Evaluating the impact of Land Abandonment and Agricultural Revitalization Programs on Smallholder Farmers' Welfare in Mbhashe, Eastern Cape.

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A research dissertation submitted for the Master of Science in Agriculture.

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May, 2026

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The following papers and conference presentations have resulted from this dissertation:

Conferences

1. Z Mkhize, M Christian and S Mazwane., (2025). Colonial Legacies, Postcolonial Realities: South Africa, 30 Years Later. Psychology of Poverty, Inequality and Social Policy. South African Sociological Association (SASA) Congress held at UMP 23-26 June. *Acceptance Letter Attached.*
2. Z Mkhize, M Christian, S Mazwane., (2025). Rooted in Resilience: Revitalizing agrifood systems for an uncertain tomorrow. Submitted for: International Food and Agribusiness Management Association (IFAMA) World Conference – *submission proof attached.*

Papers submitted

M Christian, S Mazwane, Siphe Zantsi, Siyasanga Mgoduka, L Morajane, Z Mkhize, (2026). Hotspots of Cropland Abandonment in the rural Eastern Cape: Disentangling Socio-Economic and Climate Drivers among Farming Households in the former homelands of Transkei. *South African Journal of Agriculture Extension.*

ACKNOWLEDGMENTS

To the King of endless worth, the Ancient of all Days, the divine architect of my life, it is with profound humility that I give thanks to God. His word has been laid upon my feet.

I am deeply thankful to Professor Mzuyanda Christian and Dr Sukoluhle Mazwane for their guidance throughout this journey. While the head of school said I could, my supervisor and cosupervisor, respectively, insisted I should and finish within a year. Your professionalism, dedication and excellence have been a true inspiration.

I also want to thank my mother, Buhle Radebe, for the knowledge shared the lessons that challenged me to grow. My sincere appreciation goes to the University of Mpumalanga (UMP) for providing the resources and a supportive learning environment. Special thanks go to Ms Lerato Mary Gold Morajane, who supported me so much through data collection. Heartfelt thanks to Ndiwanga Muravha, for your kindness and hospitality.

To the rest of my family and friends, words cannot express the depth of my gratitude for your unwavering support.

DEDICATION

To my unborn children-

May this work stand as a seed planted in your name, a small part of the legacy I hope to leave behind. I hope that the values of resilience, curiosity, and purpose ripple through your lives and beyond.

May you grow to create your own ripple effect of excellence, touching lives with your light, and walking boldly in the truth of who you are.

This is for you- before you even arrived, you already gave me reason to press forward.

ABSTRACT

Land abandonment poses a growing challenge to rural economies in South Africa, weakening agricultural productivity and threatening the security of food production. In Mbhashe Local Municipality in the Eastern Cape, where agriculture remains central to household livelihoods, increasing levels of abandoned and underutilised land have prompted government-led agricultural revitalization programmes such as Ilima/Letsema and Fetsa Tlala. These programmes are intended to stimulate agricultural production and improve smallholder farmers' welfare; however, their effectiveness in addressing land abandonment and its welfare implications remains unclear. Decades into democracy, rural communities continue to struggle with entrenched land issues, and the increasing number of smallholder farmers leaving their land has contributed to poverty, food insecurity and dependency on purchased foods. While these governance initiatives seek to reverse these trends, questions remain about their effectiveness and their alignment with the lived realities of smallholder farmers, highlighting the need for more locally relevant and responsive solutions. This research evaluated the effects of land abandonment and agricultural revitalisation programmes on the well-being of smallholder farmers in Mbhashe Local Municipality, Eastern Cape. Adopting a mixed-methods approach, the research combined quantitative data collected through structured questionnaires with qualitative insights from focus group discussions involving key stakeholders, including extension officers, community leaders, and programme implementers. Using descriptive statistics, multiple linear regression, and endogenous switching regression on data from 154 smallholder farmers in Mbhashe Local Municipality, Eastern Cape, the study finds a high prevalence of land abandonment, with 87% of farmers leaving a portion of their land unused. On average, only 43% of available land is cultivated, while 57% remains abandoned or underutilised. Land abandonment is evident among both male and female farmers; however, female farmers exhibit greater variability in the extent of land cultivated and abandoned, reflecting uneven access to productive resources and support across households. Part-time farmers tend to abandon more land than full-time farmers. Correlation and regression analyses highlight important drivers. Among all income variables, only social grant income shows a statistically significant positive correlation ($\rho = 0.19$, $p = 0.020$) with land abandonment. This suggests that households with greater reliance on grants are slightly more likely to leave land unused. Other sources, such as wages, remittances, or crop/livestock income, show no significant relationships. Conversely, livestock income reduces abandonment, while maize

income unexpectedly increases it. Notably, smartphone ownership significantly lowers abandonment ($p < 0.05$), pointing to the role of digital access in sustaining land use. Other factors, such as extension, credit access, and perceptions of climate change, show no statistically significant effects. The multiple regression model explains 11.1% of variation in abandonment, reinforcing the influence of income sources and digital access. This suggests that revitalisation programmes, in their current form, are insufficient to prevent land abandonment. Altogether, these results show that abandonment in Mbhashe is not primarily due to climate perceptions or a lack of formal support, but rather to changes in livelihood strategies, limited resources, and technological connectivity. Current revitalisation programmes appear insufficient to address abandonment unless combined with interventions that strengthen market access, promote livestock integration, and expand digital inclusion. Ultimately, the study recommends integrating revitalisation support with market access through enhanced or more active extension support that promotes digital and information inclusion for smallholder farmers in Mbhashe Local Municipality of the Eastern Cape. More emphasis is placed on more targeted revitalisation efforts for youth and women.

Keywords: Abandoned land, Agricultural programmes, Revitalisation, Smallholder farmers

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LIST OF ACRONYMS AND ABBREVIATIONS

CASP- Comprehensive Agricultural Support Programme

ESR- Endogenous Switching Regression

FAO- Food and Agriculture Organisation

G20- Group of Twenty

IFSS- Integrated Food Security System

NGO – Non-Government Organisation

POPIA -Protection of Personal Information Act

PSM -Public Sector Management

SDG - Sustainable Development Goals

Stats SA- Statistics South Africa

TOT- Effect on the treatment

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Agricultural land abandonment has become an increasing concern in rural areas of South Africa, particularly in former homeland regions where smallholder farming remains central to household livelihoods (Subedi *et al.*2022). In Mbhashe Local Municipality in the Eastern Cape, agriculture plays a critical role in food provision and income generation; however, a growing proportion of arable land is no longer actively cultivated. This trend has implications for household welfare, local food security, and the sustainability of rural economies (Blair *et al*.2018).

National efforts to increase agricultural production and support smallholder farmers, including programmes such as Ilima/Letsema and Fetsa Tlala, have been introduced partly in response to declining land use and productivity (Blair *et al*,2018). Despite these interventions, evidence on their effectiveness in addressing land abandonment and improving farmers' welfare in lowincome rural municipalities remains limited. This study is therefore situated within the need to understand the drivers of land abandonment in Mbhashe and to evaluate whether existing revitalisation programmes are contributing meaningfully to improved land use and smallholder welfare (Zansi & Xaba,2025).

Land abandonment is a term used to describe land that is currently not under cultivation, with a prominent cover of shrubs (Leal Filho *et al*. 2017). Cultivation that would be subject to this land would also include agricultural conservation; this neglected land lies waste and becomes a threat to neighboring owners (Leal Filho *et al*. 2017). According to Sibiya *et al*. (2023), in South Africa, unsustainable agricultural practices such as inappropriate irrigation, soil salinization, poor grazing management, and inappropriate cultivation contribute significantly to the abandonment of agricultural lands. This study aims to explore the underlying causes and consequences of this phenomenon, and strategies for reutilizing abandoned agricultural lands.

Field cultivation abandonment in rural South Africa has been widely acknowledged in the academic literature; however, as Zantsi and Xaba (2025) point out, what is less reported are the government's efforts to revitalize field cultivation. In their study on Back to Fields, they add that while revitalisation initiatives have been implemented, studies that used monitoring and

evaluation approaches and in-depth interviews with beneficiaries have generally found them unsuccessful.

Several studies show that abandonment of arable land among smallholder farmers under communal tenure systems is widespread, particularly in homelands (Pokwane *et al.* 2025), for instance, Fay (2015) also found fewer households in Hobeni village between 1998 and 2009. Connor and Ntwana (2018) reported that about 90% of respondents in Sirhosheni, Lutengele and Mbekwini areas had abandoned their fields. In the same way, Blair *et al.* (2018) estimated that in former homelands, annual fields abandonment rates between 1950 and 2010 ranged from 0.09% to 0.29%

1.2 Problem Statement

In the Eastern Cape, about 78% of rural households depend on subsistence farming for their livelihood; however, most of the income comes from other streams such as employment, selling, and grants, leading to a decrease in subsistence farming (Bedemo *et al.* 2013). This shift from farming, driven by additional factors like drought, water scarcity, poor soil, and unproductive methods, raises concerns about rising poverty, where food insecurity remains higher than in urban areas, and farmers struggle with inadequate infrastructure and resources (Qange & Mdoda, 2020).

The decline in farming activity is further intensified by persistent biophysical and institutional constraints, including recurrent droughts, water scarcity, poor soil quality, and lowproductivity farming practices. These challenges are compounded by inadequate infrastructure, limited access to inputs, and weak extension and market support systems (Qange & Mdoda, 2020). Consequently, rural households face sustained levels of poverty and food insecurity that remain higher than those in urban areas, highlighting the vulnerability of smallholder farmers and the limitations of existing support mechanisms in reversing land abandonment and improving livelihoods.

Shackleton *et al*. (2019) stated that the decrease in agricultural production has led to the widespread abandonment of field cultivation in rural areas. In fact, between 2011 and 2016, over 500,000 rural South Africans stopped farming, leading to many impoverished communities relying on purchasing food, which has become increasingly unaffordable due to

the economic changes. Agricultural extension based on an educational strategy has reached a critical point under publicly funded systems, where market-driven agriculture has become the focal point over traditional yield increases (Suvedi, 2019). This shift has led extension officers to place strong emphasis on technological innovations and urban consumer markets at the expense of addressing land abandonment issues, which mostly affect smallholder farmers (Suvedi, 2019).

