

**The impact of recapitalization and development program on the  
performance of land reform farmers in the Province of KwaZulu-Natal**

by

**THEMBALAKHE DECENT SHABANGU**

**Dissertation submitted in fulfilment of the academic requirements of  
Master's in Agriculture**

In Agricultural Extension and Rural Resource Management

School of Agriculture, Earth and Environmental Sciences

College of Agriculture, Engineering and Science

University of KwaZulu-Natal

Pietermaritzburg

South Africa

June 2021

## **ABSTRACT**

Land reform is and has been one of the South African development initiatives. The desire to see agriculture as the core of the transformation for the previously disadvantaged citizens and as a vehicle for improving the socio-economic status and rural economy cannot be ignored. Research on land settlement operation across countries that have experienced land reform indicates that land reform without post-settlement support regardless of the historical background of the proposed beneficiaries or even political appraisal leads to the neglect of the awarded land. The presence of effective farmer support services promotes the development of the land reform farms whilst the opposite may contribute negatively to on-farm development and affect the livelihoods and food security of the people that rely on the farm. There is no doubt that the current land ownership patterns are unsustainable and are a threat to national democracy. Therefore, the need to provide appropriate post-settlement support to farmers' farms cannot be ignored to help the few farmers retain the farms. It is for this reason that the recapitalization program was initiated.

This study aims to determine the impact of recapitalization and development on the performance of land reform farmers. The study made use of a quantitative approach and adopted the multistage sampling techniques: stratified random sampling and random sampling procedure to select the land reform farmers that participated in the study (n =264). Descriptive statistics were used to assess the socio-economic status of the land reform beneficiaries. Econometric analysis was also used through Probit regression analysis to assess the factors influencing the participation of farmers in the Recapitalization and Development Program (RADP), and the Endogenous switching regression model to assess the impact of RADP on the performance of land reform farmers.

The primary findings indicated that respondents are on average 49 years old and that around 80% of the sampled farmers are married. While approximately 64% of farmers engaged in non-farm economic activity, the average household has approximately five people. Similarly, the number of years spent cultivating crops (a proxy for experience) is projected to have a favourable effect on participation in the RADP and on net farm revenue. Around 70% of respondents reported having a signed contract. These findings indicated that while 58% had access to extension services from both the private and public sector contributing to the progress of agricultural development with 54% of strategic partnership support, and mentorship was

indicated to be 44%. Tax compliance ( $p=0.022$ ), secondary organization ( $p=0.0257$ ), legal entity ( $p=0.008$ ), farm potential income upon acquisition ( $p=0.084$ ), farmers getting third-party support ( $p=0.071$ ), and strategic partnership ( $p=0.081$ ) all had a statistically significant effect on farmers' RADP participation.

The findings indicated that age ( $p=0.029$ ), farm potential income upon acquisition ( $p=0.088$ ), strategic partnership ( $p=0.049$ ), and tax compliance ( $p=0.002$ ) were all positively significant with the impact of RADP on land reform performance. The impact of RADP on the performance of non-RADP recipients was statistically significant for strategic partnerships ( $p=0.059$ ), legal entities ( $p=0.019$ ), and farmers receiving third party support ( $p=0.095$ ). Strategic partnership ( $p=0.021$ ) and tax compliance ( $p=0.010$ ) had a statistically significant effect on RADP beneficiaries' performance.

The results showed that land reform has made a progress in ensuing a positive livelihood of beneficiaries even though some challenges are still experienced. Findings showed that the majority of farmers were engaged in off-farm economic activities, access to formal education and have signed a project contract. Mentorship remained a particularly difficult aspect of post-settlement life. However, farmers got a chance to enhance their farms and raise their income through RADP's strategic cooperation. Generally, land reform farmers are full-time farmers and get their income from farm profits. Access to extension services was satisfactory for land reform farmers. The strategic partnership of RADP is likely to improve the farm and the farm income. RADP generally has a positive impact on the performance of the land reform program. There is a need to significantly improve the mentorship program to increase land reform farmers' engagement in the given farmer support programs. It is recommended that more extension services are availed to the land reform farmers.

## DECLARATION 1

I Thembalakhe Decent Shabangu, declare that:

- i. The research reported in this dissertation, except where otherwise indicated, is my original research.
- ii. This dissertation has not been submitted for any degree or examination at any other university.
- iii. This dissertation does not contain other person's data, pictures, graphs or other information unless specifically acknowledged as being sourced from those people.
- iv. This dissertation does not contain other authors writing unless specifically acknowledged as being sourced out from authors. Where other written sources have been quoted, then:
  - a) Their words have been re-written sources, but the general information attributed to them has been referenced;
  - b) Where their exact words have been used their writing has been placed inside quotation marks and referenced.
- v. This dissertation does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, with the source(s) being detailed in the thesis and the references section.

Signed:  ..... Date.....18 June 2021.....

TD Shabangu

As the candidate's main supervisor, I, Dr Mjabuliseni Ngidi, agree to the submission of this dissertation for examination.

Signed: ... .....Date...18 June 2021.....

Dr. Mjabuliseni SC Ngidi

## **DECLARATION 2: PUBLICATION**

Author's contribution to publications that form part of the dissertation.

### **Publication 1 – Chapter 4.**

Shabangu, T., Ngidi, M. S. C, Ojo, T. O, & Belle, J. A. (2021). Factors influencing participation of farmers in recapitalization and development program (Under review by Journal of Agricultural Extension)

### **Publication 2 – Chapter 5.**

Shabangu, T., Ngidi, M. S. C., Ojo, T. O., & Babu, S. C. (2021). Impact of Recapitalization and Development Program on Performance of Land Reform Beneficiary Farmers in KwaZulu-Natal, South Africa. *Journal of Agricultural Sciences*, 13(5)91-103

## **DEDICATION**

This dissertation is dedicated to my family for their encouragement and support since I started tertiary education.

## **ACKNOWLEDGEMENT**

I greatly acknowledge the contribution of various persons and organizations, without whom the study would not have been accomplished.

Firstly, I thank my supervisors, Dr Mjabuliseni Ngidi and Dr Temitope Ojo, for their supervision, mentorship, guidance and support throughout the process of this study.

I appreciate the financial support from Dr Karen Caister towards paying for the publication of one of my papers from this dissertation.

Great appreciation is given to Mr JP Le Roux who did only support but also acted as my gatekeeper for this study.

Acknowledgement is expressed to my family for their unconditional love and moral support during this study.

I am humbled by the moral and professional support provided by Thobeka Manyathi, Nompilo Thabethe and Simphiwe Hlatshwayo.

I sincerely thank the Land Reform Farmers for their participation and without whom this study would not have happened.

## Table of Contents

ABSTRACT.....	i
DECLARATION 1 .....	iii
DECLARATION 2: PUBLICATION .....	iv
DEDICATION.....	v
ACKNOWLEDGEMENT .....	vi
LIST OF ACRONYMS .....	xiii
CHAPTER 1: GENERAL INTRODUCTION .....	1
1.1. Background of the study .....	1
1.2. Statement of the research problem .....	2
1.3. The overall objective of the study .....	3
1.3.1. Specific objectives of the study .....	3
1.3.2. Sub-problems .....	4
1.4. Significance of the study .....	4
1.5. Limitations of the study.....	5
1.6. Assumption of the study.....	6
1.7. Definitions of the key terms .....	6
1.8. Structure of the thesis .....	7
References.....	8
CHAPTER 2: LITERATURE REVIEW .....	10
2.1. Introduction .....	10
2.2. International Perspective of Land Reform and Post-Settlement Support .....	10
2.2.1. Compulsory acquisition land redistribution:.....	10
2.2.2. Market-assisted or Community-driven Land redistribution: .....	11
2.2.3. Negotiated transfers land redistribution:.....	14
2.3. South Africa Land Reform and Post-Settlement Support .....	18
2.3.1. Land Reform in South Africa .....	18
A. Land Restitution .....	19
B. Land Tenure .....	21



C. Land Redistribution.....	25
2.3.2. Post-settlement support for Land Reform.....	26
A. Settlement and Land Acquisition Grant (SLAG).....	27
B. Land Redistribution for Agricultural Development (LRAD) .....	27
C. Comprehensive Agricultural Support Program (CASP) .....	27
D. Proactive Land Acquisition Strategy (PLAS) .....	28
E. Comprehensive Rural Development Plan (CRDP) .....	28
F. Recapitalization and Development Program (RADP) .....	28
2.3.3. Other Farmer Support Initiatives in South Africa.....	29
A. MAFISA.....	29
B. AgriBEE .....	30
C. Ilima Letsema.....	32
2.3.4. Post-settlement support on farmer sustainable livelihood land reform .....	32
2.3.4.1. Livelihood assets and resources .....	33
A. Access to extension services .....	34
B. Access to natural assets .....	35
C. Access to human capital .....	35
D. Access to financial capital.....	36
E. Access to physical capital .....	36
2.3.4.2. Vulnerability context.....	37
2.3.4.3. Political institutions and processes.....	37
2.3.4.4. Livelihood strategies .....	39
2.3.4.5. Sustainable Livelihood Analysis outcomes.....	39
2.3.4.6. The Challenge of post-settlement support under South African land reform	40
2.4. Recapitalization and Development Program.....	41
2.4.1. The Policy framework for RADP .....	41
2.4.2. RECAP Objectives.....	42

2.4.3.	Functions of RECAP.....	42
A.	Recapitalization.....	42
B.	Development .....	44
2.4.4.	RECAP's theory of change .....	46
2.4.5.	Progress of RADP .....	47
2.5.	The theory underpinning the study.....	48
2.5.1.	Review of analytical techniques of the study .....	48
2.5.2.	Empirical review of related works on the subject matter .....	52
2.5.3.	Conceptual framework of the study .....	56
2.6.	Conclusion.....	57
	References.....	60
	CHAPTER 3: STUDY AREA AND METHODOLOGY AND CHARACTERISTICS OF SOCIO-ECONOMIC STATUS OF LAND REFORM BENEFICIARIES.....	72
3.1.	Description of the Study Area .....	72
3.2.	Data collection methods .....	73
3.3.	Data analysis methods.....	75
3.4.	Characteristics of Socio-economic status of land reform beneficiaries .....	75
	References.....	77
	CHAPTER 4: ANALYSIS AND DISCUSSION OF RESULT ON FACTORS INFLUENCING PARTICIPATION OF FARMERS IN RECAPITALIZATION AND DEVELOPMENT PROGRAMME (RADP).....	81
4.1.	Abstract .....	81
4.2.	Introduction .....	81
4.3.	Methodology .....	83
4.3.1.	Description of the study area .....	84
4.3.2.	Sampling techniques and data collection method .....	84
4.3.3.	Data analysis method .....	85
4.3.4.	Probit Regression Model.....	85

4.4.	Results and discussion.....	86
4.4.1.	Descriptive statistics .....	86
4.4.2.	Factors influencing participation of farmers in RADP .....	88
	Tax compliance.....	89
	Secondary organizations.....	89
	Farm potential income at acquisition.....	90
	Farmer's receiving 3 <sup>rd</sup> party assistance .....	90
	Strategic partnership .....	91
4.5.	Conclusion and policy recommendations .....	91
	References.....	92
	CHAPTER 5: THE IMPACT OF RECAPITALISATION AND DEVELOPMENT PROGRAMME (RADP) ON THE PERFORMANCE OF LAND REFORM FARMERS IN THE STUDY AREA.....	98
5.1.	Abstract .....	98
5.2.	Introduction .....	98
5.3.	Methodology .....	101
5.3.1.	Description of the study area .....	101
5.3.2.	Sampling techniques and data collection method.....	101
5.3.3.	Data analysis method .....	102
5.3.4.	Econometric estimation strategy.....	103
5.4.	Results and discussion.....	106
5.4.1.	Descriptive statistics .....	106
5.4.2.	Results from Full information maximum likelihood (FIML) estimation of the endogenous switching regression model (ESRM).....	108
5.4.3.	Impact of RADP on the performance of land reform farmers on farmers' net farm income .....	110
5.5.	Conclusion.....	114
	References.....	115

CHAPTER 6: SUMMARY, CONCLUSIONS, AND POLICY RECOMMENDATIONS..	121
6.1. Recap of the research objectives and methodology .....	121
6.2. Summary .....	122
6.3. Conclusions .....	122
6.4. Recommendation for policy implications .....	124
6.5. Suggestions for further research.....	125
APPENDIX A: Questionnaire .....	126
APPENDIX B: Consent Letter .....	144
APPENDIX C: Gate keeper's letter.....	148

## List of Figures

Figure 1: The RECAP funding model .....	43
Figure 2: Diagrammatic conceptual framework of the study .....	57
Figure 3: KwaZulu-Natal Map with district regions.....	72

## List of Tables

Table 1: Key statistics for redistribution and restitution.....	18
Table 2: Summary statistics of restitution as per the number of claims settled in the 2017/2018 financial year.....	20
Table 3: Number of projects, households and beneficiaries, hectares redistributed, and land cost for 2017/2018.....	26
Table 4: Progress of RADP.....	47
Table 5: Descriptive statistics of the sampled farmers .....	86
Table 6: Probit regression model of factors influencing participation of farmers in RADP ...	88
Table 7: Descriptive statistics of the sampled farmers .....	107
Table 8: Full information maximum likelihood (FIML) estimates of the endogenous switching regression model (ESRM).....	108
Table 9: Treatment effects for the RADP participation – endogenous switching regression treatment effect .....	112
Table 10: Treatment effects for RADP participation – inverse-probability-weighted regression adjustment.....	113

## **LIST OF ACRONYMS**

ATE	Average treatment effect
ATT	Average treatment on the treated
B-BBEE	Broad-based Black Economic Empowerment
CASP	Comprehensive Agricultural Support Program
CBRLDP	Community-based Rural Land Development Projects
CLARA	Communal Land Rights Act
COS	Council of Stakeholders
CPAs	Communal Property Associations
CRDP	Comprehensive Rural Development Plan
DAFF	Departments of Agriculture, Forestry and Fisheries
DoA	Department of Agriculture
DRDLR	Department of Rural Development and Land Reform
ESRM	Endogenous Switching Regression Model
ESTA	Extension of Security of Tenure Act
FAO	Food and Agriculture Organization
IAC	Institute of Accounting & Commerce
IFAD	International Fund for Agricultural Development
IPWRA	Inverse-Probability-Weighted Regression Adjustment
KZN	KwaZulu-Natal
LARP	Land and Agrarian Reform Program
LRAD	Land Redistribution for Agricultural Development
LTA	Labour Tenants Act
MAFISA	Macro-Agricultural Financial Institutions of South Africa
NDA	National Development Agency
NDP	National Development Plan
NGOs	Non-governmental organizations
PDAs	Provincial Departments of Agriculture
PIPs	Political institutions and processes
PLAS	Proactive Land Acquisition Strategy
PMG	Parliamentary Monitoring Group
POM	Potential-outcome mean

PTO	Permission to Occupy
RADP	Recapitalization and Development Program
Recap	Recapitalization
SARS	South African Revenue Services
SLAG	Settlement and Land Acquisition Grant
SPLAG	Settlement Planning Land Acquisition Grant
UEC	University Ethics Committee
VIF	Mean-variance Inflator Factor

## **CHAPTER 1: GENERAL INTRODUCTION**

Chapter 1 presents the general introduction of the research study by providing the background of the study, statement of the research problem, the overall objective of the study with specific objectives and sub-problems, rationale/ significance of the study, limitations of the study, assumption of the study, the definition of key terms, and the structure or the layout of the thesis.

### **1.1. Background of the study**

Land reform is understood from different viewpoints, focussing on diverse land types, land use, post-settlement/ farmer support, political, economic, and social objectives, Adams 1995 (cited in Sibisi, 2015). In contrast, Sibisi (2015) found that several authors have defined the term “land reform”. Land reform can be defined as the reasonable sharing of land and land rights with the landless and poor. South Africa’s land reform began shortly after the 1994 election, the 1996 Constitution of post-apartheid South Africa serves as the context for all rural development and land reform programmes (Dawood, 2018). The most appropriate sections of the Constitution are 25, 26, 27, and 36 to address the inequality of land possession and use as a result of the Native Act of 1913 mentioned above (Department of Rural Development and Land Reform (DRDLR), 2014).

South Africa land reform has three main land reform programs: (1) restitution, (2) tenure reform, and (3) redistribution. It allows for the expropriation of land, negotiated acquisition, or purchase in the market (Hans and Mkhize, 2014). And from the period of 1994 to 2018; a total of 8.3million of hectares from 82 million hectares of agricultural land under white ownership have been transferred to previously disadvantaged (Africans) citizens. Thus, these 8.3 million hectares were acquired in the following ways: 3.5 million hectares through land redistribution, benefiting 62 475 claims; 4.8 million hectares through land restitution, benefiting 1 348 beneficiaries with a household of 478; and 92 032.53 hectares through land redistribution, benefiting 1 348 beneficiaries with a household of 478 to target equity of agricultural land ownership in South Africa (DRDLR, 2018).

Access to land alone is insufficient in bringing about farm development and socio-economic development of land reform beneficiaries. As a result, the Department of Rural Development and Land Reform (DRDLR) in South Africa initiated a post-settlement/ farmer support program. Post-settlement/ farmer support programs are the programs responsible for extension



services given to farmers after they have received land to farm sustainably (Masoka, 2014). Access to extension services such as training, education, financial support, access to markets, and the establishment of physical infrastructure (Mabuza, 2016). The following post-settlement supports; (A) Settlement and Land Acquisition Grant (SLAG), (B) Land Redistribution for Agricultural Development (LRAD), (C) Comprehensive Agricultural Support Program (CASP), (D) Proactive Land Acquisition Strategy (PLAS), and (E) Comprehensive Rural Development Plan (CRDP) were implemented to help land reform beneficiaries to access extension services to improve their socio-economic status and for farm development (DRDLR, 2013). However, these support programs were insufficient and ineffective to extend there was a need to implement a support program that will replace all post-settlement programs. As a result, the Recapitalization and Development Program (RADP) was initiated to support farmers, to enhance the involvement of a range of institutions, especially local government, in the post-settlement stage of land reform to assist farmers with Recap and Development (DRDLR, 2014).

## **1.2. Statement of the research problem**

Southern Africa had transformed land reform policies to create a class of black land reform commercial farmers, and the transformation that was imperative given the demographic inequalities that occur within the Agri-sector along with ownership patterns. However, none of these countries has succeeded in generating a distinguished figure of black commercial farmers due to the lack and ineffective of farmer support given to land reform beneficiaries to operate a commercial scale argued by Kariuki (2004). It was observed that the lack of farmer-support systems failed to inspire a significant and viable growth of black commercial progressive farmers emerging in Zimbabwe in the 1980s (Kariuki, 2004). The ineffective farmer support services were also observed as a life-threatening gap in South African land reform (Manenzhe, 2007). The failure of many land reform farms is due to lack of appropriate farming skills, organizational setting, farm production, farm management, inappropriate business planning, lack of understanding of agricultural concepts, and a lack of satisfactory farming infrastructure, and machinery and equipment (Phatudi-Mphahlele, 2016).

The level of farmer support needed by farmers in land redistribution farms greatly depends on the farm production that is to be transformed (Martin, 2000). Hans and Mkhize (2014) argued that beneficiary participation in all aspects of the land reform initiatives and farmer post-

settlement program is limited. However, the failure of land reform farms is not yet confirmed as to whether it is seriously caused by post-settlement support or poor beneficiary selection as some of the land reform farms are more successful than others within the same industry. Nevertheless, the problem experienced by South African land reform beneficiaries is also noted by other countries like Namibia where land reform is not yet revealed as a solid and stable matter.

Since RADP replaced all sorts of post-settlement programs in South Africa land reform in 2013, including settlement support grants for beneficiaries of land restitution. RADP significance is that most land reform farms have been failing because of insufficient and ineffective post-settlement support and are in ‘distress’, and consequently in need of additional Recapitalization (Recap) of funds. Further aims to support all previously disadvantage farmers, as a result of the Native Land Act of 1913, who are not land reform beneficiaries, and contribute to agrarian transformation (University of the Western Cape, 2016). The researcher in this study seeks to determine the impact of RADP on the performance of land reform farmers in KwaZulu-Natal (KZN) by assessing the socio-economic status of beneficiaries of land reform farms, assessing factors influencing participation of farmers in RADP, and analyzing the impact of RADP on the performance of land reform farmers in the study area.

### **1.3.The overall objective of the study**

The research discussed in this dissertation was driven by this: To assess the impact of recapitalization and development programs on the performance of land reform farmers. This central research objective has given rise to the following objectives and questions:

#### **1.3.1. Specific objectives of the study**

- 1) To assess the socio-economic status of beneficiaries of land reform farms in KwaZulu-Natal
- 2) To assess factors influencing farmers’ participation in the Recapitalization and Development Program (RADP)
- 3) To analyze the impact of RADP on the performance of land reform farmers in KwaZulu-Natal.

### **1.3.2. Sub-problems**

- 1) What is the socio-economic status of beneficiaries of land reform farms?
- 2) What factors are influencing the participation of farmers in RADP?
- 3) What significance (impact) does RADP have on land reform beneficiaries?

### **1.4. Significance of the study**

In this study, the post-settlement challenge in land reform is identified as a critical issue that could obstruct the desired purpose of land reform. Land reform entails improvements in the agrarian organization, improved production techniques, and improved policy decision-making relationships, in addition to land transfers (Manenzhe, 2007). Post-settlement support is responsible to provide access to agricultural inputs, machinery, and equipment, finances, farmer capacity building, market, and marketing to the farmer and for farm development in South Africa land reform (Phatudi-Mphahlele, 2016). The RADP serves as a post-settlement support program to agricultural projects mainly in land reform to ensure farmer and farm sustainability.

The rationale of RADP is meant to improve farmers that are awarded land through land reform programs. Hence, regarding land reform, the South Africa context outlines the role of the government in encouraging proper care to land reform farmers after land acquisition. There is a strong emphasis on skills and capacity development through agricultural training and mentorship programmes, as well as a stakeholder support structure, to assist farmers in farming sustainably, maximising land productivity, and combating poverty. Equally, that leads to improved quality of life for all (Phatudi-Mphahlele, 2016).

The study is significant because it aims to assess the impact of RADP on the performance of land reform farmers in KZN. Hence, to a degree that the objectives of land reform and RADP are achieved for farmers. This research study values RADP of land reform and to be the effective way of sustaining land reform projects and empowering land reform beneficiaries through mentorship and strategic partnership. Further, the study aims to assess the socio-economic status of the land reform farmers to examine if the RADP is bringing any improvement to land reform, and what factors influence the participation of farmers in the farmer support program. The study is also significant to generate new information and findings to influence the land reform stakeholders for constituting sustainable land reform policies and

strengthen the existing land reform policies. This study will benefit both (1) land reform farmers to participate in exposing the challenges and improvements made in land reform through RADP and the (2) DRDLR will benefit from the information or findings on where to improve and continue sustainably.

### **1.5. Limitations of the study**

Due to limited resources, the study was limited to land reform beneficiaries in KwaZulu-Natal (KZN) province. This sample of land reform projects may not represent land reform in South Africa as a whole. The interviewer was constrained by limited time and financial resources and could not visit all PLAS projects initially; therefore, only 264 projects and their beneficiaries were visited. It was also challenging to get answers from the beneficiaries who do not keep a record(s) and non-operational farms. And the unavailability of interested stakeholders in land reform, both private sector and the levels of government and processes; Institutions, Acts and Policies, in the land reform environment at KZN region. There may be other data (by land reform farmers) about RADP than the participated farmers. However, since participated land reform farmers voluntarily engaged, other potential responses do not exist in this study.

The research was a one-time cross-sectional study conducted on land redistribution land reform under the RADP program in KZN. Future similar research should engage and develop the study not limited to other provinces of South Africa. This will result in more wide-ranging findings comparable across the different land reform beneficiaries in South Africa. Enough resources should be made available for future similar research studies to compare two-time or three-time periods of the land reform support program. This panel data approach will allow for more accurate inferences of the model parameter estimates and better capture heterogeneity among land reform beneficiaries. The findings and recommendations drawn from this study cannot be generalized to the context of South Africa because respondents of farmers from a different province(s) may be different from this study, thus making the output of this study only relevant to selected respective 10 local districts of KZN. However, the study's findings will contribute to the growing understanding of the significance of post-settlement support in land reform – mainly those involved in land redistribution programs.

In the literature review, a section discusses the policies of land reform from land restitution, land tenure, and land redistribution. However, the purpose of the study was not to assess all policies of land reform in South Africa, but only those which support RADP to encourage

sustainable land use and production and agricultural extension services in the context of the farmer support program.

### **1.6. Assumption of the study**

It was assumed that the study participants would be willing to openly share and answer the questions honestly. It is assumed that the sampled participants were knowledgeable about the subject matter.

### **1.7. Definitions of the key terms**

**Beneficiary** – Those who have profited from land reform programs (DRDLR, 2014).

**Development** – Improvements in capacity, infrastructural development, and operational contributions are all supported (DRDLR, 2014).

**Land Reform** – The equitable distribution of land and property rights between land owners and the poor and landless (Sibisi, 2015).

**Post-settlement** – A farmer-support effort based on the need for farmers to enhance their farms and livelihoods (DRDLR, 2014).

**Previously disadvantaged** – Citizens of South Africa who are racially classed as Africans, Coloureds, or Indians (DRDLR, 2014).

**Recapitalisation** – Capital restoration or restructuring of emerging black farmers' agricultural firms that have been historically disadvantaged and under-producing as a result of state land reform initiatives (DRDLR, 2014).

**Socio-economic status** – An individual or a household's position in a social hierarchy is based on their access to wealth, power, and social reputation (Gustafsson *et al.*, 2018). In this study social-economic status refers to the land reform beneficiary's position to access, infrastructure, funding, land, farming inputs, market and marketing.

## **1.8. Structure of the thesis**

In addition to chapter 1 above, this research study has six more chapters. The journal articles in chapter 4 are under review for publication and 5 is published already. As a result, in some of the chapters of this research study, there is some repetition of data, information, and comparison of results. Because of the paper format, each chapter has its own set of references list. The context of the study, the statement of the research question, the study objectives, limitations of the study, assumption of the study, and the definition of terms are all outlined in the introduction chapter. It contains information about the study's relevance.

Chapter 2 presents a literature review on the international perspective of land reform and post-settlement support and a local overview of land reform and post-settlement support. It also covers constraints and opportunities in farmer support services addressing RECAP and Development through mentorship and strategic partnership in the context of land reform. It further covers the implication of agricultural extension programs to land reform projects. It also presents a comprehensive review of literature relating to the socio-economic status of land reform farmers. And further, the details a theoretical framework of RADP.

Chapter 3 details the descriptive of the study area, with the methodology and characteristics of socio-economic status for objective (i) of the study. It assesses the socio-economic status of beneficiaries of land reform farms in the study area. Chapter 4 presents an analysis and discussion of research objective (ii); it assesses factors influencing the participation of farmers in the recapitalization program (RADP). Chapter 5 presents an analysis and discussion of research objective (iii) of the study; to analyze the impact of RADP on the performance of land reform farmers in the study area.

Chapter 6 presents a summary and conclusion and recommendation of the study of the impact of recapitalization and development programs on the performance of land reform farmers. It also presents the recommendation and conclusions of the specific overall objective of the study. It also makes recommendations on the areas of further research to improve the stakeholder engagement in post-settlement programs to strengthen mentorship and strategic partnership for farmer capacity development than Recap.

## References

- Department of Rural Development and Land Reform (DRDLR). (2013). Three Years Review of Recapitalization and Development Program: September 2013. Pretoria: Department of Rural Development and Land reform.
- Department of Rural Development and Land Reform (DRDLR). (2014). Revised Policy for the Recapitalization and Development Program of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.
- Department of Rural Development and Land Reform (DRDLR). (2018). Annual Statistical Report for selected service delivery programs of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.
- Dawood, G. (2018). The National Land Reform Program and Rural Development. Submission for the Division of Revenue. Retrieved August 28, 2018, from <http://www.ffc.co.za/2-uncategorised/144-2017-18-submission-for-the-division-of-revenue>.
- Gustafsson, J. E., Nilsen, T., & Hansen, K. Y. (2018). School characteristics moderating the relation between student socio-economic status and mathematics achievement in grade 8. Evidence from 50 countries in TIMSS 2011. *Studies in Educational Evaluation*, 57, 16-30.
- Hans, P., & Mkhize, B. (2014). From failure to success in South African land reform. *African Journal of Agricultural and Resource Economics*. 9(4): 253-269.
- Kariuki, S. M. (2004). Can negotiated Land Reforms deliver? A case of Kenya's, South Africa's and Zimbabwe's Land Reform policy debates. (Department of Sociology School of Social Sciences University of the Witwatersrand, South Africa).
- Mabuza, N. N. (2016). Socio-economic impact of land reform projects benefiting from the Recapitalization and Development Program in South Africa (Masters Dissertation, University of Pretoria, South Africa).

- Manenzhe, T. J. (2007). Post settlement challenges for land reform beneficiaries: three case studies from Limpopo province (Masters Dissertation, University of the Western Cape, South Africa).
- Martin, A. (2000). *Breaking Ground: Development Aid for Land Reform*. London, UK: Overseas Development Institute.
- Masoka, N. S. (2014). *Post-settlement Land Reform Challenges: The Case of the Department of Agriculture, Rural Development and Land Administration, Mpumalanga Province* (Doctoral dissertation, University of North-West, South Africa).
- Phatudi-Mphahlele, M. (2016). *Analysis of Socio-economic Impact of Comprehensive Agricultural Support Program on Agrarian Reform Farmers of Sedibeng District Municipality in Gauteng Province South Africa* (Masters Dissertation, University of South Africa, South Africa).
- Sibisi, N. (2015). *Agricultural Extension and Post-Settlement Support of Land Reform Beneficiaries in South Africa: The Case of Ixopo in the province of KwaZulu-Natal* (Masters Dissertation, University of Kwazulu-Natal, South Africa).
- The University of the Western Cape. (2016). *Diagnostic Report on Land Reform in South Africa: Commissioned Report for High-Level Panel on the Assessment of Key Legislation and the Acceleration of Fundamental Change, an Initiative of the Parliament of South Africa*. University of the Western Cape, South Africa.



## **CHAPTER 2: LITERATURE REVIEW**

### **2.1. Introduction**

The purpose of the literature review was to examine the research work of the previous researchers and scholars concerning the impact of land reform and post-settlement support on the performance of land reform farmers. Based on the information acquired, gaps and further research were identified. Based on the literature studied, a theoretical framework was proposed to study the impact of the Recapitalization and Development Programme (RADP) as a post-settlement program on the performance of land redistribution, land reform beneficiaries. Chapter 2 begins with the international perspective of Land Reform and post-settlement and is followed by local, specifically South African land reform and post-settlement support for land reform. Thereafter, followed by other farmer's support initiatives in South Africa. It further discusses Post-settlement support on sustainable land reform as well as the challenges of post-settlement support under South Africa land reform. The RADP which leads to the theoretical framework is also discussed in this chapter 2. Additionally, this chapter is inclusive of the conclusion.

International discussion about land reform is understood from different viewpoints, for example, focussing on diverse land types, post-settlement support, and land use, political, economic, and social objectives Adams 1995 (cited in Sibisi, 2015). As noted by Sibisi (2015), an understanding of the sense of land reform is crucial because of the various objectives towards implementing land reform as opposed to the discrepancy of rural power and land distribution. In contrast, Sibisi (2015) found that several authors have defined the term "land reform". Land reform can be defined as the reasonable sharing of land and land rights with the landless and poor. Wächter (2008) described land reform redistribution as an expropriation of land to small farmers from large landholdings (including state and private-owned land). Van Den Brink *et al.* (2006) found that land redistribution has been done across numerous countries by adopting different approaches in which land can be occupied for redistribution to farmers: (1) compulsory acquisition, (2) direct purchases by farmers known to be "community-driven" or "market-assisted" and (3) negotiated transfers.

### **2.2. International Perspective of Land Reform and Post-Settlement Support**

#### **2.2.1. Compulsory acquisition land redistribution:**

Compulsory acquisition as part of the spectrum of land redistribution had been used by numerous countries. In a study by Van Den Brink *et al.* (2006) for the past forty years,

Colombia and the Philippines have adopted a compulsory acquisition approach of land redistribution. However, through this approach little progress was achieved and it was observed to be costly on the legal process. Van Den Brink *et al.* (2006) urged that the judicial process is founded on due process is an important concept of justice-which implies that every farmer has a right to have a day in court. For instance, In Brazil, half of the farm owners went to court to contest the farm's valuation, which slows down and increases the cost of the process. As a result, the compulsory acquisition was found to be, by its very nature, costly and lengthy. Furthermore, given the few expropriation cases that the South African Department of Land Affairs had handled, it was the Department's poor experience that primarily explained why forcible acquisition had not been used on a widespread scale. But countries that ignored the principles of legality and due process, like Zimbabwe, result in a threat to investing in farming (Van Den Brink *et al.*, 2006).

Food and Agriculture Organization (FAO) (2008) stated that, if the compulsory acquisition was to be implemented poorly, it will leave citizens landless and homeless respectively. As a result, the whole process will then lead to stress for landowners who are threatened with dispossession. Even though the compulsory acquisition was for development purposes to benefit the society, but it is somehow troublesome to landowners whose land is compulsorily acquired. Alternatively, it dislocates landowners from their fields, businesses from their neighbourhoods and, families from their homes. However, when interested stakeholders implement compulsory acquisition satisfactorily, society benefits in an equivalent situation. Hence, According to Van Den Brink *et al.* (2006), amending the constitution to enhance the success of the legal process of forcible acquisition can make a significant impact, as evidenced by the experience of various countries. For instance, 580,000 families benefited from 20 million redistributed hectares in Brazil using compulsory acquisition as the main method between 1995 and 2002. Within this period of seven years, the significance of compulsory acquisition was discovered that what had been accomplished in the previous 30 years had been more than doubled.

### **2.2.2. Market-assisted or Community-driven Land redistribution:**

Van Den Brink *et al.* (2006) affirmed that even though there are difficulties associated with compulsory acquisition, but curiosity still finds its way on land reform development on why land cannot be purchased by the future beneficiaries. Beneficiaries of the planned land reform can choose which farm they want to buy, and the farm can be transferred immediately from the

prior landowner to the new owner without ever becoming state property. Ciamarra (2003) found this approach in land reform to be useful and community-driven and, market-assisted.

Market-assisted or community-driven land reform is encouraged by the community as primary stakeholders, local farmers' associations, Non-governmental organizations (NGOs), municipal governments, with private investors contributing a portion of the funding, receipt a combination of loans and grants from the private and public sectors (Ciamarra, 2003). In addition, Ciamarra (2003) stimulated that the proposed beneficiaries (community) are required to come up with a plan for establishing a viable farm. And the funds financed were used to cover the cost of negotiated land from the willing sellers. Van Den Brink *et al.* (2006) strengthened that this process of land redistribution seemed effective and based on community need and a centre of agrarian transformation. Countries like Brazil, Central America, Malawi, and India adopted market-assisted or community-driven land redistribution. The communities, families, or co-operatives (proposed beneficiaries) were provided financial assistance by the public sector in the form of grants or subsidized loans to purchase their desired farm.

Van Den Brink *et al.* (2006) found significantly corresponding evidence between this approach and rapid transfer of land in a cost-effective manner and reported a remarkable improvement. Byamugisha (2014) affirmed that in 2004 Malawi implemented its National Land reform based on Community-based Rural Land Development Projects (CBRLDP) a form of land redistribution that has led to a significant positive impact on the community livelihoods. Simtowe, Mangisoni, and Mendola 2011 (cited in Byamugisha, 2014) acknowledged that communities improved in agricultural productivity, national food security, and consequently in income generation, landholdings, land tenure security. The land reform program benefited 15,142 households, exceeding the 15,000-household target. As a result, every household was awarded more than 1.5 hectares on average to cultivate their choice of crops. Furthermore, not only were the households awarded with hectares but also title deeds for the land they acquired were distributed across over 90% of the beneficiary groups. Hence, their land tenure security was enhanced. However, in Latin America and Europe, land reform has been undertaken in various ways as opposed to Malawi. Accessing land became a complex issue and reaching every household remained problematic but leasing was a solution to land ownership in Europe. Additionally, in Belgium, 71% of the land was leased from the state while 48% was leased in Netherlands (Sibisi, 2015).

