	28.00		
	Ties	47				
	Total	54				

Production infrastructure before and after the project	Negative Ranks	0	0.00	0.00	-4.796	**0.000*** **
	Positive Ranks	23	12.00	276.00		
	Ties	31				
	Total	54				
Telephone infrastructure before and after the project	Negative Ranks	1	6.00	6.00	-2.714	**0.007***
	Positive Ranks	10	6.00	60.00		
	Ties	43				
	Total	54				

4.4.4 Impacts of PLAS projects on natural capital among beneficiaries

Natural capital status of beneficiaries is presented in Table 4.13. Natural capital is the term used for the natural resource stocks from which resource flows and services useful for livelihoods are derived. It is about natural resources mainly, land, pasture and water. Providing land accessibility to people is often seen as a pre-condition for intensifying agricultural production and is increasingly stressed as a prerequisite for better natural resource management and sustainable development (DFID, 1999).

4.4.4.1 Land accessibility

It was found that land accessibility improved from 7.4% before the projects to 100% after beneficiaries participated in the project. This was expected as most beneficiaries are people who never owned land before. Therefore, any kind of land accessibility regardless of the number of hectares is a benefit for them.

4.4.4.2 Planted and natural pasture

The findings indicate that planted pasture improved from 1.9% before the projects to 56% after beneficiaries participated in the projects. However, it was noted that this improvement of planted pasture does not relate to equity and efficiency land use as most projects are not utilising the available land at optimum level. The beneficiaries reported lack of financial assistance, resources and poor infrastructure as contributing factors to underutilisation of land. The result shows that natural pasture improved from 5.6% before the projects to 98.1% after beneficiaries participated in the projects.

4.4.4.3 Availability of Water

Water availability/accessibility improved from 5.6% before the projects to 37% after beneficiaries participated in the projects. Even though there is improvement in water accessibility but majority of the projects do not have water supply. This has contributed in low productivity, low quality and quantity of produce as agriculture relies heavily on water. Payment for water also increased from 1.9% before the projects to 44% after beneficiaries participated in the projects indicating a need for incentives in terms of farm basic needs.

Table 4.13: PLAS projects impact on natural capital (n=54)

Natural capital	Before the project		After the project	
Levels	High F (%)	Low F (%)	High F (%)	Low F (%)
Land	4(7.4)	50(92.6)	54(100)	0
Planted pasture	1(1.9)	53(98.1)	30(56%)	24(44%)
Natural pasture	3(5.6)	51(94.4)	53(98.1)	1(1.9)
Water availability	3(5.6)	51(94.4)	20(37)	34(63)
Payment for water	1(1.9)	53(98.1)	24(44.4)	30(55.6)

4.4.4.4 Wilcoxon Sign-Rank Sum Test results on natural capital

The results as presented in Table 18 below indicate the Wilcoxon sign rank test results on natural capital. In all 5 variables considered under natural capital, all variables showed that significant difference exists in livelihood natural capital "before and after" PLAS projects. The relationship between PLAS and livelihood natural capital is negative. This implies that discontinuation or no participation will reduce natural capital of beneficiaries with respect to all considered variables.

Table 4.14: Wilcoxon Sign-Rank Sum Test results on natural capital (n=54)

Natural capital		N	Mean Rank	Sum of Ranks	Z	P
Land accessibility before and after the project	Negative Ranks	0	0.00	0.00	-7.071	**0.000*** **
	Positive Ranks	50	250.50	1275.00		
	Ties	4				
	Total	54				
Planted pasture before and after the project	Negative Ranks	0	0.00	0.00	-6.083	**0.000*** **
	Positive Ranks	37	19.00	703.00		
	Ties	17				
	Total	54				
Natural pasture before and after the project	Negative Ranks	0	0.00	0.00	-7.071	**0.000*** **
	Positive Ranks	50	25.50	1275.00		
	Ties	4				
	Total	54				
Payment for water before and after the project	Negative Ranks	0	0.00	0.00	-4.899	**0.000*** **
	Positive Ranks	24	12.50	300.00		
	Ties	30				
	Total	54				
Water availability before and after the project	Negative Ranks	0	0.00	0.00	-6.325	**0.000*** **
	Positive Ranks	40	20.50	820.00		
	Ties	14				
	Total	54				

4.4.5 Impact of PLAS projects on social capital among beneficiaries

The results in Table 4.15 indicate the impacts of projects on social capital. Social capital relates to the formal and informal social resources that people draw upon in pursuit of their livelihoods. Farmers develop these social resources by investing time, effort and other resources in membership of formal groups or organisations, informal social interactions and improve access to information. In addition, they can increase farmer's power and influence (DFID, 1999). The variables discussed below include: Farmers networking amongst themselves and other forms such as, networking with government departments, farmers association and unions.

4.4.5.1 Farmers networking amongst themselves

Networking amongst farmers improved from 9.3% before projects to 90.7% after beneficiaries participated in the projects. The scenario indicates eagerness of farmers to improve the status or wellness of their farms and the way they do things since they are mostly affected by the same challenges. Normally, farmers meet and interact with each other during workshops and at auctions/markets.

4.4.5.2 Networking with government departments

Beneficiaries networking with government department improved from 5.6% before the projects to 79.6% after beneficiaries participated in the projects. This indicates that beneficiaries still have hope and believe that government will help them in order to improve productivity in the farms given that national and household food security continue to be one of governments' priorities.

4.4.5.3 Networking with farmers' associations and farmers unions

Networking with farmers association improved from 1.9% before the projects to 35.2% after beneficiaries participated in the projects. Networking with farmers' unions increased from 5.6% before the projects to 13% after beneficiaries participated in the projects. Some farmers believed that associations and unions can influence the government to give them greater attention. The possible reason for the low impact may be because most beneficiaries were old, hence, may not have had time and interest for associations and unions. Networking with other production groups (NGOs) improved from 7.4% before the projects to 42.6% after beneficiaries participated in the projects. Networking with professional organisations improved from 7.4% before the projects to 46.3% after beneficiaries participated in the projects. This shows the eagerness of the beneficiaries to see their projects doing better in terms of productivity. Networking with village committees, religious groups and cultural associations also showed improvement from 13%, 22.2% and 14.8% before the projects to 35.2%, 37% and 31.5% after beneficiaries participated in the projects respectively.