Agricultural production has declined across all sectors, including livestock and arable farming, with the latter experiencing a more significant decline (Shackleton, 2019). The South African government has launched various initiatives to boost agricultural productivity and address food insecurity in rural areas. Programmes like the Integrated Food Security (IFSS), Ilima/Lestema, and Fetsa Tlala aim to support communal farmers and stimulate agricultural production (Shackleton, 2019). However, these initiatives have focused mainly on mechanising field cultivation, which may be unsuitable for all farmers. There is limited land abandonment empirical evidence on what drives land abandonment and whether revitalisation programmes from the government make any measurable difference.

1.3 Research Objectives

i. To determine the extent and socio-economic consequences of land abandonment among smallholder farmers.
ii. To determine factors influencing the extent of land abandonment among smallholder farmers.
iii. To determine the impact of agricultural revitalisation programmes on smallholder farmers' welfare. iv. To analyse the perceived challenges and benefits of revitalisation programmes on smallholder farmers.

1.4 Overall Aim

To evaluate the impacts of agricultural revitalization programs on smallholder farmers welfare in Mbhashe, Eastern Cape.

1.5 Research Questions

i. What is the extent and consequences of land abandonment among smallholder farmers?

ii. What are the factors influencing the extent of land abandonment among smallholder farmers?
iii. How do agricultural revitalisation programmes affect smallholder farmers' welfare?
iv. What are the perceived challenges and benefits of the revitalization programme on smallholder farmers?

1.6 Significance and Scientific Novelty

The United Nations' Sustainable Development Goals (SDGs) 1 and 2 aim to eliminate poverty and hunger by 2030. To achieve this, research in agriculture and rural development is crucial, focusing on context-specific solutions to address poverty, hunger, and malnutrition (Bernstein et *al.* 2019). Goal 15 particularly emphasises the urgent need to combat deforestation, desertification, and land degradation, which are issues that hinder sustainable development, as ensuring sustainable land use is a pressing global concern echoed across the United Nations's 17 Sustainable Development Goals (Filho *et al.* 2017).

The Eastern Cape is among South Africa's poorest provinces, characterised by widespread poverty, unemployment, and food insecurity (Khumalo, 2021). Although land reform initiatives and supportive institutional frameworks have made notable progress in parts of the province, deep rural areas remain largely unchanged in terms of socio-economic conditions (Lahiff, 2005; 2016). To fully reach its potential, land reform in the Eastern Cape and South Africa must evolve in ways that not only expand the availability of land but also increase the chances of people making use of the land productively, therefore, assessing the impact of land abandonment and agricultural revitalisation programmes on smallholder farmers' welfare in the Eastern Cape is crucial to inform policy and decision-making.

1.7 Outline of the Dissertation

The study is structured into five chapters. Chapter One provides the research background and context, outlines the objectives, formulates the research questions and explains the justification for the study. Chapter Two offers a literature review focusing on the drivers of rural development, highlighting the key role of smallholder farmers of rural development, highlighting the key role of smallholder farmer in promoting sustainable agricultural production. Chapter Three outlines the research methodology, detailing the study area, sampling design and size, as well as the methods used for data collection and analysis. Chapter

Four presents the results and discussions, showing regression analysis on factors that may or may not contribute to abandonment.

The Propensity-Matching Score indicated that revitalisation efforts have no statistical significance on reducing land abandonment. The last chapter, which is Chapter 5, shows the conclusion, summary and recommendations of the study. This study found out that revitalisation programmes, in their current form, are insufficient to prevent land abandonment. The study recommends integration of revitalisation support with the value chain through enhanced or more active extension support that promotes digital and information inclusion to smallholder farmers in Mbhashe.

1.8 Definition of key terms

Revitalisation – refers to a process of bringing back to life, back to original function with more energy. In the context of agriculture, it is restoring land productivity through sustainable practices (Subedi *et al.* 2022).

Abandoned Land- a term in reference to land that was once active but has lain still due to lack of maintenance or cultivation. This occurs due to various reasons, from lack of resources to rural to urban migration, climatic stress and policy gaps (Filho *et al*. 2017).

Agricultural Programmes – these are organised governmental structures aimed to improve agricultural engagements (Shackleton, 2019).

Public Sector Management (PSM)- A field focused on processes, strategies and structures used to manage the public sector. In this context, PSM plays a role in how the government run agricultural programmes (Qange & Mdoda, 2020).

1.9 Study Delimitation

The study is limited to the study area, which is Mbhashe, a municipality in the Eastern Cape of South Africa, even though the issue is not just affecting Mbhashe. The research focuses on smallholder farmers, excluding other types of farmers, as South Africa's agriculture is dualistic in nature, with smallholder and commercial farmers. In addition, agriculture is not always rural; by mentioning urban consumers, the study does not analyse urban farming practices. Land

abandonment is a phenomenon that is complex, multifaceted, and nonlinear; it ranges from fields to forests, but this study specifically focuses on the agricultural aspect- abandonment of arable crop fields. The study does not assess all government or Non-Government Organisation (NGO) led rural development structures; this is also due to the stipulated time frame. The study has a thematic lens concentrating on socio-economic impacts instead of exploring ecological impacts; it explores in detail aspects related to livelihoods, productivity, issues related to agriculture. The next chapter assesses the extent and patterns of land abandonment.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter examines the drivers of rural development; agriculture emerges as a fundamental sector for fostering growth. It shows how youth are central to achieving sustainable production in agriculture, which is the foundation of food security. Within this context, smallholder production plays a vital role as a critical factor to drive sustainable agricultural practices that are economically viable.

This chapter reviews existing literature to conceptualise the issue of land abandonment within broader debates on rural development and agricultural revolution. It begins by considering the current status quo of smallholder farming in South Africa as a whole. Next, the extent and patterns of land abandonment are assessed. The following section explores the underlying determinants of abandonment of land, while the following section considers its consequences. Revitalisation programmes are also highlighted. For the analysis, the chapter employs relevant theoretical frameworks which give an understanding of the dynamics of land use.

2.2 Theoretical Framework

The Sustainable Livelihood Framework (SLF) emphasises people's ability to maintain and improve their livelihoods despite uneasy circumstances (Chambers & Conway, 1992; Govender, 2023). The framework emphasises five core livelihood assets: physical and social capital, natural, financial, and human capital. They all interact within a social shock, such as land abandonment, which is a choice for smallholder farmers (Governor, 2023).

The SLF remains a valuable analytical tool because it provides a structured way to examine the multiple factors shaping poverty reduction and sustainable resource use. It identifies five core asset dimensions (Levine, 2014; Ndhlovu, 2018). Within the context of smallholder farming in Mbhashe, these assets are shaped by socio-economic realities such as education, income sources, and access to land (Levine, 2014). It highlights how resilience, adaptation, and resource management are critical for sustaining farming systems and ensuring that interventions are socially and environmentally viable (Ndhlovu, 2018). The diagram below illustrates the factors at play around the SLF in connection to land abandonment.

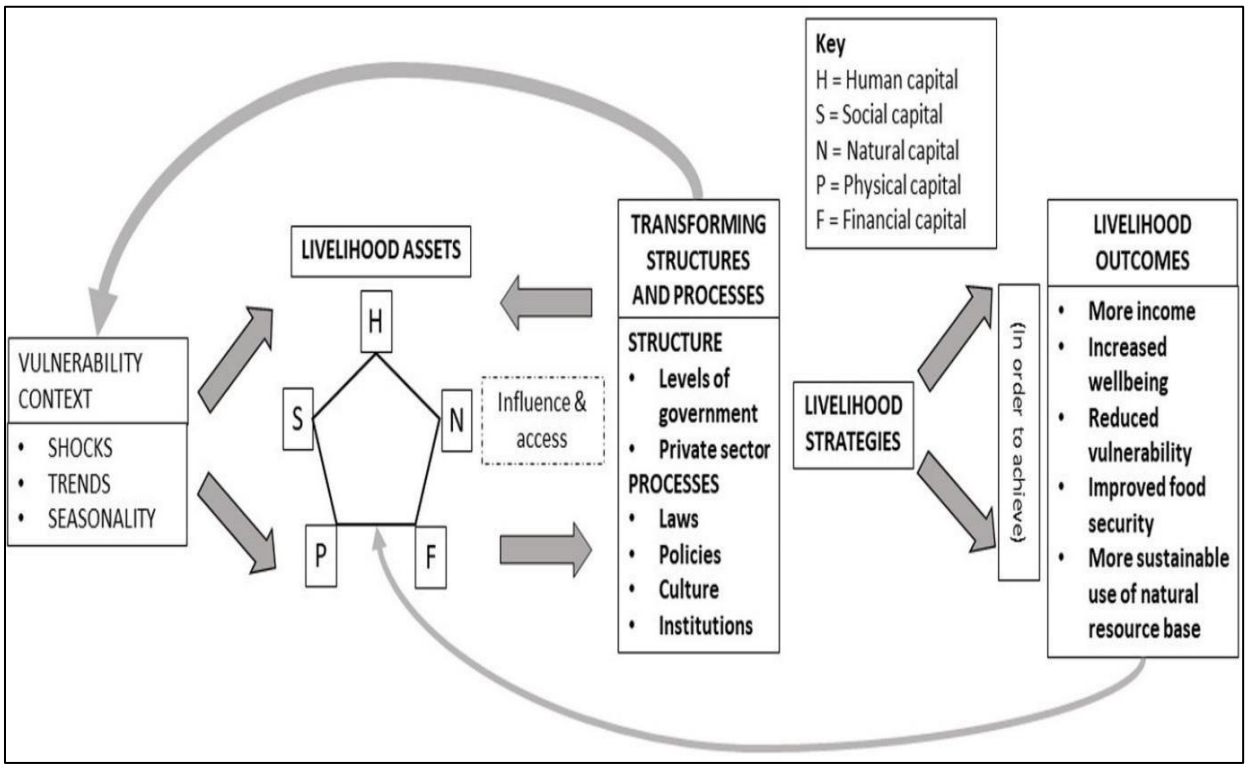

Figure 2.1: Figure 2.1: The DFID Sustainable Livelihoods Framework (SLF) (Source: redrawn from, DFID 1999).