Sibisi (2015) argued that in Brazil, for example, the acquired farms were expropriated with compensation and precisely reformed into small family farms and were responsible to trade locally and commercial farms trade internationally. And on Africa, land reform has also been identified as a critical component of the development plan, with state and huge holdings being purchased and divided into smallholder farms. The AU, 2015; World Bank (2013) (cited in Sibisi, 2015) suggested that land redistribution in Africa is crucial for agrarian transformation as it develops rural areas and balances the economy through farming, addresses social inequality, and combats poverty.

South Africa also implemented a market-assisted or community-driven land redistribution program. Ilima/Letsema, CASP, and Land Care program are farmer support/post-settlement that were in place to support with extension services for smallholder farmers to ensure agrarian transformation (Byamugisha, 2014). Additionally, Byamugisha (2014) argued that South Africa in 2011 with the interest of advancing smaller holding farmers to commercialization was expressed as the Department of Agriculture (DoA) planned to develop 50000 commercial farmers in the former homelands, with funds made available under a variety of programs to assist small farmers.: Ilima/Letsema to contribute R 400 million to increase food production, R 1 billion for CASP, and LandCare, a natural resource conservation program, awards R57.7 million.

Martin (2000) still finds that across all countries with regards to land reform, a question still rises in land reform development that why land markets do not award, or readily transfer, land to smaller-scale farmers, given family-sized farms are typically more efficient? Small farmers' capacity to get land through a loan is limited in the absence of household savings, and mortgaged land cannot be used as security to access funds for farm operations. Weideman (2003) contributed that the development of small-scale commercial agriculture in the community-based holdings and households farming is constrained on development not limited to access to capital, more available land, desired agricultural machinery, and infrastructure, inability to access cheap credit, accessible markets, and transportation. As a result, Adams & Howell (2001) argued that investors and interest stakeholders in land reform question that should the government supply tiny plots of land to a large number of disadvantaged people or disperse it in a bigger size of hectares to black commercial farmers? In addition, Martin (2000) criticized that the land market shows no interest in supporting transfers of land to smaller and

poorer farmers and encouraged grants for land purchase and farm operations for small-scale farmers are also available.

### **2.2.3. Negotiated transfers land redistribution:**

Interested stakeholders in land reform in Southern Africa reworked land reform in light of the recent land crisis in the region, using a variety of land redistribution methodologies from other nations. As a result, a negotiated transfer land redistribution program was launched, based on four questions: What has been the region's experience with land redistribution over the last ten years or so? What effect has it had on people's livelihoods? How do you think redistribution programs will evolve in the future? What role may donors have in the process? (Adams & Howell, 2001).

According to Byamugisha (2014), land reform is crucial for South Africa's social and economic growth since it tackles both past injustices and modern concerns of poverty and inequality. Given the critical role of agriculture in economic growth, poverty reduction, and employment, Weideman (2003) noted that land reform must result in increased (or at least stable) agricultural output levels.

As a result, Kariuki (2004) stresses that the land distribution must yield the focus on the “progressive farmer” i.e. in land reform programs, a large-scale commercial farmer has been a key emphasis. This approach of establishing commercial indigenous farmers was once observed in Chile, where the government initiated land reform in 1967 with the primary goal of increasing farm output and agricultural productivity, and also pursued policies aimed at increasing farm output (Binswanger-Mkhize, 2014; Tilley 2008; Janvry & Sadoulet, 2002; Heit, 2003).

Kariuki (2004) affirmed that nevertheless the different historical periods and experiences on land reform, however, in South Africa, Kenya, and Zimbabwe, there has been a need to create a layer of "black commercial farmers." In Zimbabwe, the need became apparent in the late 1980s, as demand mounted to liberalize all sectors of the economy and to transform the community and household agriculture sector into a globally competitive industry. Martin (2000) revealed that a paradigm shift away from the initial poverty-reduction objective of land restitution and toward compulsory land redistribution for 'productive' purpose farms was being compulsorily purchased and handed to politicians, military personnel, and bureaucrats, and

used as a pillar to bolster political support, drew widespread criticism in Zimbabwe. However, stakeholders suggested that intended beneficiaries be supplied with infrastructure and settlement assistance, notably in the form of 'starter kits.'

The large-scale farmer model of land reform is a highly efficient model that is critical to the success of land reform and contributes significantly to agricultural growth in several countries. From extremely small and labour-intensive enterprises to extremely big, mechanized businesses, global experience indicates that this paradigm works. Hans & Mkhize (2014) argued that it is also the model for South Africa's large-scale commercial agricultural industry, which has remained a high-performing sector for the past 20 years despite the elimination of all programs and regulations that provided it with particular privileges. In addition, the land would either be owned by the private operator or leased to a private or corporate operator by the government, with credit conditional on a direct long-term and transferable lease. The beneficiary should be selected before the land is purchased, and basic plans for its operation should be submitted.

Van Den Brink *et al.* (2006) emphasized that larger farmers are more likely to be able to obtain a lower-cost loan. This helps them to adapt swiftly to market needs, particularly when the market needs agricultural goods with large capital expenditures. Small farmers, on the other hand, are confined when the market requires huge numbers of standard quality to be provided at a set price. As a result, integrating such production on a big farm may be easier, even if it requires a huge human resource.

Khan (2007) that land expropriation is ineffective in the absence of proper post-settlement assistance. According to Hans & Mkhize (2014), the issue is that land reform is underperforming in many countries due to a lack of resources and decreased productivity of farmer assistance and post-settlement services. Different parties contribute land and post-settlement support all around the world, making coordination problematic. As previously stated, the stakeholder arrangements for providing proposed land reform farmers with farmer support services are mostly dysfunctional, and the services supplied are neither adequate nor suitable (Byamugisha, 2014). Sibisi (2015) highlighted the absence of stakeholder coordination and the extent of post-settlement support that must be undertaken, resulting in inadequate after-care assistance. Poor post-settlement support has proved to be a barrier to success both locally and globally.

Hans & Mkhize (2014) argued that in South Africa, the purchase of land was allocated to the DRDLR and farmer support/ post-settlement support to the Departments of Agriculture, Forestry and Fisheries (DAFF) and a limited number of NGOs, yet research reveals that they only reach a fraction of initiatives, encouraged by Byamugisha (2014). It, therefore, is not surprising that poor stakeholder coordination on the objective of building prosperous farms has been greatly diluted as a result of existing farmer support. According to Sibisi (2015), extension officers in Brazil are expected to provide extension services for sustainable land use and management, business development, and farmer support planning. While land use remains a serious issue that impacts the rural economy, extension agents frequently play a role in land price bargaining and immediate re-acquisition.

Martin (2000) strengthened that the amount of farmer support required by land redistribution farm participants is significantly depending on the changing agricultural system. Small farms with poor beneficiaries, according to Hans & Mkhize (2014), require extension services like capacity building, market-marketing, and start-up and investment awards, which they can augment with finance. Former sharecroppers on landlord estates in the Philippines' rice bowl, Luzon, needed less farmer aid than co-ops that handed over rubber plantations on Mindanao intending to subdivide them into family farms, according to Martin (2000). Again, there is a lot of variance in the post-settlement services that land reform beneficiaries require, as well as the prices that investors face in South Africa. Additionally, Hans & Mkhize (2014) recommended that if instead, the land transfer is to commercial farms, beneficiaries, they are should be obligated to argue the jump-start of the farm and finance maintain the operational costs, Otherwise, such a paradigm becomes an example of elite enslavement.

Sibisi (2015) observed that in most cases land reform farms have not achieved the desired outputs particularly in Latin America and Southern Africa because the subject has received little attention of extension services inclusive to training and human capacity development. Land reform farmers in Colombia in 1994 were unable to utilize their land due to a lack of farmer assistance such as extension services, infrastructure, and social services (Binswanger-Mkhize, 2014; Kariuki, 2009; Tilley, 2008; Wiedeman, 2004 & DFID, 2002).

Kariuki (2004) suggested that the lack of farmer-support services and an adversely liberalized agricultural sector in Zimbabwe in the 1980s failed to inspire a major and viable rise of black commercial progressive farmers. As a result, in South Africa, the land reform strategy was

altered in 2000 to include the creation of a class of black land reform commercial farmers, which was necessary given the demographic inequities that exist within the agricultural sector along with ownership patterns. However, due to several factors, none of these countries has been able to produce a significant number of black commercial farmers. Not limited to unfriendly Agri-economic framework operated which gives no to little support to farmers operating to commercial scale.

Hans & Mkhize (2014) argued that beneficiary participation in all aspects of the land reform initiatives and farmer post-settlement program is limited. The majority of projects and investment resources are administered by DRDLR and DAFF, and investments are carried out by contractors, with minimal involvement and accountability for land reform farmers. The absence of involvement by beneficiaries in the project cycle must be regarded as a major challenge of land reform's inadequate quantitative and qualitative achievements. According to subjective evidence, where new farmers are effectively created, it typically depends on personal interactions between proposed land reform farmers and extension workers performing extension services (Byamugisha, 2014). And the establishment of relationships of trust, involving frequent farm visits and advice that is appropriate to the capacity of knowledge and skills and resources of the proposed farmers concerned.

Martin (2000) stated that the World Bank recommends that land reform beneficiaries should be encouraged to have command and power on stakeholder arrangement in the lifetime of the project from project identification to post-settlement support. Land reform beneficiaries in Brazil, Malawi, and other countries plan their farm development, manage and distribute financial resources for investments and inputs, and carry out these activities on their own or with the assistance of other parties. Beneficiaries should not rely just on the state for post-settlement support services, according to Byamugisha (2014), but should be able to obtain services from a variety of public and private farmer support enablers. This role and responsibility distribution also support government human resources have less of a capacity problem as a result the projects are being implemented quickly, allowing farmers to begin producing in the first season, and there are fewer resource leakages and elite capture than in South Africa, which has been criticized (Hans & Mkhize, 2014).



## 2.3.South Africa Land Reform and Post-Settlement Support

### 2.3.1. Land Reform in South Africa

The Natives Land Act (No. 27 of 1913) mandated that just roughly 7% of arable land be allocated to Africans, while the more fertile land be reserved for Europeans. For the first time since the Union in 1910, this statute included geographic segregation in legislation (SAHO, 2019). According to Lucille (2013), the Act established a land tenure regime that denied the majority of South Africans the right to own property. It displaced millions of black South Africans from fertile farms across the nation, taking away their livestock, houses, crops, and even land. With this in mind, land ownership has long been a source of contention in South Africa. Our history of invasion and dispossession forced removals, and racially unequal land allocation has left us with a complicated and painful heritage (Department of Land Affairs, 2010).

Dawood (2018) revealed that South Africa land reform was initiated closely after the 1994 election, the 1996 Constitution of post-apartheid South Africa serves as the backdrop for all rural development and land reform programs. The most appropriate sections of the Constitution are 25, 26, 27, and 36 intending to address the inequality of land possession and use as a result of the Native Act of 1913 mentioned above (DRDLR, 2014). Hans & Mkhize (2014) claimed that the constitution decrees three mainland reform programs: Restitution, tenure reform, and redistribution are the three initiatives. The similarities include expropriation, negotiated acquisition, and market purchase.

**Table 1: Key statistics for redistribution and restitution**

<b>Land reform Program</b>	<b>Acquired land (ha)</b>			
	<b>2017/2018</b>	<b>% of 2017/2018</b>	<b>1994/1995 until 31 March 2018</b>	<b>% from 1994/1995 until 31 March 2018</b>
Land Restitution	63 753,86	41%	3 483 269,02	42%
Land Redistribution	92 032,35	59%	4 847 596,03	58%
<b>Total</b>	<b>155 786,21</b>	<b>100%</b>	<b>8 330 865,72</b>	<b>100.0</b>

Modified from source: DRDLR, (2018)

Table 1 above illustrates the progress regarding the Land Reform under the Land Restitution and Land Redistribution program is targeting equity of agricultural land ownership in South Africa from 1994 to 2018. The table shows that the DRDLR has managed to acquire in total 8.3 million hectares from 82 million hectares of agricultural land controlled by white people. These 8.3 million hectares is a result of 3.5 million hectares which was acquired under Land Redistribution and 4.8 million hectares acquired under Land Restitution from 1994 (DRDLR, 2018).

### **A. Land Restitution**

Land restitution, according to Martin (2000), strives to return land or compensate residents who have been displaced by war or what is perceived to be wrongful expropriation by the state in the past. Martin (2000), claimed that land restitution has been carried out in Eastern European countries such as the Czech Republic, Bulgaria, Romania, and Hungary, as well as in the former Soviet Union countries of Estonia and South Africa, to redress apartheid's injustices and substitute national reconciliation and stability.

Viresh (2004) stated that in South Africa, land restitution is about addressing the restitution of individuals or communities who were previously unfairly relocated from their land as a result Native Land Act of 1913. By the deadline in 1998, almost 80 000 claims had been filed but DRDLR has managed to settle 62 475 claims of a mentioned total of 3.5 million hectares restored by the DRDLR following the Restitution of Land Rights Act of 1994. The restored land is significant in agricultural and economic development. Land Restitution, on the other hand, was intended to be a restricted and short-term process, aimed to address circumstances where South Africans were harmed by the Native Land Act of 1913. There are still more claims to be resolved, with a total cost estimate of R27 billion. Completing reparations is a top goal, although there is currently no end in sight (Beinart & Delius, 2019).

The University of the Western Cape (2016), observed that more claims by 2016 when the Act was knocked down by the Constitutional Court and required amendments if it was to be reinstated, 160,000 petitions had been filed. But many of them overlap with old order claims. A conclusion made with 160 00 claims lodged was that it will take 200 years to finalize and would cost R600 billion and many are for cash compensation leading land to be back to white ownership (Beinart & Delius, 2019). The reason being is that compensation has also been close to market value for land acquired through Land Restitution.

**Table 2: Summary statistics of restitution as per the number of claims settled in the 2017/2018 financial year**

Province	N- Projects	Claims settled	N- Households	N- Beneficiaries	Female headed HHs	People with disabilities	Hectares	Land Cost	Financial Compensation
EC	64	65	525	6237	197	0	0	0	R 119 737 376,23
FS	0	-	-	-	-	-	-	-	-
GP	10	18	251	794	145	2	0	0	R 11 495 331,10
KZN	148	159	1890	7154	849	55	3656,515	R 29 795 000,00	R 426 535 925,04
LP	278	289	1089	3893	722	0	765,6811	R 3 950 000,00	R 241 701 977,95
MP	35	35	103	1353	13	0	1010,4124	R 15 300 000,00	R 24 520 268,41
NC	2	2	31	659	10	0	1370,4527	0	R 3 415 113,67
NW	7	48	3601	10630	2197	0	17663,0445	0	R 31 074 701,26
WC	231	234	245	1226	101	0	9,9744	R 19 100,00	R 16 474 489,42
<b>TOTAL</b>	<b>775</b>	<b>850</b>	<b>7 735</b>	<b>31 946</b>	<b>4 234</b>	<b>57</b>	<b>24 476,08</b>	<b>R 49 064 100,00</b>	<b>R 874 955 183,08</b>

Table 2 above shows that the South African government spent R49,0 million on land cost with a sum of financial compensation is R874, 9 million and all these expenditures took place on 24 476.08 hectares. Therefore, this has a bad consequence as the mandate of land reform is to bring justice and equity on land ownership since 5% spent on land restoration with (95%) is spent on financial compensation as many people opted for financial compensation and the land ownership will remain in the hands of the previous owners. It also indicates that 7 735 households made of 31 946 beneficiaries with 4 234 females headed houses and 57 individuals with disabilities benefited from 850 claims (DRDLR, 2018).

This slow progress excavates the insecurity and the hesitancy to invest in long-term farming. Hence, effective farmer support services in land Restitution remains a major issue. Numerous projects to reclaim land are ineffective; many have collapsed completely which resulted from an increase in poverty and fewer jobs created, argued by Beinart & Delius (2019). A poor record of land restitution projects in terms of land production and sustainable livelihood had prompted concerns regarding the number of claims still to be settled that will lead to a massive decline of the agricultural industry and a decrease in job opportunities. These concerns have made all stakeholders in land reform inclusive of investors and landowners about the uncertainty in land restitution where high-value farming mining land is at stake. Nevertheless, the Commission has recommended that the claimants as by the settlement conditions get the land, to lease out through joint venture contact with strategic partners (University of the Western Cape, 2016).

## **B. Land Tenure**

The reform of land tenure is aimed at ensuring and protecting farm labour and dwellers whose tenure is insecure as a result of the Native Act addresses the insecurity of informal land rights that were established by the Native Land Act of 1913 (Hull & Whittal, 2018).

- **Tenure reform for farm workers and dwellers**

According to the University of the Western Cape (2006), most agricultural labourers live on the farms where they work, while some individuals live on the farms independently for grazing and cultivation upon the range of tenure agreements. Farm dwellers as opposed to farmworkers defined as a group of people living on farms without employment. Tenure reform remains a challenging program, with farm dwellers and farmworkers continuing to be susceptible to eviction

To protect tenants both farm dwellers and workers, the Extension of Security of Tenure Act (ESTA) 62 of 1997 or ESTA was constituted. The Act is relevant to citizens living on agricultural land and with the agreement of the farm owner. Should it happen that the occupier revokes the consent? To carry out an eviction, the landowner must get a court order. ESTA, on the other hand, favours the occupation and prohibits the eviction of any occupation unless it is under court order (University of the Western Cape, 2016).

The land reform Labour Tenants Act (LTA) 3 of 1996 regulates tenancy conditions for citizens who historically were employed on farms in return to have access to land use for farming. It encourages their rights to land use (section 3-4), and instructing the degree of land use and through what procedures these rights may be legally terminated (section 5-15), and supports labour tenants to get ownership of the land they use (section 16-28) hence on the application or to claim-based process which favours land restitution procedures and somewhat ambiguous treatments of ESTA (University of the Western Cape, 2016).

### **The four main principles of ESTA:**

- Firstly, ESTA describes the tenure rights of tenants. Supported the idea that renters live with the owner's permission, and that renters are "ESTA occupiers" with legal authorization to be on the property. Water, sanitation, and power are among the services covered by ESTA Further, tenants are permitted to stay with their families and appreciate their culture in their tenancy (University of the Western Cape, 2016). As a

result, a 2001 amendment to ESTA provided a clear right for tenants to be buried on the farms where they resided, per their cultural or religious beliefs, and to bury their loved ones there, provided this was established practice on the farm (RSA 2001: Sections 6 and 7). Even if they no longer live on the farm, families may visit, and upkeep loved ones' graves. And tenants over the age of 60 years and those who are ill or disabled no longer working, who have been staying for more than 10 years are known as long-term occupiers and they can be evicted provided that there is an alternative accommodation for them by their choice or they have violated one of their consent of tenure (University of the Western Cape, 2016).

- Secondly, ESTA holds obligations on occupiers. Occupants must adhere to the terms of their tenancy. This means that if a tenant violates the terms of their lease in any way, their lease will be terminated via eviction. Violations include harming other tenants or causing property damage, as well as assisting others in constructing structures on the farm without the owner's permission (University of the Western Cape, 2016).
- Thirdly, ESTA specifies how and when a tenant may be expelled. Eviction is only possible with the approval of a court-approved exclusion order. As a result, any other method of eviction is prohibited. If the owner wants an eviction order, he or she must establish that the tenant's contract has been cancelled (University of the Western Cape, 2016). If a tenant fails to honour a complaint of tenure, or if the owner can demonstrate that the exclusion is required for the farm's operations, consent may be revoked. However, owners can terminate on resignation or dislodge of rights of dwellers when they are sold as the result of the employment relationship. In addition, the residential rights may be ended for any other reason supported that termination is equitable or just. As a result, while examining an eviction case, the court must consider all supporting circumstances, including the potential hardship to the tenants whether they are evicted or the occupier continues (University of the Western Cape, 2016).
- Fourthly, ESTA increases the chances of renters obtaining long-term land rights. Tenants can apply for grants to purchase the land, but they are not guaranteed. Farm residents, on the other hand, can utilize the grants to better their rights where they reside by subdividing and purchasing a section of land with the owner's permission, or by requesting long-term tenure security by purchasing alternative property off the farm

(University of the Western Cape, 2016). In motion, SLAG was responsible for this activity, LRAD and Settlement Planning Land Acquisition Grant (SPLAG) were established at considerably higher levels, with the original amount set at R15 000 and then increased to R16 000 per family. Courts may also permit the provision of alternative housing for evicted residents, which requires the authorization of local governments (University of the Western Cape, 2016).

Farm dwellers have received increased attention from policymakers in terms of labour rights, but their access to socio-economic rights has been limited in terms of public services and infrastructure (water and sanitation, education, health, housing, legal authority, electricity, and transport). As a result, persons who live on agricultural land are forced to live in precarious situations, cut off from public services. The question of how to give government services to vulnerable persons living on privately held agricultural land has been left unanswered in policy, and one clear example is the lack of coordination between municipalities and ministries that provide assistance and services to farm residents (University of the Western Cape, 2016).

- **Communal tenure reform**

The University of the Western Cape (2016) claimed before 1994, South African law did not adequately recognize rights of livelihood and use in communal rural regions, with only limited rights recognized in the Permission to Occupy (PTO) certificate. The DRDLR program encourages communal reform by granting land ownership to local leaders such as traditional councils, with the possibility of Communal Property Associations (CPAs) as an alternative. Alternatively, obtaining community rights to residential and agricultural land usage is an option (University of the Western Cape, 2016). However, in this manner problems are experienced by most previous disadvantaged groups of South Africa who acquired land before new South Africa and as they were not allowed to hold title deeds. Hence, some have lodged restitution claims and others still have access to land but the title deeds still reflect the Minister as trustee-owner (University of the Western Cape, 2016).

Communal tenure breakdown is another key problem identified in the White Paper as a result of poor administrative support and legal recognition. This has been accompanied by abuse of power and corruption in traditional councils. Needed service deliveries are therefore limited by the lack of clarity on land rights and poor coordination between traditional leaders and local government bodies over land allocation for development projects. Discrimination against women and youth in land allocation is a particular problem; only men were awarded PTOs.

This makes less powerful groups vulnerable to the insecurity of tenure. These challenges are intensified by the exclusion of women from decision-making structures. Transparency, accountability, and power relations and within land regulation contexts are consequently key problems for effective tenure reform in Africa (University of the Western Cape, 2016).

In the current draft of the government's Communal Land Tenure Bill, communally owned land will be held in title deed by a supremacy structure (either a CPAs or a traditional council) and earmarked for co-operative and individual enterprise and industrial sector activities, such as infrastructure, agricultural development, tourist industry, mining, and manufacturing. Nonetheless, the supreme structure is stated to be the "owner of the entire cadastral unit." External strategic partners, investors, and investment and development enterprises are empowered to enter into business agreements with governance frameworks. However, critics have claimed that this model to communal tenure reform risks allowing the unaccountable traditional authority to consent to economic arrangements that enrich the privileged while providing little benefit to ordinary community members, as is regularly about mining (University of the Western Cape, 2016).

The issues of communal reform in terms of title deeds and insufficient governance mechanisms led to the creation of the Communal Land Rights Act (CLARA) in 2004, which was adopted, even though its implementation was never started due to a court battle that began in 2005. The Act proposes that the state transfer ownership to a community, which would be required to register its team of contractors before being recognized as a legal body capable of retaining property (University of the Western Cape, 2016). Households would also receive a collective land rights document, which could be converted to a title of ownership if the community as a whole agreed. Before transferring ownership of 'community' land, the boundaries had to be mapped and recorded, and a rights inquiry was held to determine the nature and extent of existing rights and interests in the area (University of the Western Cape, 2016).

In 2005, a constitutional challenge against CLARA was filed, claiming that its adoption would result in the governorship of land being given to traditional councils, resulting in the insecurity of current tenants and users' land rights. As previously stated, communal tenure reform is a constitutional requirement in South Africa. The White Paper lays out a strategy for addressing the inherent obstacles and giving substance to the constitutional right to tenure security (University of the Western Cape, 2016).

The Traditional Leadership and Governance Framework Act, CLARA, the Traditional Courts Bill, and the Traditional Affairs Bill, all of which construct apartheid forms of chiefly power, signal this threat. As a result of these threats, the Communal Land Tenure Bill of 2015 was passed, allowing communal land, including Ingonyama Trust land, to be transferred from the government to local communities and residents. It enables the registration of ownership titles, with governing structures owning the majority of the land and citizens or families owning 'subdivided portions. Hence, all new distributions to individuals or households must be documented in the Deeds Registry (University of the Western Cape, 2016).

The communal land administration and general management; the distribution of subdivided segments of communal land by traditional leaders; the holding accountable of communal land registration; and the land use by the entire community and households must be accepted by a minimum of 60% of households. The bill allows for the formation of 'households forums,' which will consist of 20-30 community members, with at least one-third of them being women, to oversee the traditional authorities' administration of land rights (University of the Western Cape, 2016).

### **C. Land Redistribution**

According to Martin (2000), redistributive reform entails the decentralization of land from the rich to achieve a more equitable distribution of property and income, as well as a more equal allocation of power. Ntsebenza & Hall (2007) argued that the land redistribution program aims to address equality of land access and use allowing previous disadvantaged individuals or groups to utilize the land in a form of a lease. However, one to access land through a redistribution program is not a right, but the department must take reasonable precautions within the confines of its assets to drive procedures to encourage equitable land ownership, claimed by the University of the Western Cape (2016). Therefore, a willing buyer, willing seller approach was adopted to foster effective land access for land redistribution, between 1994 and 2014/15, the land redistribution initiative acquired roughly 5 million hectares of land, averaging 238 000 hectares each year (University of the Western Cape, 2016).

DRDLR (2018) finds that the main challenge with regards to the administration on land redistribution is that the DRDLR does not have correct data concerning the number of the beneficiary still occupying farms after project hand-over from the acquisition. However, table



3 below assist in illustrating the number of beneficiaries benefitted, cost occurred at a given period.

Table 3 below shows the number of hectares acquired for redistribution, number of projects established, number of proposed beneficiaries, and number of households supported, and the land cost per province with an average cost per hectare. The showed table is for land redistribution for 2017/18. In total, the DRDLR has managed to acquire 92 032.35 hectares for 478 households benefiting 1 348 beneficiaries. 75 projects were established and cost R512.0 million to acquire the land at an average price per hectare of R5, 563.86 (DRDLR, 2018).

**Table 3: Number of projects, households and beneficiaries, hectares redistributed, and land cost for 2017/2018**

Province	N-Projects	N-Households	N-Beneficiaries	Hectares	Land Cost	Average cost per hectare
EC	4	25	31	1 314,69	R 21 044 000,00	R 16 006,77
FS	10	23	306	11 735,83	R 97 579 394,00	R 8 314,66
GP	6	2	114	1 256,14	R 23 040 935,00	R 18 342,58
KZN	20	358	736	13 770,03	R 134 494 665,00	R 9 767,20
LP	8	12	16	7 337,09	R 15 115 000,00	R 2 060,08
MP	9	16	85	6 704,34	R 65 116 000,00	R 9 712,52
NC	7	10	12	34 037,19	R 79 750 000,00	R 2 343,03
NW	10	32	39	15 017,18	R 61 115 000,01	R 4 069,67
WC	1	0	9	859,87	R 14 800 000,00	R 17 212,00
<b>TOTAL</b>	<b>75</b>	<b>478</b>	<b>1 348</b>	<b>92 032,35</b>	<b>R 512 054 994,01</b>	<b>R 5 563,86</b>

Source: DRDLR, (2018).

### **2.3.2. Post-settlement support for Land Reform**

Sibisi (2015) proposed that if the land is transferred, it must be commercially viable. However, Lubambo, 2011; Greenberg, 2010 (cited in Sibisi, 2015) argues that despite being designated for agricultural cultivation, the majority of the land transferred is unproductive. “Land reform in South Africa is a priority program with efficient productivity as its outcome” In the process, post-transfer assistance becomes the most important aspect in achieving this goal, claimed by Terblanché (2008).

Post-Settlement support is well known to be post-transfer support given to farmers (Rungasamy, 2011). Masoka (2014) defines post-settlement support in the context of South African land reform as extension services provided to farmers after they have obtained land to

farm sustainably. Land reform beneficiaries' socio-economic growth cannot be achieved just through land access. According to Mabuza (2016), land reform farmers need access to training, education, financial assistance, market access, and the creation of physical infrastructure.

The DRDLR is accountable for providing post-settlement support services to the land reform farmers in terms of legislative and constitutional compulsions (Phatudi-Mphahlele, 2016). In support of the land redistribution program, the government initiated post-settlement programs to support the farm during and after the purchase for land acquisition and farm development (Kirsten, 2017). These 6 post-settlements are namely; (A) Recapitalization and Development Program, (B) PLAS program, (C) CASP, (D) LRAD, (E) CRDP and (F) SLAG (DRDLR, 2013). These programs were implemented to support land reform but there were criticized.

#### **A. Settlement and Land Acquisition Grant (SLAG)**

SLAG was a settlement support program mainly for the Land Restitution program, described by the University of the Western Cape (2016). SLAG aims to support the acquisition of land from 1995-2000. The SLAG was criticized because the funding was limited and less the sale price of the land hence SLAG did not cover and link the acquisition of land to support and the access to resources that will help the proposed land reform beneficiary to utilize the land to its potential and in a sustainable manner (Sotsha *et al.*, 2017).

#### **B. Land Redistribution for Agricultural Development (LRAD)**

In 2001, LRAD was launched. It was implemented after SLAG with better financial support as compared to SLAG however, it was also criticized since the program required that beneficiaries must make their contribution to getting the funding or support (Mabuza, 2016).

#### **C. Comprehensive Agricultural Support Program (CASP)**

An additional form of support came in the form of the CASP to develop targeted beneficiaries, individuals, or rural areas through agriculture. The development is well known as agrarian transformation (Phatudi-Mphahlele, 2016). Parliamentary Monitoring Group (PMG), (2019a) argued that the program is delivered through 6 functions; (1) Financial services through Macro-Agricultural Financial Institutions of South Africa (MAFISA), (2) Training and capacity building, (3) Technical and advisory services, (4) On and off-farm infrastructure support, (5) Market and business development support and (6) Knowledge and information management.

CASP was also criticized because beneficiaries were supported with tangible assets but had no skills and knowledge on how to use assets and manage the farms (Sotsha *et al.*, 2017).

#### **D. Proactive Land Acquisition Strategy (PLAS)**

PLAS, according to Malatji & Phango (2018), is one of the government's interventions through the land redistribution program, which is intended to help African emerging farmers gain important farming skills. The government purchases available land before recipients is chosen, according to the PLAS plan.

#### **E. Comprehensive Rural Development Plan (CRDP)**

According to Sibisi (2015), the DRDLR started the CRDP in 2009 intending to improve rural livelihoods by maximizing asset usage and management and promoting equitable, vibrant, and sustainable rural lives. Sibisi (2015) strengthened that CRDP further intends to improve rural lives while simultaneously speeding up agricultural land redistribution and addressing demographic imbalances caused by apartheid policies. DRDLR, (2013) finds the CRDP to be a three-pronged framework for agricultural transformation, rural development, and land reform improvement. The framework places a strong emphasis on skill development and employment creation.

Sibisi (2015) contended that the initiation of CRDP by the government has made positive progress in rural communities, and the groundwork for the development of a range of policies to strengthen the Relative Rights of People Working on the Land Policy Proposal (2013) was also laid DRDLR (2015b) and Recapitalization and Development Policy (2013). DRDLR, 2015c (cited in Sibisi, 2015) claimed that in terms of improving rural livelihoods and skills development, the CRDP has resulted in the creation of 15 336 jobs related to skills and infrastructure development, the training of 3 819 people, and the selection of 464 key Council of Stakeholders (COS) members to serve as local members.

#### **F. Recapitalization and Development Program (RADP)**

After CASP, RADP was launched to revive underperforming farms by providing capital, machinery, and infrastructure, as well as access to mentorship to learn experience and competencies on how to operate the agricultural effectively. DRDLR (2013) affirmed that the initiative also aims to boost farm income, improve food security, and improve participants' quality of life. RADP was also discovered in 2013 to replace all previous types of land reform

support, including settlement support funds for people who were acquired land through restitution (University of the Western Cape, 2016).

Sibisi (2015) argued that the RADP is the best program because it places a greater emphasis on total farm development than on farmer capacity building. Maka & Aliber, (2019) argued that one of the RADP's most distinguishing features is that it connects potential farmers with mentors or strategic partners, which is a prerequisite for receiving financial assistance. Phatudi-Mphahlele (2016) reaffirmed that the aforementioned linkage of stakeholders is to invest in infrastructure and provide mentorship and strategic partners to ensure the farmer's and farm's growth and development. However, the associated criticisms include some of the mentioned affect the farmers' success. On the other hand, additional issues are raised by farmers themselves. As a result, after providing the support, the government and private groups are limited in their power (Phatudi-Mphahlele, 2016).

### **2.3.3. Other Farmer Support Initiatives in South Africa**

Land reform is an important part of South Africa's social and economic growth since it addresses both historical injustice and the country's poverty problem (Mabuza, 2016). The issue remains that do land reform farmers have access to extension services, capacity building, access to credit, infrastructure, and marketing & market to help them better their socioeconomic situation and sustainably manage land reform farms. Pascalina (2001) suggested that the National Development Agency (NDA) has listed numerous farmer support for beneficiaries to improve their livelihoods. Amongst these programs are (1) MAFISA, (2) AgriBEE, (3) Ilima Letsema, and (4) Extension.

#### **A. MAFISA**

MAFISA is a pillar of CASP that provides access to soft loans for farmers to improve production and machinery & infrastructural development, particularly those who had access to land through Land Restitution, Land Tenure, and Land Redistribution (NDA, 2019). The Western Cape Government, (2019) recommended that for farmers to get financial assistance their farm turn-over shall not exceed R1 000 000.00, and family gross monthly non-farm income must not exceed R20 000.00. Up to R500 000.00 loan can be awarded per client, supported by the Department of Agriculture, Forestry and Fisheries (DAFF), (2019a). PMG, (2019a) argued that MAFISA services were accessed through retail intermediaries accredited by DAFF for MAFISA. However, the services were not limited to farmers, it also aimed to

improve capacity building for member-based retail intermediaries. Financial institutions mainly; Land Bank, are the ones held responsible for funds disbursement on behalf of DAFF.

The Department of Forestry and Fisheries (DAFF), (2018a) claimed that MAFISA targeted 620 projects across South Africa. However, a total of 230 beneficiaries received financial support resulting in the underachievement of 390 beneficiaries because of the MAFISA program's discontinuation to provide financial supports to farmers (ECRDA, 2015). However, Cornerstone Economic Research, (2014) stated when the MAFISA program was established, R1 billion was allocated. MAFISA, on the other hand, spent R2.8 billion on farmer support in 2009/10, over three times the entire value of MAFISA. MAFISA faced many challenges even though the program provided a favourable incentive for new entrants into farming, the lack of on-site technical help and mentorship added to the program's issues. Funds were misused and retail intermediaries had administration challenges which made it difficult to distribute the funds timeously. Therefore, MAFISA was depleted criticized (Mthombeni *et al.*, 2019).