Table 4.15: PLAS projects impact on social capital among beneficiaries (n=54)

Social capital	Before the project		After the project	
Levels	High F (%)	Low F (%)	High F (%)	Low F (%)
Network with financial institution	6(11.1)	48(88.9)	13(24.1)	41(75.9)
Network with other farmers	5(9.3)	49(90.7)	49(90.7)	5(9.3)
Network with relevant government departments	3(5.6)	51(94.4)	43(79.6)	11(20.4)
Network with farmers' associations	1(1.9)	53(98.1)	19(35.2)	35(64.8)
Network with farmers' cooperations	3(5.6)	51(94.4)	17(31.5)	37(68.5)
Network with other production groups (NGOs and civic group)	4(7.4)	50(92.6)	23(42.6)	31(57.4)
Network with professional organisations	4(7.4)	50(92.6)	25(46.3)	29(53.7)
Network with farmers' unions	3(5.6)	51(94.4)	7(13)	47(87)
Network with village committees	7(13)	47(87)	19(35.2)	35(64.8)
Network with religious groups	12(22.2)	42(77.8)	20(37)	34(63)
Network with cultural associations	8(14.8)	46(85.2)	17(31.5)	37(68.5)

4.4.5.4 Communication between beneficiaries and relevant stakeholders

The results as presented in Table 4.16 show the extent of communication between PLAS beneficiaries and relevant stakeholders. The relevant stake holders discussed include: Project Officers from DRDLR, extension agents from DARD and strategic partners and mentors.

4.4.5.4.1 Communication with Project Officers

The results show that majority (96%) of respondents admitted that they communicate with project officers with only 4% who do not communicate with project officers. However, 41% of respondents reported that they rarely meet project officers. This indicates that project officers do not have fixed schedules for visiting projects. One of the implications of the result is that the Provincial Department of Agriculture and Rural Development (DARD) and DRDLR services have not improved delivery of services to PLAS farmers. Some beneficiaries were concerned about the farming knowledge of project officers and their academic qualifications as they reported that some officials do not have the knowledge or background in agriculture.

4.4.5.4.2 Communication with Extension officers

The results in Table 4.16 indicate that majority (76%) of respondents communicate with agricultural extension officers while 24% reported that they never saw extension officers or officials from DARD. This may be due to the fact that PLAS projects belong to DRDLR, hence, officials from DARD feel less important in relation to the projects. About 45% of respondents reported that they rarely meet with extension officers. This finding clearly shows that there is need for coordinated planning between DRDLR and DARD in order to revive PLAS land reform projects.

4.4.5.4.3 Communication with Strategic Partners and Mentors

The findings in Table 4.16 show that majority (62%) of respondents communicate rarely with Mentors and Strategic partners with only 14% who reported that they communicate with them on regular basis. It was noted that most beneficiaries who communicate with strategic partners on a regular basis, are those who were assisted financially under RADP funding. The respondents reported that the reason for low level of communication was due to lack of finance. Hence, there was nothing much happening on the projects in terms of production. There is therefore, nothing much to talk about with their mentors and Strategic partners. The farmers also reported that the distance between projects location and mentors/ strategic partners' offices was a challenge as most of their offices were in Pretoria. The results show that 59% of beneficiaries were satisfied with work done by Mentors/Strategic partners while 41% of them were not satisfied. The respondents reported that some mentors/strategic partners lacked experience and some respondents felt that they knew much more than their Mentors and Strategic partners.

Table 4.16: Communication between beneficiaries and relevant stakeholders (n=54)

Item	Category	Percent
Communication with Project Officers	Yes	96
	No	4
	Total	100
Level of communication	Regular	26
	Occasional	33
	Rarely	41
	Total	100
Communication with Extension Agent	Yes	76
	No	24
	Total	100
Level of communication	Regular	15
	Occasional	40
	Rarely	45
	Total	100
Communication with Strategic Partner/Mentor	Regular	14
	Occasional	24
	Rarely	62
	Total	100
Satisfaction with work done by Strategic partner or Mentor	Satisfied	59
	Not satisfied	41
	Total	100

4.4.5.5 Wilcoxon Sign-Rank Sum Test results on social capital

The results as presented in Table 4.17 indicate the Wilcoxon sign rank test results on impact of social capital among beneficiaries. In all 11 variables that were considered under social capital, 10 variables showed that significant difference exist in the livelihood social capital before and after PLAS project. The findings show an inverse relationship between PLAS projects and livelihood social capital of the beneficiaries. This implies that discontinuation or non-participation in PLAS will reduce livelihood social capital among beneficiaries.

Table 4.17: Wilcoxon Sign-Rank Sum Test results of PLAS projects impact on social capital among beneficiaries (n=54)

Social capital		N	Mean Rank	Sum of Ranks	Z	P
Network with financial institution before and after the project	Negative Ranks	2	6.00	12.00	-2.111	**0.035** **
	Positive Ranks	9	6.00	54.00		
	Ties	43				
	Total	54				
Network with other farmers before and after the project	Negative Ranks	2	24.50	49.00	-6.351	**0.000*****
	Positive Ranks	46	24.50	1127.00		
	Ties	6				
	Total	54				
Network with government relevant department before and after the project	Negative Ranks	1	21.50	21.50	-6.172	**0.000*****
	Positive Ranks	41	21.50	881.50		
	Ties	12				
	Total	54				
Network with farmers association before and after the project	Negative Ranks	1	10.50	10.50	-4.025	**0.000*****
	Positive Ranks	19	10.50	199.50		
	Ties	34				
	Total	54				
Network with farmers cooperation training before and after the project	Negative Ranks	0	0.00	0.00	-3.742	**0.000*****
	Positive Ranks	14	7.50	105.00		
	Ties	40				
	Total	54				
Network with other production group (NGOs and civic group) before and after the project	Negative Ranks	1	11.00	11.00	-4.146	**0.000*****
	Positive Ranks	20	11.00	220.00		
	Ties	33				
	Total	54				
Network with professional organization before and after the project	Negative Ranks	2	13.00	26.00	-4.200	**0.000*****
	Positive Ranks	23	13.00	299.00		
	Ties	29				
	Total	54				
Network with trade unions before and after the project	Negative Ranks	2	450.00	9.00	-1.414	0.157
	Positive Ranks	6	450.00	27.00		
	Ties	46				
	Total	54				
Network with village committee before and after the project	Negative Ranks	1	7.50	7.50	-3.207	**0.001***
	Positive Ranks	13	7.50	97.50		
	Ties	40				
	Total	54				
Network with religious group before and after the project	Negative Ranks	2	6.50	13.00	-2.309	**0.021****
	Positive Ranks	10	6.50	65.00		
	Ties	42				
	Total	54				
Network with cultural associations before and after the project	Negative Ranks	1	6.00	6.00	-2.714	**0.007***
	Positive Ranks	10	6.00	60.00		
	Ties	43				
	Total	54				

4.5 Perception of beneficiaries towards impact of PLAS projects on their livelihood

4.5.1 Perception on standard of living, food security and education

The results in Table 4.18 indicate that 32% of beneficiaries strongly agree and 30% agree that despite the challenges they were facing, their livelihood improved since the inception of the projects while 11% disagreed and 11% strongly disagreed that their standard of living improved. The results also revealed that 31.5% of respondents strongly agreed and 31.5% agreed that their food security status improved since their involvement in the PLAS projects. In terms of education, the results indicate that 37% of respondents strongly agreed and 31.5% disagreed that the projects improved their educational level.