Although land abandonment is widely attributed to economic constraints, the literature reveals no consensus on the relative importance of income, institutional support, and environmental factors (Bryceson, 2002; Ellis & Allison, 2004; Subedi et al., 2022). Some studies emphasise household income diversification as a coping strategy that reduces dependence on farming, particularly in contexts where agriculture offers declining returns (Ellis, 2000; Bryceson, 2002). In contrast, other studies argue that weak extension services, inadequate infrastructure, and poorly targeted agricultural revitalisation programmes play a more decisive role in shaping land-use decisions (Aliber & Hall, 2012; Scoones, 2009). This divergence suggests that land abandonment cannot be explained by a single factor, underscoring the need for context-specific empirical analysis such as that undertaken in Mbhashe Local Municipality.

2.3 The Status Quo of Smallholder Farming in South Africa

There is no clear or agreed-upon meaning for the word “smallholder.” Usually, it means farms smaller than 2 hectares, but some people call farms up to 200 hectares smallholder (Gracu, 2016), others do not define smallholder by size but by things like labour, production equipment and the revenue made by the farm. Smallholder farmers can also be different when you look at their economic value, which can be very different when you look at their size. In this research, we looked at smallholder farmers as merging farmers who are predominantly black,

participating in a broad idea of farming that includes growing crops, raising animals, forestry, fishing, hunting, and gathering, since smallholders do a mixture of these things. Most families in sub-Saharan Africa rely on small farms to make a living— even though more people live in cities now, farming is still very common in rural areas.

After the apartheid government, an issue arose of a lack of social connection among land reform stakeholders, given that the country has experienced a period of racial segregation. When viewed from the perspective of landowners, this predicament is manifested in land use (Mfune, 2022). There is a strong need to improve the management of land and natural resources in Africa, particularly through land reforms and revitalisation programmes. Land is critical for fighting poverty, encouraging social inclusion and boosting economic growth. To achieve these goals, land policies must move away from benefiting only a small group of elites and instead serve the wider population (Chigbu *et al*. 2020).

The problem that arises in the review of literature on South African land reform comes from the lack of clarity, common vision, and purpose of the re vitalization programmes. It seems stakeholders do not have a clear direction and a sense of unity on how land reform programmes should be implemented (Mfune, 2022). It is important that land reform makes it easier for vulnerable groups, including young people, to access land (Chigbu *et al*. 2020). Additionally, empowering African youth with better research skills in land governance should be a key priority, as high-quality research is vital for understanding and addressing important land issues in Africa (Chigbu *et al*. 2020).

2.4 The Role of Smallholder Farming in Addressing Food Security in South Africa

The availability of food largely depends on how well agriculture performs relative to other sectors, along with a country's ability to import, store, process, and distribute food. Besides local production, food imports are influenced by consumer demand. According to Stats SA (2014), estimates show that about 20% households in South Africa have limited food access. Kapari *et al*. (2023) state that, unlike many other African countries, South Africa is generally food secure at a national scale because it imports mainly crops such as wheat.

Smallholder farming plays a very important role in promoting food security in South Africa. Agriculture supports the livelihoods of around 86% of the rural population and has created jobs for about 1.3 billion small-scale farmers and landless laborers globally (Mokgomo *et al.* 2022).

Smallholder farms play a crucial role in enhancing food security for many households and provide various benefits. Having food self-sufficiency is a vital safety net for households and as protection against unexpected economic challenges, a role that smallholder farmers especially fulfil at the household level (Kapari *et al*. 2023).

2.5 The Current State of Land Abandonment in the South African Farming Sector

When looking at factors at play behind rural economic growth, we see that agriculture is essential to make a remarkable transformation where people are thriving, well-informed, economically secure and socially valued in this era (Mukherjee *et al*. 2024). Youth play a critical role in the sustainability of agricultural production for prolonged development and food security (Mukherjee *et al*. 2024). Leavy and Hossain (2014) conducted a study on "Who wants to be a farmer?" as there is an overlapping "crisis" involving youth and agriculture, which gives rise to policy concerns —beyond the skill dimensions to the sustainability of smallholder farming. This study raises more questions, such as: Does the future farmer have the capacity and support? Will farming become a last resort for young people? What kind of policies for agriculture should be put in place? All this to maximise agriculture's potential to alleviate poverty and achieve food security. These are questions that arise as the food prices are also shooting, presenting an opportune moment to consider that young people should take up the space of agriculture as the youth is the future (Leavy & Hossain, 2014).

A study by Proctor and Lucchesi (2012) highlighted that the food price spikes of 2008 and 2010 would, by the year 2050, result in an estimated seven in every ten people around the world living in food deficit and low-income conditions. Land abandonment can be attributed to the lying waste of farmland, that is, land previously utilised for agricultural purposes, which includes both crop and grazing land (Quintas *et at.,* 2022).

2.6 Determinants of Land Abandonment by Smallholder Farmers

Sikwela and Mushunje (2013) contended that, since 1994, smallholder farmers in South Africa have not received sufficient focused support. Even though many policies and programmes have aimed to help them, these farmers continue to struggle to gain access to better-paying markets. They further highlighted that the closure of Bantustan agricultural development corporations in the 1990s removed important support systems for production and marketing, leaving over 200 000 smallholder farmers without adequate assistance.

In contrast, Mncina and Agholor (2021) note an increase in government funding. Since 2004, South Africa has tried different ways to support farming. According to their study, the government's Comprehensive Agricultural Support Programme (CASP) has provided about 4.3 billion to support farming, with funding coming from both provincial and national departments. However, most smallholder farmers still receive little to no support, mainly because the available resources are unevenly distributed. This highlights the need for agriculture revitalisation programmes to ensure more equitable and effective support for all smallholder farmers (Sikwela & Mushunje, 2013).

2.7 Patterns of Socio-Economic Consequences of Land Abandonment in South Africa

In the United Nations about 59% of people working in sub–Saharan Africa worked in farming, and about 64% of people lived in rural places (Gollin,2024). According to Gollin, small farms are especially important for women, as farming is their main job for two out of three women in rural Africa.

Smallholder farmers face many challenges when trying to farm profitably. Moving from just farming for survival to farming for profit (commercialisation) is important for developing rural farming (Okello, 2017). However, in many African rural areas, most families eat what they grow. This limits their income and overall farm productivity (Ogundari & Awokuse, 2016). According to Mujuru and Obi (2020), commercialisation means small farms focus on utilising resources in a way that gives them a competitive advantage, with decisions about what to plant and which inputs to use made to make a profit, which makes the farm produce for the market rather than for domestic use only.

In South Africa, smallholder farmers still use traditional farming methods that produce low yields and hurt their income and food supply. Mujuru and Obi (2016) further urged that low productivity makes it hard to reduce poverty and food insecurity, hindering farmers from taking advantage of global and national food market opportunities. Christiansen and Chuhan-Pole (2025) showed that 59.2% of African workers are farmers, and 78.2% of those farmers live in poverty.

The Eastern Cape Province, with 6 498 700 people, was the poorest in South Africa in 2019. Nearly 60% of households there rely on social grants. The province also has a high unemployment rate: 37.4% officially, 48.3 % if measured more broadly, and 67.3% of adults live in poverty. The 2016 Community Survey found that 27.9% of households in the Eastern Cape are agricultural households, down from 35.4% in 2011, but still much higher than the national average of 13.8%. However, because so many depend on agriculture, policies that help increase farm productivity could reduce unemployment and poverty (Rogan and Skinner, 2017).

2.8 Perceptions, Challenges and Benefits of Land Revitalisation Programmes

In South Africa, effective management and utilisation of land and natural resources is crucial for alleviating poverty, fostering social inclusion, and stimulating rural economic growth. This is especially significant given the increasing land scarcity caused by climate change, population growth, and past land abandonment (United Nations Human Settlements Programme and the Global Land Tool Network [UN-Habitat/GLTN], 2019). Understanding shifts in land tenure arrangements and ensuring pro-poor land governance strategies is essential for sustainable development (Borras & Franco, 2010). An equitable approach to land access must also prioritise youth, who often face barriers to land ownership and agricultural opportunities (African Union Commission, United Nations Economic Commission for Africa, and African Development Bank Consortium [AUC-ECA-AfDB Consortium], 2010)

Building youth capacity involves fostering their abilities to identify and analyse challenges related to land and agricultural production, set research agendas, and implement sustainable solutions (Chigbu *et al*. 2019). This requires targeted opportunities for knowledge development, skills and training, and participation in research and policy development at both

undergraduate and graduate levels (Haile *et al*. 2013). Investing in youth scholarship and practical skills relevant to land use and agricultural revitalisation can yield widespread benefits, including improved food security, reduced rural poverty, and increased employment opportunities (Food and Agriculture Organization of the United Nations [FAO] et al. 2013).

Rural youth were not only historically marginalised, but they suffer the same fate in the present. The underserved generation has noteworthy contributions to agricultural production through labour and innovation (Mukherjee *et al*. 2024). Youth exclusion or marginalisation is both a driver and consequence of land abandonment and revitalisation programmes have failed to fully integrate youth as key actors. Time and again, the youth encounter various imitations such as inequality, weather in terms of education, resources or opportunities. However, revitalisation of rural economies requires the empowerment of young people (Mukherjee *et al.* 2024).