## **B. AgriBEE**

AgriBEE is a support program initiated by the DAFF to attract more Black South Africans into the agricultural sector. AgriBEE is a core function of Broad-based Black Economic Empowerment (B-BBEE) (Standard Bank, 2019). AgriBEE's mandate is to support B-BBEE in the agricultural sector by putting in place strategies to incorporate Black South Africans at all levels of agricultural activity and enterprise (DAFF, 2017). The following is a list of AgriBEE's goals (TFM Magazine, 2019) ;

- a. Encouraging equitable access and involvement of previous disadvantage South Africans in the whole agricultural value chain;
- b. Promoting racial equality in land and business ownership, governance, technical professions, and administration of new and existing agricultural enterprises;
- c. Exposing the full entrepreneurial mindset and talents of formerly disadvantaged South Africans in the sector;
- d. Enabling structural improvements in agricultural support systems and development activities to assist previously disadvantaged South Africans in running, starting, participating in, and managing agribusiness;
- e. In the sector, socially enriching and restoring the dignity of formerly disadvantaged South Africans;

- f. Increase access to economic growth, skill development, and infrastructure for people, communities, co-operatives, and other collective companies that own and operate current and new farm enterprises;
- g. Give exposure to secondary organizations of previously disadvantaged South Africans to own and manage new and existing agribusiness operations, allowing them more access to economic growth, skill development, and technology;
- h. Providing chances for rural and local communities to participate in the agriculture sector;
- i. The improvement of livelihoods and professional environment for farmworkers; and
- j. Strengthen land tenure security and priority through encouraging more fixed forms of tenure, with a focus on the transfer of land ownership for labourers and inhabitants.

Institute of Accounting & Commerce (IAC) (2017) proposed that applicants to benefit from AgriBEE must comply with (1) Ownership, (2) Management Control, (3) Skills Development, (4) Enterprise and Supplier Development, and (5) Socio-Economic Development are all measured by B-BBEE Codes. And the requirements of AgriBEE are that (1) an applicant who is incorporated in South Africa with valid constitutional documents, (2) Applicant must be Black as defined by B-BBEE Act No 53 of 2003 as amended Act 46 of 2013, (3) applicant must either be able to qualify as an EME or a QSE in line with applicable Sector Codes, (4) the applicant must be actively working in the business or sector in which investment is desired for at least three years (DAFF, 2019b)

Between 2014 and 2018 there had been a gradual increase in the amount allocated to the AgriBEE fund from R33 347 00.00 to R40 166 000.00 however AgriBEE had financially assisted 7145 smallholder farmers in the period of 2014-2018, the result indicated that the amount transferred to Land Bank from DAFF is not proportional to the amount disbursed by Land Bank to farmers (Mthombeni *et al.*, 2019). AgriBEE faced challenges even though the program offered a positive incentive to involve commercial farmers with small and emerging farmers to help one another as per B-BBEE standard codes, but funds are misused, and retail intermediary had administration challenges which made it difficult to distribute the funds timeously (Mthombeni *et al.*, 2019).

### **C. Ilima Letsema**

Ilima Letsema's mission is to help vulnerable African rural communities boost their agricultural productivity (PMG, 2017). It seeks to ensure family food security by providing production inputs as well as some mechanization and infrastructure (Africa Centre for biodiversity, 2018). To benefit from Ilima Letsema's support must be a South African citizen engaged in an agrarian reform project (DAFF, 2015).

Farmer assistance is based on an application procedure that includes business proposals for projects that must be approved by local DAFF offices (Africa Centre for biodiversity, 2018). As from 2008/09 to 2016/17 R 3 054 788 000.00 was spent to support 1 043 948 beneficiaries (DAFF, 2017b). R522 million was allocated for 2017/18 which aim to distribute agricultural starter packs to help black small commercial farmers to develop in farming (Bizcommunity, 2017). However, DAFF has allocated R4.6 bn from 2010-20 (Africa Centre for biodiversity, 2018).

The major problem with regards to Ilima/Letsema is data capturing of the amount spent and beneficiaries supported since figures are not valid. However, in the financial year of 2019/20 Ilima/Letsema planned to create 23 380 jobs, supports 203 commercial farmers, 7 257 smallholder farmers, 31 978 subsistence farmers, 1040 community gardens, 16 school gardens, 67 612 vulnerable households supported with starter packs to produce own gardens (Africa Centre for biodiversity, 2018).

#### **2.3.4. Post-settlement support on farmer sustainable livelihood land reform**

The World Bank, in the 1990s, confirmed a correlation between more equal land distributions and average economic growth over time, supported by (Hall, 2007). This link has been shown as a foundation for emphasizing a fundamental link between economic progress and land reform. Nevertheless, Hall (2007) stated that while such arguments may be well received, but there is intuitively less observed a foundation on which to assert that land reform improves the livelihoods of those who benefit from it.

According to Hall (2007), this is the empirical foundation of South Africa, where trustworthy researches of livelihood consequences are few. Not only are there authorized studies on whether land reform in South Africa is helping the lives of farmers who have bought land, but there are also non-accredited studies on whether land reform in South Africa is helping the lives of farmers who have acquired land, but also whether farmers have means to save and

accumulate assets, and whether improvements in assets and savings lead to business diversity to non-farm enterprises, that creates employment for others. The lack of post-settlement evaluation studies, according to Hall (2007), is the key problem in determining the effects of land reform on livelihoods. Simply put, there is a data and information scarcity. The lack of baseline data on the socio-economic situation of farmers participating in the post-settlement program, a lack of reliable metrics, and a lack of longitudinal board data and information make impact appraisal susceptible even when there have been recognized evaluations.

Post-settlement support is cantered on agricultural extension services to ensure farmer sustainable livelihood. Nkosi (2017) describes agricultural extension as the transfer of farm input, technology and information. As a result, the provision of agricultural assistance and advisory services may encourage land reform farmers to obtain the necessary information and capabilities for farming, thereby improving their social and economic status and ensuring their resilience by providing more food security and generating income for other needs (Hossain, 2015). Mabuza (2016) finds extension to play an imperative role in capacity building to mobilize farmers to adopt new technology and increase their production efficiency.

The extension needs to be flexible enough to support land sustainable production, which includes land, technology development, infrastructure management, and input supply. Farmers' productivity and development of necessary farming competencies are influenced by the level of extension services and technical assistance provided by extension agents (Sibisi, 2015). Agricultural and land policies have not been linked (Cousins, 2019). Land reform stakeholders need to increase awareness of farmer support programs available to farmers. And assist farmers to develop organizations that will support in managing farms (Pascalina, 2001).

#### **2.3.4.1. Livelihood assets and resources**

Hall (2007) affirmed that sustainable livelihoods create an interest to raise an alarm that people's lives not only get better but increase as a result of existing structures and interventions in policy, however livelihoods progress in a long-term manner. The nervousness with sustainability consequently requires that the improved outcomes undergo and develop further certainly. The recognized 'livelihoods pentagon' shows the proportions of livelihoods and the reliant relationship between five dimensions of livelihood capitals or 'assets' with aims at recognizing problems and coming up with strategies to fight to minimize experienced vulnerabilities. However, Massoud *et al.* (2016) argued that the recognized 'livelihoods



pentagon' include natural capital (land and vegetation), financial capital (savings, income and financial funds or credit), human capital (capabilities, education, work status, and health), social capital (social support organizations) and physical capital (infrastructure).

#### **A. Access to extension services**

According to International Fund for Agricultural Development (IFAD) (2019), the goal of extension services is to actively interact with farmers through enabling training and seminars, field visits to address common difficulties, and farmer engagement in research initiatives through demonstrations. This form of farmer assistance, argued by Sibisi (2015), is utilized to emphasize sustainable land productivity while utilizing natural resources responsibly. Better agricultural yield, enhanced conservation agriculture, increased biodiversity conservation, and people benefiting from their resources and enhanced land conservation measures are the results.

According to Koch & Terblanché (2012), the Department of Agriculture has been providing extension and advising services since 1925. Sibisi (2015) contested that clients of the Land and Agrarian Reform Program (LARP) have demonstrated a high demand for farmer assistance, especially in commercial farming experience and competencies. Sibisi (2015) suggested that the Provincial Departments of Agriculture (PDAs) be in charge of providing advisors to help beneficiaries develop their organizational capacity and provide professional expertise to instill much-needed farming knowledge and expertise for long-term farming. Not limited to matters concerning food safety, food security, economic growth, poverty reduction, and environmental sustainability. The NDA, 2005 (cited in Sibisi, 2015) claims that the success of these programs is inextricably linked to the organization and capacity of extension and advisory services.

Terblanché *et al.* (2014) still find that extension services still have gaps among land reform farmers. In addition, Terblanché *et al.* (2014) strengthened that mentorship should be facilitated in cases where extension agents are not available to support and provide extension services to farmers. However, through the numerous farmer support program implemented, Sibisi (2015) argue that the mentioned programs in above sections have contributed not to their capacity in solving the land reform farmers' issues. Furthermore, Sibisi (2015) mentioned that CASP was not clearly implemented and extension services were poorly coordinated with the program which resulted in delaying implementation and delivery of production inputs. The lack of knowledge and skills, lack of learning-based extension services through effective mentorship

are the source of the issue. In addition to the above-mentioned factors, the lack of market access and capital (Phatudi-Mphahlele, 2016).

### **B. Access to natural assets**

In rural wealth, creation land is well-known to be a basic livelihood asset, it's fundamentally situated as a natural capital from which farmers produce food and earn a living and includes vegetation and livestock. The land is also considered a heritable asset that provides access to enhancement livelihoods for rural workers and the urban poor. As a result, the land is the source of future rural generations' prosperity and livelihood stability. Hence, land may be used as loan collateral, opening up investment options. As a result, Land reform may be required to guarantee equitable and efficient land use while simultaneously supporting pro-poor economic growth (Cousins & Scoones, 2009). Furthermore, to address gender disparities in land access, as well as the economic growth-stifling effect of high levels of poverty.

### **C. Access to human capital**

In South Africa, capacity building has been a major obstacle to land reform. (Makhado & Rudzani, 2012). A range of training, workshops, and mentorship programs can be used to improve farmers' capacity to manage land reform farms (Mabuza, 2016). Hence, a solid framework for capacity building must not be generalized, a farmer need's assessment must be conducted before mentorship is given. And learn by doing and demonstrations in mentorship must be encouraged to effectively contribute in ensuring that the required skills and knowledge by beneficiaries is improved. Afterwards, monitoring and evaluation assessment must be conducted in ensuring that post-settlement enablers have given support accordingly and farmers received appropriate training (Pascalina, 2001). Maka & Aliber (2019), stated that RADP mentoring is still an important technique to consider while training land reform farmers. Additionally, funds should be available for mentors to dedicate to a project for at least three to five years.

### **Fundamentals for a successful mentorship**

- Mentorship should be voluntary for both parties (mentees and mentors)
- A contractual agreement defining; (1) objectives; (2) how monitoring and evaluation will be carried; (3) procedures for mentorship (so that both parties know their roles and responsibilities and duties); (4) duration of the mentorship; (5)

accessibility/availability; (6) Cost involved; (7) conflict procedure; (8) termination clauses; and (9) indemnity

- Mutual trust of both parties must be made
- Effective communication (preferably common language for both mentee and mentor)
- Accessibility of the mentee to the supervision of the mentor
- A conducive learning environment must be encouraged for knowledge brokering

#### **D. Access to financial capital**

PLAS beneficiaries are supported funds to improve their farms and management as per their approved business plans. However, not all PLAS beneficiaries benefited from RADP but they are encouraged to search for financial assistance from all sectors not relying on the government's financial supports (DRDLR, 2013). Hence, PLAS beneficiaries have been granted long-term leases so that they can access capital from various institutions (Muller, 2018). The market is the driving element of economic development. Farmers are exposed to the existing, formal market and informal markets. RADP aims to allow farmers to work with strategic partners to access these markets (DRDLR, 2013). However, farmers lack marketing skills, negotiation skills, or bargaining power to sell the products.

#### **E. Access to physical capital**

Improved infrastructure and roads will have significantly impacted the products' transportation and market accessibility. Farmers who do not have the means and need to infrastructure must be funded after a need assessment has been conducted (Pascalina, 2001). RADP aims to provide access to infrastructure and the latest technology (DRDLR, 2013). However, because of the limited budget farmers cannot access infrastructure and technology as per the proposed and approved business plan. Access to infrastructure strengthens farmers' livelihoods and improves farming operations (Anseeuw *et al.*, 2015).

Many land reform recipients have been unable to make effective use of acquired land due to the inadequacy of post-settlement assistance provided. The land reform program has achieved considerable success in improving the socio-economic position of land reform beneficiaries, notably in terms of output, but there is still considerable work to be done to guarantee that it meets its capacity building, capabilities, and information sharing objectives. After RADP was implemented, positive effects were largely observed in terms of food security, job creation, and

economic and social development, albeit the same cannot be true for skill enhancement and market access.

#### **2.3.4.2. Vulnerability context**

The vulnerability context influences asset access, which includes shocks like political instability, natural disasters, environmental change, technology transfer, and trade, as well as trends and changes in demographics (Massoud *et al.*, 2016). As argued by Cousins & Scoones (2009) that a livelihoods perspective on development has influenced donor policies on land as well as policy development about land reform, with a focus on reducing rural poor vulnerability by securing their access to assets and land redistribution that results in greater land equality.

#### **2.3.4.3. Political institutions and processes**

Political institutions and processes (PIPs) exist in the political, economic, and social settings in which individuals pursue their livelihood strategies impact access to capital. Acts and regulations, political and social organization, and governance are among the PIPs. Both the PIPs and the vulnerability context have an impact on survival options, which are linked to how rural people use available assets to achieve their objectives (Massoud *et al.*, 2016).

Hall (2007) stated that the important lesson that can be derived from a variety of national experiences in land reform is that, regardless of the historical or political context, land transfer alone is insufficient and demands post-settlement support enabled by a variety of institutions. New farmers risk being set up to fail if they do not receive post-settlement support to help them maintain their livelihoods, PLAAS 2006 (cited in Hall, 2007) claimed that for development operations to be sustainable and have a beneficial influence on the lives of beneficiaries on the acquired property, there must be an ongoing, thorough, and proactive engagement between people who require and determine support and those who offer it.

Land reform is a long-term process that requires response, improvement, learning, and engagement of many interested stakeholders. It is also a highly challenged one, particularly as well-known for the unequal ownership of the land in which increases a threat to political stability in the area (Adams, 2001). Hall (2007) argued that policies that encourage access to land can combat poverty and socioeconomic disparity. Even though studies have confirmed that the impact of land redistribution on livelihoods is endured to become obvious. Lahiff (2002) strengthened that since the mid-1990s, when the South African land reform initiative

was implemented, there has been a lack of synergies and involvement of stakeholders, especially those under the supervision of the local authorities. However, the link between sustainable rural livelihoods and land reform has been addressed at a policy level on post-settlement supports to date, as a result, there are hints that some agents are taking it more seriously to encourage agrarian transformation (DRDLR, 2014).

Hall (2007) argued that the establishment of relevant institutional structures with specific responsibility and authority was observed to increase the number of people who participate in and benefit from productive activities. Hall (2007) encouraged that further consideration should be given to how power arrangements might aid decision-making processes, and when land reform efforts need the formation of large groups of farmers into legal organizations, intense encouragement of participatory decision-making is essential. The improvements in beneficiary livelihoods rely on the degree to which a lead institution integrates and effectively manages, but not only on the amount of post-settlement support provided. Awarding land to proposed land reform farmers, there is ambiguity, in the absence of concrete farmer support strategies and institutional commitments, not only for land reform farmers, however, also on the part of those organizations, which are not under any obligation to provide support (Hall, 2007).

The change in government policy from awarding individuals title deeds to just granting them user rights under lease agreements. Particularly, PLAS beneficiaries experienced the challenge to not use the land as collateral for loans, as a result, they have to look for other options (Mukovhe & Moyo, 2019). The majority of those currently have access to secure land rights through lease agreements and the option to farm purchase. Land policy, both provincially and nationally, has been characterized by a strong livelihood focus, and even though more has to be done to ensure a clear indication of how effective it will be in fostering long-term lives (DRDLR, 2014). Hence, Mukovhe & Moyo (2019) recommended that more research and strategies are needed to determine more effective processes for effective delivery of farmer support to land reform farmers who acquire land under any future land reform situations.

Involvement of strategic partnerships to land reform farms generally, beneficiaries' livelihood advantages are prioritized over the continuation of production, particularly where strategic partners are the driving force in land reform farms (Hall, 2007). Lahiff (2002) indicated that an integrated approach which aims precautions were taken on and determined to land concerns by

all important parties, including all spheres of government, communities, NGOs, the commercial sector, and farmers' unions to ensure effective intervention on sustainable farmer livelihood and farm production through flexible processes to foster sustainable development.

#### **2.3.4.4. Livelihood strategies**

From a livelihood's perception, the main question is: what are livelihood strategies for land reform farmers? In southern Africa, diverse livelihood sources of poor people would bring a change and avoid a narrow focus on farming alone, while not being blind to the roots of poverty. From a well-being viewpoint, the main question is: what impact does food production have on land reform recipients' household welfare? Land redistribution's potential implications on family food security are essential in southern Africa, yet this does not imply that this should be the primary goal of land redistribution (Cousins & Scoones, 2009).

Chambers & Conway 1992 (cited in Cousins & Scoones, 2009) argued that the main concept in sustainable livelihood is a diverse livelihood strategy that combines a variety of assets, capacities, and activities to decrease vulnerability and cope with stressors and shocks including drought, disease, and job loss. Cousins & Scoones (2009) stated that institutionally mediated livelihood strategies influence the robustness of livelihood strategies. And land as a form of a natural and physical asset, access to which is facilitated by land reform departments through land tenure, and policies. Therefore, associating a livelihood strategy with the scope of interested institutions and policies leads to a meaningful livelihood. However, Krantz (2001) contested that individual and household livelihood strategies typically change due to variances in demographics, social and political status.

#### **2.3.4.5. Sustainable Livelihood Analysis outcomes**

Hall (2007) argued that the land reform on a sustainable livelihood outcomes perspective, or indicators, should include the following: increased in income generation, increased well-being: improved access to social services (educational, police or security and health facilities), increased access to physical capital, more sustainable use of natural assets, improved food security (from household level and increased disposable cash income). These measures or indicators are observed to have an impact on reducing vulnerabilities. In addition, Hall, (2007) observed that certain variables influence livelihood outcomes over which the interested stakeholders or institutions have limited control, explicitly strong and accountable leadership. The participants in land reform with capabilities and experienced leader increases the

likelihood to attain their developmental goals and are also observed to establish positive relationships with strategic partners.

More research and sustainable livelihood strategies must be included in South African land reform initiatives and to create a decentralized institutional background that allows all stakeholders including farmers in land reform to be accountable and responsive to their needs (Lahiff, 2002). However, in the absence of baseline data – Hall (2007) claimed that farmer profiles, as well as subsequent studies, can only provide a summary of participants' livelihoods, not how they have changed as a result of land reform. In addition, a gap is still wide from the 'before' and 'after' perspective, few, studies have endeavoured to effectively theorize the link between on-project livelihoods and farmers' overall livelihood strategies — for example, how land reform is one input into broader livelihood strategies – or to conceptualize the link between the two. As a result, impact studies that would investigate how long transformations last and if they can be linked to land reform have proven unable to conduct (Hall, 2007).

#### **2.3.4.6. The Challenge of post-settlement support under South African land reform**

Manenzhe (2007) stated that land reform beneficiaries are still experiencing challenges on farm development, farm credit, infrastructure development, agricultural inputs, capacity building. The DRDLR further recognizes that their loopholes on the RADP on the effective procurement of mentors and strategic partners, and strategic partners and mentors do not understand the RADP (DRDLR, 2012).

The land reform beneficiaries cannot develop their business plans as a result they rely on strategic partners, consultants, and mentors to prepare and compile the business plan (Manenzhe, 2007). Hence, there is an unwillingness to budget for capacity development in helping beneficiaries gain skills and knowledge to write their business plans without help (Mmbengwa, 2009). The main gap spotted within the land reform is that it focuses on the transfer of land and the post-settlement programs invest less in the capacity building but try to cover through the engagement of mentors and strategic partners. Hence, the land reform programs require a transformation in agrarian structure, power relations, and improvement in production as more work is done to the farmers, by strategic partners and mentors (Manenzhe, 2007).

## **2.4. Recapitalization and Development Program**

The basis, aims, functions, and philosophy of change of the RADP are all covered in this section. The chapter also details RAPD's growth since its inception.

### **2.4.1. The Policy framework for RADP**

As indicated in the 2011 Green Paper on Land Reform, the foundation of the RADP policy is part of the government's commitment to examining all land reform programs (DRDLR, 2014). In 2009, the government reviewed the Farmer Support Program / Settlement Programs since their inception (PMG, 2019b). As a result, DARD found many land reform projects acquired through various land reform sub-programs to be: (1) unsuccessful and thus not functioning; (2) vulnerable to mandatory and adequate post-settlement support; and (3) prone to being auctioned due to project failure, which is an alteration of the original land reform strategic goals.

The RADP was created to solve the aforementioned difficulties by focusing on projects acquired since 1994 via land reform programs like restitution and redistribution, especially black-owned property; to improve and contribute to the transformation of the rural economy through entrepreneurial and industrial growth in various agricultural value chains to encourage employment creation (PMG, 2019b). In addition, to achieve home food security and national food self-sufficiency, and difficulties related to food availability must be addressed at both the home and national levels (DRDLR, 2014).

The RADP is closely associated with Chapter 6 of the National Development Plan (NDP), which proposes a redesigned land reform paradigm based on the principles listed below (DRDLR, 2014);

- i. Transfer of agricultural land to Africans quickly and without damaging the land market or business investments in the agricultural sector;
- ii. Capacity building before transfer through incubators, mentorships and other expedited forms of learning is the key to long-term output;
- iii. Establishment of sound institutional systems to keep an eye on markets for corruption and fraud;
- iv. Targets for transfers that are in line with fiscal reality; and
- v. Mentorship, training, commodities chain integration, and preferential procurement will increase possibilities for commercial farmers and organized industry to contribute.



### **2.4.2. RECAP Objectives**

RECAP goals, according to DRDLR (2011), are:

- To boost production;
- To ensure food security;
- To help small farmers transition into commercial farmers;
- To increase the number of people employed in the agriculture industry; and
- To form rural development inspectors.

The program's main strategic objectives are to guarantee that “all land reform farms are 100% productive; that the Class of black fledging commercial farmers which the 1913 Natives Land Act destroyed is rekindled; and that the rural-urban population flow is significantly reduced” (DRDLR, 2014). The goals mentioned above are intended to help accomplish Outcome 7: vibrant, egalitarian, and sustainable rural communities, as well as food security for all. In addition, the program also helps to attain Outcomes 4 and 10, which are to provide decent jobs through economic growth and ensure sustainable natural resource management, respectively (Mabuza, 2016).

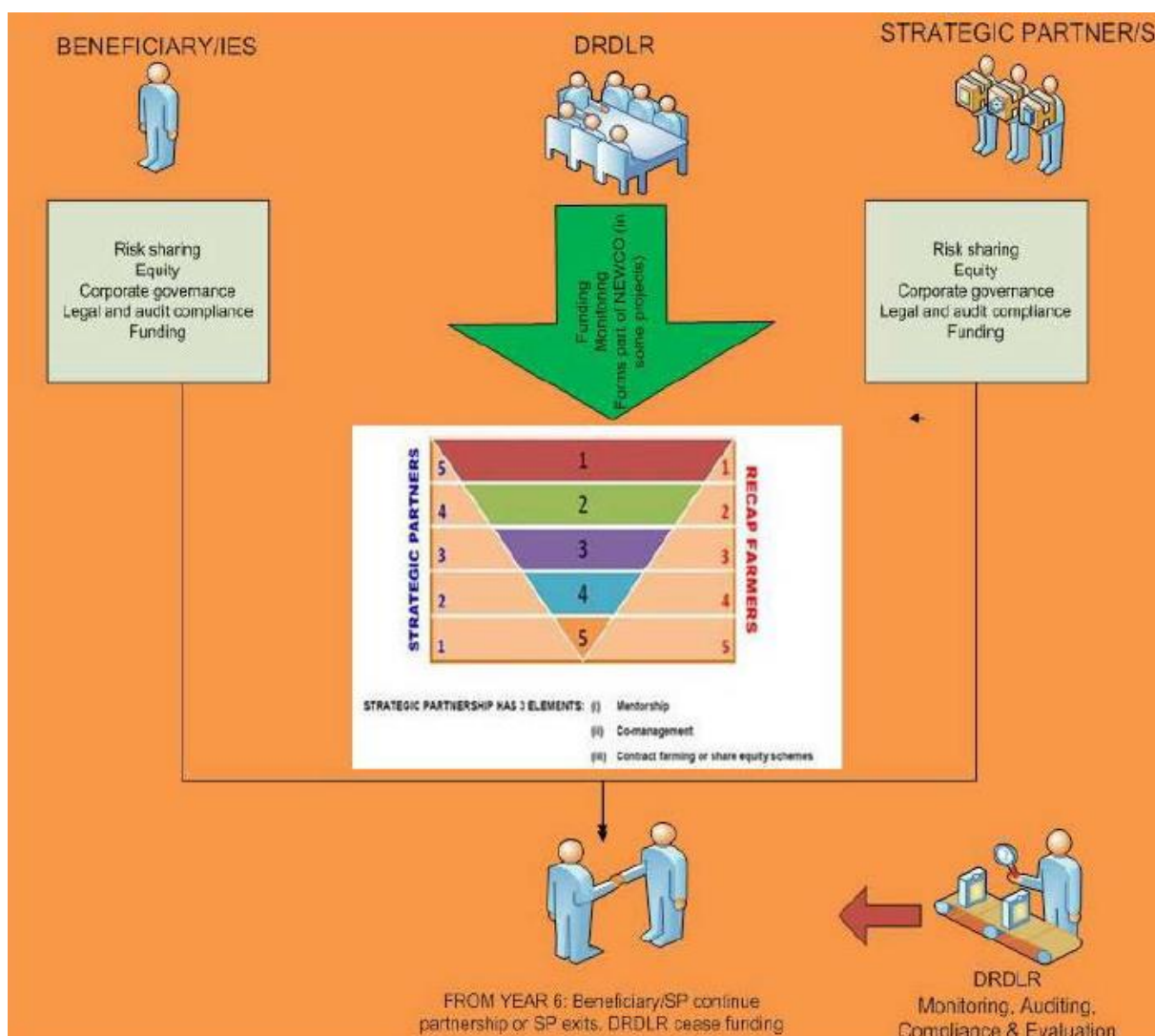
### **2.4.3. Functions of RECAP**

Recap provides farmer help in two ways: (1) recapitalization, which provides financial assistance to improve underperforming farms through grants, and (2) development, which provides technical assistance through mentorship and strategic partnerships. RECAP's functions are further detailed in the following feature:

#### **A. Recapitalization**

The capital renewal or restructuring of impoverished and historically disadvantaged and under-producing agricultural enterprises of Emerging Black farmers who are farmers of the State's land reform initiative is observed as the Recap function DRDLR (2014). Recap offers financial assistance in the form of grants based on a sound business strategy. Mabuza (2016) claimed that strategic partners or departmental officials write the business plans utilized to influence decision-making. This type of financial support has replaced previous land reform financial grants (Cousin, 2016). Including (1) the 25% PLAS Operational Budget, (2) the 25% Household Development Grant, (3) the 25% Restitution Development Grant, (4) the Restitution Settlement Grant, and (5) the Commonage Infrastructure Grant (DRDLR, 2014).

RECAP projects were initially funded on a five-year cycle, with 20% of the following year's business plan needs coming from the previous year's profits (Mabuza, 2016). In 2012, DARD modified this model to five development stages to accommodate differences like agricultural operations and incubation durations (Mabuza, 2016). The funding model in Figure 1 below illustrates the tripartite engagement between the DRDLR, beneficiaries, and strategic partner/s. The middle numbers (1-5) show DRDLR's financial and project management engagement in the farm during five years. From the first to the fifth year, the DRDLR's participation will diminish. At the same time, the contributions of both strategic partners and farmers will rise both financially and in terms of project management.



**Figure 1: The RECAP funding model**

Source: DRDLR, (2014)

The strategic partners and mentors are held responsible for giving an account and reporting on how the money was spent, and supporting documentation, financial reports, and impact reports (Business enterprise, 2013).

## **B. Development**

On their newly acquired assets, the Development function refers to support for capacity development, infrastructure development, and operational contributions DRDLR, (2014). Mentorship and strategic partnership are two of these approaches. Land reform farmers must create collaborate with either a Strategic Partner or a Mentor for capacity building, market connections, and business strategy and development, according to RECAP. DAFF is the key stakeholder in the development function of RCAP since it is the core for extension services providers, research, and development facilities (Mabuza, 2016).

### **• Mentorship**

Mentorship exists in the transfer of knowledge and development of skills from the mentor to mentee. The mentorship category in the framework of RADP; is that the department uses experienced farmers, some of whom are retired farmers, to act as mentors (Sibisi, 2015), to provide training, marketing, finance, networking, and other associated skills to the mentee so that they may begin producing, penetrate markets, and build successful businesses (DRDLR, 2014). Therefore, for land reform farmers to improve their farming skills, training and capacity building is crucial (Pascalina, 2001). However, not all land reform farms are sustainable, and some beneficiaries still lack skills and knowledge, and extension services are still lacking (Sibisi, 2015). As a result, the findings done by (Sibisi, 2015) reveals that one of the three land reform beneficiaries' farms under RADP has no production on the farm. Hence some farms are not fully utilized, and some have never been utilized (Sibisi, 2015). Hence, some mentors are milking land reform projects and pay little attention to skills transfer (Cousins, 2016). A positive relationship between mentors and mentees results from a successful mentorship program (Pascalina, 2001).

Further, Sibisi (2015) has indicated that the active engagement of mentors has a positive impact on agricultural production. However, there is still a gap in extension services among beneficiary farmers. Sibisi (2015) strengthened that mentorship programs must be made available when extension professionals are not available to serve farmers. Therefore, to try and solve the problem discovered through the lack of extension support, the DRDLR, through the

RADP, has appointed mentors and strategic partners with interest to improve farmers' skills and knowledge of on-farm systems and to make sure that the farms remain productive and sustainable and indeed channel access to markets, skills development, access to additional finance, packaging of projects, farm production, or coaching mentorship and advocacy (DRDLR, 2012).

- **Strategic partnership**

The beneficiaries of RADP work closely with business/strategic partners (Mabuza, 2016). Due to a lack of a post-settlement plan, strategic partnerships outsource post-settlement support involving extension services. Strategic partners or joint ventures play a crucial role in assisting the land reform beneficiaries on legal authorities, auditing, and setting financial statements (Sibisi, 2015). There are many categories of strategic partners. However, in the context of RADP, strategic partners are categorized into three categories as follows: (1) Co-management, (2) shared-equity arrangement schemes, and (3) Contract farming and concessions (DRDLR, 2014).

- Co-management is the arrangement of stakeholders with an outlined fair sharing of roles and responsibilities for operation or production upon a given area or natural resources Mabuza (2016). Hence, RADP strengthens co-management to share equity schemes, but land reform beneficiaries must play an active role in ensuring that their right of tenure to the land is earned and their rights can be defended (DRDLR, 2014).
- Share-equity arrangements are when land reform beneficiaries, together with farmers and entrepreneurs, control a piece of the agricultural enterprise across the value chain (DRDLR, 2014). As a result, this approach aligns with the government's AgriBEE plan, stated by Mabuza (2016). Share equity arrangement seeks to contribute towards achieving the RADP objectives by leveraging skills and funding from the private sector (DRDLR, 2014).
- Contract farming and concessions is a contract between processors or marketing firms and farmers, the foundation of which is “a commitment on the part of the farmer to provide a specific commodity in quantities and at quality standards determined by the purchaser and a commitment on the part of the company to support the farmer’s production and to purchase commodity” (Mabuza, 2016).

#### **2.4.4. RECAP's theory of change**

According to the RECAP'S ideology of change, all land reform farms are 100% productive and sustainable, farms devastated after June 19, 1913, have been revitalized, and rural exodus to urban areas has been combated, according to the RECAP's ideology of change (DRDLR, 2013).

RADP theory of change is directly applicable to three key pieces of legislation:

1. Government Gazette (1993) strengthened that the Land Reform Provision of Land and Assistance Act, Act No. 126 of 1993 as amended in 2008, is the key legislation that governs the Recapitalization Program referring to section 10 “the administrator may, from money appropriated by Parliament for this purpose, in a prescribed manner grant an advance or subsidy to any person for the development of designated land.”. To develop land reform designated properties and the continuous failure of post-settlement programs, RADP was initiated through the mentioned Act above to bring change in Post-Settlement support for farm development.
2. Government Gazette (1993) strengthened that the Restitution of Land Rights Act of 1994 (Act No. 22 of 1994) was amended to include provision section 42C, “The Minister may from money appropriated by Parliament for this purpose and on such conditions as he or she may determine, grant an advance or a subsidy for development or management of, or to facilitate the settlement of persons on, land which is the subject of an order of the Court in terms of this Act or an agreement in terms of section 14(3) or 42D or which is expropriated in terms of section 42E.”. Therefore, RADP was initiated to speed up the facilitation of planning and development of land to any claimant who has been granted restoration or a land right has been ordered (Government Gazette, 1994). Hence, RADP aimed that agrarian transformation community-based development, land acquired through Restitution land reform program, will be achieved (DRDLR, 2014).
3. Similarly, the ESTA, 62 of 1997, allows the minister to disburse cash for development projects including farm dwellers with insecure tenure, referring to section 4 of the Act “The Minister shall, from money appropriated by Parliament for that purpose and subject to the conditions the Minister may prescribe in general or determine in a particular case, grant subsidies” (Government Gazette, 1997). However, the

development must involve an appropriate adaptation of occupants' and owners' interests and a cost-effective development (Government Gazette, 1997). Therefore, RADP aimed to provide funds to make the planning and execution of both on-site and off-site initiatives easier and to ensure community development took place as a whole and promote tripartite when needed between the DRDLR, Beneficiaries, and service providers for community development and through the engagement of local municipalities.

#### 2.4.5. Progress of RADP

PMG (2019c) reveals the RECAP performance indicated below of KZN province since it is the study area. From 2009 to 2018, the PSSC sponsored 228 RADP programs, including 59 strategic alliances, 52 mentorships, and 117 direct support to farmers via service providers, as shown in Table 4. All of the projects that have received funding encompass a total of 143 289 hectares of land. RADP has benefited about 8389 people, resulting in 1156 employment, 470 of which are for women and 575 for young adults. About 559 farmers from 228 projects covering 143 289 hectares were taught, which was a significant finding. RADP in KZN cost R961.2 million over nine years (PMG, 2019c).

**Table 4: Progress of RADP**

<b>RADP Projects</b>		<b>Job created</b>		<b>Training</b>	
Number of projects in total	<b>228</b>	Total number of positions available	<b>1156</b>	The total number of farmers trained	<b>559</b>
Strategic Partnerships	<b>59</b>	Total number of Women employed	<b>470</b>	The total number of women trained	<b>194</b>
Mentorships	<b>52</b>	Total number of Youth Employed	<b>575</b>	The total number of young adults trained	<b>253</b>
Providers of direct assistance and services	<b>11</b>	Total number of PWD employed	<b>2</b>	The total number of PWD trained	<b>3</b>

Modified source: PMG, (2019c).

## **2.5. The theory underpinning the study**

This section is not about land reform per se, but rather about the impact of RECAP (a farmer support program) on land reform beneficiaries' social and economic status. This chapter examines the literature on (a) what should be in place in land reform to influence farmers' involvement in the Recapitalization and Development Program (RADP), socioeconomic position, and the impact of the RADP on land reform farmers' performance. And (b) methodological techniques to analysing the impact of land reform on farmers' socioeconomic condition, as well as factors influencing farmers' involvement in the Recapitalization and Development Program (RADP), and the impact of RADP on the performance of land reform farmers. The influence of post-settlement initiatives on the performance of land reform farmers has been studied. The goal of the literature review is to determine the methodological approaches employed in previous studies, as well as the findings acquired, to make an informed decision on the study goal.

The theory underpinning the study is according to the RECAP'S ideology of change, that all land reform farms are 100% productive and sustainable, farms devastated after June 19, 1913, have been revitalized, and rural exodus to urban areas has been combated, according to the RECAP's ideology of change (DRDLR, 2013). The RADP focuses on projects that are the result of restitution and redistribution programs. The program aims to offer social and economic infrastructure and basic resources to black farmers, as well as to battle inequality, unemployment, and increase income, as well as to minimize existing rural-urban mobility and to support DAFF agricultural programs such as CASP (DRDLR, 2014 (cited in Mkhabela *et al.*, 2018).