4.5.2 Perception on youth involvement and unemployment rate

The findings as indicated in Table 4.18 show that 46.3% of respondents strongly disagree and 29.6% disagree that more youth were involved in the projects. This clearly indicates that there is still very low interest of the youth in agriculture. These findings pose a threat to future food security of the country as young people still believe that agricultural projects are for old people. The results also indicate that 44.4% of respondents agreed and 24.1% strongly agreed that their projects have reduced unemployment in the surrounding community. This can be attributed to the fact that most operational projects had at least one hired labour.

4.5.3 Perception on management and technical skills

The findings as presented in Table 4.18 show that 40.7% of respondents strongly disagreed and 25.9% disagreed that they received any technical training from government with respect to their enterprises. This finding indicates a need to strategically improve the training given to the beneficiaries in order to improve productivity on PLAS projects. The results also show that 24.1% of respondents strongly agree and 22.2% agree that despite not getting management training from government, their skills improved at managerial level. This may be attributed to their farming background as majority of them were involved in farming long before they were involved in the Land Reform PLAS projects.

4.5.4 *Perception on social environment and financial skills*

The findings as presented in Table 4.18 indicate that 57.4 % of the respondents agreed and 14.8% strongly agreed that their social environment had improved compared to the time before their involvement in the projects. This may be due to the fact that they meet each other during trainings, workshops and meetings of their affiliated associations. These in turn, helps them to socialise both at business and personal levels. It also helps them to discuss the problems they face at different levels of farming and share their approach to solutions, thus, learning from each other's experience. The findings also show that 46.3% of the respondents agreed and 20.4% strongly agreed that their financial skills such as record keeping and savings improved since their involvement in the projects while 9.3% of respondents disagreed and 22% strongly disagreed that their financial skills such as savings and record keeping improved after participating in PLAS projects.

4.5.5 *Perception on capacity building and leadership skills*

The results revealed that 42.6% of respondents agreed that their capacity building improved after participating in the PLAS projects and 7.4% disagreed that their capacity building improved while 13% indicated that they were not sure or undecided. The findings also revealed that 57.4% of respondents believed that their leadership skills improved since their involvement in the projects.

4.5.6 *Perception on extension, project officers and Strategic partners, Mentors*

The findings as presented in Table 4.18 indicate that 63% of respondents agreed that communication with extension/project officers improved. However, they differed on the extent of communication, for example, some communicate with extension and project officers more often than others. This finding has a lot of implications for extension and project officers especially the government agenda to reduce hunger and poverty by 2015. The provincial Department of Agriculture and DRDLR services have to improve delivery of services to PLAS farmers as well as regular farm training. The findings also indicate that 7.4% of respondents disagreed and 29.6% strongly disagreed that strategic partners and mentors increased accessibility to the market.

4.5.7 *Perception on political & bureaucratic aspects of the projects*

The findings revealed that 40.7% disagreed and 20.4% strongly disagreed that projects were political while 27.8% believed that projects were political. They reported that those who are politically connected are favoured with respect to Recapitalisation and Development Programme (RADP) funding. The results also indicate that 33.3% of respondents agreed and 14.8% strongly agreed that PLAS projects are bureaucratic while 31.1% of respondents disagreed and 18.5% strongly disagreed that the projects are bureaucratic.

Table 4.18: perception of beneficiaries towards the impact of project on their livelihood (n=54)

Components	Strongly agree F (%)	Agree F (%)	Undecided F (%)	Disagree F (%)	Strongly Disagree F (%)
Standard of living has improved	17(31.5)	16(29.6)	0(0)	6(11.1)	15(27.8)
Food security has been enhanced	17(31.5)	17(31.5)	0(0)	6(11.1)	14(25.9)
Project has improved your educational level	1(1.9)	6(11.1)	10(18.5)	17(31.5)	20(37)
More youth involved in the projects	1(1.9)	12(22.2)	0(0)	25(46.3)	16(29.6)
Unemployment has been reduced	13(24.1)	24(44.4)	1(1.9)	3(5.6)	13(24.1)
Technical training has been given	4(7.4)	14(25.9)	0(0)	14(25.9)	22(40.7)
Management skills has been improved	9(16.7)	20(37)	0(0)	12(22.2)	13(24.1)
Social environment has improved	8(14.8)	31(57.4)	4(7.4)	3(5.6)	8(14.8)
Financial skills such as savings and record keeping improved	11(20.4)	25(46.3)	1(1.90)	5(9.3)	12(22.2)
Strategic partner/Mentor has improved accessibility to the market	9(16.7)	7(13)	3(5.6)	10(18.5)	25(46.7)
Diversification of livelihood has been enhanced	3(5.6)	15(27.8)	12(22.2)	10(18.5)	14(25.9)
Projects are political	4(7.9)	15(27.8)	2(3.7)	22(40.7)	11(20.4)
Projects are bureaucratic	8(14.8)	18(33.3)	1(1.9)	17(31.5)	10(18.5)
Leadership skills have improved	4(7.4)	27(50)	4(7.4)	9(16.7)	10(18.5)
Communication with extension officers/project officers has improved	8(14.8)	34(63)	2(3.7)	4(7.4)	6(11.1)
Project has improved your capacity building	4(7.4)	23(42.6)	7(13)	4(7.4)	16(29.6)

4.6 Beneficiaries' view on PLAS projects success and failure

The results in Table 4.19 show the success and failure aspects of PLAS projects. It indicates that 56% of respondents believed that their livelihood improved since participating in PLAS projects while 44% of respondents did not see any positive changes in their livelihood since their involvement in the projects. About 59% of respondents considered their projects as unsuccessful with only 41% who believed to that their projects were successful. The major factors that contributed to success of the projects (41%) were found to be: availability of funds (23%) which assisted in the renovation and the acquisition of basic infrastructure and operating capital and dedication 24%. Government should therefore, fast track the RADP funding to PLAS projects to improve productivity on the projects. The major factors which contributed to the failure of the projects were found to be lack of finance 25%, poor infrastructure 22%, lack of resources 18% and high inputs cost 16% as well as lack of water and electricity 19%.

Table 4.19: Beneficiaries' view on their projects success and failures (n=54)

Item	Category	Percent
Livelihood improvement	Improved	56
	No improvement	44
	Total	100
Success of project	Successful	41
	Unsuccessful	59
	Total	100
Factors that contributed to the success	RADP Funds	23
	Farming Experience	19
	Dedication	24
	Water/electricity availability	18
	Availability of capital/infrastructure	16
	Total	100
Factors that contributed to the failure	Lack of finance	25
	Lack/poor infrastructure	22
	Lack of resources	18
	No water/electricity	19
	High inputs cost	16
	Total	100

4.7 Constraints faced by beneficiaries of PLAS project

In order to determine challenges and constraints affecting the projects' performance, beneficiaries were asked during the interviews to identify key factors they perceived as constraints to their farming business. Table 4.20 present the key factors identified by beneficiaries as constraints faced by their PLAS projects.