2.9 Conceptual Framework on the Factors Affecting Crop Land Abandonment

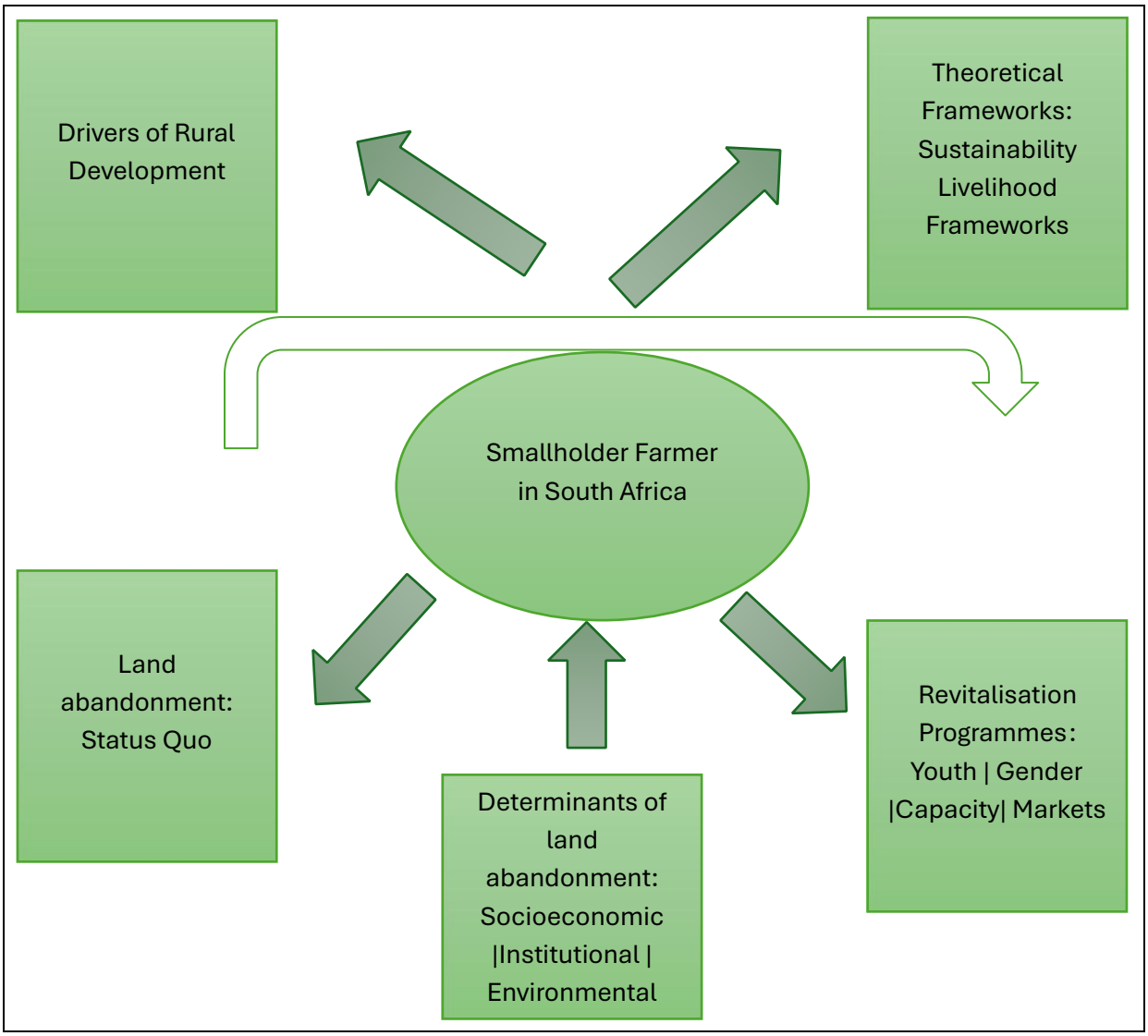

Figure 2.2 : Conceptual Framework of Land Abandonment.

In literature, abandoned agricultural lands, often called fields or idle fields, refer to farmland that is no longer used for farming. This abandonment can happen intentionally or unintentionally, leading to different outcomes such as natural regrowth of forests, land remaining barren, or being repurposed for tree plantations, nature reserves or new housing developments (Alcantara *et al*. 2013). Abandonment is usually a temporary stage rather than a permanent one, and it differs from fallowing, which is a planned part of crop rotation. This process is common worldwide, especially in regions like Europe, China, Iran, Nepal, and South Korea, and is particularly frequent in mountainous and Mediterranean areas. Overall, abandoned agricultural land reflects changing land use patterns and can lead to a variety of new uses or natural changes over time (Prishchepo, 2020).

South Africa's rural areas are known to be poor and not well developed. This is mostly because of the country's history with colonialism and apartheid. When you travel through these rural areas, you cannot help but notice a lot of empty land. For the people living there, seeing all this unused land is normal, but it also means they face poverty, hunger, sadness, and hard lives. Land is very important to people, and even in the bible, it shows that people cannot be fully restored unless their land and way of life are restored (Aphiwe Mgushelo, 2019).

Moreover, the land should be cultivated and replanted, because "He who tills the land will have plenty of bread" (Proverbs, King James Version, 12:11; 28:19).

2.10 Chapter Summary

This chapter looked at land abandonment – unused agricultural land and its contribution to decreasing food production and rural economic decline. Smallholder farming was found to play a very important role in promoting food security in South Africa. In South Africa, rural poverty is tied to historical legacies of oppression towards black people, resulting in many rural lands lying unused. Revitalisation programmes aimed at supporting smallholder farmers fail due to resources not being enough or evenly distributed. However, smallholder farmers, being a diverse group and in the South African context, have a different definition, and play a key role player in the development of rural economies. The following chapter lays out the methodology of the study.

CHAPTER 3

METHODOLOGY

3.1 Introduction

Methodology is a systematic approach and a standard way of collecting and analysing data; it gives guidelines for the research design, data collection styles and practical ways to evaluate validity and relevance. In this chapter, a quantitative design together with an endogenous switching model was used to evaluate the factors influencing land abandonment and the impact of revitalisation programmes amongst smallholder farmers. The chapter starts with an in-depth description of the study area and ends with ethical compliance of the research.

3.2 Description of the study area

The Mbhashe Local Municipality spans over 3 200 square kilometres and is in the Amathole District, Eastern Cape, South Africa (Mbhashe Local Municipality, 2021). Mbhashe is named after the local river, which runs through the municipality and flows through its main urban areas of Willowvale (Gatyane), Xhorha, and Dutywa, with Dutywa serving as the administrative hub. Mbhashe has a population of around 240 020 people, with 94% speaking isiXhosa (Municipalities of South Africa, 2023). Despite its rural charm, the area faces challenges including inadequate infrastructure, high unemployment, and limited access to basic services such as running water and electricity. Its economy benefits significantly from tourism, with attractions including coastal, inland and historical or heritage (Ndude & Memela, 2024).

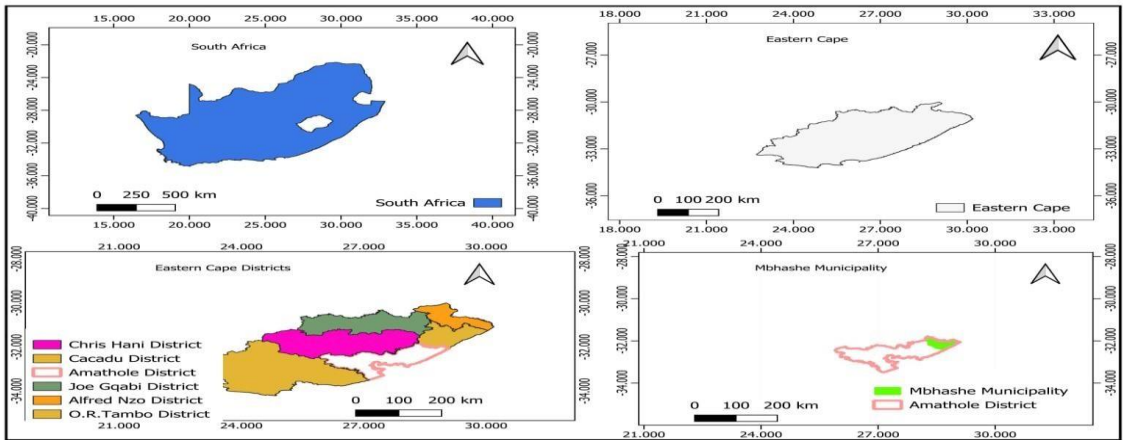

Figure 3.1: Figure 1 Map of Mbhashe Local Municipality, Amathole District, Eastern Cape Source: Mbhashe Local Municipality.

The study was conducted in Idutywa in areas such as Ngxakaxa, Mputi, Hlobo, and Mqonci. During fieldwork, it was evident that although agriculture remains part of the community's identity, active farming has declined significantly. Only a few households continue to cultivate crops or keep livestock. Cattle and sheep *(gusha)*, goats *(bhokhwe),* and chickens *(iinkukhu)* are common, with some households allowing them to graze freely across open fields, while others keep them in confinement. Maize is the most widely grown crop, often used for both household consumption and local sale.

Figure 3.2 : A picture showing Mbhashe roads and houses with minimal planting and vast lands abandoned (Sources: Author's fieldwork).

The above picture shows the state of infrastructure, particularly road networks, as it remains a major challenge. Most rural roads are unpaved and become nearly impassable during rainy weather, making travel difficult, especially for small vehicles. This poor accessibility not only hinders mobility but also limits farmers' ability to transport produce or access external markets (Mdoda et al, 2023).

The diagram below shows a picture of an investigator looking at abandoned fields in Mbhashe with overgrown grass and former maize fields Technological adoption in agriculture appears limited, and most farming practices remain traditional. Despite this, many residents have invested in well-built homes, indicating gradual improvements in living standards. Educational infrastructure is visible through the numerous schools scattered across villages; however, many

parents prefer sending their children to township or suburban schools for perceived better education quality this is also supported by a study done by Christian et al., (2020).

Figure 3.3: A picture of an investigator looking at abandoned fields in Mbhashe with overgrown grass and former maize fields (Sources: Author's fieldwork).

Overall, Mbhashe presents a picture of a rural landscape rich in natural and cultural resources, yet facing ongoing challenges of agricultural decline, infrastructural underdevelopment, and limited technological advancement. These contextual realities provided a meaningful backdrop for understanding the dynamics of land abandonment and revitalisation programmes explored in this study.