### **2.5.1. Review of analytical techniques of the study**

Mothiba, (2019) in the study to characterize the socio-economic characteristics of small-scale cattle farmers in the Capricorn region of Limpopo province, South Africa, used descriptive statistics in the research of the impact of market access on income of cattle farmers. Manenzhe, (2019) employed a stratified selection approach to choose just 190 farmers to engage in the study based on their willingness to participate due to the dispersed population in the study region. According to all three citrus areas in Mpumalanga Province, there were 134 community farmers (CPAs), 10 home farmers who benefitted from land reform, 20 private family farmers, 20 private commercial cooperatives, and 06 state-owned companies that took part in the study.

In the study of socio-economic factors influencing smallholder farmer's agricultural infrastructure availability, accessibility and satisfaction: A case on North West province in South Africa. Mazibuko *et al.* (2018) used descriptive statistics to look at the socioeconomic determinants that influence smallholder farmers' access to, and satisfaction with, agricultural infrastructure. Furthermore, the researcher used Tobit Regression Models to investigate the primary determinants influencing agricultural infrastructure availability, accessibility, and satisfaction for smallholder farmers in the study area. The econometric model utilized is determined by the type of the dependent variable Vasisht, n.d (cited in Mazibuko *et al.*, 2018). The Tobit model is used to determine the quantity and direction of agricultural infrastructure availability. In general, the Tobit model estimates parameters using the Maximum Likelihood Estimation (MLE) approach, which assumes normality and homoscedasticity. A total of 150 smallholder farmers were sampled using stratified sampling to classify the participants into those who possessed agricultural infrastructure and those who did not. STATA 14.0 was used to code, capture, and analyze the data (Mazibuko *et al.*, 2018).

Maka & Aliber, (2019) in the study on the role of mentors in land reform projects supported through the recapitalisation and development programme: findings from buffalo city metropolitan municipality, South Africa. The study used seven in-depth case studies of RADP-supported land reform projects were used by the researcher as part of a qualitative technique. Survey data collected using semi-structured questionnaires were analyzed using a theme analysis.

In the study conducted by Afafe, (2021) on market participation of smallholder sunflower farmers in Ngaka Modiri Molema District Municipality, North West Province, South Africa. To accomplish the research objectives, Afafe, (2021) adopted a quantitative research approach, and a proportional stratified random selection technique was used to pick 177 sunflower-producing families. Semi-structured questionnaires were used to collect information from respondents, and data was subsequently entered and coded using statistical software computer programs (MS Excel, SPSS, and Stata). Afafe, (2021) employed a descriptive statistic, household commercialization index, and Probit regression model to examine the socio-economic features, level of market involvement, and factors influencing households market participation within the district.



In the study conducted by Loki *et al.* (2019) to investigate factors influencing land reform beneficiaries' willingness to pay for extension services in Eastern Cape and KwaZulu-Natal, South Africa, to determine the link between respondents' socio-economic characteristics and their willingness to pay for extension services, the study used comparative statistics such as Chi-square and T-test analyses.

Rakoena, (2019) investigate the impact of the RADP on the socio-economic status of beneficiaries in the Gauteng Province. The study used a quantitative approach. Primary data was collected using a survey research methodology with 51 RADP participants from all Gauteng municipalities who were chosen to participate. Rakoena, (2019) used a semi-structured questionnaire to collect primary data during face-to-face interviews. The Statistical Package for Social Sciences (SPSS) version 24 was used to analyze quantitative data. To assess the socio-demographic characteristics of RDAP recipients, descriptive statistics (frequencies, percentages, mean, standard deviation, standard error of mean) were used to analyze quantitative data. To quantify the impact of the program on agricultural output, the variables affecting income rise, analyze the socioeconomic impact of the program and identify general constraints faced by RADP beneficiaries, the Binary Logistics Regression (BLR) model, t-test, and binomial test were employed. A 95 % confidence interval was used to establish the degree of significance. The qualitative data from open-ended questions were analyzed using coding and memoing and then translated into frequencies and percentages (Rakoena, 2019).

In the study conducted by Katema & Chimhanda, (2017) to conduct an analysis of the viability of winter wheat farming under the a1 land resettlement model in Zimbabwe: a case study of Mazowe district. Katema & Chimhanda, (2017) used a mix of quantitative and qualitative data gathering approaches. Quantitative data was gathered from the farmers using semi-structured surveys, while qualitative data was gathered through key informant interviews. The Statistical Package for Social Sciences (SPSS v16.0) was used to analyze factors impacting viability, while MS Excel was utilized to summarize the data and produce all descriptive patterns of the sample data, which were shown in graphs, tables, pie charts, and other visuals to describe the data. The study used multiple regression analysis to see if the various independent variables were statistically significant in explaining the differences in household wheat productivity. The instrument of regression analysis is used to assess the connection between one or more variables Gujarati, 2004 (cited in Katema & Chimhanda, 2017). A linear regression model was used with 8 predictor variables against a dependent variable, wheat output. It was done,

according to Katema & Chimhanda, (2017) to identify the significant variables that influence wheat production in Mazowe.

In the study conducted by Nenngwekhulu, (2019) to carry out a financial analysis of the recapitalisation and development programme in South Africa. The study used both qualitative and quantitative research methodologies. The goal of this study was to conduct a financial analysis of RECAP by analyzing the relationship between the program's budgeting and spending to see if the government's investment in the program is justified in light of the program's goals. Impact studies of 98 RECAP programs in six South African provinces provided the primary data. Budget projections from the DRDLR for different provinces are secondary data. To fulfil the study's goal, descriptive statistics were employed to show the findings of qualitative, comparative, and quantitative approaches. To determine the relationship between spending and the achievement of the program's objectives, researchers used two quantitative methods: multiple linear regressions and logistic analysis. The research examined the relationship between budgeting, spending, and the RECAP goals of job creation, food security, farm production, and market access (Nenngwekhulu, 2019).

To address the third specific study objective, Nenngwekhulu, (2019) used multiple linear regression and a logit model to determine the relationship between spending and achievement of the RECAP objectives (employment, food security and production). The relationship between RECAP spending and market access was determined using the logit model. A linear regression model was used to determine the relationship between RECAP investment and farm production. A logistic regression model was used to determine the relationship between RECAP investment and market access. RECAP investment is the amount of money in Rand invested in the farms in the logit model, and market access is a binary variable that includes farmers who have market access and farmers who do not have market access to sell their farm produce (Nenngwekhulu, 2019).

Cele, (2017) in the study on Land and water use rights in smallholder farming: impacts on productive use of irrigation water and entrepreneurial spirit in KwaZulu-Natal. The study purposefully chose food crop farmers to allow for comparisons between different smallholder farmers. The respondents for the restudy were chosen using a stratified random sampling technique. Households were categorized into four strata: scheme irrigators (166), community gardeners (27), non-irrigators (23) and home gardeners (26). The study made use of key

informant interviews, focus group discussions and household surveys to gather the data. To analyze the data, Principal Component Analysis (PCA), descriptive statistics, gross margin analysis, Multivariate General Linear Model (MGLM), Univariate General Linear Model (UGLM), ordered probit regression model and Heckman selection model were used. To compare the socio-economic characteristics of smallholder farmer typologies, a descriptive analysis was conducted. The assumptions underlying the use of PCA were tested using the Keiser-Meyer-Olkin and Bartlett's sphericity tests. The UGLM was used to investigate the variables that affect gross margin per hectare (a proxy for productive use of irrigation water). The MGLM was used to analyze the factors that influence smallholder farmers' entrepreneurial spirit (Cele, 2017).

Ukhanal *et al.* (2018) investigated the factors that influence farmers' decision-making when it comes to implementing climate change adaptation methods, as well as how these adaptations affect farm production. The differential effects of adaptation on adapters and non-adapters were investigated using an endogenous switching regression model that took selectivity bias into account.

### **2.5.2. Empirical review of related works on the subject matter**

The section offers a short account of present empirical evidence on RADP on Land reform and highlights the nature of what had been done, what is currently being finished and the gap the research work desires to fill.

In the study conducted by Maureen & Wilbur (2018) on the investigation into the factors affecting the sustainability of the land reform programme beneficiaries in KwaZulu-Natal province. Maureen & Wilbur (2018) indicated that the key elements influencing the sustainability of land reform programme beneficiaries in KwaZulu-Natal encompass monetary literacy, common education, precise skills in the field of agriculture and financial management capability. Rakoena (2019) indicated that on socio-demographic characteristics of beneficiaries, the majority of the respondents (51%) were the woman and their average age used to be fifty-five years. More than one-third (39.2%) had college qualifications. The majority of respondents were married black Africans. IsiZulu used to be the language spoken by most of the respondents (21.6%). Farming used to be the major source of income of the majority of the beneficiaries of the RADP (76%); and the majority (78.4%) had obtained their farmland through land reform programmes, in most cases PLAS. The majority of respondents

practised blended farming on a common of 195.4 hectares (ha), and they had a common of 12.5 years of farming experience. These findings were indicated in the study to investigate the socio-economic impact of recapitalisation and development programmes on beneficiaries in Gauteng province (Rakoena, 2019).

Nenngwekhulu (2019) indicated in the study about financial analysis of the recapitalisation and development programme in South Africa, that farmers are using the RADP grant to acquire farming assets, equipment, and other farming inputs, according to the findings of the study. Nenngwekhulu (2019) emphasised that program expenditure has helped the achievement of some program objectives at the farm level, however, there is an inverse link between the quantity of investment and program objectives achievement. RECAP investment, farm size, farm revenue, and farm output, according to Nenngwekhulu (2019) are the independent variables that have a substantial impact on determining employment generation. RECAP investment was found to be significant at 10% ( $P < 0.1$ ), farm size was found to be significant at 1% ( $P < 0.01$ ), farm revenue was found to be significant at 5% ( $P < 0.05$ ), and farm production was found to be significant at 10% ( $P < 0.1$ ).

Nenngwekhulu (2019) found that enterprise type, agricultural experience, and the number of beneficiaries were not significant in explaining employment creation under the RADP, because their  $P$ -values were statistically insignificant. However, RADP progress is better in the areas of employment and market access but slow in the areas of farm output and food security (Nenngwekhulu, 2019).

In the study conducted by Agholor & Gama, (2020) to examine the perception on land reform in reef, Nkomazi district Mpumalanga, South Africa. The study found that farm experience ( $P$ -value = .002,  $\beta = 4.067$ ), age ( $P$ -value = .037,  $\beta = 0.56$ ), gender ( $P$ -value = 0.036,  $\beta = .862$ ), and education ( $P$ -value = .032,  $\beta = -.647$ ) were found to be significant characteristics impacting respondents' perceptions on land reform.

In the study conducted by Maka & Aliber (2019) to investigate the role of mentors in land reform projects supported through the recapitalisation and development programme: findings from Buffalo City Metropolitan Municipality, South Africa. The study found that RADP mentorship is still an important practice to consider when training land reform recipients. Maka & Aliber (2019) suggested that money be made available for mentors who commit to a specific

project for at least three to five years. This is in line with the findings of Golele *et al.* (2018) who stated that the beneficiaries noticed an increase in farm productivity as a result of the mentorship program. According to Mkhabela *et al.* (2018), the adjustment costs are relatively high under the Inclusive policy scenario, increasing to 8.74% below the baseline scenario when post-settlement support, transfer of skills, access to markets, and funding are not provided to new black commercial farmers. Under both the Radical and Social scenarios, the repercussions on the economy are significantly more severe when support mechanisms for new black farmers are not supplied (Mkhabela *et al.*, 2018).

Agholor & Gama (2020) stressed that credit constraints (82 %), insufficient skills (62 %), inadequate market information (74%), and inadequate extension advisory services (65%) were among the challenges identified by on land reform beneficiaries in the study to examine smallholder farmers' perception of land reform in Reef, Nkomazi, South Africa.

Inadequate market knowledge constituted a difficulty to land reform recipients, according to 74 % of those polled in the survey. The findings revealed that, in most cases, beneficiaries in the area were unable to negotiate a fair price for their agricultural produce due to a lack of market information, resulting in them selling at a lower price (Agholor & Gama, 2020). Mkhabela *et al.* (2018) suggested the building of a conducive environment for new entrant farmers to access markets for both inputs and produce. And a provisioning infrastructure, input marketplaces, and information are all examples of an enabling environment to ensure the success of the land reform process.

Phasha & Moyo (2020) in the study of Pre and Post-Settlement Support Systems and the Failure of Some Land Reform Projects in South Africa: Implications for Planning of Land Reform in the Future, observed that in the land reform case studies covered, agricultural extension has proven to be a major concern. As a result, Loki *et al.* (2019) in the study on factors influencing land reform beneficiaries' willingness to pay for extension services in Eastern Cape and KwaZulu-Natal, South Africa revealed that 64% of land reform recipients support the privatization of extension services. Furthermore, 98% of these farmers responded that they were willing to pay for extension services, as well as the price and type of services that they desired.

Agholor & Gama (2020) claimed that adequate talent transfer and training of new agricultural land owners are crucial for the sector's sustained development and minimizing production disruptions. Policymakers should keep in mind the importance of adequate post-settlement support for the land reform process to be sustainable and for the agricultural sector to continue to play its role in job creation, poverty reduction, and food security (Mkhabela, *et al.*, 2018). Agholor & Gama (2020) argued that capacity building and skill development of land reform beneficiaries help to boost farm output. Inadequate skill was recognised as a major difficulty by approximately 62% of those surveyed. Nevertheless, the Recapitalization and Development Program (RADP) was created to assist land reform recipients who purchased land after 1994, argued by Binswager-Mkhize, 2014 (cited in Agholor & Gama, 2020). Agholor & Gama (2020) indicated that beneficiaries interviewed were unsatisfied with post-settlement commercialization attempts, which had little impact on the skills needed for long-term farming success, extension services are a serious difficulty in the area for 65% of respondents in the study to examine smallholder farmers' perception of land reform in Reef, Nkomazi, South Africa. According to the results of the interview, the majority of beneficiaries have stated a clear and pressing need for extension services, namely in the areas of skill development and agricultural information (Agholor & Gama, 2020).

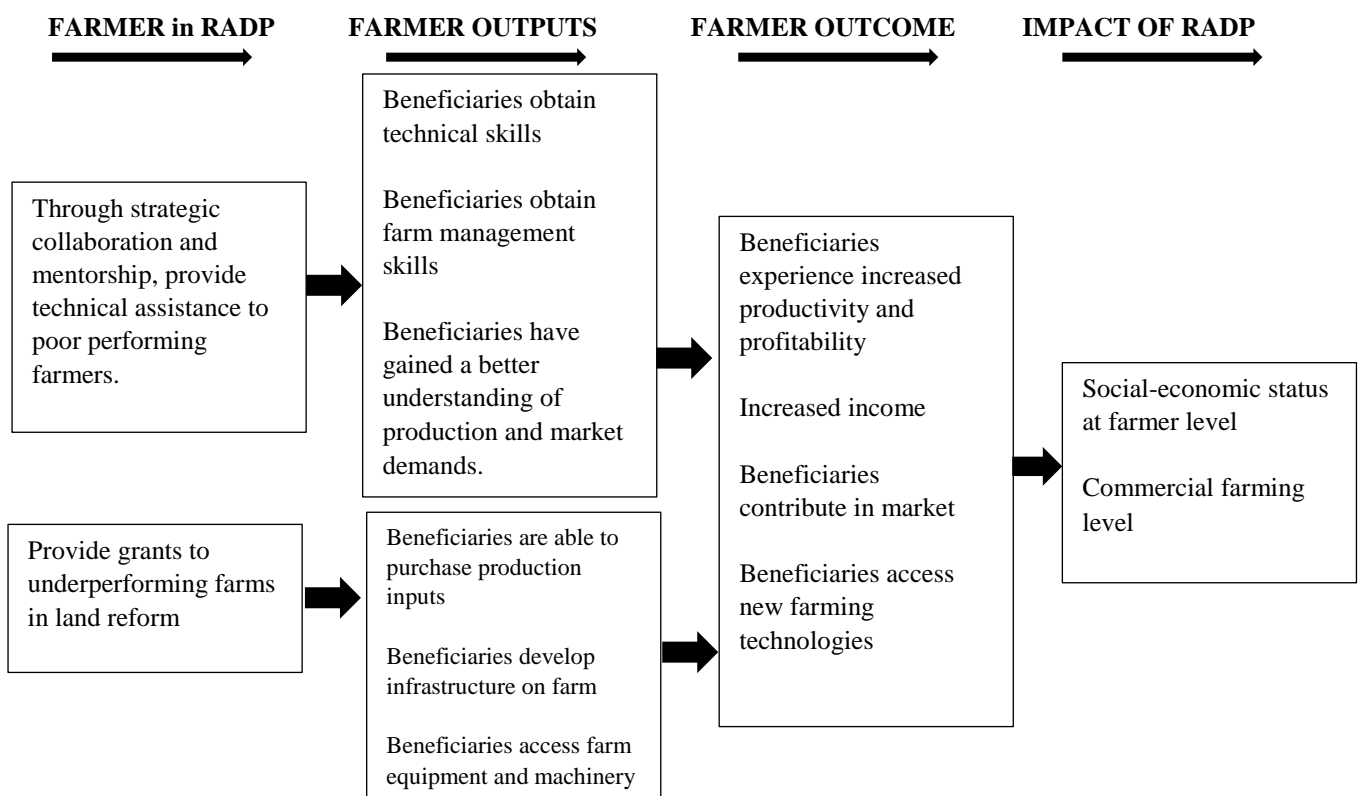
In the study conducted by Rakoenana (2019) to investigate the socio-economic impact of recapitalisation and development programmes on beneficiaries in Gauteng province. Gender, age, farm size, source of income, access to financing, agricultural skills, and access to larger markets were found to be factors impacting improvements in respondents' farm income. Hence, Agholor & Gama (2020) on the study of perception on land reform in Reef, Nkomazi district Mpumalanga, South Africa, revealed that 82% of respondents believe that insufficient access to financing is a major post-settlement restriction for land reform recipients. It is caused by the inaccessibility of farm grants and subsidies, start-up capital, and farm supplies like as pesticides, fertilizers, and seedlings. And farmers in the study area are particularly concerned about financing farm operations.

In the study of Setting them up to fail: enforcement of the agribusiness model on land reform projects in South Africa conducted by Rusenga (2020) using the case study of the Elangeni project, the article shows how the recipients' capital was insufficient, limiting their ability to produce and improve their living conditions. As a result, a land reform program based on large-

scale production on projects owned by resource-poor beneficiaries has a limited influence on their livelihoods Hall & Kepe, 2017 (cited in Rusenga, 2020).

### 2.5.3. Conceptual framework of the study

In estimating the specific objectives listed in this dissertation, a variety of research methodology is used. The main goal to assess the impact of recapitalization and development programs on the performance of land reform farmers is to understand the beneficiaries' socio-economic status, factors influencing the participation of farmers to land reform RADP and assess the farmers' income if they being part of the RADP increases the income or not. This, therefore, requires understanding how their farming settings are comprised conducted and interact with key stakeholders. Thus, first, the socio-economic status of beneficiaries of land reform farms in KwaZulu-Natal, factors influencing farmers' participation in the Recapitalization and Development Program (RADP) and its impact on farmers' net revenue is conceptualized. This is important, because, it is expected that farmers' participation in RADP vis-à-vis the impact on net revenue largely depends on the natural and socio-economic context in which they live. This survey data collection is compared to RADP literature empirical reviews Maureen & Wilbur (2018); Golele *et al.* (2018); Maka & Aliber (2019); Rakoena (2019); Nenngwekhulu (2019); Agholor & Gama (2020) hence, based on the context of the study area, the dissertation is conceptualized using figure 2 below.



## Figure 2: Diagrammatic conceptual framework of the study

Modified from source: Mabuza, (2016)

To meet the first specific objective of the dissertation, the study employed the mean and standard deviation was used as descriptive statistics to analyze the socio-economic status data of the respondent (Kumar, 2019). And to meet the second objective of the dissertation, the adoption of the probit regression model was significant in the assessment of farmers' participation in RADP. A binary outcome was estimated with the binary choice model. The linear probability model, the probit model, and the logit model are examples of alternative qualitative choice model definitions (Mwambi *et al.*, 2020). Among the binary choice models (logit and probit), the probit model was preferred due to its widespread application in similar studies Mustapha 2016 (cited in Mwambi *et al.*, 2020). However, the specification of the probit model where econometric analysis was applied, is discussed in detail in chapter 4 to avoid repetition of information.

To meet the third objective of the dissertation, following Lokshin & Sajaia (2004); Khanal (2018), (cited in Aravindakshan *et al.*, 2018), this study used an endogenous switching regression model (ESRM) to determine the level of significance of variables or the relationship between two variables influencing farmers' participation in RADP and the variables contributing to the likelihood of farm income for RADP and non-RADP farmers. Due to the possibility that RADP participation is endogenous, this approach estimated the effect of RADP participation on farmers' net farm income using RADP participation as a dummy variable, which may result in skewed and inconsistent estimates (Ojo *et al.*, 2019). This model consists of two parts. The first part corrects for endogeneity due to self-selection using a probit selection model in which farmers are sorted into RADP-farmers and non-RADP farmers.

## 2.6. Conclusion

This review showed that land reform offered in land restitution is through lodging of claims, and previously disadvantage citizens encourage engaging with the DRDLR to access land when affected by the Native Land Act, 1913. Land reform is not only a challenge to farm labourers and workers, but the review also shows that communal land is for all community members, not only for traditional authorities. Redistribution of land is not a right but access to land meeting all requirements are achieved. However, land reform without adequate farmer support is



susceptible to failure. A Post-settlement remained problematic in land reform. Farmers are encouraged to engage in local farmer associations and seeking for alternative ways to get extension services. Hence, the department should make means for farmer support awareness to be aware of post-settlement services offered and have access.

For farmers to access RADP, they must engage in strategic partnership and be willing to work with mentors. Recap is meant for farm development in terms of building, infrastructure, and machinery & equipment. A tax-compliant farmer who has a registered business maximizes the likelihood to participate in RADP.

Also, chapter two presented a theoretical and empirical literature review. Several studies in the literature have revealed the importance of complementary services, such as infrastructure, access to financial services, extension services, land, capacity building and access to markets, in making land reform successful, thus improving the socio-economic status of beneficiaries. Methodological approaches used by different researchers were also highlighted. The methodological approaches discussed in the chapter included descriptive analysis (Cele, 2017; Mazibuko *et al.* 2018; Rakoen, 2019; Mothiba, 2019), Tobit Regression Models Mazibuko *et al.* (2018). A seven in-depth case studies using thematic analysis in a qualitative study (Maka & Aliber, 2019). A comparative statistics such as Chi-square and T-test analyses (Loki *et al.*, 2019), the instrument of regression analysis is used to assess the connection between one or more variables Gujarati, 2004 (cited in Katema & Chimhanda, 2017). The Binary Logistics Regression (BLR) model, t-test, and binomial test (Rakoen, 2019). Principal Component Analysis (PCA), descriptive statistics, gross margin analysis, Multivariate General Linear Model (MGLM), Univariate General Linear Model (UGLM), ordered probit regression model and Heckman selection model (Cele, 2017). Household commercialization index, and Probit regression model to examine the socio-economic features, level of market involvement, and factors influencing households market participation within the district (Abafe, 2021). The instrument of regression analysis is used to assess the connection between one or more variables Gujarati, 2004 (cited in Katema & Chimhanda, 2017). Ukhanal *et al.* (2018) in the differential effects of adaptation on adapters and non-adapters used endogenous switching regression model, took selectivity bias into account to investigate the factors that influence farmers' decision-making when it comes to implementing climate change adaptation methods, as well as how these adaptations affect farm production. Since this study made use of cross-sectional data derived at one point in time through the use of a questionnaire, with a binary

dependant variable, the Probit, endogenous switching regression model and descriptive analysis would be the appropriate model. Chapter 3, which follows, details the study area, including the demographics, progress of land reform, agricultural potential and economic factors, methodology used, and socio-economics characteristics for objective 1.

## References

- Abafe, E. A. (2021). Market participation of smallholder sunflower farmers in North-West province, South Africa (Doctoral dissertation).
- Adams, M. (2001). Tenure Security, Livelihoods and Sustainable Land use in Southern Africa. In: *SARPN Conference on Land Reform and Poverty Alleviation in Southern Africa 4th and 5th June 2001*. SARPN.
- Adams, M. & Howell, J. (2001). Redistributive Land Reform in Southern Africa. In J. Farrington & A. Wyles (Eds.), *Natural Resource Perspective*. London: Overseas Development Institute. Retrieved August 10, 2018, from <http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/3779/64-redistributive-land-reform-southern-africa.pdf?sequence=1>.
- Africa Centre for Biodiversity. (2018). Input supply in South Africa's smallholder farmer support programs. A tale of neo-apartheid plans, dodgy dealings and corporate capture. Johannesburg: The Africa Centre for Biodiversity.
- Agholor, A. I. & Gama, B. (2020). Perception on land reform in Reef, Nkomazi District Mpumalanga South Africa. *International Journal of Sciences and Research*, 76(10), 83-94.
- Anseeuw, W., Liebenberg, F., & Kirsten, J. (2015). Agrarian reform in South Africa: Objectives, evolutions and results at the national level. *South Africa's Agrarian Question*, 28-51. Retrieved July 16, 2018, from [https://hal.archivesouvertes.fr/hal-01376094/file/South\\_Africa%27s\\_Agrarian\\_Question\\_-\\_eBook.pdf#page=55](https://hal.archivesouvertes.fr/hal-01376094/file/South_Africa%27s_Agrarian_Question_-_eBook.pdf#page=55).
- Aravindakshan, S., Rossi, F., Amjath-Babu, T. S., Veetil, P. C., & Krupnik, T. J. (2018). Application of a bias-corrected meta-frontier approach and an endogenous switching regression to analyze the technical efficiency of conservation tillage for wheat in South Asia. *Journal of Productivity Analysis*, 49(2-3), 153-171.

- Beinart, W., & Delius, P. (2019). The PAP report on land reform: An assessment. Next steps towards land reform. Politicsweb. Retrieved February 10, 2020, from <https://www.politicsweb.co.za/documents/the-pap-report-on-land-reform-an-assessment>.
- Binswanger-Mkhize, H. P. (2014). From Failure to success in South African land reform. *African Journal of Agricultural and Resources Economics*, 9 (4), pp.253-269.
- Bizcommunity. (2017). Government to develop more black commercial farmers. Retrieved March 24, 2019, from <https://m.bizcommunity.com/contactUs.aspx?I=196&c=358>.
- Business Enterprise. (2013). Implementation evaluation of the Recapitalization and Development Program (from inception in 2010 to 2012). Pretoria: Republic of South Africa.
- Byamugisha, F. (2014). Agricultural Land Redistribution and Land Administration in Sub-Saharan Africa: Case Studies of Recent Reforms. Washington, DC: The World Bank. Retrieved August 17, 2018, from <https://doi.org/10.1596/978-1-4648-0188-4>.
- Cele, L. (2017). Land and water use rights in smallholder farming: impacts on productive use of irrigation water and entrepreneurial spirit in KwaZulu-Natal (Doctoral dissertation).
- Ciamarra, U. P. (2003). State-led and market-assisted land reforms: history, theory, and insight from the Philippines. Paper prepared for presentation at the VII spring meeting of young economists, Belgium.
- Cornerstone Economic Research. (2014). Expenditure and Performance Review: Micro Agriculture Finance Institutions of South Africa. Pretoria: Cornerstone Economic Research.
- Cousins, B., & Scoones, L. (2009). Contested paradigms of 'viability in redistributive land reform: perspectives from southern Africa. *The Journal of Peasant Studies*. 37(1): 31-66.

Cousins, B. (2016). Land Reform in South Africa Is Failing. Can It Be Saved? Transformation: *Critical Perspectives on Southern Africa*. 92 (1): 135-157.

Cousins, B. (2019). The land policy must change South Africa's agrarian structure. Daily Maverick. Retrieved April 23, 2019, from <https://www.dailymaverick.co.za/article/2019-04-23-land-policy-must-change-south-africas-agrarian-structure/amp/>.

Crossman, A. (2020). Understanding stratified samples and how to make them. Retrieved January 29, 2021, from <https://www.thoughtco.com/stratified-sampling-3026731>.

Dawood, G. (2017). The National Land Reform Program and Rural Development. Submission for the Division of Revenue. Retrieved August 28, 2018, from <http://www.ffc.co.za/2-uncategorised/144-2017-18-submission-for-the-division-of-revenue>.

Dawood, G. (2018). Chapter 3: The National Land Reform Program and Rural Development. Submission for the Division of Revenue 2017/18. Pretoria: Department of Rural Development and Land Reform.

Departments of Agriculture, Forestry and Fisheries (DAFF). (2015). Catalogue for producer support and development. Pretoria: Department of Agriculture, Forestry and Fisheries.

Departments of Agriculture, Forestry and Fisheries (DAFF). (2017). CASP and Ilima/Lestema Presentation to select committee on appropriations 17 October 2017. Pretoria: Department of Agriculture, Forestry and Fisheries.

Departments of Agriculture, Forestry and Fisheries (DAFF). (2018). Presentation to portfolio committee on monitoring and verification of projects (CASP, ILIMA-LETSIMA, LAND CARE & MAFISA) by DAFF in the Provinces. Pretoria: Department of Agriculture, Forestry and Fisheries.

Departments of Agriculture, Forestry and Fisheries (DAFF). (2019a). A directory of Development Finance and Grant Funding Organizations for Aquaculture Operations in South Africa. Cape Town: Department of Agriculture, Forestry and Fisheries.

Departments of Agriculture, Forestry and Fisheries (DAFF). (2019b). Agribee fund criteria for funding. Pretoria: Department of Agriculture, Forestry and Fisheries.

Department of Land Affairs (DLA). (2010). White Paper on South African Land Policy April 1997. Pretoria: Department of Land Affairs.

Department of Rural Development and Land Reform (DRDLR). (2011). Policy Framework for the Recapitalization and Development Program of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land Reform.

Department of Rural Development and Land Reform (DRDLR). (2012). Mid-term Review of the Department of Rural Development & Land Reform 2012. Pretoria: Department of Rural Development and Land reform.

Department of Rural Development and Land Reform (DRDLR). (2013). Three Years Review of Recapitalization and Development Program: September 2013. Pretoria: Department of Rural Development and Land reform.

Department of Rural Development and Land Reform (DRDLR). (2014). Revised Policy for the Recapitalization and Development Program of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.

Department of Rural Development and Land Reform (DRDLR). (2018). Annual Statistical Report for selected service delivery programs of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.

Dudovskiy, J. (2018). The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. Retrieved December 16, 2019, from <https://research-methodology.net/about-us/ebook>.

ECRDA. (2015). Annual Report 2014/15. King Williams Town: Eastern Cape Rural Development Agency.

Food and Agriculture Organization (FAO). (2008). Land Tenure Studies: Compulsory acquisition of land and compensation. Italy: Food and Agriculture Organization of the United Nations.

Golele, N. S., Mautjana, H., & Makombe, G. (2018). An assessment of the effectiveness of the mentorship programme in land reform: the case of Ba Bina Noko Community Property Association, Sekhukhune District, Limpopo Province, South Africa. *Journal of Public Administration*, 53(2-1), 430-445.

Government Gazette. (1993). Republic of South Africa Government Gazette: No. 126 of 1993: Provision of Certain Land for Settlement Act, 1993. 337(14992):1-8.

Government Gazette. (1994). Republic of South Africa Government Gazette: Restitution of Land Rights Act 22 of 1994.

Government Gazette. (1997). Republic of South Africa Government Gazette: No. 62 of 1997: Extension of Security of Tenure Act, 1997. 389(18467)1-16.

Hall, R. (2007). The Impact of Land Restitution and Land Reform on Livelihoods, Research report no. Cape Town: University of the Western Cape.

Hans, P., & Mkhize, B. (2014). From failure to success in South African land reform. *African Journal of Agricultural and Resource Economics*. 9(4): 253-269.

Hossain, M. (2015). Improving Land Administration and Management in Bangladesh; General Economics Division of the Planning Commission, Bangladesh Institute of Development Studies (BIDS): Dhaka, Bangladesh, 2015; pp. 1–41.

- Hull, S., & Whittal, J. (2018). Filling the Gap: Customary Land Tenure Reform in Mozambique and South Africa. *South African Journal of Geomatics*.7(2):102-117
- Institute of Accounting & Commerce (IAC). (2017). B-BBEE Codes of Practice. Wynberg: Institute of Accounting & Commerce.
- International Fund for Agricultural Development (IFAD). (2015). Role of extension services. Retrieved August 17, 2018, from <http://www.ifad.org/rainfedag/services/index.htm>.
- Kariuki, S. M. (2004). Can negotiated Land Reforms deliver? A case of Kenya's, South Africa's and Zimbabwe's Land Reform policy debates. Witwatersrand: University of the Witwatersrand.
- Katema, T., & Chimhanda, A. Z. C. G. K. (2017). An Analysis of the Viability of Winter Wheat Farming Under the A1 Land Resettlement Model in Zimbabwe: A Case Study of Mazowe District.
- Kirsten, J. (2017). Reflections on 25 years of engagement with the land question in South Africa. Stellenbosch: University of Stellenbosch.
- Kotrlik, J. W. K. J. W., & Higgins, C. C. H. C. C. (2001). Organizational research: Determining the appropriate sample size in survey research. *Information technology, learning, and performance journal*, 19(1), 43.
- Krantz, L. (2001). The Sustainable Livelihood Approach to Poverty Reduction. An introduction. In: Division for Policy and Socio-Economic Analysis, ed. Megan Lloyd-Laney. Swedish International Development Cooperation Agency.
- Kumar, R. (2019). Research methodology: A step-by-step guide for beginners. Sage Publications Limited.
- Lahiff, E. (2002). Land reform and sustainable livelihoods in South Africa's Eastern Cape province, Research report no. 14. Western Cape: University of the Western Cape.



- Loki, O., Mudhara, M., Pakela-Jezile, Y., & Mkhabela, T. S. (2019). Factors Influencing Land Reform Beneficiaries' Willingness To Pay For Extension Services In Eastern Cape And Kwazulu-natal, South Africa. *South African Journal of Agricultural Extension*, 47(4), 29-45.
- Lucille, D. (2013). 1913 Land Act: images of loss. Brand South African. Retrieved August 20, 2018, from <https://www.brandsouthafrican.com/people-culture/history-heritage/a-stark-portrait-of-loss>.
- Mabuza, N. N. (2016). Socio-economic impact of land reform projects benefiting from the Recapitalization and Development Program in South Africa. (Masters Dissertation, University of Pretoria).
- Maka, L., & Aliber, M. (2019). The role of mentors in land reform projects supported through the recapitalization and development program: findings from Buffalo city metropolitan municipality, South Africa. *South Africa Journal Agricultural Extension*, 47(2), 37-45. Retrieved September 10, 2018, from <https://doi.org/10.17159/2413-3221/2019/v47n2a501>.
- Makhado & Rudzani, (2012). South Africa's Land Reform Debate: Progress and Challenges. *SSRN Electronic Journal*. 10.2139/ssrn.2181379.
- Malatji, T. & Phango, K. (2018). Land reform constituents for whose benefit? A discourse analysis of proactive land acquisition strategy in South Africa. *Journal of Public Administration*. 53(2-1):397-412.
- Manenzhe, T. J. (2007). Post settlement challenges for land reform beneficiaries: three case studies from Limpopo province (Masters Dissertation, University of the Western Cape, South Africa).
- Manenzhe, T. D. (2019). A sustainable farm management model for land reform in Mpumalanga, South Africa (Doctoral dissertation, University of the Free State).