4.7.1 Storage facilities

Majority of respondents (90.1%) reported lack of storage facilities during and after harvesting as one of the major constraints affecting their projects. The lack of storage facilities may have also contributed to lack of established market as it negatively affects the quality of the produce. In addition, it forces farmers to sell their produce immediately after harvesting at a time when the supply in the market is high, pushing the price down as they mostly sell their produce at auctions and farm gates.

4.7.2 Lack of established markets

Majority (77.8%) of respondents reported lack of established markets for crop production as one of the factors hindering productivity and growth of their projects. Low production volume and shortage of water may have also contributed to lack of established markets as quality and quantity of agricultural produce depend heavily on water quality and availability. Farmers who do not meet the standard requirements in terms of both quality and quantity of produce are most likely not to secure marketing contracts for high value markets. Most (55.6%) respondents reported that the problem of lack of established markets for livestock was very high while 42.6% of respondents reported the lack of established markets as medium. This is one of the factors that affect farm productivity and sustainability. It may be due to low prices received from the contractors and low production volume. Shortage of water may have also contributed to lack of established markets as quality and quantity of agricultural produce depend heavily on water availability. Therefore, if the beneficiaries do not meet the standard requirement in terms of both quality and quantity, they are most likely not to secure marketing contracts for their farm produce.

4.7.3 Shortage of water

Availability of water is critical to the growth and sustainability of agricultural projects. Water on farms is used for both human, livestock consumption and for irrigation. Most beneficiaries (77.8%) mentioned shortage of water as one of the major constraints affecting daily farm operations. Poor quality of the produce can be attributed to shortage of water. Another constraints identified under arable activities was drought (94.3%). This clearly indicates the impact climate change has on agricultural production as most farmers highly depend on natural rainfall. Crop diseases (24.1%) and land scarcity (13%) were also identified as challenges for some farmers.

4.7.5 Low price of farm product

Majority (55.6%) of respondents reported low price of their produce as one of the challenges hindering growth. Lack of established markets may have contributed to the scenario because most producers in the study area are forced to sell their produce in auctions, surrounding communities and at farm gates.

4.7.6 Theft

Most (70.3%) respondents reported theft as a serious challenge faced by their projects. This is more common on livestock farms, especially farms situated close to the townships. This may be attributed to poor fencing infrastructure of the projects and high unemployment rate within the surrounding townships. Other constraints were found to be lack of grazing area (13%) and animal diseases (5.6%).

4.7.7 The general constraints

The general constraints faced by most beneficiaries regardless of the type of agricultural enterprise, are also presented in Table 4.20. The identified major constraints were: lack of resources (77.9%), lack of finance (77.8%) and lack of incentives (66.7%) lack/poor infrastructure (64.8%), and high inputs cost (59.3%). The respondents indicated that lack of finance is due to both lack of government support and inability to access credit from financial institutions caused by lack of assets and land ownership which can be used as security to secure loans. Poor infrastructure may also be as a result of lack of finance to renovate existing infrastructure and to

buy one of higher quality. This finding is consistent with that of Pandey and Tewari (2004:15) who stated that lack of access to credit can hinder farm production.

Table 4.20: Constraints facing PLAS projects beneficiaries (n=54)

Possible constrains	**High F (%)**	**Medium F (%)**	**Low F (%)**
Arable activities			
Land scarcity	7(13)	22(40.7)	25(46.3)
Drought	26(48.1)	25(42.6)	5(9.3)
Low price of the product	30(55.6)	10(18.5)	14(25.9)
Lack of established markets	42(77.8)	11(20.4)	1(1.9)
Crop diseases	13(24.1)	12(22.2)	29(53.7)
Shortage of water	42(77.8)	11(20.4)	1(1.9)
Lack of storage facilities	49(90.8)	2(3.7)	2(3.7)
Livestock activities	*High F (%)*	*Medium F (%)*	*Low F (%)*
Shortage of grazing area	7(13)	3(5.6)	44(81.5)
Shortage of water	42(77.8)	11(20.4)	1(1.9)
Animal diseases	3(5.6)	22(40.7)	29(53.8)
Lack of markets	30(55.6)	23(42.6)	1(1.9)
Lack of storage facilities	41(76)	7(13)	6(11.2)
Low price of farm product	30(55.6)	4(7.4)	20(37.1)
Theft	20(37)	18(33.3)	16(30.7)
General	*High F (%)*	*Medium F (%)*	*Low F (%)*
Lack of finance	42(77.8)	11(20.4)	1(1.9)
Lack of incentives	36(66.7)	6(11.1)	12(22.3)
Lack of information	29(53.7)	12(22.2)	13(24.1)
Lack of resources	42(77.9)	11(20.4)	1(1.9)
Lack/poor infrastructure	35(64.8)	3(5.6)	16(29.7)
High inputs cost	32(59.3)	17(31.5)	5(9.3)
Lack of leadership skills	16(26.9)	19(35.2)	19(35.2)
Lack of technical knowledge	10(18.5)	19(35.2)	25(46.3)

4.8 Results and discussions of the inferential analysis

4.8.1 Factors influencing the impact of PLAS projects on livelihood of the beneficiaries

The inferential analysis of Logit model as presented in Table 4.21 shows the factors influencing the impact of PLAS projects on livelihood of the beneficiaries. The results from the Logit model shows that out of 10 independent variables considered, the coefficients for 5 variables were statistically significant. These were:

4.8.1.1 *Projects land in hectares*

The findings presented in Table 4.21 indicate that projects land (in hectares) had statistically significant effect on the impact of PLAS projects on the livelihood of beneficiaries ($Z=2.905$: $P<0.05$). This implies that beneficiaries with bigger size of land are most likely to have higher livelihood impact. This may be due to the fact that if a farmer has bigger size of land, he or she may be able to diversify in terms of agricultural enterprises and cultivate more hectares for more income all things being equal. However, having bigger size of land does not automatically translate to productivity and success. It only works if the land is transferred to the tiller or a beneficiary who can use land effectively and efficiently.

4.8.1.2 *Purchase price of the projects*

The results as shown in Table 4.21 indicate that purchase price of the projects had statistically significant effect on the impact of PLAS projects on the livelihood of beneficiaries ($Z=-2.258$: $P<0.01$). This implies that a unit increase in purchase price of the projects will result in decrease on impact of PLAS projects on beneficiaries' livelihood.