3.3 Research Approach

The study adopted a quantitative and qualitative (mixed methods) design, which focused on systematic analysis and collection of numerical data (Sharma, 2013). This approach was particularly effective for exploring cause-and-effect relationships, formulating hypotheses, and identifying trends. By using this design, solutions were proposed that benefitted society without falling under the influence of opinions and behavioural shifts. Fleetwood (2023) points out that the quantitative methods do not just rely on trends, which means they remain relevant with time. The quantitative methodology was employed to collect numerical data, which was analysed statistically to identify patterns, trends, and correlations in the adoption of agricultural revitalisation programmes.

Complimenting this, the qualitative component was employed to capture perspectives and experiences that could not be fully explained through numerical data alone. Focus group discussion with key informants, which includes programme leaders and extension officers. The qualitative pillar enriched the study by uncovering diverse dimensions, including perspectives on land abandonment. Together, the mixed methods created a triangulation and enhanced the validity of the results.

3.4 Research Design

A cross-sectional survey approach involves gathering data at a single point in time from a sample of different types of smallholder farmers within the target population (Thomas, 2020). The cross-sectional design enabled efficient data collection from a large, varied sample, providing valuable insights into the currently available revitalisation programmes and land abandonment among smallholder farmers in the Eastern Cape. Using measurement tools to assess the effects of revitalisation programmes on smallholder farmers' welfare, the research applied a cross-sectional survey design. The research examined the causes and consequences of land abandonment, and as perceived benefits, barriers to the full implementation of agricultural revitalisation programmes. Therefore, a quantitative approach specifically employing a cross-sectional survey design was used in this study.

3.5 Population, sample and sampling procedure

The target population for the study is the total number of smallholder farmers who are victims of land abandonment, and as those who are beneficiaries of agricultural revitalisation programmes. A study by Bese *et al.* (2021) surveyed 130 smallholder farmers across five villages in the municipality. Additionally, research by Mdoda *et al*. (2023) involved 168 participants, including 130 smallholder farmers. According to Statistics South Africa (Stats SA, 2022), the Eastern Cape has a total population of 7 230 204. However, data from the 2011 Population Census indicate that there were 36 377 agricultural households in Mbhashe Local Municipality, Eastern Cape (Statistics South Africa, 2011). Taking into consideration that, the population size was determined to be 380 using Yamen's formula, and the sample size was determined using Cochran's formula as follows:

$$Z^2 p(1-p)$$

$$n = \frac{Z^2 p(1-p)}{E^2} \quad (1)$$

$$N = \frac{(1.96)^2 0.50(1-0.50)}{(0.50)^2}$$

$$N = 3841.16$$

Where:

N = Total population n =

required sample size

Z = confidence level- 95%

$\mathbb{P}$ = proportion of the population- 50%

E= margine error – 0.05

Given logistical and resource contraints, the calculated sample size was adjusted downward while maintaining reprentativeness resulting in a final sample size of 192 households. Therefore, the sample size is equal to 192 smallholder farmers. However, 154 smallholder farmers participated in the study. Although 192 households were initially targeted, only 160 were successfully interviewed due to accessibility and availability constraints. After data cleaning, 154 valid responses were retained for analysis, as incomplete or inconsistent questionnaires were excluded to maintain data quality.

3.5 Data collection and processes

3.5.1 Survey questionnaire

Data was collected from smallholder farmers in Mbhashe through semi-structured interviews that included both closed and open-ended questions. The questionnaire was initially prepared in English and then translated into isiXhosa during data collection to ensure participants fully understood the questions. The questionnaire was pre-tested on 19 respondents, that is 10% of the sample. Data was gathered with the assistance of a colleague who was also knowledgeable about the questionnaire and the area. Prior to data collection, the households were contacted to arrange for meetings, and the research aim was explained to them. The questionnaires were

administered for 5 days. Additionally, respondents were informed about their rights to withdraw at any point during the interview.

3.1.2 Key informants

Key informant interviews - extension officers, traditional leaders and cooperatives leaders were also conducted to gain deeper insights into the challenges associated with government support programmes aimed at revitalising abandoned cropland. In these interviews, individuals with expert knowledge were targeted. The use of key informants' interviews in the study was important for capturing insights that may not be measured easily and triangulating quantitative results (Patton, 2015; Bryman, 2016).

The interviews were conducted using semi-structured questionnaires. This allowed flexibility for participants to further unpack their challenges. Notes were taken during the discussion. Each session lasted 20-30 minutes and was held at convenient places, even telephonically.

3.1.3 Focus group discussion

Key informant interview provided expert-level insight into the institutional and programdelivery challenges. Complementing these, focus group discussions (FGDs) were conducted with smallholder farmers in the study area to capture communal perspectives on challenges and benefits of revitalisation programmes.

Two smallholder farmers were interviewed in the Mbhashe area. One farmer was raising livestock and planting crops, mainly spinach, while the other used to produce in a field *(amasimu).* Focus groups captured deep, contextualised narratives of farmers' lived experiences, perceptions, and collective views regarding land abandonment and revitalisation support.

3.6 Data Analysis

The data gathered was coded, cleaned, and recorded in Excel before analysis. The software that was used to analyse is Stata version 15. Various analytical techniques were applied to analyse the collected data, including descriptive statistics and econometric analysis. Table 3.1 is the description of how each of the objectives was analysed.

Table 1.3: Objectives, Data Collection Methods, and Data Analysis Methods

Objective	**Data Collection Method(s)**	**Data Analysis Method(s)**
To determine the extent and socioeconomic consequences of land abandonment among smallholder farmers in Mbhashe	Interview with farmers to check the current farming practices, farm sizes, and amounts of produce	Descriptive statistics analysis
To determine factors influencing land abandonment among smallholder farmers in Mbhashe	Information on age of farmers, gender, arable land size, and other relevant demographic information will be required.	Multiple linear regression
To determine the impact of agricultural revitalisation programmes on smallholder farmers' welfare in Mbhashe	Information on farm income, food diversification, skills, etc, will be required	Endogenous Switching Regression:
To analyse the perceived challenges and benefits of revitalisation programmes on smallholder farmers in Mbhashe	Interview with extension officers and funders of the programme	Content and thematic analysis

3.6.1 Determination of the extent of land abandonment in Mbhashe

Descriptive statistics was used to determine the extent of land abandonment among smallholder farmers in Mbhashe, Eastern Cape. Summarising key variables such as the proportion of abandoned land, farm sizes, farmer demographics, and reasons for abandonment were summarised using frequency distribution tables, means, and standard deviations to provide insights into land abandonment patterns. Moreover, bivariate associations among the variables were assessed using cross-tabulations, which helped identify associations between abandonment and factors like age, access to resources, and market participation.

3.6.2 Factors influencing land abandonment in Mbhashe

Multiple linear regression was employed to determine factors influencing land abandonment among smallholder farmers in Mbhashe, Eastern Cape. Specifically, the relationship between the extent of land abandonment (dependent variable) and various explanatory variables such as farmer age, education level, farm size, access to credit, market access, soil fertility, and availability of labour were modelled. By controlling these variables, the model estimated the individual variable of each factor, allowing for an assessment of their significance. The regression equation was specified as follows:

$$yi = \alpha + \beta 1x1i + \beta 2x2i + \beta kxki + \varepsilon$$

Where Y is the extent of land abandonment, α is the intercept, X is the vector of explanatory variables (for example. age, education level, farm size, access to credit market access, and labour availability, β is the corresponding vector of coefficients, € margin. Land abandonment was defined and measured as the percentage or number of hectares that smallholder farmers no longer actively cultivate, based on self-reports or plot surveys.

Table 3.2: Explanatory variables used in the multiple regression model and their expected outcome

Model component	Equation	Dependent variable	Key explanatory variables	Measurement and coding
Selection equation	Participation equation	Participation in revitalisation programme	Age, gender, education, land tenure, access to credit, extension visits, cooperative membership	Dummy (1 = participated, 0 = otherwise); continuous and categorical variables as specified
Outcome equation 1	Regime 1 (participants)	Extent of land abandonment	Land size, labour availability, household size, farming experience, access to market information, distance to water source	Continuous (years, hectares, km), dummy (1 = yes, 0 = no), categorical
Outcome equation 2	Regime 2 (nonparticipants)	Extent of land abandonment	Same set of explanatory variables	Same measurement and

				coding as Regime 1

+/- represents the direction of influence (either positive or negative) Source: Author, (2024).

The endogenous switching regression model was employed to account for potential selection bias arising from farmers' self-selection into agricultural revitalisation programmes. Participation in revitalisation programmes was modelled as a binary outcome in the selection equation, where a value of one indicated participation and zero otherwise. Independent variables in the selection equation included socio-demographic characteristics (age, gender, education), institutional factors (land tenure security, access to credit, extension services), and social capital indicators (cooperative membership).

The outcome equations modelled the extent of land abandonment under two regimes: participating and non-participating households. Continuous variables such as age, land size, farming experience, household size, labour availability, and distance to water sources were entered in their natural units, while dummy variables captured access-related factors such as credit, electricity, market information, and extension services. Categorical variables, including education level, land tenure type, and village location, were included using appropriate reference categories. Based on the literature, variables associated with improved access to resources and institutional support were hypothesised to reduce land abandonment, while constraints such as advanced age, larger underutilised land holdings, and greater distance to water sources were expected to increase abandonment.

3.6.3 Impact of agricultural revitalisation programme on land abandonment in Mbhashe

An endogenous switching regression model was used to determine the impact of the agricultural revitalisation programme on land abandonment among smallholder farmers in Mbhashe, Eastern Cape. The model first estimates the probability of a farmer participating in the revitalisation programme using a probit or logit model. This involves a latent variable indicating willingness or eligibility for participation, modelled as a function of factors. This model is suitable because it accounts for the potential of selection bias in programme participation. Thus, two models were estimated using two separate regression equations: one

for farmers who participated in the programme and another one for those who did not. This resulted in each group having different determinants of land abandonment. The probability of participation in the programme was modelled using probit or logit model. The structural equations for land abandonment were then estimated separately for participants and nonparticipants. The model was as follows:

$$Z^* = \gamma_0 + W\gamma + \mu$$

$D = 1$ if $Z^* > 0$, $D = 0$, otherwise
Where Z^* is the latent variable determining participation, D is the observed participation indicator, and W represents factors influencing participation.