- Martin, A. (2000). *Breaking Ground: Development Aid for Land Reform*. London, UK: Overseas Development Institute.
- Masoka, N. S. (2014). *Post-settlement Land Reform Challenges: The Case of the Department of Agriculture, Rural Development and Land Administration, Mpumalanga Province* (Doctoral dissertation, University of North-West, South Africa).
- Massoud, M. A., Issa, S., El-Fadel, M., & Jamali, I. (2016). Sustainable livelihood approach towards enhanced management of rural resources. *Int. J. Sustainable Society*. 8(1):54-72.
- Maureen, N., & Wilbur, S. (2018). An investigation into the factors affecting the sustainability of the land reform programme beneficiaries in Kwa Zulu-Natal Province. *International Journal of Management*, 7(1), 43-62.
- Mazibuko, N., Balarane, A., Antwi, M., & Yeki, P. (2018). Socio-economic factors influencing smallholder farmers agricultural infrastructure availability, accessibility and satisfaction: A case on North West province in South Africa.
- Mkhabela, T., Ntombela, S., & Mazibuko, N. (2018). *Pro et Contra of Agriculture Land Reform in South Africa: A policy brief*.
- Mmbengwa, V. M. (2009). *Capacity Building Strategies for Sustainable Farming SMMEs in South Africa*. (Doctoral Dissertation, University of the Free State).
- Mothiba, M. C. (2019). *Effects of Market Access on Income of Cattle Farmers in the Capricorn District of Limpopo Province, South Africa* (Doctoral dissertation, North-West University (South Africa)).
- Mthombeni, S., Bove, D., & Thibane, T. (2019). An analysis of finance as a barrier to entry and expansion for emerging farmers. Working paper CC2019/01. Pretoria: The Competition Commission.

- Mukovhe, N., & Moyo, T. (2019). Analysis of Early Experiments with Land Redistribution in South Africa: Case of Vhembe District Municipality of Limpopo Province. In: The 4th Annual International Conference on Public Administration and Development Alternatives 03 - 05 July 2019.
- Muller, J. (2018). Can 99-year leases work? The 99-year lease is a viable tenure model that could be used to effectively help address land reform — and it need not be confined to state-owned or communal land. *BusinessLIVE*. Retrieved August 05, 2019, from <https://www.businesslive.co.za/fm/features/2018-08-09-can-the-99-year-leases-work/>.
- Mwambi, M., Bijman, J., Mshenga, P., & Oosting, S. (2020). Adoption of food safety measures: The role of bargaining and processing producer organizations. *NJAS-Wageningen Journal of Life Sciences*, 92, 100337.
- National Department of Agriculture (NDA). (2019). Comprehensive Agricultural Support Program (CASP). Pretoria: National Department of Agriculture.
- Nenngwekhulu, N. (2019). Financial analysis of the Recapitalisation and Development Programme in South Africa (Doctoral dissertation, University of Pretoria).
- Nkosi, N. (2017). Level of access to agricultural extension and advisory services by emerging livestock farmers in uThungulu district municipality, KwaZulu-Natal province (Masters Dissertation, University of South Africa).
- Ntsebenza, L., & Hall, R. (2007). The Land Question in South Africa: The challenge of Transformation and Redistribution. Cape Town, South Africa: HSRC Press.
- Ojo, T. O., Baiyegunhi, L. J. S., & Salami, A. O. (2019). Impact of Credit Demand on the Productivity of Rice Farmers in South-West Nigeria. *Journal of Economics and Behavioural Studies*, 11(1), 166-180. Retrieved August 21, 2020, from [https://doi.org/10.22610/jeb.v11i1\(J\).2757](https://doi.org/10.22610/jeb.v11i1(J).2757).

Parliamentary Monitoring Group (PMG). (2017). CASP, ILIMA/LETSEMA, Land Care Program Conditional Grants performance: hearing; with Minister. Cape Town, South Africa: Parliamentary Monitoring Group.

Parliamentary Monitoring Group (PMG). (2019a). CASP, ILIMA/LETSEMA, MAFISA development support; KZN oversight report. Cape Town, South Africa: Parliamentary Monitoring Group.

Parliamentary Monitoring Group (PMG). (2019b). One Household One Hectare; Recapitalization & Development; Land Development Support & Landcare programs: Department briefing. Cape Town, South Africa: Parliamentary Monitoring Group. <https://pmg.org.za/committee-meeting/28844/>.

Parliamentary Monitoring Group (PMG). (2019c). ATC191119: Report of the Portfolio Committee on Agriculture, Land Reform and Rural Development on an Oversight Kwazulu-Natal Province from 26 to 30 August 2019, dated 12 October 2019. Cape Town, South Africa: Parliamentary Monitoring Group. Retrieved August 17, 2018, from <https://pmg.org.za/taled-committee-report/4005/>.

Pascalina, T.L. (2001). An appraisal of post-transfer production trends of selected land reform projects in the North West Province, South Africa. (Masters Dissertation: University of Pretoria, South Africa).

Phasha, D., & Moyo, T. (2020). Pre and post-settlement support systems and the failure of some land reform projects in South Africa: implications for the planning of land reform in the future. International Conference on Public Administration and Development Alternatives (IPADA).

Phatudi-Mphahlele, M. (2016). Analysis of Socio-economic Impact of Comprehensive Agricultural Support Program on Agrarian Reform Farmers of Sedibeng District Municipality in Gauteng Province South Africa (Masters Dissertation, University of South Africa, South Africa).

- Rakoena, V. M. (2019). The socio-economic impact of recapitalisation and development programme on beneficiaries in Gauteng Province (Doctoral dissertation).
- Rungasamy, L. (2011). The Need for Settlement Support in Land Reform Projects: focus on sustainable development. (Masters Dissertation, University of South Africa).
- Rusenga, C. (2020). Setting them up to fail: enforcement of the agribusiness model on land reform projects in South Africa. *Review of African Political Economy*, 47(165), 382-398.
- SAHO. (2019). Pass laws in South Africa 1800-1994. Retrieved from January 10, 2020, from <https://www.sahistory.org.za/article/pass-laws-south-africa-1800-1994>.
- Sibisi, N. (2015). Agricultural Extension and Post-Settlement Support of Land Reform Beneficiaries in South Africa: The Case of Ixopo in the province of Kwazulu-Natal (Masters Dissertation, University of Kwazulu-Natal, South Africa).
- Sotsha, K., Rambua, K., Mathagu, H., Myeki, L., & Khoza, T., (2017). Agripreneur: Land redistribution and post-settlement support: a missing link. National Agricultural Marketing Council.
- Terblanché, S. E., Stevens, J. B., & Sekgota, M.G., (2014). A Comparative Analysis of Two Land Reform Models: The Mashishimale Farm Management Model and the Nkumbuleni Strategic Partnership Model, South Africa. *South African Journal of Agricultural Extension*, 42(2), pp.81-102.).
- TFM MAGAZINE. (2019). What are the expectations of AgriBEE? Transformation/Sector Codes. (16):19-23. Retrieved December 23, 2019, from <https://journals.co.za/doi/10.10520/EJC-14b9eba88d>.

UKhanal, U., Wilson, C., Hoang, V. N., and Lee, B. 2018. Farmers' adaptation to climate change, its determinants and impacts on rice yield in Nepal. *Ecological Economics* 144:139-147.

The University of the Western Cape. (2016). Diagnostic Report on Land Reform in South Africa: Commissioned Report for High-Level Panel on the Assessment of Key Legislation and the Acceleration of Fundamental Change, an Initiative of the Parliament of South Africa. University of the Western Cape, South Africa.

Viresh, R. (2004). Land Reform in South Africa: A General Overview and Critique. (Masters Dissertation: University of KwaZulu-Natal, Pietermaritzburg).

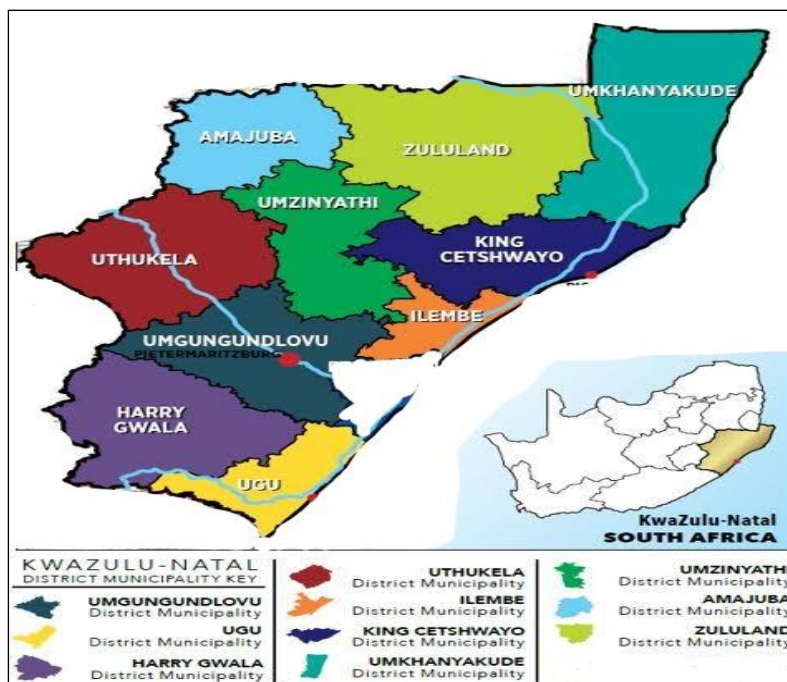
Weideman. (2003). Land reform, Equity and Growth in South Africa: A Comparative Analysis. (PhD Thesis: University of Witwatersrand, Johannesburg).

## CHAPTER 3: STUDY AREA AND METHODOLOGY AND CHARACTERISTICS OF SOCIO-ECONOMIC STATUS OF LAND REFORM BENEFICIARIES

Chapter 3 presents the study area in terms of the characteristics of socio-economic factors, demographics, geographic location, agricultural potential, economic and socio-cultural characteristics. The data collection and analysis method employed is presented, and are also discussed in chapter 3.

### 3.1. Description of the Study Area

The research area was the KwaZulu-Natal (KZN) province of South Africa. KZN is a province in South Africa that is located on the east coast. KZN was selected because it is representative of the socio-economic, demographics, and bioresources of South Africa and being the major province in terms of agricultural production in South Africa (Hlatshwayo, 2018). The population of KZN is 11 384 722 people which is 19, 7% South African population (KZN provincial treasury, 2019). However, n=264 samples were used to represent the KZN population in the research study. UMgungundlovu, Amajuba, Zululand, Ugu, Harry Gwala, UMkhanyakude, uThukela, uMzinyathi, King Cetshwayo, and Ilembe are the 10 district municipalities of the province where the study was conducted as shown in figure 3 below.



**Figure 3:KwaZulu-Natal Map with district regions**

Modified source: (Tikzn, 2019).

- **Agricultural Potential**

KZN has a capacity of 9,210,000 ha as its total area (Adey *et al.*, 2004). In KZN, 6,5 million hectares of land are used for farming, with 18% being arable land and 82% being best suited to massive animal production (Tikzn, 2019). Different cropping took place in KZN because of the province's wide range of natural resources. Maize, beans, taro, potatoes, and groundnuts are mainly produced in KZN (Govender *et al.*, 2016). The mean annual rainfall of KZN ranges from 600 to 2000mm. The differences in height, which vary from sea level to over 3000m, are significant.

KZN, like the rest of South Africa, is divided into two types of agricultural production systems: large-scale commercial and small-scale family farming. Altman *et al.* (2009) indicated that about 65% of the provincial population is measured to participate in the agricultural industry. As stated by StatSA (2019) that there are around 400,000 small-scale farmers in rural areas. And the province had 3103 commercial farms in 2017. The district municipality with the highest number of farms was uMgungundlovu with 686, followed by uThukela with 364, and Zululand with 358 of the provincial totals (Department of Statistics South Africa, 2020).

- **Agri-Economic in KZN region**

R34 billion was the total income for the commercial agriculture industry in 2017. It was 237% higher than R10,1 billion recorded for 2007. Livestock farming was the largest contributor with R15,4 billion (45.2%), followed by cereals and other crops with R9,2 billion (27.0%) and mixed farming accounted for R6,3 billion (18.6%) of contribution. However, in terms of employment, Cereals and other crops were the major crops in 2017 with 37 848 (39.4%) employees, followed by livestock farming with 28 167 (29.3%) of the total (Department of Statistics South Africa, 2020). uMgungundlovu is the largest agricultural income contributor with R8,2 billion (24.2%), followed by eThekweni with R4,3 billion (12.7%) and uMzinyathi with R3,9 billion (11.5%) in 2017. The province of KZN had 96 206 employees in the commercial farming of KZN in 2018 (Department of Statistics South Africa, 2020).

### **3.2. Data collection methods**

Quantitative data was collected using a survey to encourage the objective measurements of collecting and analyzing data using a numerical approach (Barnham, 2015). Probability sampling to assess the impact of Recapitalisation and Development Programme (RADP) on the performance of land reform farmers, and the probability of participants being included in the sample were estimated (Taherdoost, 2016). Kotrlik & Higgins (2001) refer to sample size



determination as to the process of selecting the number of participants to include in a statistical sample. In addition, the researchers used a Multistage sample technique, participants were randomly selected using a stratified sampling design to ensure that non-RADP and RADP recipients are sufficiently represented within the overall sample through the use of probability sampling (Crossman, 2020). As a result, it was done to remove bias from the selection process and provide a sample representative (Dudovskiy, 2018). A multistage sampling technique was used to select the respondents for the study. The first stage involved typical case purposive selection of PLAS beneficiaries in land reform in KwaZulu-Natal. In the second stage, 10 local district municipalities of KZN were selected, based on the predominance of PLAS land reform beneficiaries in these areas, using typical case purposive sampling. In the third stage, farmers of Non-RADP and RADP were stratified and randomly selected resulting in 68 RADP beneficiaries and 196 Non-RADP beneficiaries participated in the study. For this study, following Kotrlik & Higgins (2001), at a 95% confidence interval and 5% margin of error based on the population of land reform farmers, of 835 from a pre-existing database of land reform farmers in KZN from the gatekeeper, using a statistical software calculator to determine sample size and a minimum sample size  $n=264$ . Each member had a chance of being chosen for a sample.

The survey (see Appendix A) was conducted using a structured questionnaire and was focused on land reform beneficiaries in the study area. The data collection process was completed on a total of 264 questionnaires ( $n=264$ ). Even though quantitative research uses a variety of data gathering methodologies, surveys, experiments, and content analysis. In this study, however, a survey data collection tool was used. The goal of this study was to assess the impact of recapitalization and development programs on the performance of land reform farmers. The interview was conducted using the isiZulu Language so that farmers can best participate with an understanding.

The consent letter linked to each survey of land reform farmers was read during primary data collection to ensure that the respondent understood the research's purpose completely. This was completed and signed by respondents before their participation in the research project to confirm their agreement with the study's parameters. As a result, the respondent was informed in advance via a letter of consent that their true identity would be concealed and that they would be recognized solely by numbers and a class designation such as land reform farmer. Ethical protocols were followed; if a researcher wants to engage with society, compliance with the

Research Ethics Policy is mandatory (UKZN, 2007). As a result, land reform farmers were engaged via the Department of Rural Development and Land Reform (DRDLR) KZN gatekeeper's awareness (see appendix C), and engagement in the field for primary data collection was optional and documented (see appendix B). The University Ethics Committee (UEC) reviewed and approved the research design and data collection tools/instruments (UEC).

### **3.3. Data analysis methods**

The data gathered from the respondents were analyzed using descriptive statistics and econometric analysis. Data resulting from a sample were treated statistically using Excel and STATA (Lutabingwa, 2007). The mean and standard deviation were used as descriptive statistics to analyze the socio-economic status data of the respondent (Kumar, 2019). The adoption of the Probit regression model was significant in the assessment of farmers' participation in RADP. A binary outcome was estimated with the binary choice model. The linear probability model, the probit model, and the logit model are examples of alternative qualitative choice model definitions (Mwambi *et al.*, 2020). Among the binary choice models (logit and probit), the probit model was preferred due to its widespread application in similar studies Mustapha 2016 (cited in Mwambi *et al.*, 2020). However, the specification of the probit model where econometric analysis was applied, is discussed in detail in chapter 4 to avoid repetition of information.

According to Lokshin & Sajaia 2004; Khanal 2018, (cited in Aravindakshan *et al.*, 2018), and Endogenous Switching Regression Model (ESRM) was used to determine the level of significance of variables or the relationship between two variables influencing farmers' participation in RADP and the variables contributing to the likelihood of farm income for RADP and non-RADP farmers. Due to the possibility that RADP participation is endogenous, this approach estimated the effect of RADP participation on farmers' net farm income using RADP participation as a dummy variable, which may result in skewed and inconsistent estimates (Ojo & Baiyegunhi, 2020a). The data collecting technique was automated using STATA. Additionally, to prevent a repetition of information, the specification of the ESRM on which econometric analysis was performed is addressed in detail in Chapter 5.

### **3.4.Characteristics of Socio-economic status of land reform beneficiaries**

The desire of seeing agriculture as the core of the transformation for the previously disadvantaged citizens and as a vehicle for improving the socio-economic status and rural

economy cannot be ignored. The researcher used descriptive statistics to determine the socioeconomic status of land reform recipients. According to a thorough evaluation of the literature, farmers' socioeconomic, farm-specific, and policy or institutional characteristics all influence participation in the RADP program among smallholder farmers. For instance, a farmer with a higher educational level is expected to understand farm management methods and be capable of increasing production and resource efficiency. Farmers with a sufficient level of education to process, assess, analyze, and respond to innovations to implement sustainable agriculture management approaches, as proposed by Ojo *et al.* (2019); Myeni *et al.* (2019). Thus, this is consistent with Paudel *et al.* (2020) study, which found that farmers with a higher level of education are more likely to have more access to the knowledge necessary to implement more productive agricultural techniques. As a result, the researchers hypothesized that the number of years spent in formal schooling influenced RADP engagement positively.

The average age of respondents is around 49 years old, and over 80% of the farmers surveyed are married. While over 64% of farmers were involved in off-farm economic activity, the typical household size is about five people. Similarly, the number of years spent cultivating crops (a proxy for experience) is projected to have a favourable influence on RADP participation and net farm revenue. This is because farmers with a long farming history have a better understanding of the agricultural production environment and how to interpret market data, which increases their chances of participating in the RADP. Almost 70% of respondents signed a contract. These findings indicated that while 58% had access to extension services from both the private and public sector contributing to the progress of agricultural development with 54% of strategic partnership support, and mentorship was indicated to be 44%. As a result, agricultural development's primary stakeholders must play a critical role in boosting mentorship (Kwapong *et al.*, 2020).

## References

- Adey, S., Kotze, D. C., & Rijkenberg, F. H. (2004). 8 Small-Scale Farming in KwaZulu-Natal: Experiences from some “Promising. Seeds of Transition: Essays on novelty production, niches and regimes in agriculture, p.203.
- Altman, M., Hart, T.G., & Jacobs, P.T. (2009). Household food security status in South Africa. *Agrekon*, 48: 345-361.
- Aravindakshan, S., Rossi, F., Amjath-Babu, T. S., Veetil, P. C., & Krupnik, T. J. (2018). Application of a bias-corrected meta-frontier approach and an endogenous switching regression to analyze the technical efficiency of conservation tillage for wheat in South

- Asia. *Journal of Productivity Analysis*, 49(2-3), 153-171. Retrieved December 16, 2019, from <https://doi.org/10.1007/s11123-018-0525-y>.
- Barnham, C. (2015). Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research*, 57(6), 837-854.
- Crossman, A. (2020). Understanding stratified samples and how to make them. Retrieved January 29, 2021, from <https://www.thoughtco.com/stratified-sampling-3026731>.
- Department of Statistics South Africa. (2020). Census of commercial agriculture, 2017: KwaZulu-Natal: Financial and production statistics. Pretoria: Statistics South Africa.
- Dudovskiy, J. (2018). The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. Retrieved December 16, 2019, from <https://research-methodology.net/about-us/ebook>.
- Govender, L., Pillay, K., Siwela, M., Modi, A., & Mabhaudhi, T. (2016). Food and Nutrition Insecurity in Selected Rural Communities of KwaZulu-Natal, South Africa—Linking Human Nutrition and Agriculture. *International journal of environmental research and public health* 14: 17.
- Hlatshwayo, S. (2018). Local Economic Sustainability Under Smallholder Subsistence Farming. (Masters Dissertation: University of KwaZulu-Natal, Pietermaritzburg, South Africa).
- Kotrlik, J. W. K. J. W., & Higgins, C. C. H. C. C. (2001). Organizational research: Determining the appropriate sample size in survey research. *Information technology, learning, and performance journal*, 19(1), 43.
- Kumar, R. (2019). Research methodology: A step-by-step guide for beginners. Sage Publications Limited.
- Kwapong, N. A., Ankrah, D. A., Boateng-Gyambiby, D., Asenso-Agyemang, J., & Fening, L. O. (2020). Assessment of agricultural advisory messages from farmer-to-farmer in

making a case for scaling up production: A qualitative study. *The Qualitative Report*, 25(8), 2011-2025.

KZN Provincial Treasury. (2019). Province of KwaZulu-Natal: Socio-economic review and Outlook 2019/2020. 5th Floor, Treasury House: KZN Provincial Treasury.

Lutabingwa, J. (2007). Data Analysis in Quantitative Research. *Journal of Public Administration*, 42(6), 528-548.

Mwambi, Mercy, Bijman, Jos, P.M., & Mshenga, (2020). Which type of producer organization is (more) inclusive? Dynamics of farmers' membership and participation in the decision-making process: M. MWAMBI, J. BIJMAN and P. MSHENGA. *Annals of Public and Cooperative Economics*.91.10.1111/apce.12269.

Myeni, L., Moeletsi, M., Thavhana, M., Randela, M., & Mokoena, L. (2019). Barriers affecting sustainable agricultural productivity of smallholder farmers in the Eastern Free State of South Africa. *Sustainability*, 11(11), 3003.

Ojo, T. O., & Baiyegunhi, L. J. S. (2020). Determinants of climate change adaptation strategies and its impact on the net farm income of rice farmers in southwest Nigeria. *Land Use Policy*, 103946. Retrieved February 20, 2021, from <https://doi.org/10.1016/j.landusepol.2019.04.007>.

Ojo, T. O., Baiyegunhi, L. J. S., & Salami, A. O. (2019). Impact of Credit Demand on the Productivity of Rice Farmers in South-West Nigeria. *Journal of Economics and Behavioral Studies*, 11(1), 166-180. Retrieved February 20, 2021, from [https://doi.org/10.22610/jeb.v11i1\(J\).2757](https://doi.org/10.22610/jeb.v11i1(J).2757).

Paudel, B., Zhang, Y., Yan, J., Rai, R., Li, L., Wu, X., & Khanal, N. R. (2020). Farmers' understanding of climate change in Nepal Himalayas: important determinants and implications for developing adaptation strategies. *Climatic Change*, 158(3), 485-502.

STATSA. (2019). *Mid-year population estimates*. Retrieved February 20, 2021, from <https://www.statssa.gov.za/>.

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27. Retrieved February 20, 2021, from <https://doi.org/10.2139/ssrn.3205035>.

TIKZN. (2019). Retrieved January 21, 2020, from [http://www.tikzn.co.za/open.php?cat=key\\_sectors&page=agriculture](http://www.tikzn.co.za/open.php?cat=key_sectors&page=agriculture).

UKZN. (2007). Research Policy V: Research Ethics. Retrieved 21 December 2019. [http://research.ukzn.ac.za/Files/Research\\_Ethics\\_Policy\\_V\\_Final\\_rec\\_from\\_ACB\\_31\\_July\\_2007\\_sen\\_30\\_may\\_2007\\_and\\_council\\_29\\_june\\_2007\\_2.sflb.doc](http://research.ukzn.ac.za/Files/Research_Ethics_Policy_V_Final_rec_from_ACB_31_July_2007_sen_30_may_2007_and_council_29_june_2007_2.sflb.doc).

## **CHAPTER 4: ANALYSIS AND DISCUSSION OF RESULT ON FACTORS INFLUENCING PARTICIPATION OF FARMERS IN RECAPITALIZATION AND DEVELOPMENT PROGRAMME (RADP)**

### **4.1. Abstract**

Insufficient farmer support to the beneficiaries of land reform has been a periodic criticism practically since the initiation of the RADP. Several challenges experienced by land reform beneficiaries are access to financial support, infrastructure support, and access to markets for farm outputs, capacity building, agricultural inputs and also assistance with productive and sustainable land use. This study analyzed factors influencing farmers' access to RADP in the KwaZulu-Natal (KZN) province of South Africa. Descriptive statistics and econometric analysis were applied to analyze the data collected from the respondents. The study was undertaken in KZN to determine the factors impacting 264 land reform beneficiaries' engagement in the RADP. The study's findings indicated that participation in RADP increases the likelihood of being tax-compliant, involving secondary organizations in the program, and establishing legal entities, as well as having positive start-up capital, involving external stakeholders for assistance, and also collaborating with strategic partners. It can be concluded that there are still more interventions required both from the private and public sector to enhance mentorship programs so that it can be signified to increase the likelihood of participation in the post-settlement program. It is suggested that the South African government devote more resources to empowering the beneficiaries through efficient skill transfer. The government may also consider creating an atmosphere that encourages the private sector to provide inexpensive financial services to land reform farmers.

**Keywords: RADP, Land reform beneficiaries, Probit model, KwaZulu-Natal**

### **4.2. Introduction**

Post-settlement is the government's duty to support land reform beneficiaries after land acquisition in terms of land reform programs (Rungasamy, 2011). The importance of post-settlement support for land reform farmers is critical to achieving land reform's goals and requirements (Mafora, 2014). Insufficient farmer support to the beneficiaries of land reform has been a periodic criticism practically since the initiation of the program. As a result, the government had been ineffective in achieving the goals of enabling post-settlement support to the beneficiaries of the land reform programs, even with circumstances of isolated successes (Rungasamy, 2011). Manenzhe (2007) stated that numerous challenges experienced by the



beneficiaries are access to financial support, infrastructure support, and access to markets for farm outputs, capacity building, agricultural inputs and also assistance with productive and sustainable land use.

The Department of Rural Development and Land Reform (DRDLR) aided the process by introducing a variety of policy programs aimed at purchasing land and assuring agricultural production on the transferred land (Rakoena, 2019). The programs include land restitution measures such as Settlement Land Acquisition Grant (SLAG), Land Redistribution for Agricultural Development (LRAD), and Proactive Land Acquisition Strategy (PLAS) introduced in 1995, 2001 and 2006, respectively. The success and failures of each program led to the introduction of the other. For example, the failure of LRAD resulted in the Department introducing the PLAS to assist with land acquisition, redistribution and offering of full production grants to beneficiaries of land reform and previously disadvantaged private farmers. However, land reform programs did not achieve the targeted land distribution. By the year 2012, only 7.95 million hectares of targeted land had been redistributed (Lyne, 2014).

Even though there are successes from land reform programs, it has also brought many challenges in the South African farming sector. Some of the challenges include the allocation of productive land to people who cannot sustain production and the lack of agricultural development finance for the new farmers Borras 2001 (cited in Ntlou, 2016). Another factor that contributed to this low success rate is the long period it takes for the DRDLR to transfer land (Prinsloo, 2008). Consequently, the productive agricultural land loses its productive value, poverty and food insecurity keep rising in the rural areas (Groenewald, 2004). According to Antwi & Oladele (2013), other challenges faced by emerging land reform farmers are poor infrastructure quality, poor savings and lack of access to markets. As a result of these challenges, emerging farmers who benefited from land reform programs find it difficult to sustain their farms. Xaba and Dlamini (2015) found that these challenges, together with the lack of farming skills, are major contributors to the deteriorating status of agricultural enterprises and the vandalism of these properties. As an intervention strategy, the government has introduced several agricultural support programs. The Comprehensive Agricultural Support Program (CASP) was initiated in 2004 by the Department of Agriculture (DoA) to assist struggling farmers with infrastructure and extension support services. The program aimed to assist the hungry and vulnerable, food-insecure families, subsistence farmers, beneficiaries of land and agrarian reform, and farmers operating within the macroeconomic

environment (Xaba & Dlamini, 2015). In their research on whether skills training offered by CASP improves the livelihoods of beneficiaries, Xaba & Dlamini (2015) found that although the skills level of assisted farmers did improve, there is a minor improvement in the farmers' profit.

Rungasamy (2011) revealed that post-settlement support is important for the overall success of land redistribution, however, it has been ignored by practically all the key stakeholders, participation of land reform beneficiaries, inadequate appropriate consultation and role-players in both public and private sector in planning and implementation stages consequently follow-on in failed farms with no sustainability. After over 20 years of addressing the land access issues, success is still relatively low (Binswanger-Mkhize, 2014). Farmers are still struggling to make their farms productive and profitable due to a lack of recourses (Antwi & Oladele, 2013). Emerging farmers, in particular, are suffering more as they have to compete with big established commercial farmers for the market. Various state organizations such as the DRDLR and local municipalities have introduced programs to assist with realising the goals of land reform and increase agricultural production (Lyne, 2014). These programs have brought some improvement in some cases (Thinda *et al.*, 2020). In recent years, the DRDLR has introduced a farmer support program called the Recapitalization and Development Program (RADP). The program is aimed at providing financial support to selected distressed land reform beneficiaries and farmers in the former homelands and other communal areas (DRDLR, 2013). DRDLR anticipated that RADP would make rural communities become self-reliant and increase their agricultural production (DRDLR, 2014). The majority of the studies conducted on RADP focused on the overall impact of the program on agricultural production; financing the RADP (Nenngwekhulu, 2019); the role of mentors in land reform projects on the program (Maka & Aliber, 2019); large-scale farming and land reform beneficiaries (Rusenga, 2020). However, there is a dearth of knowledge on factors influencing smallholder farmers' access to RADP. It is against this backdrop that the focus of this study is geared towards analyzing the factors influencing smallholder farmers' access to RADP in the KZN Province of South Africa.

#### **4.3.Methodology**

This section presents the study area in terms of the characteristics of socio-economic factors, demographics, and geographic location. The data collection and analysis method employed is presented.

#### **4.3.1. Description of the study area**

The research area was the KwaZulu-Natal (KZN) province of South Africa. KZN is a province in South Africa that is located on the east coast. KZN was selected because it is representative of the socio-economic, demographics, and bioresources of South Africa and being the major province in terms of agricultural production in South Africa (Hlatshwayo, 2018). The population of KZN is 11 384 722 people which is 19, 7% South African population (KZN provincial treasury, 2019). However, n=264 samples were used to represent the KZN population in the research study. UMgungundlovu, Amajuba, Zululand, Ugu, Harry Gwala, UMkhanyakude, uThukela, uMzinyathi, King Cetshwayo, and ILembe are the 10 district municipalities of the province where the study was conducted.

#### **4.3.2. Sampling techniques and data collection method**

Quantitative data was collected using a survey to encourage the objective measurements of collecting and analyzing data using a numerical approach (Barnham, 2015). Probability sampling to assess the impact of Recapitalisation and Development Programme (RADP) on the performance of land reform farmers, and the probability of participants being included in the sample were estimated (Taherdoost, 2016). Kotrlik & Higgins (2001) refer to sample size determination as to the process of selecting the number of participants to include in a statistical sample. In addition, the researchers used a Multistage sample technique, participants were randomly selected using a stratified sampling design to ensure that non-RADP and RADP recipients are sufficiently represented within the overall sample through the use of probability sampling (Crossman, 2020). As a result, it was done to remove bias from the selection process and provide a sample representative (Dudovskiy, 2018). A multistage sampling technique was used to select the respondents for the study. The first stage involved typical case purposive selection of PLAS beneficiaries in land reform in KwaZulu-Natal. In the second stage, 10 local district municipalities of KZN were selected, based on the predominance of PLAS land reform beneficiaries in these areas, using typical case purposive sampling. In the third stage, farmers of Non-RADP and RADP were stratified and randomly selected resulting in 68 RADP beneficiaries and 196 Non-RADP beneficiaries participated in the study. For this study, following Kotrlik & Higgins (2001), at a 95% confidence interval and 5% margin of error based on the population of land reform farmers, of 835 from a pre-existing database of land reform farmers in KZN from the gatekeeper, using a statistical software calculator to determine sample

size and a minimum sample size  $n=264$ . Each member had a chance of being chosen for a sample.

The survey (see Appendix A) was conducted using a structured questionnaire and was focused on land reform beneficiaries in the study area. The data collection process was completed on a total of 264 questionnaires ( $n=264$ ). Although quantitative research uses a variety of data gathering methodologies, surveys, experiments, and content analysis. In this study, however, a survey data collection tool was used. The goal of this study was to assess the impact of recapitalization and development programs on the performance of land reform farmers. The interview was conducted using the isiZulu Language so that farmers can best participate with an understanding.

#### **4.3.3. Data analysis method**

The data gathered from the respondents were analyzed using descriptive statistics and econometric analysis. Data resulting from a sample were treated statistically using Excel and STATA (Lutabingwa, 2007). The mean and standard deviation were used as descriptive statistics to analyze the socio-economic status data of the respondent (Kumar, 2019). The adoption of the Probit regression model was significant in the assessment of farmers' participation in RADP. A binary outcome was estimated with the binary choice model. The linear probability model, the probit model, and the logit model are examples of alternative qualitative choice model definitions (Mwambi *et al.*, 2020). Among the binary choice models (logit and probit), the probit model was preferred due to its widespread application in similar studies Mustapha 2016 (cited in Mwambi *et al.*, 2020). However, the specification of the probit model where econometric analysis was applied.

#### **4.3.4. Probit Regression Model**

Descriptive statistics and econometric analysis were applied to analyze the data collected from the respondents. Descriptive statistics including, mean and standard deviation were employed to analyze the data. The assessment of farmers' participation in RADP, a binary outcome, was estimated with the binary choice model. Alternative specifications of qualitative choice models include the linear probability model, the probit model, and the logit model (Mwambi *et al.*, 2020). Among the binary choice models (logit and probit), the probit model was preferred due to its widespread application in similar studies Mustapha 2016 (cited in Mwambi *et al.*, 2020).

Many studies have used the probit regression model to determine the factors that influenced decision-making (Mwambi *et al.*, 2020). The binary logit regression model is based on the cumulative normal distribution and is commonly used to model the relationship between a binary response variable and one or more explanatory variables which can be either discrete or continuous. Following Promme *et al.* (2017); Mwambi *et al.* (2020), participation in RADP can be drawn as the stage at which a household decides to participate in the RADP. The underlying latent variable that captures the true farmers' socio-economic characteristics is hypothesized to determine the probability of farmers participating in the RADP. Regression

equation 1 indicates the latent variable  $CCAS_i^*$ :

$$CCAS_i^* = L_i\beta + e_i \quad e_i \approx N(0,1) \quad (1)$$

and,  $CCAS_i = 1$  if  $CCAS_i^* > 0$

$$CCAS_i = 0 \text{ if } CCAS_i^* \leq 0$$

where  $CCAS_i$  is a categorical variable that takes the value of 1 if a farmer participates in RADP and 0 otherwise.  $\beta$  is a vector of parameters to be estimated. In line with Wooldridge (2002), a probit model of  $CCAS_i$  which follows random utility is expressed as:

$$\Pr(CCAS_i = 1 | L_i, \alpha) = \Phi(L_i, \alpha) + e_i \quad (2)$$

where,  $CCAS_i$  equals 1 for farmers that participate in RADP and 0 otherwise;  $L_i$  represents the vector of independent variables;  $\alpha$ , vector of parameters to be estimated;  $\Phi$ , standard normal cumulative distribution function;  $e_i$  is a random error term hypothesized to be distributed normally with unit variance and zero mean.

## 4.4. Results and discussion

### 4.4.1. Descriptive statistics

Table 5 presents the description of variables and their units of measurement.