4.8.1.3 *Sufficient funding*

The findings in Table 4.21 indicate that sufficient funding had statistically significant effect on the impact of PLAS projects on the livelihood of beneficiaries ($Z=1.657$: $P<0.01$). This may be due to the fact that when a project is funded sufficiently, it enables the beneficiaries to renovate and purchase new infrastructure, resources, payment of workers and payment of basic services such as water and electricity as well as treatment of disease outbreak for effective and efficient production in the projects.

4.8.1.4 *Established markets*

The results in Table 4.21 show that established markets had statistically significant effect on the impact of PLAS projects on the livelihood of beneficiaries (Z=2.552: P<0.01). This implies that beneficiaries with established market were most likely to succeed than those who rely on selling their produce to the surrounding communities and auctions. This is because, it was easier for those who have established markets to accurately plan and do projections as they know what to expect from their produce unlike those who rely on auctions. In addition, those without established markets, the price that they may obtain for their goods are unknown making it very difficult to project profitability of one good as opposed to another.

4.8.1.5 *Age of farmers*

The findings in Table 4.21 show that age of farmers had statistically significant effect on the impact of PLAS projects on the livelihood of beneficiaries (Z=-2.697 :P<0.05). However, it was found to be negatively related to the impact of projects on livelihood of the beneficiaries. This implies that as the farmer grows older, he/she became less productive. This may be due to the fact that old people get tired quicker than young ones; they are also more vulnerable to diseases than their counterparts; they may also be reluctant to adopt new technology and cannot cope with challenges of drudgery work associated with farming. This in addition, makes older farmers to lose propensity to commercialise.

Table 4.21: Parameter estimates of factors influencing the impact of PLAS projects on livelihood of the beneficiaries (n=54).

Parameter	Estimate	Std. Error	Z	Sig
Gender	-.064	.548	-.117	.907
Project land (hectares)	.001	.000	2.905	**.004****
Purchase price of the projects	.000	.000	-2.258	**.024***
Use hired labour	.534	.378	1.413	.158
Received financial assistance (RADP)	-.887	.688	-1.289	.197
Sufficient funding	1.053	.636	1.657	**.098***
Involved in non-farming activities	-.668	.433	-1.541	.123
Living on the project premises permanently	.649	.523	1.239	.215
Have established markets	1.273	.499	2.552	**.011***
Age of farmers	-.045	.017	-2.697	**.007****
Intercept	-3.075	.901	-3.413	.001
Pearson Goodness-of-Fit Test Chi-Square	22.743			
DF	43			

4.9 Summary of chapter four

This chapter presented the data analysis and discussions of the study and was organised into five sections: the demographic and personal characteristics of the PLAS beneficiaries, Wilcoxon analysis on livelihood (natural, physical, social, financial and human) described by the frequency distribution, percentages, the inferential analysis of the data using logit regression model, perception of beneficiaries towards the projects and constraints faced by beneficiaries of PLAS projects.

In terms of the demographic and socio-economic characteristics of respondents, the results show that majority (54%) of farmers were above 50 years old while 7.5% of them were less than 30 years old. The results also indicate that the total number of beneficiaries in the projects was 97 of which 64% were males with 36% females. The study revealed that most (75%) projects had one beneficiary per project and 25% of the projects had more than one beneficiary per project. The highest number of beneficiaries per project was 35. The findings indicate that majority (98%) of respondents were African blacks (Tswana, Xhosa, Sotho and Zulu tribes); only 2% of respondents were Coloureds. The results also indicate that majority (61%) of respondents were married, while 20, 13 and 6% for single, widowed and divorced respectively. The study also revealed that 18% of respondents had no formal education; 28 and 39% of respondents had primary and secondary education respectively with only 15% for those who had tertiary education.

The findings indicate that 28% of beneficiaries had household sizes of less than 6 members; and those with more than 6 members were 72%. It also revealed that respondents with less than 3 dependents were 24%; while respondents with 3 to 6 dependents were 17% with 59% of respondents having more than 6 dependents. These high household sizes may be as a result of high illiteracy level among respondents. Thus, residents lack knowledge with respect to the use of birth control methods hence, the high birth rates. The sizes of the land at the disposal of the beneficiaries ranged between 55.7 and 1500 hectares. Sixty one percent of respondents had land sizes of less than 500 hectares, 17% had land sizes between 500 and 1000 hectares while 22% had more than 1000 ha. The results as revealed that majority (67%) of respondents had farming experience of more than 10 years, 22% had between 6 and 10 years' experience while 11% had

less than 6 years of farming experience. The findings also revealed that majority (76%) of respondents had access to extension agents while 15 and 9% used radio and internet respectively as their sources of information. The results showed that majority (63%) of beneficiaries were staying within the projects premises permanently while 37% of them lived outside the premises of the projects.

The identified major constraints affecting PLAS projects were found to be: lack of resources (77.9%), lack of finance (77.8%), lack of water (77.8%), lack of incentives (66.7%), lack/poor infrastructure (64.8%) and high inputs cost (59.3%) and lack of resources particularly basic resources. The respondents indicated that lack of finance is caused by both lack of government support and inability to access credit from financial institutions, due to lack of assets and land ownership which can be used as security to secure loans. It was revealed in the study that although some farmers had infrastructure, the structures do not meet the minimum requirements due to lack of finance to renovate and build proper structures of high quality, therefore, hindering production for high value markets.

The Wilcoxon Sign-Rank Sum Test results on livelihood capital were also discussed. It showed that significant difference exists in the livelihood (social, financial, physical, natural and human capital) before and after PLAS projects. The findings showed an inverse relationship between PLAS projects and livelihood capital of the beneficiaries. This implies that discontinuation or no participation will reduce livelihood capitals or will negatively affect beneficiaries. The inferential analysis of Logit model as presented in Table 4.22 shows the factors influencing the impact of PLAS projects on livelihood of beneficiaries. The results from the Logit model showed that out of 10 variables considered, the coefficients for 5 variables were statistically significant. These were: hectares of projects (Z=2.905), purchase price of projects (Z=-2.258), sufficient funding (Z=1.657), established market (Z=2.552) and age of farmers (Z=-2.697).

CHAPTER FIVE

5.0 SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study was conducted to determine the impact of PLAS projects on the livelihood (financial, natural, human, physical and social capitals) of beneficiaries in Dr. Kenneth Kaunda District Municipality, North West Province, South Africa. All the 36 PLAS projects in the district were included in the study and 54 beneficiaries were interviewed. Data was collected using a structured questionnaire. The questionnaire had five sections. In section 1, respondents were asked to provide demographic and socioeconomic factors while other sections contained were: evaluation of the "before" and "after" impact of PLAS land reform projects on livelihood (financial, human, physical, natural and social capitals) of beneficiaries, attitudes or perception of PLAS beneficiaries towards the impact of the projects on their livelihood, food security and employment and constraints faced by PLAS beneficiaries. Logit regression model was used to determine factors influencing the impact of PLAS projects on the livelihood of beneficiaries while Wilcoxon sign rank test was used to determine the "before" and "after" impact of PLAS land reform projects on livelihood (financial, human, physical, natural and social capitals) of beneficiaries.