For programme participants (D = 1):

$$Y_1 = \beta_0 + \boldsymbol{X_1\beta} + \epsilon_1$$

For non-participants (D = 0):

$$Y_0 = \beta_0 + \boldsymbol{X_0\beta} + \epsilon_0$$

Where Y_1 and Y_0 represent the extent of land abandonment for participants and nonparticipants, respectively, $\boldsymbol{X_1}$ **and** $\boldsymbol{X_0}$ are explanatory variables affecting land abandonment and ϵ_1 and ϵ_0 are error terms. The difference in predicted land abandonment between participants and non-participants, after correcting for self-selection, reflects the impact of participation in the revitalisation programme.

The effect of the agricultural revitalisation programme on land abandonment was evaluated by calculating the treatment effect on the treated (TOT) and the treatment effect on the untreated (TUT) following the estimation of the endogenous switching regression model. To examine smallholder farmers' perceived challenges and benefits of adopting these revitalisation programmes in Mbhashe, Eastern Cape, content and thematic analysis will be used to analyse their views.

3.6.4Thematic analysis

Qualitative data from farmers, such as interviews, focus groups, or open-ended survey responses, were reviewed to identify recurring themes about their experiences. Challenges included issues like delays in service delivery, poor access to inputs, climatic challenges, and funding shortages as reported in the Mbhashe maize production projects and agricultural programmes. Thematic analysis involves coding qualitative data, grouping similar codes into themes, and interpreting how these themes reflect farmers' perceptions of revitalisation efforts (Mohamed,2024).

3.7 Ethical Considerations

This study, with a clearance protocol number of UMP/Mkhize220318492/MSC/SAS/2025/1, adhered to the principles as outlined by the University of Mpumalanga's research and ethics committee. From the onset, respect for participants' dignity was assured, with personal information handled confidentially and used only for the purpose of the objectives of this research, in compliance with the Protection of Personal Information Act (POPIA). By clearly explaining the purpose and contribution of the study to participants, informed consent was obtained and further explaining the right to withdraw at any stage. Data was collected and reported with honesty and integrity. Both enumerators and participants were encouraged to provide truthful responses. The results will be reported back to the community following the study.

3.8 Reliability, validity, and trustworthiness

The smallholder farmer questionnaire was piloted on 19 respondents to check for reliability. Questions that were not properly structured were revised. Standardized procedures were followed in administering questionnaires and conducting focus groups. Enumerators were trained in bias reduction and uniform administration (Sibiya *et al.*2020).

The surveys and focus group guides were based on existing literature about land abandonment, food security, and revitalisation programmes. To ensure construct validity, demographic variables like income and land abandonment were defined to match rural realities (Zondi, 2023).

3.9 Chapter Summary

The study used a mixed method approach, cross-sectional survey design to assess the impact of agricultural revitalisation Programmes on land abandonment among smallholder farmers in Mbhashe. A sample of 192 farmers, including both participants and non-participants was surveyed using structured questionnaires, semi-structured interviews and focus group discussions. Data collection focused on income, crop yield, food availability, market access, and employment status. To address potential selection bias in program participation, an endogenous switching regression model was employed. This model estimated separate regression equations for participants and non-participants to capture different determinants of land abandonment for each group. Participation probability was modelled with a probit or logit function. The model estimates the treatment effect on both treated and untreated groups, providing a nuanced understanding of program impact. The following chapter analyses and discusses the study objectives.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and discussion of the study, focusing on the socio-economic profile of farmers, the extent of land abandonment, and the factors influencing it, and the impact of government revitalisation programmes in Mbhashe. Key issues include the predominance of older farmers with low youth participation, the role of social grants and off-farm income sources in farming motivation, and how education and resource constraints affect innovation and revitalisation efforts.

4.2 Response rate

The population size was determined to be 380 using Yamene's formula, and the sample size was determined to be 192 using Cochran's formula. However, only 160 participants were interviewed, with only 154 valid observations, 87% of respondents (134 out of 154) have some level of land abandonment. This high level of abandonment suggests that land abandonment is a widespread phenomenon in Mbhashe, reinforcing its relevance as a critical issue for investigation. While the smaller-than-planned sample size may slightly affect the statistical power of the study, the high prevalence rate among respondents provides strong evidence that abandonment is not an isolated or marginal occurrence but a structural challenge affecting most smallholder farmers in the area.

4.3 Demographics and socio-economic factors of the respondents

The socio-economic profile of farmers in Mbhashe shows several structural challenges that heighten the risk of land abandonment. The dominance of older farmers, alongside limited youth participation, mirrors wider national trends where the farming population is ageing, with youth showing minimal interest in agriculture (Nkandla *et al*., 2020). Dependence on social grants and non-farm income further reduces the incentive to invest in farming, as households often prioritise these more stable incomes over the instability of agriculture (Nyangoro. 2017).

The following table 4.1 Socio-economic and demographic profile of sampled farmers. Table highlights that men constitute a larger proportion of both groups (67.5). Recent studies show

that males dominate participation, consistent with persistent gender gaps in access to extension services and productive resources (Alvi et al, 2021).

Table 4.1: Socio-economic and demographic profile of sampled farmers

Variables	**Participants (n=77)**		**Non-participants (n=77)**		**Total (N=154)**	
	Frequency	**Percent**	**Frequency**	**Percent**	**n**	**%**
Gender						
Male	51	66.2	53	68.8	104	67.5
Female	26	33.8	24	31.2	50	32.5
Access to Extension Services						
Yes	69	89.6	67	87.0	136	88.3
No	8	10.4	10	13.0	18	11.7
Membership in a Cooperative						
Yes	42	54.5	38	49.4	80	51.9
No	35	45.5	39	50.6	74	48.1

Source : Field data (2025)

4.3.1 Gender of household head

Studies across sub-Saharan Africa confirm men are more likely to receive rural advisory/extension services, often due to selection criteria (landholding, capacity to buy inputs, literacy) and community norms favouring men (Agholor,2019). The study also notes community norms favouring men, including male preference by community leaders and misconceptions about women's roles, that limit women's access to these services. Moreover, it points out that women are often seen only as suitable for home garden activities, which underestimates their agricultural roles, thus reducing their access to advisory services compared to men. Table 4.1 highlights that men constitute a larger proportion of both groups (67.5%). Recent studies show that males dominate participation, consistent with persistent gender gaps in access to extension services and productive resources (Alvi et al. 2021).

4.3.2 Access to extension services

A very high percentage from both groups (about 88%) have access to extension services. Recent studies show that public extension services are crucial for adoption of agricultural innovations, improved farm management, and sustainability, but women's access is often lower and their benefits more limited compared to men (Agholor, 2019). Ragasa (2012) provides empirical evidence from Ethiopia showing female household heads and plot managers are less likely to receive extension services of comparable quality to men. Access to extension advice strongly influences adoption of improved seeds and fertilizer, vital for productivity and sustainability, underscoring the importance of extension involvement.

4.3.3 Membership in a cooperative

A key difference was cooperative membership: all programme participants belonged to cooperatives, compared to only 13.6% of non-participants, confirming cooperatives' role in providing support to smallholders (Ortmann & King, 2007).

4.3.4 Level of education

Farming households average age was about 54 years, highlighting the ongoing challenge of low youth involvement in farming (Okem *et al,* 2021). Education averaged around seven years, indicating basic literacy for farm management and extension communication in Table 4.2. Education levels are comparable (around 7.4-7.7 years of schooling), which aligns with research showing that moderate schooling supports participation in extension services but may still be insufficient to maximise benefits without adult training (Curtin, 2024).

4.3.5 Household size

Household sizes are similar (~3.8 members), compatible with findings that family labour availability supports farm activity and extension uptake but is not a decisive differentiator in participation (Curtin, 2024). Household sizes in South Africa, particularly in rural areas, typically average around 3 to 4 members, which aligns with the value of approximately 3.8 members mentioned.

According to the General Household Survey (GHS) 2016 conducted by Statistics South Africa (Stats SA, 2016), the national average household size in South Africa was approximately 3.4 persons, while rural households tended to be slightly larger, with an average of around 3.8

persons. These household sizes are consistent with typical rural demographic patterns and reflect the continued prevalence of extended family arrangements and shared livelihood strategies in rural areas. The observed trend also indicates a gradual decline in household size over time, largely influenced by socio-economic factors such as rural–urban migration, changing family structures, and household fragmentation associated with labour mobility and economic pressures (Stats SA, 2016).

Table 4.2: Mean and Standard Deviation of Continuous Variables of the Demographics of Profiled Farmers.

Variables	**Participants (n=77)**		**Non-participants (n=77)**		**Total (N=154)**	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**
Age of farmers (years)	54.6	9.1	52.8	9.9	53.7	9.5
Education level (years of schooling)	7.4	4.3	7.7	4.4	7.5	4.4
Household size	3.9	2.3	3.7	2.4	3.8	2.3
Farming experience (years)	12.3	6.0	11.9	5.4	12.1	5.7
Annual income from crop production (R)	3,220.88	8,377.50	837.57	2,763.20	2,046.30	6,371.00
Area planted to crops (ha)	0.73	0.95	1.02	1.00	0.88	0.97

Recent studies show that smallholder farming income sources are indeed diverse, including crop production, livestock, and non-farm activities. Crop production often results in more volatile incomes compared to livestock because crops are susceptible to pests and weather variability. In contrast, livestock incomes can be more stable, particularly when supported by production contracts. Diversification among these income sources helps reduce overall income risk for smallholder farmers.