**Table 5: Descriptive statistics of the sampled farmers**

<i>Variable</i>	<i>Description</i>	<i>Mean</i>	<i>SD</i>
Gender	1 = if farmer is male	0.58	0.50
Age	Age of the farmer in years	49.72	12.71
Marital status	1 = if farmer is married	0.81	0.68

Formal education	1 = if farmer had access to formal education	0.69	0.67
Off-farm income	1 = if farmer engaged in off-farm economic activities	0.64	0.47
Household size	The number of persons in a household (count)	4.65	1.24
Farming experience	Number of years in farming	10.9	3.87
Access to extension	1 = if farmer had access to extension services	0.58	0.47
Access to credit	1 = if farmer had access to credit	0.58	0.49
Legal entity	1 = if farmer had access to legal entity	0.48	0.40
Farm potential income at acquisition	Amount of income at acquisition (Rands)		
Tax compliance	1 = if farmer is tax compliant	0.47	0.49
Mentorship	1 = if the farmer had access to mentorship	0.44	0.54
Strategic partnership	1 = if farmer had access to partnership	0.54	0.50
Project contract signed	1 = If farmer signed the contract	0.69	0.50
Farm- based organizations (FBO)	1 = if farmer belongs to FBO	0.58	0.51

A detailed review of the literature reveals that socioeconomic, farm-specific, and policy or institutional elements all influence smallholder farmers' involvement in the RADP. For example, a farmer with a higher educational level is expected to grasp agricultural management strategies that can increase productivity and resource efficiency. Farmers with a sufficient level of education, as claimed by Ojo *et al.* (2019); Myeni *et al.* (2019), are capable of processing, interpreting, analyzing, and responding to innovations for the adoption of sustainable agriculture management methods. Thus, this is consistent with Paudel *et al.* (2020) study, which found that farmers with a higher degree of education have a greater likelihood of having access to information necessary to adopt more effective agricultural practices. As a result, the study postulated that the number of years spent in formal education had a beneficial effect on involvement in the RADP program.

The average age of respondents is approximately 49 years, and approximately 80% of the sampled farmers are married. While over 64% of farmers engaged in non-farm economic activity, the average household has approximately five people. Similarly, the number of years spent cultivating crops (a proxy for experience) is projected to have a favourable effect on participation in the RADP program and on net farm revenue. This is because farmers with more years of farming have a better understanding of the agricultural production environment and the ability to analyze market information, which enhances their likelihood of participating in

the RADP program. Around 70% of respondents reported having a signed contract. These findings indicated that while 58% had access to extension services from both the private and public sector contributing to the progress of agricultural development with 54% of strategic partnership support, and mentorship was indicated to be 44%. As a result, a critical responsibility for key stakeholders in agricultural growth is to capacitate farmers in terms of marketing (Kwapong *et al.*, 2020).

#### 4.4.2. Factors influencing participation of farmers in RADP

The results of the probit model with marginal analysis on factors influencing the participation of farmers in RADP is presented in Table 6.

**Table 6: Probit regression model of factors influencing participation of farmers in RADP**

RADP	Probit model			Marginal effect			VIF
	Coef.	Std. Err.	P>z	Coef.	Std. Err.	P>z	
Gender	0.000	0.282	0.999	0.000	0.054	0.999	4.150
Age	0.017	0.013	0.185	0.003	0.002	0.186	3.140
Tax Compliance	0.581	0.255	<b>0.022**</b>	0.112	0.057	<b>0.048**</b>	2.060
Secondary Organization	0.467	0.245	<b>0.057*</b>	0.090	0.050	<b>0.074*</b>	1.890
Legal entity	1.458	0.549	<b>0.008***</b>	0.281	0.071	<b>0.000***</b>	1.740
Farm potential income at acquisition	0.000	0.000	<b>0.084*</b>	0.000	0.000	0.108	1.700
Farmer's receiving 3 <sup>rd</sup> party assistance	0.737	0.409	<b>0.071*</b>	0.142	0.081	<b>0.081*</b>	1.700
Mentorship	-0.127	0.364	0.728	-0.024	0.070	0.729	1.640
Strategic Partnership	0.664	0.380	<b>0.081*</b>	0.128	0.081	0.116	1.570
Non-farm income	-0.075	0.265	0.776	-0.015	0.051	0.776	1.100
Farming experience	0.007	0.010	0.500	0.001	0.002	0.501	1.100
Educational level	-0.095	0.240	0.692	-0.018	0.046	0.690	1.100
Constant	-3.869	0.865	<b>0.000***</b>				
<b>VIF</b>							<b>1.91</b>
<b>Log likelihood = -34.0537</b>							
<b>Pseudo R2 = 0.5881</b>							
<b>Prob &gt; chi2 = 0.0000</b>							
<b>LR chi2(12) = 97.24</b>							

\*\*\*, \*\*, and \* represent significance level at 1%, 5%, and 10%, respectively.

Tax compliance, secondary organizations, legal entities, farm potential income at acquisition, and strategic partnership are all statistically significant variables impacting land reform beneficiaries' participation in the RADP. A diagnostic test for multicollinearity was performed after the estimation of the probit model. The mean-variance inflator factor (VIF) was 1.91 which shows that multicollinearity was not an issue in the model.

### **Tax compliance**

The coefficient of tax compliance is positive and statistically significant in influencing the participation of land reform beneficiaries in the RADP. The result implies that participation in RADP increases the likelihood of being tax-compliant. The marginal effect shows that an increase in beneficiaries being tax-compliant increases the probability of participating in RADP by 11.2%. This is not unrelated to the regulations of the DRDLR, (2014) which require that all beneficiaries comply with South African Revenue Services (SARS) criteria and submit an annual tax clearance certificate to the DRDLR. This is consistent with the findings of De Janvry *et al.* (2015), who discovered a positive correlation between tax compliance and migration in their study on decoupling land rights and land usage in Mexico.

### **Secondary organizations**

The coefficient of secondary organizations is positive and statistically significant in influencing the participation of land reform beneficiaries in the RADP. The result implies that participation in RADP increases the likelihood of involving secondary organizations in the program. The marginal effect shows that an increase of beneficiaries working with secondary organizations increases the probability of participating in RADP by 9%. This is not unrelated to the DRDLR (2014) laws requiring farmers to build relationships with commercial agriculture and the private farming sector to achieve black economic empowerment. Institutional arrangements shall be outlined and agreed upon for the implementation of the co-management; transformation, accountability, tangible benefits, transparency and risk mitigation, with a clear definition of procedures, roles and responsibilities without compromising the sustainability of the operations. This is in line with the study of Vink & Kirsten (2019) who also found that there is now an opportunity for corporates and enterprises in the corresponding agribusiness and commercial farmers to contribute meaningfully to the land reform imperative in South Africa. Thus, Lahiff (2007) concluded in his study on land redistribution in South Africa that land reform farmers should not rely exclusively on the government for post-settlement support services but should be able to use a mix of public and private providers.

### **Legal entities**

The coefficient of legal entities is positive and statistically significant in influencing the participation of land reform beneficiaries in the RADP program. The result implies that the participation in RADP program increases the likelihood of creating landholding entities. The



marginal effect shows that an increase of beneficiaries establishing legal entities increases the probability of participating in RADP by 28.1%. This is not unrelated to the DRDLR (2014) policy requiring all land reform beneficiaries who wish to participate in RADP to have SARS-compliant legal entities. The form of legal entity to be established will be determined by the nature of the enterprise and the group of farmers. This is in line with the study of the University of Cape Town (2015) who also found that since the land reform program would involve the transfer of land from the state and private landowners to black South Africans, a legal entity needed to be created through which land reform beneficiaries could acquire, hold and manage the property. Land reform beneficiaries should be able to choose the kind of landholding entity they want to form in their study on where does CPAs come from?

### **Farm potential income at acquisition**

The coefficient of income at acquisition is positive and statistically significant in influencing the participation of land reform beneficiaries in RADP. The result implies that participation in RADP increases the likelihood of positive start-up capital. The marginal effect indicates that increasing the number of beneficiaries whose farm potential income at the time of acquisition was commercial increases the probability of participating in RADP by 0%. This is not unrelated to the DRDLR (2014) policies aimed at combating unemployment and income inequality. This is in line with the study of Ntlou (2016) that a start-up capital is needed for land reform farmers to be successful on land reform farms in South Africa in their study on the potential for the economic sustainability of land reform projects benefiting from the RADP in South Africa.

### **Farmer's receiving 3<sup>rd</sup> party assistance**

The coefficient of receiving 3<sup>rd</sup> party assistance is positive and statistically significant in influencing the participation of land reform beneficiaries in RADP. The result implies that participation in RADP increases the likelihood of involving external stakeholders to assist. The marginal effect shows that an increase of beneficiaries receiving 3<sup>rd</sup> party assistance increases the probability of participating in RADP by 14.2%. This is not unconnected with the regulations of the DRDLR (2014), that the 3<sup>rd</sup> party assistance can be two or more parties define and guarantee amongst themselves a fair sharing of the management functions. 3<sup>rd</sup> party assistance provides with training, marketing, finance, networking and other related skills. Co-management, in particular, to share equity schemes on operations but not land ownership. This is in line with the study of Jacqueline (2016) who also found a positive relationship between

enablers providing 3<sup>rd</sup> party assistance and land reform farmers have better access to services post of land redistribution in South Africa

### **Strategic partnership**

The coefficient of Strategic partnership is positive and statistically significant in influencing the participation of land reform beneficiaries in the RADP program. The result implies that the participation in RADP program increases the likelihood of involving strategic partners. The marginal effect indicates that increasing the number of beneficiaries involved in strategic partnerships increases the likelihood of participating in RADP by 12.8%. This is not unrelated to the DRDLR (2014) regulations, which require farmers to collaborate with mentors, accountants/bookkeepers, and share managerial functions to assist and capacitate land reform beneficiaries in achieving self-sufficiency through management development, market development, and profit-and-risk-sharing shareholding components. This is consistent with Sibisi (2015) study on the Importance and Role of Stakeholders in Land Reform Support Services in South Africa, which likewise found a favourable association between strategic partners and land reform farmers.

### **4.5. Conclusion and policy recommendations**

Numerous challenges experienced by land reform beneficiaries are access to mentorship, tax compliance, and legal entity to have a sound registered agricultural business. In supporting the process, the DRDLR introduced several policy programs to acquire land and ensure agricultural productivity on the transferred land. This study analyzed factors influencing farmers' access to RADP in the KwaZulu-Natal Province of South Africa. Descriptive statistics and econometric analysis were applied to analyze the data collected from the respondents. The study was undertaken in KwaZulu-Natal to determine the factors impacting 264 land reform beneficiaries' engagement in the RADP. The study's findings indicated that participation in RADP increases the likelihood of being tax-compliant, involving secondary organizations in the program, and establishing legal entities, as well as having positive start-up capital, involving external stakeholders for assistance, and also collaborating with strategic partners. It can be concluded the strategic partnership, being tax compliant, engaging with secondary organizations, and receiving a 3<sup>rd</sup> party assistance from both the private and public sector can be signified to increase the likelihood of participation in the post-settlement program. It is recommended that the South African Government look into providing an enabling environment to encourage the collaboration of strategic partners, secondary organizations and external stakeholders in the

form of 3<sup>rd</sup> parties to work with beneficiaries to increase the likelihood of benefiting from the post-settlement program.

## **References**

- Antwi, M. A., & Oladele, O. I. (2013). Impact of the Land Redistribution for Agricultural Development (LRAD) projects on livelihoods of beneficiaries in Ngaka Modiri Molema District, South Africa. *Journal of Human Economics* 42(3), 273-281.
- Barnham, C. (2015). Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research*, 57(6), 837-854.

- Binswanger-Mkhize, H. P. (2014). From Failure to success in South African land reform. *African Journal of Agricultural and Resources Economics*, 9(4), 253-269.
- Crossman, A. (2020). Understanding stratified samples and how to make them. Retrieved January 29, 2021, from <https://www.thoughtco.com/stratified-sampling-3026731>.
- De Janvry, Alian, Emerick K., Gonzalez-Navarro, M., & Sadoulet, E., (2015). "Delinking Land Rights from Use: Certification and Migration in Mexico." *American Economic Review* 105 (10):3125-49.
- Department of Rural Development and Land Reform (DRDLR). (2013). Three Years Review of Recapitalization and Development Program: September 2013. Pretoria: Department of Rural Development and Land reform.
- Department of Rural Development and Land Reform (DRDLR). (2014). Revised Policy for the Recapitalization and Development Program of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.
- Dudovskiy, J. (2018). The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. Retrieved December 16, 2019, from <https://research-methodology.net/about-us/ebook>.
- Groenewald, J. A. (2004). Conditions for successful land reform in Africa. *South African Journal of Economic and Management Sciences*, 7(4), 637-682.
- Hlatshwayo, S. (2018). Local Economic Sustainability Under Smallholder Subsistence Farming. (Masters Dissertation: University of Kwazulu-Natal, Pietermaritzburg, South Africa).
- Jacqueline, M. D. (2016). The impact of land redistribution on the livelihoods of beneficiaries: A case of Molwama Polokwane, (Masters Dissertation, University of Limpopo).

- Kotrlik, J. W. K. J. W., & Higgins, C. C. H. C. C. (2001). Organizational research: Determining the appropriate sample size in survey research. *Information technology, learning, and performance journal*, 19(1), 43.
- Kumar, R. (2019). Research methodology: A step-by-step guide for beginners. Sage Publications Limited.
- Kwapong, N. A., Ankrah, D. A., Boateng-Gyambiby, D., Asenso-Agyemang, J., & Fening, L. O. (2020). Assessment of agricultural advisory messages from farmer-to-farmer in making a case for scaling up production: A qualitative study. *The Qualitative Report*, 25(8), 2011-2025.
- Lahiff, E. (2007). Land redistribution in South Africa: progress to date. Paper presented at the Land redistribution: towards a common vision workshop organized by the World Bank in July 2007 in Pretoria. World Bank.
- Lutabingwa, J. (2007). Data Analysis in Quantitative Research. *Journal of Public Administration*, 42(6), 528-548.
- Lyne, M. (2014). The F.R. Tomlison memorial lecture: Two decades of land reform in South Africa: Insights from an agricultural economics. *Agrekon*, 53(4), 1-15.
- Mafora, M. (2014). Socio-economic Analysis of Land Reform Projects at Elias Motsoaledi Local Municipality in the Limpopo Province of South Africa: Comparing the degree of contribution to food security (Masters Dissertation, University of South Africa, South Africa).
- Maka, L & Aliber, M. (2019). The role of mentors in land reform projects supported through the recapitalization and development program: findings from Buffalo city metropolitan municipality, South Africa. *South Africa Journal Agricultural Extension*, 47(2), 37-45.
- Mwambi, Mercy, Bijman, Jos, P.M., & Mshenga, (2020). Which type of producer organization is (more) inclusive? Dynamics of farmers' membership and participation in the decision-making process: M. MWAMBI, J. BIJMAN and P. MSHENGA. *Annals of Public and Cooperative Economics*.91.10.1111/apce.12269.

- Mwambi, M., Bijman, J., Mshenga, P., & Oosting, S. (2020). Adoption of food safety measures: The role of bargaining and processing producer organizations. *NJAS-Wageningen Journal of Life Sciences*, 92, 100337.
- Myeni, L., Moeletsi, M., Thavhana, M., Randela, M., & Mokoena, L., (2019). Barriers affecting sustainable agricultural productivity of smallholder farmers in the Eastern Free State of South Africa. *Sustainability*, 11(11), 3003.
- Manenzhe, T. J. (2007). Post settlement challenges for land reform beneficiaries: three case studies from Limpopo province (Masters Dissertation, University of the Western Cape, South Africa).
- Ntlou, T. (2016). Potential for the economic sustainability of land reform projects benefiting from the Recapitalization and Development Program in South Africa (Masters Dissertation, University of Pretoria, South Africa).
- Nenngwekhulu, N. (2019). Financial analysis of the Recapitalization and Development Program in South Africa (Doctoral Dissertation, University of Pretoria, South Africa).
- Ojo, T. O., Baiyegunhi, L. J. S., & Salami, A. O. (2019). Impact of Credit Demand on the Productivity of Rice Farmers in South-West Nigeria. *Journal of Economics and Behavioural Studies*, 11(1), 166-180. Retrieved August 21, 2020, from [https://doi.org/10.22610/jeb.v11i1\(J\).2757](https://doi.org/10.22610/jeb.v11i1(J).2757).
- Prinsloo, A, (2008). A critical analysis of the LRAD Sub-programme in the Gauteng Province of South Africa. Master's Thesis. Department of Agricultural Economics, Extension and Rural Development. The University of Pretoria. Pretoria, South Africa.
- Promme, P., Kuwornu, J. K., Jourdain, D., Shivakoti, G. P., & Soni, P. (2017). Factors influencing rubber marketing by smallholder farmers in Thailand. *Development in Practice*, 27(6), 865-879.

- Paudel, B., Zhang, Y., Yan, J., Rai, R., Li, L., Wu, X., & Khanal, N. R. (2020). Farmers' understanding of climate change in Nepal Himalayas: important determinants and implications for developing adaptation strategies. *Climatic Change*, 158(3), 485-502.
- Rakoena, V. M. (2019). The Socio-Economic Impact of Recapitalisation and Development Programme on Beneficiaries in Gauteng Province (Masters Dissertation, University of South Africa, South Africa).
- Rungasamy, L. (2011). The Need for Settlement Support in Land Reform Projects: focus on sustainable development. (Masters' Dissertation, University of South Africa).
- Rusenga, C. (2020). Setting them up to fail: enforcement of the agribusiness model on land reform projects in South Africa, *Review of African Political Economy*, 47(165), 382-398.
- Sibisi, N. (2015). Agricultural Extension and Post-Settlement Support of Land Reform Beneficiaries in South Africa: The Case of Ixopo in the province of KwaZulu-Natal (Masters Dissertation, University of Kwazulu-Natal, South Africa).
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27. Retrieved February 20, 2021, from <https://doi.org/10.2139/ssrn.3205035>.
- Thinda, K. T., Ogundeji, A. A., Belle, J. A., & Ojo, T. O. (2020). Understanding the adoption of climate change adaptation strategies among smallholder farmers: Evidence from land reform beneficiaries in South Africa. *Land Use Policy*, 99, 104858. Retrieved February 21, 2021, from <https://doi.org/10.1016/j.landusepol.2020.104858>.
- The University of the Western Cape. (2016). Diagnostic Report on Land Reform in South Africa: Commissioned Report for High-Level Panel on the Assessment of Key Legislation and the Acceleration of Fundamental Change, an Initiative of the Parliament of South Africa. University of the Western Cape, South Africa.

Vink, N., & Kirsten, J. (2019). Principles and practice for successful farm-land redistribution in South Africa. A keynote paper prepared for a two-day national conversation on Resolving the land question: Land redistribution for equitable access to land in South Africa. PLAAS, Cape Town: University of Western Cape.

Xaba, T., & Dlamini, C. S. (2015). The Comprehensive Agricultural Support Program's (CASP) Training and Capacity Building: An impact analysis on income levels of emerging farmers in Limpopo Province, South Africa. *American Journal of Economics, Finance and Management* 1(3): 153 - 163.



## **CHAPTER 5: THE IMPACT OF RECAPITALISATION AND DEVELOPMENT PROGRAMME (RADP) ON THE PERFORMANCE OF LAND REFORM FARMERS IN THE STUDY AREA.**

### **5.1.Abstract**

Providing farmers with adequate post-settlement support is critical to the long-term growth of smallholder agriculture in South Africa. South Africa's Recapitalization and Development Program (RADP) was launched to address this. Thus, this study examines the impact of RADP on the performance of land reform recipient farmers in the South African province of KwaZulu-Natal. The study's respondents (n=264) were chosen using a multistage sampling technique. An endogenous switching regression model (ESRM) was used to account for endogeneity difficulties in RADP assessments and their impact on the performance of land reform farmers. Similarly, a doubly-robust inverse probability weighted regression adjustment was applied as a credible solution for the endogenous treatment model's potentially skewed estimates of ATT and Potential-outcome mean (POM). The primary findings indicated that tax compliance, secondary organization, legal entity, farm potential income upon acquisition, farmers getting third-party help, and strategic partnership all had a statistically significant effect on farmers' RADP participation. Mentorship continues to be a particularly difficult aspect of post-settlement life. However, farmers got a chance to enhance their farms and raise their income through RADP's strategic cooperation. The findings indicate that the RADP has the potential to contribute significantly to a process of deep change and empowerment of farmers. Similarly, a strategic relationship between RADP and farmers is expected to increase their performance. As a result, it is critical to strengthen mentorship and strategic partnership programs to increase land reform farmers' engagement in support programs.

**Keywords: Land reform; RADP; ESRM; IPWRA and South Africa**

### **5.2.Introduction**

Effective use of land reforms as a tool for poverty alleviation crucially depends on how the beneficiaries are guided through for efficient use of the land they have acquired for productive purposes (Zhang *et al.*, 2019; van Noordwijk, 2019). Continued support through engaging them by developing an enabling environment, institutional and individual capacities are important. In the absence of such support, the full benefits of the land reform programs may not be realized. The case of South Africa is typical. Post-settlement support in South Africa is

a program of improving and broadening post-settlement support services to land reform farms (Anseeuw *et al.*, 2015; Nthai, 2020). There is a necessity to strengthen farmer support to ensure the cohesion function of government organizations. Hence, it must be explicitly facilitated that post-settlement must not remain the duties of government, but numerous interested organizations in land reform are critical in playing a role in farmer support development. The mandate of post-settlement is to ensure beneficiaries make use of economic development through sustainable livelihood and poverty eradication (Mafora, 2014).

Existing post-settlement programs in land reform were replaced with RADP in 2013, including settlement support grants for beneficiaries of land restitution (Anseeuw *et al.*, 2015). The significance of the RADP is premised on the fact that most of the land reforms have been failing because of insufficient and ineffective post-settlement support and are in ‘distress’, and consequently in need of additional recap funds (University of the Western Cape, 2016; Staal, 2019). Therefore, the DRDLR initiated a farmer support program, RADP, to enhance the involvement of a range of institutions, especially local government, in the post-settlement stage of land reform to assist farmers with RADP (DRDLR, 2014).

RADP is the program implemented after the Comprehensive Agricultural Support Programme (CASP) to revive under-performing farms by supporting with; capital to improve farm production, machinery, infrastructure and access to mentorship to gain skills and knowledge on how to sustainably manage the farm. DRDLR (2013) suggested that the program also aims to increase farm income, enhance food security and improve the livelihoods of the beneficiaries. Additionally, RADP was found to replace all previous forms of funding for land reform in 2013, including settlement support grants for beneficiaries awarded land through restitution, claimed by the University of the Western Cape (2016).

In the spectrum of land redistribution across countries, interested stakeholders in land reform in Southern Africa revised land reform against the experiences of the recent land crisis in the region. This led to the initiation of negotiated transfer land redistribution program pursued in the foundation of four questions: What has been the experience with land redistribution in the region over the last decade or so? What has been the impact on people’s livelihoods? How are redistribution programs expected to develop in future? What might be the role of donors in the process? (Adams & Howell, 2001). Byamugisha (2014) argued that land reform is an imperative aspect of social and economic transformation in South Africa, as a means of both

redressing past injustices and alleviating the pressing problems of poverty and inequality. Hence, given the significance of the agricultural sector in economic growth, poverty alleviation and employment, Weideman (2003) suggested that land reform must contribute to increased (or at least sustained) levels of agricultural production.

Martin (2000) revealed that a paradigm shift from the initial poverty-reduction objective of land restitution program and towards land redistribution for 'productive' objective brought heavy criticism on the grounds of Zimbabwe that farms were being compulsorily acquired and distributed to politicians, military employees and officials and used as a pillar to underpin political support. However, the stakeholders recommended that infrastructure and settler support, particularly in the form of 'starter packs' must be provided for proposed beneficiaries. This approach of establishing commercial native farmers was once observed in Chile, in 1967 the government invested in land reform with the major goal of increasing farm production and productivity of the agricultural industry and also established policies promoting production at the farm level Binswanger-Mkhize, 2014; Tilley 2008; Janvry & Sadoulet, 2002; Heit, 2003 (cited in Sibisi, 2015).

The large-scale farmer model in land reform is a very efficient model around the world and is the fundamental of land reform success and with great contribution to agricultural growth. Global experience shows that this model is successful from very small and labour-intensive operations to very large, mechanized operations. Van Den Brink *et al.* (2006) emphasized that larger farmers generally have easier access to cheaper credit. This enables them to quickly respond to the market, especially when the market demands agricultural products with high investment costs. Kahn 2007 (cited in Sibisi, 2015) suggested that repossession of land is meaningless without appropriate post-settlement support. The problem remains in that across countries land reform is failing because of insufficiency and late delivery of farmer support/post-settlement services, argued by Hans & Mkhize (2014). Across the world, land and post-settlement support are provided by different stakeholders, which proves impossible to coordinate. As indicated above, the stakeholder arrangements for the delivery of farmer support services to proposed land reform farmers are largely dysfunctional and the services provided have been neither adequate nor appropriate (Byamugisha, 2014). Sibisi (2015) criticized the collaboration of stakeholders and lack of scope of post-settlement support required to be implemented which results in poor after-care support. Locally and internationally, poor post-settlement support has appeared to be a hindrance to achieving success.

As a result, Sibisi (2015) finds the RADP to be the best program because it focuses on the whole farm development but is not limited to farmer capacity development. Maka & Aliber (2019) supported that one outstanding characteristic of the RADP is that it connects proposed farmers with mentors or strategic partners, significantly as a condition of receiving financial support. Phatudi-Mphahlele (2016) proposed that the mentioned link of stakeholders is intending to invest in infrastructure and provide mentorship and strategic partners to ensure the growth and development of the farmer and farm. However, there is a dearth of information on the impact of RADP on the net farm income of land reform beneficiaries in the KwaZulu-Natal (KZN) Province of South Africa. It is against this backdrop that this study sought to unravel the impact of RADP participation on the net farm income of beneficiaries of the land reform to support the public policy makers' jobs and informing the society in KZN.

### **5.3.Methodology**

This section presents the study area in terms of the characteristics of socio-economic factors, demographics, and geographic location. The data collection and analysis method employed is presented.

#### **5.3.1. Description of the study area**

The research area was the KwaZulu-Natal (KZN) province of South Africa. KZN is a province in South Africa that is located on the east coast. KZN was selected because it is representative of the socio-economic, demographics, and bioresources of South Africa and being the major province in terms of agricultural production in South Africa (Hlatshwayo, 2018). The population of KZN is 11 384 722 people which is 19, 7% South African population (KZN provincial treasury, 2019). However, n=264 samples were used to represent the KZN population in the research study. UMgungundlovu, Amajuba, Zululand, Ugu, Harry Gwala, UMkhanyakude, uThukela, uMzinyathi, King Cetshwayo, and ILembe are the 10 district municipalities of the province where the study was conducted.

#### **5.3.2. Sampling techniques and data collection method**

Quantitative data was collected using a survey to encourage the objective measurements of collecting and analyzing data using a numerical approach (Barnham, 2015). Probability sampling to assess the impact of Recapitalisation and Development Programme (RADP) on the performance of land reform farmers, and the probability of participants being included in

the sample were estimated (Taherdoost, 2016). Kotrlik & Higgins (2001) refer to sample size determination as to the process of selecting the number of participants to include in a statistical sample. In addition, the researchers used a Multistage sample technique, participants were randomly selected using a stratified sampling design to ensure that non-RADP and RADP recipients are sufficiently represented within the overall sample through the use of probability sampling (Crossman, 2020). As a result, it was done to remove bias from the selection process and provide a sample representative (Dudovskiy, 2018). A multistage sampling technique was used to select the respondents for the study. The first stage involved typical case purposive selection of PLAS beneficiaries in land reform in KwaZulu-Natal. In the second stage, 10 local district municipalities of KZN were selected, based on the predominance of PLAS land reform beneficiaries in these areas, using typical case purposive sampling. In the third stage, farmers of Non-RADP and RADP were stratified and randomly selected resulting in 68 RADP beneficiaries and 196 Non-RADP beneficiaries participated in the study. For this study, following Kotrlik & Higgins (2001), at a 95% confidence interval and 5% margin of error based on the population of land reform farmers, of 835 from a pre-existing database of land reform farmers in KZN from the gatekeeper, using a statistical software calculator to determine sample size and a minimum sample size  $n=264$ . Each member had a chance of being chosen for a sample.

The survey (see Appendix A) was conducted using a structured questionnaire and was focused on land reform beneficiaries in the study area. The data collection process was completed on a total of 264 questionnaires ( $n=264$ ). Although quantitative research uses a variety of data gathering methodologies, surveys, experiments, and content analysis. In this study, however, a survey data collection tool was used. The goal of this study was to assess the impact of recapitalization and development programs on the performance of land reform farmers. The interview was conducted using the isiZulu Language so that farmers can best participate with an understanding.

### **5.3.3. Data analysis method**

The data gathered from the respondents were analyzed using descriptive statistics and econometric analysis. Data resulting from a sample were treated statistically using Excel and STATA (Lutabingwa, 2007). The mean and standard deviation were used as descriptive statistics to analyze the socio-economic status data of the respondent (Kumar, 2019).

According to Lokshin & Sajaia 2004; Khanal 2018, (cited in Aravindakshan *et al.*, 2018), and Endogenous Switching Regression Model (ESRM) was used to determine the level of significance of variables or the relationship between two variables influencing farmers' participation in RADP and the variables contributing to the likelihood of farm income for RADP and non-RADP farmers. Due to the possibility that RADP participation is endogenous, this approach estimated the effect of RADP participation on farmers' net farm income using RADP participation as a dummy variable, which may result in skewed and inconsistent estimates (Ojo & Baiyegunhi, 2020a). The data collecting technique was automated using STATA.

#### 5.3.4. Econometric estimation strategy

Following Lokshin & Sajaia (2004), Khanal (2018), and Aravindakshan *et al.* (2018), an endogenous switching regression model (ESRM) was employed for this study. This approach, however, estimated the impact of RADP participation on the net farm income of farmers using RADP participation as a dummy variable, which might yield biased and inconsistent estimates because participation is potentially endogenous (Ojo & Baiyegunhi, 2020). This model consists of two parts; endogeneity due to self-selection using a probit selection model<sup>1</sup> was corrected for in the first part of the model, in which farmers were partitioned (divided) into participants and non-participants of the RADP program. Following Abdulai & Huffman (2014), RADP participation is normally chosen by a farmer if the net benefits derived by participating in it are higher than the benefits derived by not participating in it ( $P_{Y1} \geq P_{Y2}$ ), where  $P_{Y1}$  is the net benefit that farmer  $i$  derives from RADP participation and  $P_{Y2}$  is the net benefit of not participating in it. The net benefits derived from RADP participation were not known to the researcher. However, the characteristics of farmers were observed during the survey period,  $Y_i^*$  representing the net benefits derived from RADP participation that was not observed but could be expressed as a function of the observed attributes.

$$Y_i^* = \beta F_i + \varepsilon_i \quad (1)$$

$$Y_i = 1 \text{ if } Y_i^* > 0 \text{ and } 0 \text{ if otherwise}$$

---

<sup>1</sup> For this study, the decision of farmers to RADP participation in response to an improved net farm income was a dummy variable, taking the value 1 as a participant and 0 as a non-participant

where  $Y_i^*$  is a variable that was not observed (or latent) for RADP participation, while  $Y$  is the observable counterpart (equal to 1 if the farmer participated, and 0 if otherwise).

In the second stage, the outcome equations on the impact of the RADP participation on net farm income was estimated using a production function, expressed in equation (2) as:

$$P = f(Y, \beta, F) + \varepsilon \quad (2)$$

where  $P$  is the log form of net farm income;  $Y$  is the RADP participation;  $\beta$  is a vector of parameters to be estimated, and  $F$  is a set of covariates used in the model.

Regime 1 (participants):  $P_{1i} = \lambda_1 H_i + v_{1i}$   
(3a)

Regime 2 (non- participants):  $P_{2i} = \lambda_2 H_i + v_{2i}$   
(3b)

where  $P_{1i}$  and  $P_{2i}$  are the logs of the participants' regimes 1 and 2, respectively;  $H_i$  is a matrix of covariates that are, hypothetically, the determinants of net farm income and  $v_{1i}$  and  $v_{2i}$  are the stochastic error terms. The stochastic error terms were assumed to have a trivariate normal distribution, with a zero mean and non-singular covariance matrix, as expressed in Equation (4):

$$\text{cov}(\varepsilon_i, v_1, v_2) \begin{vmatrix} \sigma_1^2 & \sigma_{12} & \sigma_{1\varepsilon} \\ \sigma_{12} & \sigma_2^2 & \sigma_{2\varepsilon} \\ \sigma_{1\varepsilon} & \sigma_{2\varepsilon} & \sigma^2 \end{vmatrix} \quad (4)$$

where  $\sigma_1^2 = \text{var}(v_1)$ ;

$\sigma_2^2 = \text{var}(v_2)$ ;  $\sigma^2 = \text{var}(\varepsilon_i)$ ;  $\sigma_{12} = \text{cov}(v_1, v_2)$ ;  $\sigma_{1\varepsilon} = \text{cov}(v_1, \varepsilon_i)$ ;  $\sigma_{2\varepsilon} = \text{cov}(v_2, \varepsilon_i)$ ;  $\sigma^2$  represents the variance of the error term in the selection equation; while  $\sigma_1^2, \sigma_2^2$  indicating the variance of the stochastic error term in the generated equation.

According to Maddala (1983), when latent characteristics are related to selection bias, the structure of the error might arise because the error term,  $\varepsilon_i$ , of the selection equation (2) is correlated with the error terms,  $v_{1i}$  and  $v_{2i}$ , of the generated equations (3a) and (3b), with the expected values of  $v_{1i}$  and  $v_{2i}$  being conditional on sample selection being non-zero.

$$E(v_{1i} | Y_i = 1) = E(v_{1i} | \varepsilon_i > -F_i\beta) = \sigma_{1\varepsilon} \left[ \frac{\theta(F_i\beta / \sigma)}{\phi(F_i\beta / \sigma)} \right] \equiv \beta_{1\varepsilon}\gamma_1 \quad (5a)$$

$$E(v_{2i} | Y_i = 0) = E(v_{2i} | \varepsilon_i \leq -F_i\beta) = \sigma_{2\varepsilon} \left[ \frac{-\theta(F_i\beta / \sigma)}{1 - \phi(F_i\beta / \sigma)} \right] \equiv \beta_{2\varepsilon}\gamma_2 \quad (5b)$$

where  $\theta$  and  $\phi$  are the PDF and CDF of the standard normal distribution, respectively. The ratio of  $\theta$  and  $\phi$  was evaluated  $\beta F_i$ , as represented by  $\gamma_1$  and  $\gamma_2$  in equations (5a) and (5b). This ratio is the inverse mills ratio (IMR), which indicates the selection bias terms. The IMR shows the correlation between RADP participation and the net farm income of smallholder farmers. Previous studies used the two-stage endogenous switching model (Fuglie & Bosch, 1995). A probit model of the selection equation was estimated in the first stage, and the IMRs  $\gamma_1$  and  $\gamma_2$  were predicted as indicated in equations (5a) and (5b). The second stage involved adding the derived IMRs to equations (3a) and (3b), respectively, with the following sets of equations being formed:

$$P_{1i} = \lambda_1 H_i + \beta_{1\varepsilon} \gamma_1 + \phi_i Y_{1i} + \psi_1 \quad (6a)$$

$$P_{2i} = \lambda_2 H_i + \beta_{2\varepsilon} \gamma_2 + \phi_{2i} Y_{2i} + \psi_2 \quad (6b)$$

The coefficient of the variables  $\gamma_1$  and  $\gamma_2$  gave parameter estimates of the covariance terms  $\beta_{1\varepsilon}$  and  $\beta_{2\varepsilon}$ , respectively. Through estimating variables  $\gamma_1$  and  $\gamma_2$ , the standard errors of the two-stage estimates could not be calculated using the residuals  $\psi_1$  and  $\psi_2$ . Heteroskedastic errors are always confounded with methods where IMRs are manually inserted from probit equations into the generated equations. A full information maximum likelihood (FIML), as proposed by Lokshin & Sajaia (2004), represents an efficient method for analyzing endogenous switching regression models. The FIML simultaneously fits the selection equation and the generated equations (equation (1) and equations (3a) and (3b), respectively) to yield consistent standard errors. In turn, this makes  $\gamma_1$  and  $\gamma_2$  in equations (6a) and (6b), respectively, homoscedastic. The log likelihood function of the FIML for the switching regression model employed in this study followed that proposed by Lokshin & Sajaia (2004):



$$LnY_i = \sum_{i=1}^N \left\| \begin{aligned} & Y_i t_i \left[ \ln Q\left(\frac{F_i \beta + \sigma_{1\varepsilon}(P_{1i} - H_{1i} \lambda / \varphi_1)}{\sqrt{1 - \alpha_{1\varepsilon}^2}}\right) + \ln(q(P_{1i} - H_{1i} \lambda / \varphi_1)) \right] + \\ & (1 - Y_i) t_i \left[ \frac{\ln(1 - Q(F_i \beta + \sigma_{2\varepsilon}(P_{2i} - H_{2i} \lambda / \varphi_2)))}{\sqrt{1 - \alpha_{2\varepsilon}^2}} + \ln(q(P_{2i} - H_{2i} \lambda / \varphi_2)) \right] \end{aligned} \right\| \quad (7)$$

According to Fuglie & Bosch (1995), the signs of the correlation coefficients  $\alpha_{i\varepsilon}$  and  $\alpha_{2\varepsilon}$  have economic meanings. If  $\alpha_{i\varepsilon}$  and  $\alpha_{2\varepsilon}$  have alternate signs, RADP participation is based on their comparative advantages. For instance, farmers who participated would have above-average net farm income, while those who did not participate would have below-average net farm income. However, if the coefficient has the same sign, participants would have above-average net farm income whether they participated or not but would be better off if they participated. In comparison, the non-participant would have below-average net farm income in either case but would be better off if they decided not to participate. As posited by Khanal *et al.* (2018) and Ojo *et al.* (2019) the current study shows how an endogenous switching treatment regression model determines counterfactual effects and the effects of participation. The counterfactual effect is the net farm income by the participants that would have been derived if the characteristics of the net farm income had been the same as the characteristics of the net farm income of non-participants, and vice versa. The change to the net farm income of farmers as a result of participation in RADP was estimated as the difference between Equations 3a and 3b, which were termed the average treatment effects on the treated (ATT):

$$ATT = E(P_{1i} - P_{2i} | Y_i = 1) = H_i(\lambda_1 - \lambda_2) + (\sigma_{1\pi} - \sigma_{2\pi})\gamma_1 \quad (8)$$

In equation (3),  $E(P_{1i} | Y_i = 1) = \lambda_1 H_i - \sigma_{1\mu}\gamma_1$  represents the expected outcome for the participants, had they participated, while  $E(P_{2i} | Y_i = 1) = \lambda_2 H_i - \sigma_{2\mu}\gamma_1$  represents the expected net farm income for farming households that participated had they chosen not to participate in the RADP program.