5.2 Summary

The study investigated the impact of PLAS Land Reform Projects on the livelihood (financial, human, physical, natural and social capitals) of beneficiaries. The specific objectives of the study were to: determine demographic and socio-economic aspects of beneficiaries of PLAS land reform projects; evaluate the "before" and "after" impact of the projects on livelihood (natural, physical, social, financial and human capitals) of the beneficiaries; analysed the factors influencing the impact of the projects on the livelihood of beneficiaries; determine the perception of beneficiaries towards the impact of PLAS land reform projects on their livelihood, food security and employment; and determine the major constraints faced by beneficiaries of PLAS land reform projects. The population of the study included all the (36) PLAS projects and (97) beneficiaries within Dr. Kenneth Kaunda District Municipality. Sample size of the study was 54 beneficiaries selected through stratified random sampling from all the 36 projects at a time and interviewed using a structured questionnaire. Data collected was sorted, coded and analysed using Statistical

Package for Social Sciences (SPSS) version 21 computer programme. Frequency count and percentage were used to describe the data. Logit regression model was used to determine factors influencing the impact of PLAS projects on the livelihood of beneficiaries while Wilcoxon sign rank test was used to determine the "before" and "after" impact of PLAS land reform projects on the livelihood (financial, human, physical, natural and social capitals) of beneficiaries.

5.3 Major findings of the study

The total number of beneficiaries in terms of gender and youth involvement was revealed in the study. It showed that most projects (75%) had one beneficiary and 25% had more than one beneficiary per project. It also indicated that the total number of beneficiaries was 97 of which most (64%) of them were males, 36% were females and (31%) youth. This finding poses a threat to future food security as there are less youth and women involved in the projects. The study also revealed that 18% of respondents had no formal education and never went to school and only (15%) managed tertiary education. However, the active participants were (28%) and (39%) for respondents who had primary and secondary education respectively. This findings show that majority of respondents had at least basic education. The study also revealed that majority (76%) of respondents had access to extension officers and 15%, 9% used radio and internet respectively as their sources of information.

It was found that majority (56%) of respondents other source of income were social grants, followed by 22% salaries which represent those who are either government employees or private sector employees (working in nearby farms) and 22% for those engaged in non-agricultural businesses. The study also showed that most (63%) beneficiaries lived within projects premises permanently and 37% only come to the projects on part time basis. Majority (45%) of respondents cited working in other places as main reasons for not staying on project premises permanently and 35% indicated that farm houses were already vandalised by the time they took over the project while 20% reported that there were no farm houses at all. This finding may have also contributed to no production and low productivity of some projects as beneficiaries spend some of their time and resources travelling in and out of the farms on daily basis and this expose the projects or farms to theft. The study also revealed that most beneficiaries had access to the market. However, majority (80%) sold their produce to auctions and to the surrounding community while only 20%

had access to established markets. Relying on auctions was seen as a shortcoming and a setback as it negatively affects proper planning, accurate projections as beneficiaries had no influence on price.

The study revealed that majority (72%) of respondents were engaged in cattle production, followed by 52% for those engaged in maize production and 8% for both poultry and vegetable. Respondents reported the aforementioned enterprises as easily manageable at a very small scale and are highly considered as food security projects. Respondents reported that vegetable and poultry enterprises are labour and capital intensive and require a lot of expertise for both general labour and at managerial level. Hence, most of the PLAS beneficiaries cannot afford as they do not have enough capital, knowledge and skills to partake in such enterprise. The study also revealed employment created by the projects. In all, 165 jobs were created by the PLAS projects in the study area. However, only 10 of them were for females and 155 for males. This finding was seen as a true reflection of the levels of female involvement in agricultural projects; as a result, they benefited less from such opportunities.

The study also revealed that only 19% of the projects were assisted financially under the Recapitalisation and Development Programme (RADP) and majority (81%) were never assisted financially. The amount spent by government through RADP stood at R65 300 000.00 distributed among 7 PLAS projects currently assisted financially by government. These findings indicate that very little has been done in the district with respect to financial assistance and post settlement support to PLAS projects. PLAS beneficiaries reported this, as one of the contributing factors to no or low productivity in most of the projects as beneficiaries does not have resources or start-up capital for sustainable production. The study also revealed the purchase price of all the projects. It showed that the total cost of all the projects amounted to R231 560.944. Therefore, on average, government spent R6 432 246.944 for each project. The "willing buyer-willing seller Land Reform Policy" might have played a huge role on high purchase prices of PLAS farms or projects.

The identified major constraints affecting PLAS projects were found to be: lack of resources (77.9%); lack of finance (77.8%); lack of water (77.8%); lack of incentives (66.7%); lack/poor infrastructure (64.8%); and high inputs cost (59.3%); and lack of resources particularly basic resources. Respondents indicated that lack of finance is caused by both lack of government support and inability to access credit from financial institutions, due to lack of assets and land ownership which could be used as security to secure loans. it was established in the study that, although some farmers had infrastructure, the structure do not meet the minimum requirement due to lack of finance to renovate and build proper structures of high quality, therefore, hindering production for high value markets.

The Wilcoxon Sign-Rank Sum Test results on livelihood capital were also discussed. The findings indicated that significant difference exists in the livelihood (social, financial, physical, natural and human capital) before and after PLAS project. The findings show an inverse relationship between PLAS projects and livelihood capitals of the beneficiaries. This implies that discontinuation or no participation will reduce livelihood capital or will negatively affect beneficiaries. The results from the Logit model indicate that out of 10 independent variables considered, the coefficients for 5 variables were statistically significant. These were: hectares of projects ($Z=2.905$: $P<0.05$), purchase price of projects ($Z=-2.258$: $P<0.01$), sufficient funding ($Z=1.657$: $P<0.01$), established markets ($Z=2.552$: $P<0.01$) and age of farmers ($Z=-2.697$: $P>0.05$).

5.4 Conclusion

The findings emanating from the study clearly indicate that most beneficiaries of Pro-active Land Aquisition Strategy (PLAS) projects are facing many challenges and constraints which hinder their development, growth and sustainability of their projects. Majority of them were even working in nearby farms in order to make income for sustainable livelihood. The standard of living has improved; however, it is not yet at the expected level. There is a lower percentage of women and youth involvement in PLAS projects. It is evident that the PLAS programme has not achieved its intended objectives. The Wilcoxon Signed-rank Sum Test of livelihood capital before and after PLAS among farmers show that significant difference exists in financial, human physical, natural and social capital. However, the results indicate an inverse relationship in terms of the impact of PLAS projects on the livelihood capitals of the farmers, implying that a

discontinuation or non-participation in PLAS projects will lead to a reduction in livelihood capital among farmers.