For example, Zantsi (2019) reported that many smallholder farmers rely on livestock as a significant source of income, often more stable and commercial compared to crop production, which is primarily for food and supplementing income. Crop incomes tend to be more variable because staple crops like maize or potatoes are vulnerable to environmental factors (Zantsi, 2019). Additionally, Jabbar (2023) emphasized that off-farm income activities also play a vital role for smallholders, providing financial stability and enabling investment in farm improvements, which further reduces vulnerability to income shocks. Income portfolio diversification, including crop, livestock, and non-farm activities, is critical for enhancing resilience to climatic, pest, and market risks faced by smallholder farmers (Jabbar, 2023).

Thus, diversifying income streams across crop production, livestock, and non-farm activities is a recognized strategy to mitigate the volatility inherent in smallholder farming incomes.

4.4 Extent and Descriptive Analysis of Land Abandonment – Objective 1

The descriptive findings highlight that land abandonment in Mbhashe is not a binary process but rather occurs along a continuum, from reduced land use intensity to total cessation of farming activities. The persistence of partial cultivation demonstrates that many farmers maintain emotional and tenure connections to their land, even when economic and structural constraints reduce their farming activity. This provides a useful background for understanding the results of the econometric analysis that follows in Section 4.4, which identifies the factors influencing land abandonment in the study area.

Table 4.3: Distribution of Land Abandonment Among Smallholder Famers

Land Use Status	Frequency (n)	Percentage (%)
Still farming (No abandonment)	68	44.2
Slightly abandoned land	50	32.5
Completely abandoned land	36	23.3
Total	**154**	**100**

The figure shows that just under half of the respondents (44.2%) continue active farming, while more (55.8) than half have abandoned their land to varying degrees. Slight abandonment is more prevalent (32.5%), suggesting a gradual decline in farming intensity rather than complete

withdrawal. Field observations confirmed that most of the slightly abandoned plots were either fallow or used occasionally for small maize and vegetable production.

Table 4.4: Multiple linear regression model of factors influencing land abandonment among smallholder farmers

Variable	Coef.	p-value	Interpretation
Intercept	0.396	<0.001	Baseline abandonment
Social Grants	+0.000	0.038	Higher income → more abandonment
Livestock Income	−0.000	0.043	More income → less abandonment
Maize Income	+0.000	0.028	More income → more abandonment
Smartphone (Yes=1)	−0.098	0.012	Smartphone access reduces abandonment

Source: Author (2025).

Livestock seems to support continued land use, possibly due to grazing needs or integrated farming systems. Interestingly, income from maize is also positively linked to abandonment. This may indicate that small, infrequent gains from maize did not cover input costs or labour, prompting farmers to move away from land use. A key finding is that owning a smartphone significantly decreases land abandonment. This benefit could stem from improved access to information, digital extension services, weather updates, or market prices—helping farmers make more informed and profitable decisions.

4.5 Factors Influencing Land Abandonment (Multiple Linear Regression Analysis) – Objective 2.

A multiple linear regression model was applied to identify factors influencing the likelihood and extent of the land abandonment among farmers. Explanatory variables included age, gender, land size, access to extension services, education level, and household income.

Results indicate that age of farmer, access to extension services, and land size were statistically significant predictors. Older farmers were likely to abandon land due to reduced labour capacity, while larger land sizes were associated with partial abandonment, as households lacked the resources to manage the full area. Conversely, access to extension services and participation in revitalization programmes significantly reduce the likelihood of abandonment.

These findings align with those of Mogashane (2025), who observed that technological adoption and extension access improve engagement and reduce abandonment among South African smallholder farmers.

The model robustly shows that socio-demographic factors, resource access, and institutional participation significantly influence land abandonment decisions among Mbhashe smallholder farmers. These findings echo a broad literature emphasising aging farmers' challenges, the protective role of education, household labour, extension services, income stability, and cooperative networks in sustaining smallholder land use.

Table 4.5: Multiple Linear Regression Results of Factors Influencing Land Abandonment Among Smallholder Farmers

	Coefficient	**Std. Error**	**pvalue**	**Interpretation**
Constant	-1.725 ***	0.542	0.001	Significant baseline likelihood
Age	0.024**	0.010	0.018	Older farmers more likely to abandon
Gender (Male=1)	-0.382*	0.214	0.076	Men slightly less likely to abandon
Education	-0.058**	0.025	0.022	Education reduces abandonment
Household Size	-0.107**	0.051	0.038	Larger households less likely to abandon
Farming Experience	-0.045**	0.018	0.012	Experience reduces abandonment
Access to Extension	-0.768***	0.286	0.008	Reduces abandonment likelihood
Annual Income	-0.00003**	0.00001	0.027	Higher income reduces abandonment
Cooperative Membership	-1.124***	0.348	0.002	Strongly reduces abandonment

Source : Author (2025)

Age

Age has a positive and significant coefficient, (Coefficient: 0.024, p = 0.018), suggesting that older farmers are more likely to abandon land. This aligns with the numerous studies , such as Van der Ploeg *et al. (*2019), who documented that aging reduces physical capacity and labour

available, leading to increased land abandonment. Additionally, older farmers may lack incentives to reinvest, especially where succession planning is weak (D'Agostino et al., 2020).

Gender

The negative coefficient of the male gender though marginally significant, Coefficient: -0.382, p = 0.076, indicated that male-headed household are slightly less likely to abandoned land compared to their female counterparts. This is consistent with findings from Meinzen Dick *et al.* (2018), who show that women often face greater barriers in land access and control, limiting their capacity to maintain or invest in land, thus potentially increasing abandonment risks.

Education

Higher education (Coefficient: -0.058, p = 0.022) reduces the likelihood of land abandonment, supporting studies like Mananzhe et al. (2021) that link education to enhanced farm management skills innovation adoption, and openness to revitalization initiatives. Educated farmers are often better positioned to access agricultural information and resources, making their farming more viable.

Household size

Larger households are less likely to abandon land, (Coefficient: -0.107, p = 0.038), reflecting the availability of family labour necessary for cultivation, consistent with Bezu and Holden (2014). However, the relationship is complex in context where youth migration reduces actual labour input despite large household size, as observed in rural South African settings.

Farming Experience

Experience negatively correlates with abandonment (Coefficient: -0.045, p = 0.012) , affirming that more experienced farmers have greater knowledge and capabilities to manage risks, as shown by Baiyegunhi (2024). Yet, farming experience alone may be limited if resource constraints impede productivity.

Access to Extension Services

Access to extension services significantly reduces land abandonment (Coefficient: -0.768, p = 0.008), consistent with research highlighting extension as a critical channel for technical advice, innovation diffusion, and support (Moyo et al., 2022; Ragasa, 2012). Extension services enable farmers to enhance productivity and sustain land use.

Annual Income

The Coefficient: -0.00003, p = 0.02, shows that higher annual income is associated with less abandonment confirming that financial stability encourages continued land investment. This aligns with Zantsi (2019) and Jabbar (2023) who emphasize diversified and sufficient income streams as key to sustaining smallholder farming.

Cooperative Membership

Cooperative membership (Coefficient: -1.124, p = 0.002) strongly reduces abandonment, reflecting the importance of collective action, social capital, and improved access to inputs, markets, and resources (Ortmann & King, 2007; Mabaso & Makhura, 2021). Cooperative affiliation supports farm viability and resilience

4.6 The impact of government revitalisation programme on land in Mbhashe- Objective 3

An Endogenous Switching Regression (ESR) model was used to assess the welfare impacts of revitalisation programmes. The analysis compared programme participants (n=106) with nonparticipants (n=48), controlling for selection bias.

The regression model examines how different demographic, and socioeconomic characteristics influence farmers' livelihood, which is the dependent variable. The coefficient shows the magnitude and direction of influence. A positive coefficient shows that there is an increase of impact of the variable. A negative coefficient shows a decreasing or less influence of a variable on the dependent variable.

The p-value (P>|t|) shows the level of statistical significance. Values below 0.05 indicate a statistically significant relationship, meaning there is less than a 5% probability that the results occurred by chance (Ullah and Ameen, 2022). The 95% confidence interval provides a range [0.025 -0.975] in which the true population effect is likely to fall. Table 4.5 represents regression results for the variables that were included as control demographics in the model explaining different perspectives on the outcomes of smallholder farmers' welfare and involvement in land use discussions. The model estimates the marginal impacts of factors such as education level, age, access to extension services and credit.

Table 4.6: Full Model with Demographic Controls.

Variable	Coef.	Std.Err.	T	P>|t|	[0.025	0.975]
Intercept	0.4828	0.2774	1.7408	0.084	-0.0658	1.0315
climate_change_perception [T.2]	-0.058	0.0447	-1.2985	0.1964	-0.1464	0.0304
climate_change_perception [T.3]	0.0668	0.1723	0.3878	0.6988	-0.274	0.4077
climate_change_perception [T.2, 1]	-0.0313	0.0987	-0.3172	0.7516	-0.2265	0.1639
climate_change_perception [T.3, 2]	-0.0369	0.0752	-0.4908	0.6244	-0.1857	0.1118
income_social_grant	0.0	0.0	2.1864	0.0305	0.0	0.0
income livestock	-0.0	0.0	-2.1842	0.0307	-0.0	-0.0
income maize	0.0	0.0	1.8072	0.073	-0.0	0.0
access extension	-0.0242	0.061	-0.3962	0.6926	-0.1449	0.0965
access credit	-0.0312	0.1188	-0.2627	0.7932	-0.2661	0.2037
gender_label_Male	0.01	0.0439	0.2273	0.8206	-0.0769	0.0969
farm_type_part_time	-0.0261	0.0515	-0.5077	0.6125	-0.128	0.0757
Age	0.0004	0.0025	0.1461	0.8841	-0.0045	0.0053
years farming	-0.0018	0.0025	-0.7231	0.4709	-0.0067	0.0031
household size	0.0097	0.0104	0.9312	0.3534	-0.0109	0.0302
education level	0.0023	0.0252	0.0923	0.9266	-0.0474	0.0521
Smartphone	-0.0886	0.0427	-2.076	0.0398	-0.173	-0.0042

Source : Author (2025)

4.4.1 Age Composition

The results show that age has a positive and statistically significant association with land abandonment. This suggests that older farmers are more likely to cease cultivation, possibly due to declining physical ability and limited willingness to invest in long-term land use. Similar findings were reported by Van der Ploeg *et al,* (2019), who observed that ageing farming households often face labour shortages and succession gaps, which contributes to land abandoned. In Mbhashe context, this is compounded by youth migration to urban areas, leaving older farmers with limited support.