## 5.4. Results and discussion

### 5.4.1. Descriptive statistics

Table 7 below presents the description of variables and their units of measurement. A thorough search from pieces of the literature shows that farmers' socioeconomic, farm-specific and policy or institutional variables influence participation in the RADP program among

smallholder farmers. For instance, it is expected that a farmer with a higher educational level understands farm management practices and that can enhance productivity and efficiency of resource use. As posited by Myeni *et al.* 2019 (cited in Ojo & Baiyegunhi, 2020) farmers with a satisfactory level of education are capable to process, interpret, analyze and respond to innovations for adoptions for sustainable agricultural management practices. Hence, this is in line with the study of Khanal *et al.* (2018) who stated that farmers with a higher level of education are more likely to have better access to information to implement better farming strategies. Hence, the study hypothesized a positive effect of the number of years in formal education on participation in the RADP program.

**Table 7: Descriptive statistics of the sampled farmers**

<i>Variable</i>	<i>Description</i>	<i>Mean</i>	<i>SD</i>
Ln Income	Log of Income of the farmers (Rands)	12.23	1.76
Gender	1 = if farmer is male	0.58	0.50
Age	Age of the farmer in years	49.72	12.71
Marital status	1 = if farmer is married	0.81	0.68
Formal education	1 = if farmer had access to formal education	0.69	0.67
Off-farm income	1 = if farmer engaged in off-farm economic activities	0.64	0.47
Household size	The number of persons in a household (count)	4.65	1.24
Farming experience	Number of years in farming	10.9	3.87
Access to extension	1 = if farmer had access to extension services	0.58	0.47
Access to credit	1 = if farmer had access to credit	0.58	0.49
Legal entity	1 = if farmer had access to legal entity	0.48	0.40
Farm potential income at acquisition	Amount of income at acquisition (Rands)	14.24	1.13
Tax compliance	1 = if farmer is tax compliant	0.37	0.48
Mentorship	1 = if farmer had access to mentorship	0.17	0.37
Strategic partnership	1 = if farmer had access to partnership	0.54	0.50
Project contract signed	1 = If farmer signed the contract	0.69	0.50
Farm- based organizations (FBO)	1 = if farmer belongs to FBO	0.34	0.47

Generally, the average age of respondents is about 49 years and about 80% of the sampled farmers are married. While about 64% of farmers were engaged in off-farm economic activities, the average number of persons in a household is about five. Similarly, the number of years in crop farming (proxied for experience) is expected to have positive effects on participation in the RADP and its impact on net farm income. This is because, with more years of farming, farmers understand the agricultural production environment and process market information, which subsequently increases the likelihood of participating in on participation in RADP. About 70% of the respondents had a signed contractual agreement. These findings confirmed that the majority of South African Proactive Land Acquisition Strategy (PLAS) land

reform farmers do have a readily available market with contract agreements but have no command or bargaining power since that the majority do not grade products before selling. Therefore, a crucial role that needs to be played by key stakeholders in agricultural development is to capacitate farming in marketing.

**Table 8: Full information maximum likelihood (FIML) estimates of the endogenous switching regression model (ESRM)**

Variables	Participation in RADP			Farm income					
	Program			RADP Beneficiaries			Non-RADP Beneficiaries		
	Coef.	Std. Err.	P-value	Coef.	Std. Err.	P-value	Coef.	Std. Err.	P-value
Age	0.060	0.027	<b>0.029**</b>	0.026	0.023	0.251	0.010	0.015	0.496
Farm potential income at acquisition	0.391	0.229	<b>0.088*</b>	0.307	0.226	0.175	0.118	0.196	0.547
Access to non-farm income	-0.064	0.535	0.905	0.185	0.487	0.703	-	0.587	0.410
Strategic partnership	1.243	0.631	<b>0.049**</b>	1.534	0.666	<b>0.021*</b>	1.700	0.899	<b>0.059*</b>
Secondary education	-0.052	0.446	0.907	0.324	0.428	0.449	0.450	0.394	0.254
Legal entity	0.127	0.868	0.883	0.560	1.473	0.704	1.097	0.469	<b>0.019**</b>
Mentorship	0.188	0.580	0.746	0.741	0.492	0.132	-	0.533	0.498
Farmer's receiving 3 <sup>rd</sup> party assistance	0.321	0.643	0.618	-	0.928	0.839	0.269	1.253	<b>0.095*</b>
Tax compliance	1.655	0.527	<b>0.002**</b>	1.881	0.735	<b>0.010*</b>	0.726	0.613	0.236
Gender	0.381	0.494	0.441						
Project contract signed	0.466	0.462	0.313						
Farming experience	-0.020	0.022	0.354						
Farmers organizations/Associations	1.006	0.454	<b>0.027**</b>						
Constants	-11 165	4.152	<b>0.007**</b>	5.031	4.205	0.232	8.788	3.087	<b>0.004**</b>
/lns1	<b>0.234</b>	<b>0.107</b>							
/lns2	<b>0.280</b>	<b>0.109</b>							
/r1	<b>0.167</b>	<b>0.465</b>							
/r2	<b>0.576</b>	<b>0.552</b>							
sigma_1	<b>1.263</b>	<b>0.135</b>							
sigma_2	<b>1.324</b>	<b>0.144</b>							
rho_1	<b>0.165</b>	<b>0.452</b>							
rho_2	<b>0.520</b>	<b>0.403</b>							
LR test of indep	<b>10.80</b>								
Prob > chi2	<b>0.001</b>								
Loglikelihood	<b>202.364</b>								
Wald Chi <sup>2</sup> (14)	<b>15.74</b>								
Prob > chi2	<b>0.072</b>								

\*\*\*, \*\*, and \* represent significance level at 1%, 5%, and 10%, respectively.

#### 5.4.2. Results from Full information maximum likelihood (FIML) estimation of the endogenous switching regression model (ESRM)

The result is subjected to a more rigorous estimation method by employing the full information maximum likelihood (FIML) ESRM (Table 8). The FIML ESR model involves a selection

equation and separate outcome equations for RADP beneficiaries and non-RADP beneficiaries, which are estimated simultaneously with factors influencing participation in RADP.

The results are based on the factors influencing the participation of land reform beneficiaries in RADP and farm income estimates for both participating RADP beneficiaries and non-RADP beneficiaries using the endogenous switching regression model (ESR), and the results are presented in Table 8 above. The covariance terms (Constants) for RADP Participation and non-RADP beneficiaries equations are both statistically significant at the 1% level. The statistical significance of the covariance terms implies that the application of the ESR in the empirical estimation is suitable. The results of the ESRM estimation are presented in Table 8, with the second column showing the factors influencing the participation of farmers in RADP. The results showed that the coefficients of age had a 6% probability of “middle age” beneficiaries, farm potential income at acquisition were statistically significant at 5%, a strategic partnership was statistically significant at 10%, and tax compliance was statistically significant at 1% to significantly positive influence on the participation of beneficiaries in RADP.

The age variable had a significantly positive influence on the participation in RADP. These results show that there was a 6% of probability of “middle age” beneficiaries are significant to influence the participation in RADP. The result implies that participation in RADP increases the likelihood of older beneficiaries. The mean beneficiaries are getting older as indicated by their mean age of 50 years which is below 62, the average age of farmers in South Africa, (Sihlobo, 2015; Thinda *et al.*, 2020). Hence, the more farmers get old the less is the production, workforce and income. This is in line with the study of Mahembe (2001) who also found a strong correlation between the age of an enterprise and its risk profile in their study on literature review on small and medium enterprises access to credit and support in South Africa.

The coefficient of farm potential income at acquisition had a significantly positive influence on the participation of beneficiaries in RADP. This implies that participation in RADP increases the likelihood of the farm potential income at acquisition. This is not unconnected with the regulations of the DRDLR (2014), to revitalize poor performing and with a low farm potential income at acquisition through the RADP program. Hence, this is in line with the study of Nenngwekhulu (2019) who also found a positive relationship between RADP and farm income in their study on financial analysis of the RADP in South Africa.

The coefficient of strategic partnership had a significantly positive influence on the participation of land reform beneficiaries in RADP. The result implies that the participation of land reform beneficiaries in RADP increases the likelihood of working with strategic partners. This is not unconnected with the regulations of the DRDLR (2014), that farmers must be in profit & risk sharing based shareholding mechanisms with a strategic partner(s) for farm sustainability. This is in line with the study of Sibisi (2015) who also found a positive relationship between strategic partners and land reform farmers in their study on the importance and role of stakeholders involved in support services of land reform in South Africa.

The coefficient of tax compliance had a significantly positive influence on the participation of beneficiaries in RADP. The result implies that the participation in RECAP program increases the likelihood of being tax-compliant. This is not unconnected with the regulations of DRDLR (2014), that all beneficiaries must comply with SARS requirements and a tax clearance certificate must be provided to the DRDLR on an annual basis. This is in line with the study of De Janvry *et al.* (2015) who also found a positive relationship between tax compliance and migration in their study on delinking land rights from land use in Mexico.

#### **5.4.3. Impact of RADP on the performance of land reform farmers on farmers' net farm income**

The estimates of the second stage of the ESRM on the impact of recapitalization and development program on the performance of land reform farmers of participation on RADP on the net farm income of beneficiaries (RADP and non-RADP) are presented in the third and fourth columns of Table 8. The coefficients of strategic partnership, legal entity, farmer receiving third party assistance and tax compliance were statistically significant in explaining differences in the net farm income of RADP and non-RADP beneficiaries in land reform. For the non-RADP beneficiaries, the coefficients of strategic partnership, legal entity and farmer's receiving third party assistance were statistically significant in explaining differences in the net farm income of land reform farmers.

The strategic partnership had a significantly positive influence in explaining variation in the net farm income of both RADP and non-RADP beneficiaries of land reform. Thus, this is not unconnected with the regulations of DRDLR (2014), that farmers must be in profit & risk sharing based shareholding mechanisms with a strategic partner(s) for farm sustainability. The

result on both RADP Beneficiaries and Non-RADP Beneficiaries implies that the net farm income increases the likelihood for the intervention of strategic partners. Furthermore, indicates that on Non-RADP beneficiaries the farm income is more likely to be increased by the engagement with strategic partners since never benefited from RADP. This is in line with the study of Sibisi (2015) who also a positive relationship between strategic partners and land reform farmers in their study on Agricultural extension and post-settlement support of land reform beneficiaries in South Africa: the case of Ixopo in the province of KwaZulu-Natal.

The establishment legal entities (co-operatives, CPA, and private companies) had a significantly positive influence in explaining variation in the net farm income of just the non-RADP beneficiaries of land reform. The result implies that Non-RADP beneficiaries increase the likelihood of possessing legal entities in order to increase farm income as a result of structured entities with roles and responsibilities. This is in line with the study of Ojo & Baiyegunhi (2020) who found that rice farmers being in cooperatives had a significantly positive influence in explaining the variation in net farm income in the study of perception and economic impact of climate change on rice production in South-West, Nigeria. Furthermore, Ntlou (2016) stated that the group formation of beneficiaries should be taken into deliberation that group members' interests may differ, even though they all want to farm.

The farmer's receiving third party assistance through the farmer-to-farmer approach and consultations had a significantly positive influence in explaining variation in the net farm income of just the non-RADP beneficiaries of land reform. The result implies that Non-RADP beneficiaries since RADP are not made available to them the likelihood to increase the net farm income is seen in the engagement with other farmers and consultants. This is in line with the study of Abdulai & Huffman (2014) who also found a positive relationship between extension agents and access technology in their study on the adoption and impact of soil and water conservation technology in the United States of America (USA).

The tax compliance had a significantly positive influence in explaining variation in the net farm income of just the RADP beneficiaries of land reform. The result implies that participation in RADP increases the likelihood of being tax-compliant and increase the likelihood of positive net farm income. This is not unconnected with the regulations of DRDLR (2014), that all beneficiaries must comply with SARS requirements and a tax clearance certificate must be provided to the DRDLR on an annual basis. This is in line with the study of De Janvry *et al.*

(2015) who also found a positive relationship between tax compliance and migration in their study on delinking land rights from land use in Mexico.

#### ***5.4.3.1. Treatment effects for the RADP participation – endogenous switching regression treatment effect***

This study estimated endogenous switching regression with the inclusion of RADP beneficiaries among the smallholder farmers for treating the endogeneity problem as presented in Table 9.

**Table 9: Treatment effects for the RADP participation – endogenous switching regression treatment effect**

<i>Treatment effects</i>	<i>Coefficient</i>	<i>Std.</i>
Average treatment effect (ATE)	18.24***	4.71
Average treatment on the treated (ATT)	14.66***	1.71

The results show a positive and significant effect on participation in RADP. A simple considerable difference in the average income between the participants and non-participants of participation in RADP in impact evaluation studies is misleading as they usually fail to control for potential differences in the characteristics between the two groups. The estimate from the endogenous switching regression model can also be inadequate even if not misleading though it accounts for endogeneity. This is because direct coefficients from the model cannot be considered as ATT since the issue of missing data (counterfactual scenario) has not been accounted for. To account for this, the study turned to the results of the causal effects of the participation in RADP on farmers' net income using ATE and ATT, where the switching regression with endogenous treatment was used and then complement with Inverse-Probability-Weighted Regression Adjustment (IPWRA) as a robustness check. Hence, the estimates from the endogenous switching regression are discussed first. ATE and ATT were estimated after fitting the endogenous regression with endogenous treatment effects.<sup>2</sup> As indicated in Table 9, the estimated potential outcome means (ATE) of participation in the RADP program on net farm income by farm households is about 18.24 and statistically significant at 1%. The ATE estimate suggests that an average farm household in the study area will make about R18 more net farm income if he participates in the RADP program. In the

<sup>2</sup> ATE and ATT were estimated as a post-estimation after fitting the Stata command `teffects` for endogenous switching regression with endogenous treatment. The ATE estimated after `teffects` is the potential outcome means while ATT is the conditional treatment effect.

same vein, the conditional treatment effects which measure the ATT of participating in RADP on the net farm income adopted is about 14.66 and also statistically significant at 1%. Thus, the average farm household participating in RADP would realize about R15 more of net farm income than it would if it did not participate in the RADP program.

#### ***5.4.3.2. Treatment effects for the RADP participation – doubly-robust inverse probability weighted regression adjustment***

The ex-post estimates of the causal effects of the adoption of SWC on rice productivity of smallholder farmers from the IPWRA are presented in Table 10.

**Table 10: Treatment effects for RADP participation – inverse-probability-weighted regression adjustment**

<b><i>Treatment effects</i></b>	<b><i>Coefficient</i></b>	<b><i>Std. Err.</i></b>
Average treatment effect (ATE)	1.641***	0.556
Average treatment on the treated (ATT)	5.708***	1.247
Potential-outcome mean (POM)	17.304***	0.766

*Note: The bootstrap replications were changed from 100 – 1,000 but no significant change occurred, hence 500 replications were used to bootstrap the standard errors.*

From Table 10, the ATE and POM are approximately two (2) and seventeen (17), respectively. Thus, the average net farm income, if all of our sampled farmers were to participate in RADP, would be two times more than the average of seventeen that would occur if none of the farmers had participated in RADP. Likewise, RADP participants treated group realized 5.7 more net farm income than they would have if they did not participate RADP program.

The results from the two estimation techniques indicate that participation in the RADP program significantly increases the net farm income. The results of the average causal effects reported in Tables 9 and 10 indicate that the magnitudes of the estimates of the outcome variables are divergent between endogenous switching regression and IPWRA. This divergence in the results of both may be due to differences in unobserved heterogeneity among smallholder farmers (Danso-Abbeam & Baiyegunhi, 2018). The positive impact of RADP participation on the performance of smallholder farmers agrees with the studies of Worku *et al.* (2020) and Martey *et al.* (2020) in Eastern Africa and Ghana, respectively. The results of the study suggest that the participation of smallholder farmers in the RADP program increases the propensity of improved net farm income as compared to those who did not participate in the RADP program (Ojo *et al.*, 2019; Ojo, 2020). The implication of these results reflects the important role of



organizing training for farmers so that they can be more confident and experienced in climate change adaptation options. Training attendance significantly increases the probability of adaptation. Having a chance to attend training to improve skills related to agricultural production increases the probability of adopting more adaptation options (Arunrat *et al.*, 2017).

## **5.5.Conclusion**

Based on the results reported above we find that the factors such as the age of the farmer, farm potential income at acquisition, strategic partnership, and tax compliance significantly influence the participation of farmers in RADP. Programmatic interventions to increase the participation of the farmers - benefiting from land reforms- in the RADP needs to identify opportunities that can increase the income of farmers. The strategic partnership is a significant factor in explaining differences in the net farm income of RADP and non-RADP beneficiaries in land reform. For the non-RADP beneficiaries, the factors - strategic partnership, legal entity and farmer's receiving third party assistance were statistically significant in explaining differences in the net farm income. And for RADP beneficiaries, strategic partnership and tax compliance were statistically significant in explaining differences in the net farm income. This indicates that the magnitudes of the estimates of the outcome variables are divergent between endogenous switching regression and IPWRA. This divergence in the results of both may be due to differences in unobserved heterogeneity among land reform beneficiaries. However, there are still more interventions required both from the private and public sectors to enhance the performance of post-settlement support to improve farmers' livelihood and farm development. Hence, through the strategic partnership of RADP farmers had a likelihood to improve the farm and increase farm income. The study's results suggest that the RADP can contribute to a deep process of change and empowerment of farmers. In the same vein, a strategic partnership of RADP is likely to improve the farmers' performance. Therefore, there is a need to strongly improve mentorship and strategic partnership program to encourage the participation of land reform farmers in the support programs.

## References

- Abdulai, A & Huffman, W. (2014). The Adoption and Impact of Soil and Water Conservation Technology: An Endogenous Switching Regression Application. *Board of Regents of the University of Wisconsin System*, 90 (1), 26-43.
- Adams, M. & Howell, J. (2001). Redistributive Land Reform in Southern Africa. In: J. Farrington & A. Wyles (Ed.). *Natural Resource Perspective*. London: Overseas Development Institute. Retrieved August 16, 2019, from <http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/3779/64-redistributive-land-reform-southern-africa.pdf?sequence=1>.
- Anseeuw, W., Liebenberg, F., & Kirsten, J. (2015). Agrarian reform in South Africa: Objectives, evolutions and results at national level. *South Africa's Agrarian Question*,

- 28-51. Retrieved August 17, 2019, from [https://hal.archives-ouvertes.fr/hal-01376094/file/South\\_Africa%27s\\_Agrarian\\_Question\\_-\\_eBook.pdf#page=55](https://hal.archives-ouvertes.fr/hal-01376094/file/South_Africa%27s_Agrarian_Question_-_eBook.pdf#page=55).
- Aravindakshan, S., Rossi, F., Amjath-Babu, T. S., Veetil, P. C., & Krupnik, T. J. (2018). Application of a bias-corrected meta-frontier approach and an endogenous switching regression to analyze the technical efficiency of conservation tillage for wheat in South Asia. *Journal of Productivity Analysis*, 49(2-3), 153-171.
- Arunrat, N., Wang, C., Pumijumnong, N., Sereenonchai, S., & Cai, W. (2017). Farmers' intention and decision to adapt to climate change: A case study in the Yom and Nan basins, Phichit province of Thailand. *Journal of Cleaner Production*, 143, 672-685.
- Barnham, C. (2015). Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research*, 57(6), 837-854.
- Byamugisha, F. (2014). Agricultural Land Redistribution and Land Administration in Sub-Saharan Africa: Case Studies of Recent Reforms. Washington, DC: The World Bank.
- Crossman, A. (2020). Understanding stratified samples and how to make them. Retrieved January 29, 2021, from <https://www.thoughtco.com/stratified-sampling-3026731>
- Danso-Abbeam, G., & Baiyegunhi, L. J. (2018). Welfare impact of pesticides management practices among smallholder cocoa farmers in Ghana. *Technology in Society*, 54, 10-19.
- De Janvry, Alian, Emerick, K., Gonzalez-Navarro, M & Sadoulet, E. (2015). "Delinking Land Rights from Use: Certification and Migration in Mexico." *American Economic Review*, 105(10), 3125-49.
- Department of Rural Development and Land Reform (DRDLR). (2013). Three Years Review of Recapitalization and Development Program: September 2013. Pretoria: Department of Rural Development and Land reform.

- Department of Rural Development and Land Reform (DRDLR). (2014). Revised Policy for the Recapitalization and Development Program of the Department of Rural Development and Land Reform. Pretoria: Department of Rural Development and Land reform.
- Dudovskiy, J. (2018). The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. Retrieved December 16, 2019, from <https://research-methodology.net/about-us/ebook>.
- Fuglie, K. O., & Bosch, D. J. (1995). Economic and environmental implications of soil nitrogen testing: A switching-regression analysis. *American Journal of Agricultural Economics*, 77(4), 891-900.
- Hans, P., & Mkhize, B. (2014). From failure to success in South African land reform. *African Journal of Agricultural and Resource Economics*. 9(4): 253-269.
- Hlatshwayo, S. (2018). Local Economic Sustainability Under Smallholder Subsistence Farming. (Masters Dissertation: University of Kwazulu-Natal, Pietermaritzburg, South Africa).
- Khanal, P., Wagle, B. H., Upadhaya, S., Ghimire, P., & Acharya, S. (2018). Perceived Climate Change Impacts and Adaptation Strategy of Indigenous Community (Chepangs) in Rural Mid-hills of Nepal. *Forestry: Journal of Institute of Forestry, Nepal*, 16, 48-61.
- Kotrlik, J. W. K. J. W., & Higgins, C. C. H. C. C. (2001). Organizational research: Determining the appropriate sample size in survey research. *Information technology, learning, and performance journal*, 19(1), 43.
- Lokshin, M., & Sajaia, Z. (2004). Maximum likelihood estimation of endogenous switching regression models. *The Stata Journal*, 4(3), 282-289.
- Lutabingwa, J. (2007). Data Analysis in Quantitative Research. *Journal of Public Administration*, 42(6), 528-548.

- Maddala, G. S. (1983). Methods of estimation for models of markets with bounded price variation. *International Economic Review*, 361-378.
- Mafora, M. (2014). Socio-Economic Analysis of Land Reform Projects at Elias Motsoaledi Local Municipality in the Limpopo Province of South Africa: Comparing the degree of contribution to food security. Masters Dissertation. The University of South Africa.
- Mahembe, E. (2001). Literature review on small and medium enterprises access to credit and support in South Africa. South Africa, Pretoria: National Credit Regulator. Retrieved December 16, 2019, from [https://www.smallbusinessinstitute.co.za/wp-content/uploads/2019/12/NCRLiterature-Review-on-SME-Access-to-Credit-in-South-Africa\\_Final-Report\\_NCR\\_Dec-2011.pdf](https://www.smallbusinessinstitute.co.za/wp-content/uploads/2019/12/NCRLiterature-Review-on-SME-Access-to-Credit-in-South-Africa_Final-Report_NCR_Dec-2011.pdf).
- Maka, L & Aliber, M. (2019). The role of mentors in land reform projects supported through the recapitalization and development program: findings from Buffalo city metropolitan municipality, South Africa. *South Africa Journal Agricultural Extension*, 47(2), 37-45.
- Martey, E., Etwire, P. M., & Kuwornu, J. K. (2020). Economic impacts of smallholder farmers' adoption of drought-tolerant maize varieties. *Land Use Policy*, 94, 104524.
- Martin, A. (2000). *Breaking Ground: Development Aid for Land Reform*. London, SE1 7JD: Overseas Development Institute.
- Nenngwekhulu, N. (2019). Financial analysis of the Recapitalization and Development Program in South Africa (Doctoral dissertation, University of Pretoria).
- Nenngwekhulu, N. (2019). Financial analysis of the Recapitalization and Development Program in South Africa. Masters Dissertation. The University of Pretoria.
- Nthai, M. M. (2020). Funding Rural Development in Post-Apartheid South Africa's Land Reform Program. In *African Perspectives on Reshaping Rural Development* (pp. 118-139). IGI Global.

- Ntlou, T. (2016). Potential for the economic sustainability of land reform projects benefiting from the Recapitalization and Development Program in South Africa. (Masters Dissertation, University of Pretoria).
- Ojo, T. O., Baiyegunhi, L. J. S., & Salami, A. O. (2019). Impact of Credit Demand on the Productivity of Rice Farmers in South-West Nigeria. *Journal of Economics and Behavioral Studies*, 11(1 (J)), 166-180.
- Ojo, T. O., & Baiyegunhi, L. J. S. (2020). Determinants of climate change adaptation strategies and its impact on the net farm income of rice farmers in southwest Nigeria. *Land Use Policy*, 103946.
- Parliamentary Monitoring Group (PMG). (2019). ATC191119: Report of the Portfolio Committee on Agriculture, Land Reform and Rural Development on an Oversight Kwazulu-Natal Province from 26 to 30 August 2019, dated 12 October 2019. Retrieved October 12, 2019, from <https://pmg.org.za/taled-committee-report/4005>. Accessed 2019/12/16.
- Phatudi-Mphahlele, M. (2016). Analysis of Socio-Economic Impact of Comprehensive Agricultural Support Program on Agrarian Reform Farmers of Sedibeng District Municipality in Gauteng Province South Africa. (Masters Dissertation. University of South Africa).
- Sibisi, N. (2015). Agricultural Extension and Post-Settlement Support of Land Reform Beneficiaries in South Africa: The Case of Ixopo in the province of KwaZulu-Natal. (Masters Dissertation. University of KwaZulu-Natal).
- Sihlobo, W. (2015). *The youth are agriculture's future*. Retrieved December 16, 2019, from <https://mg.co.za/article/2015-06-18-the-youth-are-agricultures-future/?amp=1>.
- Staal, B. M. (2019). Land reform in South Africa: a case study of the Witzenberg pals initiative (Doctoral dissertation, Stellenbosch: Stellenbosch University).

- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27. Retrieved February 20, 2021, from <https://doi.org/10.2139/ssrn.3205035>.
- Thinda, K. T., Ogundeji, A. A., Belle, J. A., & Ojo, T. O. (2020). Understanding the adoption of climate change adaptation strategies among smallholder farmers: Evidence from land reform beneficiaries in South Africa. *Land Use Policy*, 99, 104858. Retrieved December 27, 2020, from <https://doi.org/10.1016/j.landusepol.2020.104858>.
- The University of the Western Cape. (2016). Diagnostic Report on Land Reform in South Africa: Commissioned report for High-Level Panel on the assessment of key legislation and the acceleration of fundamental change, an initiative of the Parliament of South Africa. South Africa: University of the Western Cape.
- Van Den Brink, R., Glen, T., Hans, B., Bruce, J. & Byamugisha, F. (2006). Consensus, Confusion, and Controversy: Selected Land Reform Issues in Sub-Saharan Africa. Washington, DC: The World Bank.
- Van Noordwijk, M. (2019). Integrated natural resource management as a pathway to poverty reduction: Innovating practices, institutions and policies. *Agricultural Systems*, 172, 60-71.
- Weideman. (2003). Land reform, Equity and Growth in South Africa: A Comparative Analysis. PhD Thesis. Johannesburg: University of Witwatersrand.
- Worku, M., De Groote, H., Munyua, B., Makumbi, D., Owino, F., Crossa, J., & Mutinda, C. (2020). On-farm performance and farmers' participatory assessment of new stress-tolerant maize hybrids in Eastern Africa. *Field crops research*, 246, 107693.
- Zhang, J., Brown, C., Qiao, G., & Zhang, B. (2019). Effect of eco-compensation schemes on household income structures and herder satisfaction: lessons from the grassland Ecosystem Subsidy and Award Scheme in Inner Mongolia. *Ecological Economics*, 159, 46-53.

## **CHAPTER 6: SUMMARY, CONCLUSIONS, AND POLICY RECOMMENDATIONS**

### **6.1. Recap of the research objectives and methodology**

Chapter 6 draws a summary, conclusions, policy recommendations and the limitations of the study, and suggestions for further research of the study from findings of chapters 3, 4, and 5 to meet the research objectives. The chapter logic is directed by the main objective and sub-objectives of the study, which took place in KwaZulu-Natal (KZN) in 10 district municipalities. The study's main objective was to assess the impact of recapitalization and development programs on the performance of land reform farmers. The sub-objectives were to (1) assess and characterize the socio-economic status of land reform farmers, (2) determine the factors influencing land reform farmers' participation in RADP, and (3) analyze the impact of the Recapitalization and Development Program (RADP) on the performance of land reform farmers in the study area. Descriptive statistics and econometric analysis were applied to analyze the data collected from the 264 land reform beneficiaries through surveys using structured questionnaires.



## **6.2. Summary**

Land reform has made a progress in ensuing a positive livelihood of beneficiaries even though some challenges are still experienced. Findings showed that the majority of farmers were engaged in off-farm economic activities, access to formal education and have signed a project contract to utilize the state land. Mentorship remained a particularly difficult aspect of post-settlement life. In supporting the process, the Department of Rural Development and Land Reform (DRDLR) introduced several policy programs to acquire land, capacity building, and ensure agricultural productivity on the transferred land.

According to the findings, the average age of respondents is approximately 49 years, and approximately 80% of the studied farmers are married. At the same time, approximately 64% of farmers engaged in non-farm economic activity. About 70% of the farmers had a signed contractual agreement to use the land. The study indicated that most land reform farmers do not grade their products before selling, and only the markets perform grades during sales.

According to the study, factors such as the farmer's age, level of education, potential farm income at acquisition, participation of secondary organizations in the program, strategic partnership, and tax compliance, establishment of legal entities, positive start-up capital, and also the involvement of external stakeholders all have a significant impact on farmer participation in RADP. To demonstrate the impact of RADP on the performance of land reform farmers in the study area, the following factors were found to be statistically significant in explaining differences in net farm income between RADP and non-RADP beneficiaries: strategic partnership, legal entity, and farmer receiving third party assistance. Furthermore, for RADP recipients, strategic partnership and tax compliance were statistically significant predictors of net farm income differences. Between endogenous switching regression and IPWRA, the magnitudes of the estimated outcome variables are indicated differently. This discrepancy in outcomes between the two could be explained by differences in unobserved variability among land reform beneficiaries.

## **6.3. Conclusions**

The study's primary contribution was analyzing the influence of recapitalization and development programs on land reform farmers' performance. Progress of RADP has been described in improving the socio-economic status of land reform beneficiaries, predominantly

in terms of income and participation of strategic partners to improve land reform farms and farmers, even though the journey is extended to guarantee that the program achieves its planned objectives. However, the study concluded that strategic partnership is the key to farmer development and increased agricultural production of land reform farmers.

The results in this study concur with those other researchers who have observed that the average land reform farmers are less than 50 years of age and married, with the average number of persons in a household is about five. It is concluded that land reform farmers are mid adults and executives in households. As a result, the study concluded that the RADP had positively strengthened the households of land reform farmers and their age and experience were statistically significant for farmers to participate in RADP.

The degree of education investigated in this study corroborates previous research indicating that farmers with a sufficient level of education can process, interpret, analyze, and respond to innovations to adopt sustainable agricultural management techniques. It is statistically indicated that many of the land reform farmers had formal education and can adapt learning to improve their farming capabilities with strategic partners, farmer-based organizations, and extension services. The study concluded that farmer support is easily facilitated and adopted by farmers with a satisfactory level of education.

The investigation in the farm potential on this study concurs with the policy of RADP, which aimed to strengthen the farm and farmers with great potential of operating in commercial-scale of development. Most land reform farmers had farmed with potential income at acquisition. As a result, the study concluded that the implementation of RADP toward the land reform farmers had achieved its directive.

The study concluded that land reform farmers have access to financial institutions. This is in line with other authors' findings that a start-up capital is needed for land reform farmers to be successful on land reform farms in South Africa. Most of the capital to fund the farm operations comes mainly from non-farm activities.

The findings of this study corroborate those of other authors about the relationship between strategic partners and land reform farmers receiving support services. The investigation on the access of extension services and participation of farmers on farmer-based organizations, strategic partnership, 3rd party assistance, and secondary organizations indicated an effective

and increased pro-active role in bringing synergy, co-ordination, and ensuring that every farmer has access to capacity building and increased production. Furthermore, the study indicated that there is effective involvement between land reform farmers and farmer-based organizations, and strategic partnerships, third-party help, and secondary organizations.

It is statistically indicated that many of the land reform farmers experienced poor mentorship. Hence this finding agreed with other researchers that there is a lack of positive mentorship between land reform farmers and mentors. The study showed no significance in encouraging farmers to participate in the RADP program through mentorship. However, the RADP program is investing more to ensure that land reform farmers' mentorship is strengthened. However, the study concluded that land reform farmers experience poor mentorship.

#### **6.4. Recommendation for policy implications**

The study was used to close the gap of knowledge on the socio-economic status of land reform, factors influencing the participation RADP and the impact of RADP on land reform farmers in the KwaZulu-Natal Province. It is recommended that the research studies encourage more effort into stressing the empowering of the beneficiaries through practical skills transfer. And also encourage an enabling environment for the private sector to provide affordable financial services to the land reform beneficiaries. Additional interventions by all interested stakeholders in land reform for farmers are required to improve post-settlement support for farmers' livelihoods and farm development. Thus, a programmatic intervention aimed at increasing farmer involvement in the RADP must discover opportunities for farmers to raise their income.

While RADP aims to encourage Recap and Development, instead of investing more funds in awarding farmers with grants, investing in the development unit through the effective strategic partnership is necessary. It must be strengthened to ensure farm development, sustainable livelihood, and production and encourage effective participation of land reform farmers in the support programs.