5.5 Recommendations

It is evident that most beneficiaries of PLAS projects are facing many challenges and constraints which hinder their development, growth and sustainable livelihood. Based on the findings of the study, the following recommendations are made:

- More youth and women should be encouraged to participate in PLAS projects. This will assist in training young people with farming skills when they are still young energetic and promote commercialisation.

- The number of beneficiaries in all projects should be reduced to one or two in order to eliminate or reduce conflicts during critical decision-making processes.

- Consistency of farm visits and communication between extension officers and farmers need to be planned strategically for consistency in terms of reports and feedbacks to beneficiaries. This will also improve the monitoring of PLAS projects.

- Post-settlement support needs to be a pre-requisite for all PLAS projects in order to maintain productivity at optimum level. The support should be informed by the project needs, not be generalised.

- Government needs to assist beneficiaries to find established markets for farmers and not to rely on auctions and selling of produce to surrounding communities. This will help them get value for money of their produce.

- Government needs to consider building RDP houses in some of the PLAS projects so that beneficiaries can stay within the projects on permanent basis. This will also help promote full-time farmers and reduce transport cost from and to the projects.

- Departmental RADP programme should benefit all farmers and be effectively implemented as per policy document. Administration, application process, approval and transparency of RADP funding need to be encouraged. Other grants should be initiated to assist PLAS projects so that not all beneficiaries should rely on RADP funding.

- Government and NGOs need to be more involved in helping farmers through training programmes in order to reduce illiteracy level among beneficiaries. However, beneficiaries should be given practical training based on the required farming skills informed by the agricultural enterprise in their projects to ensure the relevancy of the training in order to attain intended impact. Thus, training should not be generalised.

- Government needs stronger mechanisms during the selection process of PLAS beneficiaries. This will help reduce the number of unused and underutilised land. Government also needs a stronger mechanism in selecting Strategic Partners and Mentors in order to ensure that there are real experts, well experienced and well informed about the industry. This will help to enhance productivity, confidence and knowledge and promote independency of beneficiaries in managing their projects on their own when contracts of Mentors/Strategic partners expire.

- Government needs to prioritise infrastructural development in PLAS projects as most projects do not have the required infrastructure for their farming operation. Improved storage infrastructure will have a direct impact on beneficiaries' gross income as they will not be forced to sell their produce immediately after harvesting when prices are low; improved road infrastructure can have direct impact on transportation and market accessibility; improved fencing infrastructure will prevent or reduce theft and vandalism of PLAS project property.

5.6 With regards to both hypotheses of the study, the findings necessitated the following conclusion:

The study hypothesised that:

- Socio-economic and demographic factors do not influence impact of Pro-active Land Aquisition strategy projects on livelihood of beneficiaries.

- There is no significant difference on the livelihood (financial, social, human, physical and natural capitals) of beneficiaries "before" and "after" participating in PLAS Land Reform Projects.

Therefore, both null hypotheses are rejected and both null alternatives are accepted as follows:

- Socio-economic and demographic factors influence the impact of Pro-active Land Aquisition strategy projects on livelihood of beneficiaries.

- There is significant difference on the livelihood (financial, social, human, physical and natural capitals) of beneficiaries "before" and "after" participating in PLAS Projects.

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APPENDIX A: EVALUATION INSTRUMENT (QUESTIONNAIRE)

Dear respondent

This questionnaire is for data collection for research on "IMPACT OF PROACTIVE LAND ACQUISITION STRATEGY PROJECTS ON THE LIVELIHOODS OF BENEFICIARIES IN DR. KENNETH KAUNDA DISTRICT, NORTH WEST PROVINCE, SOUTH AFRICA". The information provided will be treated as confidential, hence, no names are required and analysis will be group referenced. Could you spare some of your valuable time in responding to the questions. **(Your anticipated cooperation is highly** appreciated**).**

GENERAL INFORMATION

Date of interview								
Project location	Tlokwe		Ventersdorp		Matlosana		Maquassi Hills	

Section A

Socioeconomic characteristics of PLAS Land Reform beneficiaries

Please indicate by marking with an ''X'' where appropriate.

1. Gender

Male☐ Female ☐

2. Age of respondent_____

3. Population group?

African ☐ coloured ☐ Indian ☐ Other (specify)_____

4. Marital status

Married ☐ Single ☐ Widow ☐ Divorced ☐

5. Educational qualification

None ☐ primary ☐ secondary ☐ tertiary ☐

6. How did you hear about PLAS Programme/projects?

DRDLR☐ Media ☐ Other (specify)_____

7. Your religion

Christianity ☐ Traditional ☐ Muslim☐ Islamic ☐ Other (specify)_____

8. Household size_____

9. Number of dependent(s) _____

10. Land (in hectors). _____

11. Which enterprise(s) are you involved in, Farm size in hectares, and income from each enterprise?

Crops	Hectares (Ha)	Income (per production season)
Maize		
Sunflower		
Cotton		
Sorghum		
Wheat		
Tobacco		
Vegetables		
Other (specify) _____ _____	_____ _____	_____ _____
Animals		
Cattle		
Sheep		
Goats		
Pigs		
Poultry		
Other (specify) _____ _____	_____ _____	_____ _____

12. Years of farming experience_____

13. How long have you been on the PLAS project?_____

14. Have you received any training related to the project? Yes ☐ No ☐

15. If yes, please specify the kind of training received_____

16. Are there employees on the project? Yes ☐ No ☐

17. If yes, how many?

Gender	Permanent	Temporarily
Males		
Females		

18. What is the average income for permanent employees per month?_____

19. What is the average income of temporarily/casual employees?_____

20. Income from the project_____per annum/per production cycle

21. Expenditure on the farm_____ per annum/production period

22. Is the project making any profit? Yes ☐ No ☐

23. Have you ever received funding for the project from DRDLR through RADP? ☐ ☐No

24. If no, what are the reasons for not receiving RADP Funding?_____

25. If yes, how much was the funding? _____

26. Was the funding provided sufficient to do all intended enterprise? _____

27. What type of strategic intervention did you received?

Strategic partnership ☐ Mentorship ☐

28. If mentorship, is it part time ☐ full time mentor ☐

29. If strategic partnership, Distance to strategic partnership offices/location? _____km

30. How often do you communicate with strategic partner/part time mentor?

Regularly ☐ Occasionally ☐ Rarely ☐

31. Are you happy with the work done by mentor/ strategic partner so far? Yes ☐ No☐

32. What challenges you are experiencing regarding RADP?_____-
_____
_____
_____
_____
_____

33. Have you received a loan from any institution? Yes ☐ No ☐

34. If yes, specify the source

Bank ☐ NGOs☐ Other☐

35. How much from each source?_____

36. Do you able to meet the monthly loan repayments/instalments? Yes N☐ ☐

37. Are you involved in nonfarm activities? Yes ☐No ☐

38. If yes, name them_____

39. Does the farm have adequate infrastructure? Yes ☐ No ☐

40. If yes, please specify

Water ☐ Electricity ☐ Transport ☐ Schools ☐ Clinic/Hospitals ☐ Tar road ☐ Other (specify)_____

41. Beside government infrastructural support, have you acquired any other infrastructure by yourself or other source? Yes ☐No ☐

42. If yes, list the infrastructure._____

41. Do you communicate with Project Officer? Yes ☐ No ☐

42. If yes, how often?

Regularly ☐ Occasionally ☐ Rarely ☐

43. Do you communicate with extension officer? Yes ☐ No ☐

44. If yes, how often

Regularly ☐ Occasionally ☐ Rarely ☐

45. Sources of information

Project Officer ☐ Newspapers ☐ radio ☐ TV ☐ Other (specify)_____

46. Are you living on the project premises permanently? Yes ☐ No ☐

If no, what are the reasons for not staying in the project premises?
_____

47. Do you have an established market for your product? Yes ☐ No ☐

If yes, please specify_____

If no, what are the reasons?_____

48. How will you rate the overall success of the project? Successful ☐ Unsuccessful ☐

49. If successful, what factors contributed to the success?_____
_____
_____
_____
_____

50. If unsuccessful, what factors contributed to that? _____

51. In general, do you think your life has improved since you were involved in the PLAS project?

Yes ☐ No ☐

50. What should be done to improve this project?_____
_____
_____
_____

SECTION B

EVALUATING THE "BEFORE" AND "AFTER" IMPACT OF PLAS LAND REFORM PROJECTS ON THE LIVELIHOOD (FINANCIAL, HUMAN, PHYSICAL, NATURAL, AND SOCIAL CAPITALS) OF BENEFICIARIES

Please indicate the level of impact by marking with an "X".

Human capital	**Before the project**		**After the project**	
Level	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Vocational training				
Extension services				
Skills training				
Technical training				
Project management training				
Veld management training				
Grazing management training				
Vegetable management training				
Grain management skills				
Livestock management skills				
Poultry management skills				
Piggery management skills				
Veld management skills				
Disease treatment				
Water management				
Soil management				
Employment				
Food security				
Level of education				
Innovative and creative thinking				
Knowledge of farm management				
Decision making skills				
Natural capital	**Before the project**		**After the project**	
Levels	**High**	**Low**	**High**	**Low**
land				
Planted pasture				
Natural pasture				
Water				
Payment for water				
Payment for land if rented				
Social capital	**Before the project**		**After the project**	
Levels	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Network with financial institutions				
Network with other farmers				
Network with government relevant department				
Network with farmers association				

Network Farmers' cooperative				
Network with other production group(NGOs and civic group				
Network with professional organization				
Network with Trade unions				
Network with Village committee				
Network with Religious groups				
Network with Cultural associations				
Financial capital	**Before the project**		**After the project**	
Level	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Banks				
Cooperative				
Money lender				
Personal savings				
Government subsidies				
Government grants				
Relatives				
Marketing skills/ strategy				
Ability to sell product				
Gross income				
Record keeping				
Financial management training				
Price determination training				
Physical capital	**Before the project**		**After the project**	
Level	**High F (%)**	**Low F (%)**	**High F (%)**	**Low F (%)**
Transport				
Established Market				
Auction				
Road accessibility				
Electricity availability				
Storage facilities availability				
Fencing				
Animal handling facilities				
Irrigation infrastructure				
Deeping infrastructure				
Breeding infrastructure				
Production infrastructure				
Telephone infrastructure				

ATTITUDES OR PERCEPTION OF PLAS LAND REFEORM BENEFICIARIES TOWARDS THE IMPACT OF PLAS LAND REFORM PROJECTS ON THEIR LIVELIHOOD, FOOD SECURITY AND EMPLOYMENT

Please indicate by marking with an "X". Hint: SA-Strongly Agree, A-Agree, U-Undecided, D-Disagree, SD-Strongly Disagree.

Components	**SA**	**A**	**U**	**D**	**SD**
Standard of living has improved					
Food security has been enhanced					
Project improved your educational level					
More youth is involved on the project					
Unemployment has been reduced by the project on the surrounding area					
Technical training has been given					
Management skills has improved					
Project has enhanced the quality of lives of beneficiaries					
Project has improved the social environment					
Project improved financial skills of beneficiaries such as book keeping, savings					
Health management skills has been given					
Strategic partner/mentor has improve accessibility to market					
Diversification of livelihood has been enhanced					
Project are politically					
The project is bureaucratic					
Leadership skills has improved					
Technical knowledge has improved					
communication with extension /project officer has improved					
The project has improved your Capacity building					

CONSTRAINTS FACING LAND REFORM PROJECTS AND BENEFICIARIES

From list below, indicate the level of severity of constraints you experiencing at the project.

Kindly mark with an ''X'' the level of severity

Possible constrains	High	moderate	low
Arable activities			
Land scarcity			
Drought			
Low price of products			
Lack of market			
Crop diseases			
Shortage of water			
Other (specify)			
Livestock activities			
Shortage of grazing area			
Lack of water			
Animal diseases			
Lack of market			
Post-harvest management			
Lack of storage facilities			
Low price of farm products			
Theft			
Other (specify)			
General			
Lack of finance			
Lack of incentives			
Lack of information			
Lack of resources			
Lack of infrastructure			
High Inputs cost			
Lack of leadership skills			
Lack of technical knowledge			
Other (specify)			

Your anticipated cooperation is highly appreciated.

APPENDIX B: DATA COLLECTION PEMISSION LETTER

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
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FACULTY OF AGRICULTURE, SCIENCE & TECHNOLOGY

SCHOOL OF AGRICULTURE

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Dear Sir/Madam,

TO WHOM IT MAY CONCERN

This is to introduce Khulekani Khumbulani Sithembiso Nxumalo. He is a Masters student in the Department of Agricultural Economics and Extension, North-West University, Mafikeng Campus, South Africa. He is currently on his research work with PLAS projects beneficiaries. The title of the research project is "impact of Pro-Active Land Aquisition Strategy projects on the livelihood of beneficiaries in Dr. Kenneth Kaunda District of NWP, South Africa". Therefore, your assistance and cooperation is highly solicited for. Thank you for your envisioned understanding.

Yours faithfully, Prof. O.I. Oladele

Director: School of Agricultural Sciences