It is recommended that farmer-based organizations, strategic partnerships, third-party assistance, and secondary organizations be made more effective and taken on a more proactive role in bringing synergy, coordination, and ensuring that every farmer has access to the capacity building where mentors are unable to reach, as well as assisting in providing mentorship. Thus,

it is recommended that additional interventions from both the private and public sectors be made to enhance mentorship programs to increase the likelihood of participation in post-settlement programs and to establish a robust mentorship framework with detailed duties and responsibilities for both parties (mentees and mentors) to ensure the positive impact of recapitalization and development program on the performance of land reform farmers in terms of market and marketing challenges.

#### **6.5. Suggestions for further research**

Future research should also focus on investigating farmers' need-based intervention and the strong farmer centred partnerships supported by the public and private sector, ensuring capacity development. This study did not understand how exactly the farmer support is derived to best suit the farmer to have control in the farmer support program and address farmer's needs. Furthermore, it would be helpful to investigate the impact of farmers' capacity to manage land reform farms and how the mentorship program can be improved to ensure sustainable agribusiness development in land reform farms. Such an analysis is required to broaden the understanding of farmer support intervention in land reform.

## APPENDIX A: Questionnaire

### Impact of recapitalization and development program on the performance of land reform farmers in KZN

Section A: Farm details and Background information	
<b>1. On which district municipality is your project/farm located?</b>	
1 = Amajuba	7 = UMgungundlovu
2 = Harry Gwala	8 = UMkhanyakude
3 = ILembe	9 = UMzinyathi
4 = King Cetshwayo	10 = UThukela
5 = Sisonke	11 = UThungulu
6 = Ugu	12 = Zululand
<b>2. On which local municipality is your project/farm located?</b>	
1 = Abaqulusi	19 = Mtubatuba
2 = Alfred Duma	20 = Ndwedwe
3 = Danhauser	21 = NewCastle
4 = Dr Nkosazana Dlamini-Zuma	22 = Nkandla
5 = eDumbe	23 = Ntambanana
6 = eMadlangeni	24 = Okhahlamba
7 = Endumeni	25 = Ray Nkonyeni
8 = Ezingoleni	26 = Richmond
9 = Greater Kokstad	27 = Ubuhlebezwe
10 = Hluhluwe	28 = Ulundi
11 = Inkosi Langalibalele	29 = uMdoni
12 = Jozini	30 = uMhlathuze
13 = KwaDukuza	31 = uMlalazi
14 = Mandeni	32 = uMngeni

15 = Mbonambi 16 = Mpofana 17 = Msinga 18 = Mthonjaneni	33 = uMshwathi 34 = uMsunduzi 35 = uMvoti 36 = uPhongola																				
<b>3.</b> What is the total size of this project (ha)? .....																					
<b>4.</b> What is the total unproductive land (ha)? .....																					
<b>5.</b> Type of farming at the date of acquisition ( <i>Tick where applicable</i> )																					
1 = Beef 2 = Broilers 3 = Dairy 4 = Maize 5 = Forestry 6 = Pigs 7 = Sheep 8 = Dry beans 9 = Vegetables	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; text-align: center;"> <input style="width: 30px; height: 20px;" type="checkbox"/> </td> <td style="width: 50%; text-align: center;"> <input style="width: 30px; height: 20px;" type="checkbox"/> </td> </tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>	<input style="width: 30px; height: 20px;" type="checkbox"/>	<input style="width: 30px; height: 20px;" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input style="width: 30px; height: 20px;" type="checkbox"/>	<input style="width: 30px; height: 20px;" type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<b>6.</b> What was the farm potential income at acquisition? .....																					
<b>7.</b> Did the beneficiary receive RECAP? <span style="float: right; border: 1px solid black; width: 80px; height: 30px; display: inline-block;"></span>																					
1= Yes 0= No																					
<b>8.</b> Type of benefit received through recap ( <i>Tick where applicable</i> )																					
1 = Infrastructure 2 = Machinery Implements and Equipment 3 = Production	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; text-align: center;"> <input style="width: 30px; height: 20px;" type="checkbox"/> </td> <td style="width: 50%; text-align: center;"> <input style="width: 30px; height: 20px;" type="checkbox"/> </td> </tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>	<input style="width: 30px; height: 20px;" type="checkbox"/>	<input style="width: 30px; height: 20px;" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
<input style="width: 30px; height: 20px;" type="checkbox"/>	<input style="width: 30px; height: 20px;" type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<input type="checkbox"/>	<input type="checkbox"/>																				
<b>9.</b> Has the beneficiary been on the farm since the acquisition? <span style="float: right; border: 1px solid black; width: 80px; height: 30px; display: inline-block;"></span>																					
1= Yes 0= No																					

<b>10. Is the project receiving 3rd party assistance?</b> 1= Yes 0= No		<input style="width: 50px; height: 20px;" type="text"/>
<b>11. If Yes in 10, What relationship exists: (<i>Tick where applicable</i>)</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">           1 = Mentorship            2 = Strategic Partnership            3 = Both of above         </div> <div style="width: 10%; text-align: center;"> <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/> </div> </div>		
<b>12. what is your gender?</b> 1= Male 0= Female		<input style="width: 50px; height: 20px;" type="text"/>
<b>13. Age:.....</b>		
<b>14. Citizenship:</b> 1= South African 0= Non-South African		<input style="width: 50px; height: 20px;" type="text"/>
<b>15. Race:</b> 1 = Black 2 = Asian/ Indian 3 = Coloured		<input style="width: 50px; height: 20px;" type="text"/>
<b>16. Household Language: (<i>Tick where applicable</i>)</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">           1 = IsiZulu            2 = Xhosa            3 = Swati            4 = English         </div> <div style="width: 10%; text-align: center;"> <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/> </div> </div>		
<b>17. Level of education of respondent: (<i>Tick where applicable</i>)</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">           1 = No formal education            2 = Primary education         </div> <div style="width: 10%; text-align: center;"> <input style="width: 30px; height: 20px;" type="text"/>  <input style="width: 30px; height: 20px;" type="text"/> </div> </div>		

3 = Secondary education	<input type="text"/>
4 = Tertiary education	<input type="text"/>
<b>18. Do you have an accountant or bookkeeper?</b> 1= South African 0= Non-South African	
<input type="text"/>	
<b>19. What was your farming income in the past financial year?:.....</b>	
<b>20. What is your employment status?</b> 1 = Farming Full-time 2 = Farming Part-time	
<input type="text"/>	
<b>21. What is your non-farming income (per month)?.....</b>	
<b>22. When was the farm acquired?.....</b>	
<b>23. When did you occupy the farm?.....</b>	
<b>24. Is the project contract agreement signed?</b> 1= Yes 0= No	
<input type="text"/>	
<b>25. If Yes in 24, how many years is the agreed signed contract?.....</b>	
<b>26. How many years of experience in farming?.....</b>	
<b>27. How many years of experience as (indicate with years)</b> 1 = Farmer 2 = Farm Manager 3 = Farm Labourer 4 = Farm Resident	
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>28. Who manages the farm?</b> 1 = Beneficiary 2 = Professional Farm Manager 3 = Other	
<input type="text"/>	
<b>29. Is the farm mentor still available?</b> 1= Yes	
<input type="text"/>	



0= No	
<b>30.</b> If yes who identified mentor: 1 = DRDLR 2 = Beneficiary 3 = Other	<input type="checkbox"/>
<b>31.</b> Is the strategic partner still available? 1 = DRDLR 2 = Beneficiary 3 = Other	<input type="checkbox"/>
<b>32.</b> Do you have a legal entity (registered)? 1= Yes 0= No	<input type="checkbox"/>
<b>33.</b> Are you Tax compliant? 1= Yes 0= No	<input type="checkbox"/>
<b>34.</b> Do you belong to any other farmers organization? 1= Yes 0= No	<input type="checkbox"/>
<b>35.</b> If yes in 34 which farmer organisation(s) do you belong to: <i>(Tick where applicable)</i> 1 = African Farmers Association Of South Africa (AFASA) 2 = Isihlahla Somnyezane Association 3 = SA Cane Growers 4 = South African Farmers Development Association (SAFDA) 5 = Local Municipal Farmers Associations 6 = Other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>36.</b> What benefits are received from the farmer organisation: <i>(Tick where applicable)</i>	

1 = Financial assistance	<input type="checkbox"/>
2 = Technical Assistance	<input type="checkbox"/>
3 = Reliable market information	<input type="checkbox"/>
4 = Transporting inputs/products as a group	<input type="checkbox"/>
5 = Moral Support	<input type="checkbox"/>
6 = Other	<input type="checkbox"/>
7 = None	<input type="checkbox"/>

<b>37. Does the project have fencing?</b>	
1= Yes	<input type="checkbox"/>
0= No	

<b>38. If Yes in 39 what is the condition of the fencing? (Tick where applicable)</b>	
1 = Very poor	<input type="checkbox"/>
2 = Poor	<input type="checkbox"/>
3 = Fair	<input type="checkbox"/>
4 = Good	<input type="checkbox"/>
5 = Very good	<input type="checkbox"/>

<b>39.</b> How many fulltime people employed? .....
<b>40.</b> Minimum wage of fulltime people employed on farm per month R.....
<b>41.</b> How many part-time people employed? .....
<b>42.</b> Minimum wage of part-time people employed on farm per day R .....

<b>SECTION B: Farmer Capacity and extension services</b>	
<b>1. Do you have access to Extension Service?</b>	
1= Yes	<input type="checkbox"/>
0= No	

<p><b>2. If Yes in 1 who provides extension services?</b></p> <p>1 = DAFF</p> <p>2 = DRDLR</p> <p>3 = NGOs</p> <p>4 = ARC</p> <p>5 = Farmer to Farmer</p> <p>6 = More than one extension services provider</p>	<div style="border: 1px solid black; width: 80px; height: 30px; margin: 0 auto;"></div>								
<p><b>3. How often do you get visited by extension officials?</b></p> <p>1 = Once a week</p> <p>2 = Once in 2 Weeks</p> <p>3 = Monthly</p> <p>4 = Bi-annually</p> <p>5 = When required</p> <p>6 = Yearly</p> <p>7 = Quarterly</p>	<div style="border: 1px solid black; width: 80px; height: 30px; margin: 0 auto;"></div>								
<p><b>4. What type of information do you receive: (<i>Tick where applicable</i>)</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">1 = Production</td> <td style="width: 5%; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> <tr> <td>2 = Market information</td> <td style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> <tr> <td>3 = New technologies</td> <td style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> <tr> <td>4 = More than one information received</td> <td style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> </table>		1 = Production	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	2 = Market information	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	3 = New technologies	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	4 = More than one information received	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>
1 = Production	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
2 = Market information	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
3 = New technologies	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
4 = More than one information received	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
<p><b>5. Which source of water do you have access to?: (<i>Tick where applicable</i>)</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">1 = Dam</td> <td style="width: 5%; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> <tr> <td>2 = River</td> <td style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> <tr> <td>3 = Borehole</td> <td style="text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </td> </tr> </table>		1 = Dam	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	2 = River	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	3 = Borehole	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>		
1 = Dam	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
2 = River	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								
3 = Borehole	<div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>								

4 = Other	<input type="checkbox"/>	
<b>6. Which type of irrigation system do you have access to (<i>Tick where applicable</i>)</b> 1 = Sprinkler <input type="checkbox"/> 2 = Centre pivot <input type="checkbox"/> 3 = Other <input type="checkbox"/>		
<b>7. Are you a registered water user?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>8. Are water rights available?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>9. Is water enough for rights allocated?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>10. Is there enough water for production?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>11. Do you have water quality records?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>12. Are you satisfy with the water quality?</b> 1 = Yes 0 = No		<input type="checkbox"/>
<b>13. What is the source of electricity/ energy?</b> 1 = Eskom 2 = Solar system 3 = Other		<input type="checkbox"/>

<b>14. Is your electricity bill paid up?</b> 1 = Yes 0 = No		<input style="width: 60px; height: 30px;" type="text"/>	
<b>15. Do you have access to rainfall information?</b> 1 = Yes 0 = No		<input style="width: 60px; height: 30px;" type="text"/>	
<b>16. Do you have access to temperature information?</b> 1 = Yes 0 = No		<input style="width: 60px; height: 30px;" type="text"/>	
<b>17. What is your source of information on rainfall and temperature? (Tick where applicable)</b> 1 = Government agricultural extension service 2 = Private agricultural extension service 3 = Agricul 4 = Electronic media 5 = Rain gauge			
		<input style="width: 40px; height: 25px;" type="text"/> <input style="width: 40px; height: 25px;" type="text"/> <input style="width: 40px; height: 25px;" type="text"/> <input style="width: 40px; height: 25px;" type="text"/> <input style="width: 40px; height: 25px;" type="text"/>	
<b>18. What is your farm average rainfall during summer? (Tick where applicable)</b>			
0 – 100mm	<input style="width: 30px; height: 25px;" type="text"/>	501-600mm	<input style="width: 30px; height: 25px;" type="text"/>
101 – 200mm	<input style="width: 30px; height: 25px;" type="text"/>	601-700mm	<input style="width: 30px; height: 25px;" type="text"/>
201 - 300mm	<input style="width: 30px; height: 25px;" type="text"/>	701-800mm	<input style="width: 30px; height: 25px;" type="text"/>
301 – 400mm	<input style="width: 30px; height: 25px;" type="text"/>	801-900mm	<input style="width: 30px; height: 25px;" type="text"/>
401 – 500mm	<input style="width: 30px; height: 25px;" type="text"/>	Do not know	<input style="width: 30px; height: 25px;" type="text"/>
<b>19. What is your farm average rainfall during winter: (Tick where applicable)</b>			
0 – 100mm	<input style="width: 30px; height: 25px;" type="text"/>		
101 – 200mm	<input style="width: 30px; height: 25px;" type="text"/>		
201 - 300mm	<input style="width: 30px; height: 25px;" type="text"/>		

301 – 400mm	<input type="checkbox"/>
401 – 500mm	<input type="checkbox"/>
501 – 600mm	<input type="checkbox"/>
Do not know	<input type="checkbox"/>

<b>20.</b> Any deviation from the original use of the farm? 1 = Yes 0 = No	<input type="checkbox"/>
<b>21.</b> Can the farm be subdivided? 1 = Yes 0 = No	<input type="checkbox"/>
<b>22.</b> Do you have any alien vegetation/plants? 1 = Yes 0 = No	<input type="checkbox"/>
<b>23.</b> If Yes in 22 do you have any eradication plan for alien vegetation? 1 = Yes 0 = No	<input type="checkbox"/>
<b>24.</b> Do you keep records for your enterprise? 1 = Yes 0 = No	<input type="checkbox"/>
<b>25.</b> If Yes in 24 specify the types of records kept: ( <i>Tick where applicable</i> ) 1 = Production records 2 = Sales records 3 = Costs records 4 = All records	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>26.</b> If No in 24 indicate the reason:	<input type="checkbox"/>

1 = No record-keeping skills and knowledge		
2 = Other		
<b>27. Have you ever received any form of training?</b> <div style="float: right; border: 1px solid black; width: 80px; height: 30px; margin-top: 5px;"></div>		
1 = Yes		
0 = No		
<b>28. If Yes in 27 who provides training service(s)? (Tick where applicable)</b>		
1 = DAFF	<input type="checkbox"/>	7 = Agricultural College <input type="checkbox"/>
2 = SASRI	<input type="checkbox"/>	8 = CRI <input type="checkbox"/>
3 = Municipality	<input type="checkbox"/>	9 = SAFDA <input type="checkbox"/>
4 = ARC	<input type="checkbox"/>	10 = LIMA Rural Development Foundation <input type="checkbox"/>
5 = DRDLR	<input type="checkbox"/>	11 = NCT <input type="checkbox"/>
6 = SEDA	<input type="checkbox"/>	12 = Other <input type="checkbox"/>
<b>29. Which form of training received in the past 3 years? (Tick where applicable)</b>		
1 = Vegetable production	<input type="checkbox"/>	6 = Dairy production <input type="checkbox"/>
2 = Poultry production	<input type="checkbox"/>	7 = Game production <input type="checkbox"/>
3 = Beef production	<input type="checkbox"/>	8 = Sugarcane production <input type="checkbox"/>
4 = Grain production	<input type="checkbox"/>	9 = Business management <input type="checkbox"/>
5 = Forestry production	<input type="checkbox"/>	10 = Pig production <input type="checkbox"/>
	<input type="checkbox"/>	11 = Fruit production <input type="checkbox"/>
<b>30. Which Crop and fruit Production training received? (Tick where applicable)</b>		
1 = Soil preparation	<input type="checkbox"/>	
2 = Seed sowing	<input type="checkbox"/>	
3 = Transplanting	<input type="checkbox"/>	
4 = Propagation	<input type="checkbox"/>	
5 = Pest & Diseases	<input type="checkbox"/>	

6 = Transplanting & propagation	<input type="checkbox"/>
7 = Harvesting	<input type="checkbox"/>
8 = Nursery Management	<input type="checkbox"/>
<b>31. Which Livestock Production training received? (Tick where applicable)</b>	
1 = Beef cattle production management	<input type="checkbox"/>
2 = Poultry production management	<input type="checkbox"/>
3 = Egg production management	<input type="checkbox"/>
4 = Meat processing	<input type="checkbox"/>
5 = Pig production management	<input type="checkbox"/>
6 = Business management	<input type="checkbox"/>
7 = Dairy products processing	<input type="checkbox"/>
8 = Dairy production management	<input type="checkbox"/>
9 = Game production management	<input type="checkbox"/>
<b>32. Do you have access to Technology and Infrastructure?</b>	
1 = Yes	<input type="checkbox"/>
0 = No	
<b>33. State the cost incurred in the previous farming season for the following:.....</b>	

<b>SECTION C: Accessibility to financial mechanisms and markets and Socio-economic status</b>	
<b>1. Which markets do you usually use for selling your products?</b>	
1= Formal market	<input type="checkbox"/>
2= Informal market	
3= Formal and informal market	
4= Not selling	
<b>2. If using both formal and informal market, which one gets the largest amount of your products?</b>	
1= Formal market	<input type="checkbox"/>
0= Informal market	



<b>3. Which informal market do you use?</b> 1= Farmgate 2= Informal Auction Market 3= Local community 4= Other Informal Market(s)	<input type="text"/>
<b>4. Is your products graded before selling?</b> 1= Yes 2= No If Yes in 39, who provides information on grades?.....	<input type="text"/>
<b>5. If Yes in 23 (graded) who provides information on grades?</b> 1 = Beneficiary 2 = Market 3 = Market Agent	<input type="text"/>
<b>6. Do you have any contractual agreements or guaranteed/ready markets?</b> 1= Yes 0=No	<input type="text"/>
<b>7. Do you have regular customers who always buy from you?</b> 1 = Yes 0 = No	<input type="text"/>
<b>8. What form of funding did the farm receive?</b> 1= Loans 2= Grants 3= RECAP 4= Personal savings 5= Farm profit	<input type="text"/>
<b>9. How is your products moved to the market points?</b> 1 = Own transport 2 = Hired transport 3 = Buyers transport 4 = No need for transport 5 = No transport	<input type="text"/>
<b>10. When selling do you combine with others?</b> 1= Yes 0= No	<input type="text"/>
<b>11. Do you perform price surveys, before selling?</b> 1= Yes	<input type="text"/>

0=No	
<b>12.</b> Do you have storage facilities for products? 1= Yes 0=No	<input style="width: 80px; height: 30px;" type="text"/>
<b>13.</b> How is the price set during the sales? 1= Beneficiary sets the price 2= We negotiate 3= It is market-driven 4= It dictated by buyers	<input style="width: 80px; height: 30px;" type="text"/>
<b>14.</b> Are you registered with Global GAP? 1= Yes 0 = No	<input style="width: 80px; height: 30px;" type="text"/>
<b>15.</b> if No in 14 give reasons 1= Lack awareness 2= Other	<input style="width: 80px; height: 30px;" type="text"/>
<b>16.</b> State the challenges associated with the marketing of your products: <i>(Tick where applicable)</i>	
1 = Small size of transport	<input style="width: 30px; height: 20px;" type="checkbox"/>
2 = Lack of transport	<input style="width: 30px; height: 20px;" type="checkbox"/>
3 = High transport cost	<input style="width: 30px; height: 20px;" type="checkbox"/>
4 = Poor road conditions	<input style="width: 30px; height: 20px;" type="checkbox"/>
5 = Lack of bargaining power	<input style="width: 30px; height: 20px;" type="checkbox"/>
6 = Lack of market information	<input style="width: 30px; height: 20px;" type="checkbox"/>
7 = Lack of marketing infrastructure	<input style="width: 30px; height: 20px;" type="checkbox"/>
8 = Poor quality of the products	<input style="width: 30px; height: 20px;" type="checkbox"/>
9 = No challenges	<input style="width: 30px; height: 20px;" type="checkbox"/>
10 = More than one challenge	<input style="width: 30px; height: 20px;" type="checkbox"/>
<b>17.</b> Is the farm currently contributing towards the livelihoods of the households? 1= Yes 0 = No	
<input style="width: 80px; height: 30px;" type="text"/>	
<b>18.</b> How are the farming activities funded? <i>(Tick where applicable)</i>	
1 = Farm Profits	<input style="width: 30px; height: 20px;" type="checkbox"/>
2 = Income from formal employment	<input style="width: 30px; height: 20px;" type="checkbox"/>
3 = Loan	<input style="width: 30px; height: 20px;" type="checkbox"/>
4 = Personal savings	<input style="width: 30px; height: 20px;" type="checkbox"/>
5 = Other	<input style="width: 30px; height: 20px;" type="checkbox"/>
6 = No funds	<input style="width: 30px; height: 20px;" type="checkbox"/>
<b>19.</b> Do you intend to expand your production next season? 1 = Yes 0 = No	
<input style="width: 80px; height: 30px;" type="text"/>	
<b>20.</b> Are there any members of the community supported by the farm? (Eg. Orphanages)	
<input style="width: 80px; height: 30px;" type="text"/>	

1 = Yes 0 = No	
<b>21. Do you receive any labourers/farmworkers from within the community?</b>  <div style="display: flex; justify-content: space-between;"> <div> 1 = Yes  0 = No </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	
<b>22. State the condition of the farmworker dwellings.</b>  <div style="display: flex; justify-content: space-between;"> <div> 1 = Very Good  2 = Good  3 = Fair  4 = Poor  5 = Very poor  6 = None available </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	
<b>23. Do you have access to the following Public Services? (Tick applicable)</b> <div style="display: flex; justify-content: space-between;"> <div> 1=Educational Services   2=Health Services   3=Public transport   4=Police Services   5=No access to Public Services </div> <div style="border: 1px solid black; width: 50px; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; bottom: 0; left: 0; right: 0; border-bottom: 1px solid black;"></div> </div> </div>	
<b>24. Are farm workers allocated land for their production?</b>  <div style="display: flex; justify-content: space-between;"> <div> 1 = Yes  0 = No </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	
<b>25. Do you use family labour?</b>  <div style="display: flex; justify-content: space-between;"> <div> 1 = Yes  0 = No </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	
<b>26. What age group forms part of your labour force?</b>  <div style="display: flex; justify-content: space-between;"> <div> Elderly  Youth  Both Elderly and Youth </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	
<b>27. Is there a succession plan for the farm?</b>  <div style="display: flex; justify-content: space-between;"> <div> 1 = Yes  0 = No </div> <div style="border: 1px solid black; width: 80px; height: 40px;"></div> </div>	

<b>28.</b> Do you have a computer? 1 = Yes 0 = No	<input type="text"/>
<b>29.</b> Do you sometimes worry that your household would not have food? 1 = Yes 0 = No	<input type="text"/>
<b>30.</b> Do you or a household member sometimes skip a meal because there is no food? 1 = Yes 0 = No	<input type="text"/>
<b>31.</b> Do people in this village or this area trust each other? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>
<b>32.</b> Is empowering woman in the area is important? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>
<b>33.</b> Are farmers organised in a group that meets regularly? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>
<b>34.</b> Does crime come from outside and not from the local people? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>
<b>35.</b> Do you feel safe in the area and I do trust my neighbours? 1=Fully agree	<input type="text"/>

2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree					
<b>36.</b> Are woman and wife are allowed to make decisions about farming? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>				
<b>37.</b> Is the local authority in the area is strong and supported? 1=Fully agree 2=Agree 3=Partially agree 4=Disagree 5=Strongly disagree	<input type="text"/>				
<b>38.</b> Are there any environmental awareness campaigns within the communities? 1 = Yes 0 = No	<input type="text"/>				
<b>39.</b> Are you aware of climate change and its effects? 1 = Yes 0 = No	<input type="text"/>				
<b>40.</b> What practices are in place to reduce the effects of climate change on the farm? (Tick applicable) 1= Avoid unnecessary burning 2= Implement Good Agricultural Practice 3= Avoid deforestation 4= None	<table border="1"> <tr><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td></tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<b>41.</b> How often does the farm experience droughts? 1= Yearly 2= Every 2 years 3= Every 3 years 4= Biannual 5= Never	<input type="text"/>				
<b>42.</b> How often does the farm experience flood occurrence?					

- 1= Yearly
- 2= Every 2 years
- 3= Every 3 years
- 4= Biannual
- 5= Never

## APPENDIX B: Consent Letter

School of Agriculture, Earth & Environmental  
Sciences, College of Agriculture, Engineering  
& Science,  
University of KwaZulu-Natal,  
Pietermaritzburg Campus,

Dear Participant/ Umhlanganyeli othandekayo

### INFORMED CONSENT LETTER ISITATIMENDE SOKUQALA OKUHLELWAYO

My name is .....**Thembalakhe Decent Shabangu**..... I am an Agricultural Extension Master's candidate studying at the University of KwaZulu-Natal, Pietermaritzburg campus, South Africa. I am interested in learning about the impact of recapitalization and development program on the performance of land reform farmers in KwaZulu-Natal. I am studying cases from KwaZulu-Natal Province. Your local municipality district is one of my case studies. To gather the information, I am interested in asking you some questions.

Igama lami .....**Thembalakhe Decent Shabangu**..... Ngingumqeqeshi we-Agricultural Extension Master ofundela eNyuvesi yaseKwaZulu-Natali, e-Pietermaritzburg, eNingizimu Afrika. Nginentshisekelo yokufunda ngomthelela kabusha kanye nentuthuko kubalimi ababuyisela umhlaba eKwaZulu-Natali. Ngifunda izifundo ezivela eSifundazweni saKwaZulu-Natali. Isifunda somasipala wangakini ngenye yezifundo zami. Ukuqoqa ulwazi, ngingesithakazelo ekubuzeni imibuzo ethile.

Please note that:

Sicela wazi ukuthi:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person but reported only as a population member opinion.
- Ukufihleka kwakho kuqinisekisiwe ngoba umubono wakho ngeke uchasiselwe kuwe, kodwa uzobikwa njengomubono wenengi.
- The interview may last for about 1:30 hour and may be split depending on your preference.
- Singahlanganyela ihhora nohhafu esingalihlukanisa ngendlela othanda ngayo.

- Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only.
- Imininingwane esinikezwe nguwe ngeke isetshenziswe ngokumelene nawe, futhi iminingo eqoqiwe izosetshenziswa ukufeza inhloso yalocwaningo kuphela.
- Data will be stored in secure storage and destroyed after 5 years.
- Imininigwane izogcinwa endaweni yokugcina ephephile bese iyasulwa emva kweminyaka emihlanu.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalized for taking such an action.
- Unelungelo lokubamba iqhaza, ungahlanganyeli noma uyeke ukuhlanganyela ekucwaningweni. Ngeke ujeziswe ngokuthatha isenzo esinjalo
- The research aims at knowing the challenges of your community relating to resource scarcity, peoples' movement, and effects on peace.
- Ucwangingo luhlose ukwazi izinselele zomphakathi wakho eziphathelene nokuntuleka kwemithombo, ukunyakaza kwabantu, nemiphumela yokuthula.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- Ukubandakanyeka kwakho kungenxa yezifundo kuphela, futhi azikho izinzuzo zezimali ezithintekayo.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:
- Uma uzimisele ukuxoxwa, sicela ubonise (ngokufaka uphawu ngokubheka njengokusebenza) noma ngabe uzimisele yini ukuvumela ukuthi lolu daba lulotshwe yizixhobo ezilandelayo:

I can be contacted at:

Email: [thembalakhedecent@gmail.com](mailto:thembalakhedecent@gmail.com)

Cell: +27 (0) 79 912 6193

My supervisor is Dr Mjabulise Ngidi who is located at the AERRM Program, School of Agriculture, Earth & Environmental Sciences, Pietermaritzburg College, University of KwaZulu-Natal

Contact details: email: [Ngidim@ukzn.ac.za](mailto:Ngidim@ukzn.ac.za) Phone number: +27 (0) 72 397 8610

My Co-supervisor is Dr. OJO Temitope O.

Postdoctoral Fellow



Disaster Management Training and Education Center for Africa,  
University of Free State, Bloemfontein, South Africa  
(Cell) (+27) 631 448 420, Email: [ojotemitope@yahoo.com](mailto:ojotemitope@yahoo.com)

You may also contact the AES College Higher Degrees through:

Shireen Pillay

AES College Higher Degrees,

Tel: 033 260 6243 E-mail: [Pillays14@ukzn.ac.za](mailto:Pillays14@ukzn.ac.za) and [Higherdegrees1@ukzn.ac.za](mailto:Higherdegrees1@ukzn.ac.za)

**To contact the research office**

Mariette Snyman

Research Office

*HSSREC Administrator*

University of KwaZulu-Natal

Westville Campus

Tel: +27 31 260 8350

Fax: +27 31 260 3093

Email: [snymanm@ukzn.ac.za](mailto:snymanm@ukzn.ac.za)

Thank you for your contribution to this research.

### **DECLARATION/ ISICELO**

**I/Mina..... (full names of participant/ amagama aphelele obambe iqhaza) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participate in the research project / ngiyavuma ukuthi ngiyakuqonda okuqukethwe kulencwadi nokuthi locwaningo olwani, futhi ngiyavuma ukuzibandakanya kulocwaningo.**

**I understand that I am at liberty to withdraw from the project at any time, should I so desire. Ngियाqonda ukuthi ngikhululekile ukuzikhipha kulocwaningo noma inini uma ngifisa.**

**With regard to recording, please tick the boxes below/ Mayelana nokurekhoda, sicela ukhawule amabhokisi ngezansi.**

	Willing/ Uzimisele	Not willing/ Awuzimisele
Audio equipment/ Imishini yomsindo		
Photographic equipment/ Imishini yezithombe		
Video equipment/ Imishini yemibono		

**SIGNATURE OF PARTICIPANT/ISISAYINDO SOBAMBA IQHAZA:**

.....

**DATE/USUKU:**

.....

## APPENDIX C: Gate keeper's letter

School of Agriculture, Earth & Environmental  
Sciences, College of Agriculture, Engineering  
& Science,  
University of KwaZulu-Natal,  
Pietermaritzburg Campus,

Dear Participant/ Umhlanganyeli othandekayo

### INFORMED CONSENT LETTER ISITATIMENDE SOKUQALA OKUHLELWAYO

My name is .....**Thembalakhe Decent Shabangu**..... I am an Agricultural Extension Master's candidate studying at the University of KwaZulu-Natal, Pietermaritzburg campus, South Africa. I am interested in learning about the impact of recapitalization and development program on the performance of land reform farmers in KwaZulu-Natal. I am studying cases from KwaZulu-Natal Province. Your local municipality district is one of my case studies. To gather the information, I am interested in asking you some questions.

Igama lami .....**Thembalakhe Decent Shabangu**..... Ngingumqeqeshi we-Agricultural Extension Master ofundela eNyuvesi yaseKwaZulu-Natali, e-Pietermaritzburg, eNingizimu Afrika. Nginentshisekelo yokufinds ngomthelela kabusha kanye nentuthuko kubalimi ababuyisela umhlaba eKwaZulu-Natali. Ngifunda izifundo ezivela eSifundazweni saKwaZulu-Natali. Isifunda somasipala wangakini ngenye yezifundo zami. Ukuqoqa ulwazi, ngingesithakazelo ekubuzeni imibuzo ethile.

Please note that:

Sicela wazi ukuthi:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person but reported only as a population member opinion.
- Ukufihleka kwakho kuqinisekisiwe ngoba umubono wakho ngeke uchasiselwe kuwe, kodwa uzobikwa njengomubono wenengi.
- The interview may last for about 1:30 hour and may be split depending on your preference.
- Singahlanganyela ihhora nohhafu esingalihlukanisa ngendlela othanda ngayo.

- Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only.
- Imininingwane esinikezwe nguwe ngeke isetshenziswe ngokumelene nawe, futhi iminingo eqoqiwe izosetshenziswa ukufeza inhloso yalocwaningo kuphela.
- Data will be stored in secure storage and destroyed after 5 years.
- Imininigwane izogcinwa endaweni yokugcina ephephile bese iyasulwa emva kweminyaka emihlanu.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalized for taking such an action.
- Unelungelo lokubamba iqhaza, ungahlanganyeli noma uyeke ukuhlanganyela ekucwaningweni. Ngeke ujeziswe ngokuthatha isenzo esinjalo
- The research aims at knowing the challenges of your community relating to resource scarcity, peoples' movement, and effects on peace.
- Ucwangingo luhlose ukwazi izinselele zomphakathi wakho eziphathelene nokuntuleka kwemithombo, ukunyakaza kwabantu, nemiphumela yokuthula.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- Ukubandakanyeka kwakho kungenxa yezifundo kuphela, futhi azikho izinzuzo zezimali ezithintekayo.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:
- Uma uzimisele ukuxoxwa, sicela ubonise (ngokufaka uphawu ngokubheka njengokusebenza) noma ngabe uzimisele yini ukuvumela ukuthi lolu daba lulotshwe yizixhobo ezilandelayo:

I can be contacted at:

Email: thembalakhedecent@gmail.com

Cell: +27 (0) 79 912 6193

My supervisor is Dr Mjabulise Ngidi who is located at the AERRM Program, School of Agriculture, Earth & Environmental Sciences, Pietermaritzburg College, University of KwaZulu-Natal

Contact details: email: Ngidim@ukzn.ac.za Phone number: +27 (0) 72 397 8610

My Co-supervisor is Dr. OJO Temitope O.

Postdoctoral Fellow

Disaster Management Training and Education Center for Africa,  
University of Free State, Bloemfontein, South Africa  
(Cell) (+27) 631 448 420, Email: [ojotemitope@yahoo.com](mailto:ojotemitope@yahoo.com)

You may also contact the AES College Higher Degrees through:

Shireen Pillay

AES College Higher Degrees,

Tel: 033 260 6243 E-mail: [Pillays14@ukzn.ac.za](mailto:Pillays14@ukzn.ac.za) and [Higherdegrees1@ukzn.ac.za](mailto:Higherdegrees1@ukzn.ac.za)

**To contact the research office**

Mariette Snyman

Research Office

*HSSREC Administrator*

University of KwaZulu-Natal

Westville Campus

Tel: +27 31 260 8350

Fax: +27 31 260 3093

Email: [snymanm@ukzn.ac.za](mailto:snymanm@ukzn.ac.za)

Thank you for your contribution to this research.

**DECLARATION/ ISICELO**

I/Mina.....*Jan Pierre Joubert*..... (full names of participant/ amagama aphelele obambe iqhaza) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to allowing the researcher to visit the land reform beneficiaries/ ngiyavuma ukuthi ngiyakuqonda okuqukethwe kulencwadi nokuthi locwaningo olwani, futhi ngiyavuma ukuvumela umcwaningi ukuba ukuvakashela abazuzileyo ohlelweni lokubuyiselwa komhlaba kubantu ngoHhulumeni.

- 1) I am aware of the research and support it.
- 2) I am happy that Thembalakhe Decent Shabangu is approaching land reform farmers.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.  
Ngiyaqonda ukuthi ngikhululekile ukuzikhipha kulocwaningo noma inini uma ngifisa.

**ORGANISATION OF THE GATEKEEPER**

*Engela*.....

**SIGNATURE OF THE GATEKEEPER**  
**ISISAYINDO/ SOBAMBA IQHAZA**

.....



**DATE**

**USUKU**

*28/07/2017*.....