4.4.2 Education level

Education displayed a negative but statistically insignificant relationship with land abandonment. While more educated farmers are expected to adopt improved farming practices and sustain land use, the lack of significant change may suggest that in Mbhashe, education does not necessarily translate into agricultural engagement. Instead, educated individuals may pursue off-farm employment, a finding echoed in Bezy and Holden (2014), who showed that education often facilitates exit from agriculture rather than reinvestment.

4.4.5 Smartphone ownership

This variable is negative and statistically significant, suggesting that smartphone ownership reduces the probability of negative outcomes, such as land abandonment and somehow improves welfare. A recent relevant study by Musangwini *et al.* (2024) explores the adoption dynamics of mobile technology for agricultural information dissemination by smallholder farmers in Zimbabwe, revealing key factors influencing mobile phone use, including digital literacy, affordability, and telephone communications infrastructure.

This study shows how mobile devices help smallholder farmers access agricultural advice and services, also showing the role observed by Aker and Mbiti (2010). Although this study focuses on Zimbabwe, its insights are applicable to similar contexts like Mbhashe, where smartphones enhance farmers' connection with buyers, suppliers and weather forecasts.

Additionally, a study by Mogashane (2025) investigates perceptions and adoption of digital technologies by smallholder farmers in South Africa, reinforcing that mobile phones can

improve agricultural productivity; the impacts vary based on additional factors like community support.

4.4.6 Type of farmer

A negative coefficient indicates that part-time farmers are marginally less likely to experience the outcome —land abandonment —possibly because they diversify their income sources. However, this effect is not strong enough to be a conclusion.

A recent relevant study by Tian *et al,* (2023) investigates the impact of agricultural productivity services (APS) on farmland abandonment using data from rural China. The study finds that APS significantly reduces farmland abandonment by promoting land transfer, labour substitution, and technology adoption, with stronger effects among small-scale and elderly farmers.

4.4.9 Gender Distribution

A study done by Dick *et al.* (2019) showed that gender plays a huge role in shaping access to land and control over the resources. Female smallholder farmers often face challenges which limit their access to land, therefore their likelihood to abandon farming (Doss *et al,* 2018). For this reason, data on the gender of respondents was collected to understand whether better or if different genders of farmers experience land abandonment differently in Mbhashe. This analysis examined the extent of land abandonment among male and female smallholder farmers in Mbhashe Municipality, Eastern Cape, based on the amount of farm space already available for use.

The results revealed that the average proportion of land abandoned by male smallholder farmers was 38,1% while their female counterparts abandoned 37,3%. The median abandonment rate was 43.4% for males and 33.3% for females. Distribution for female smallholder farmers showed greater variability in land abandonment – Standard deviation = 0,26, compared to a few female smallholders who had completely (100%) abandoned their lands. A few female smallholders had completely (100%) abandoned their lands.

Table 4.7 : Summary Statistics of Land Abandonment by Gender

Gender	n	Mean	Median	Min	Max	Std. Dev
Female	50	0.37	0.33	0.00	1.00	0.26
Male	104	0.38	0.43	0.00	0.90	0.23

Source : Author (2025)

This distribution reflects broader patterns in the rural Eastern Cape, where men often inherit land, while women's access is coordinated through customary tenure in South Africa. Studies by Walker (2017) further support the perception that women in South Africa face exclusion when it comes to land ownership. These findings are consistent with national statistics (Stats SA, 2016), which report fewer female landowners than men. The following bar graph in Figure 4.2 below shows the proportion of land abandonment by gender.

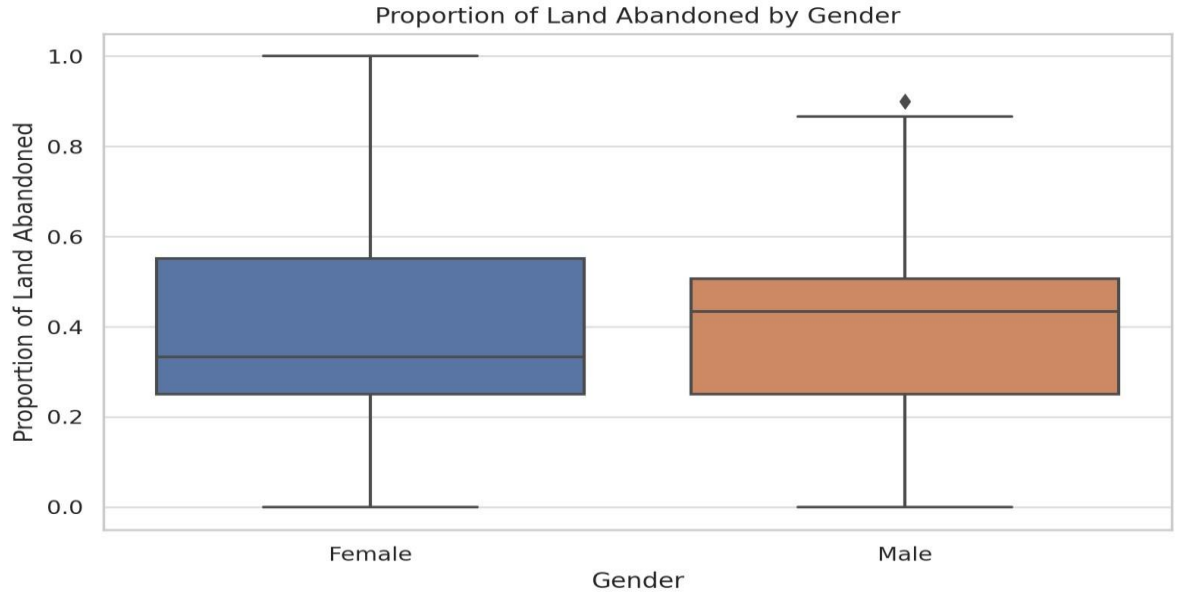

Figure 4.1: Proportion of land abandonment by gender. Source: Author (2025)

4.4.10 Income Source

Income from social grants

This variable is positive and statistically significant, indicating that as income from social grants increases, the dependent variable, the likelihood of land abandonment also increases (Coef. = 0.000, p = 0.0305). A study by Sinyolo (2017) supports the finding that social grants,

while essential for poverty alleviation, may reduce smallholder farming participation and entrepreneurial attitudes in South Africa.

Income from livestock

This coefficient is negative and significant (Coef. = –0.000, p = 0.0307), meaning that household earnings income from livestock are less likely to experience the dependent outcome. Livestock ownership often presents economic security and a productive asset that encourages continuous land use.

4.6 Perceived challenges and benefits of revitalisation programmes

Data were drawn from key informant interviews, focus group discussions (FGDs), and selected questionnaire responses. The aim was to gain a holistic understanding of how revitalisation interventions are experienced, implemented, and perceived within the Mbhashe farming context.

4.6.1 Perceived Benefits of Revitalisation Programmes

Across interviews and discussions, most respondents acknowledged that government-led revitalisation initiatives, such as the Ilima/Letsema Programme, Comprehensive Agricultural Support Programme (CASP), and Recapitalisation and Development Programme (RECAP), had made positive contributions to the local agricultural landscape, albeit inconsistently.

Key informants, particularly from the Department of Agriculture and local extension services, noted that the programmes helped restore previously idle land and provided input support (example, seeds, fertilisers, fencing materials) and training to participating farmers. One agricultural officer mentioned:

"These programmes encouraged some farmers to return to their fields and start producing again, especially maize and vegetables. The support gave them hope and reduced input costs."

Focus group participants from one revitalised community also highlighted that the support improved food availability and household nutrition, as some households were able to produce enough for consumption and small-scale sales. They further appreciated skills development

workshops and provision of mechanisation services, which reduced the burden of manual labour.

Quantitative data from the survey supported these narratives, approximately 62% of participant farmers reported improved access to inputs and 58% indicated increased motivation to farm due to revitalisation support.

These findings align with Machethe and Phuhlisani (2021) and Ngqangweni et al. (2022), who found that revitalisation initiatives in rural Eastern Cape communities enhance farmer confidence and short-term productivity when effectively implemented.

4.6.2 Perceived Challenges of Revitalisation Programmes

Despite these benefits, a majority of respondents expressed concerns and frustrations regarding the sustainability and inclusivity of the revitalisation Programmes.

From key informant interviews, it emerged that resource constraints, poor coordination, and irregular follow-up often limit programme effectiveness. Extension officers highlighted that after initial support, "farmers are often left without continued mentorship or monitoring," leading to relapse into land abandonment once inputs are exhausted.

Focus group discussions revealed additional challenges, such as:

- Delays in input delivery that miss the planting season.
- Inequitable distribution of support, sometimes based on local politics or favoritism.
- Limited involvement of youth and women, who often feel excluded from decision-making.
- Lack of market access discourages continued production.

As one participant stated:
"We are given seeds and fertilizer, but after harvest, there's nowhere to sell. So people lose interest, and the fields go back to bush."

Survey responses echoed these sentiments. Among farmers who received support, 54% reported dissatisfaction with follow-up services, and 48% indicated that the assistance was insufficient or poorly timed.

These observations are consistent with the findings of Aliber and Cousins (2023) and Hebinck *et al*, (2018), who argue that many South African agricultural support programmes struggle with implementation inefficiencies, weak institutional coordination, and lack of sustained engagement with beneficiaries.

4.6.3 Lessons and Emerging Themes

Three dominant themes emerged from the analysis:

Short-term versus Long-term Support:

Revitalisation programmes often address immediate input shortages but fail to establish sustainable production systems.

Institutional Gaps:

Weak monitoring, limited extension capacity, and fragmented coordination reduce the potential impact of revitalisation.

4.7 Chapter summary

Findings reveal that land abandonment remains widespread and is driven by socio-economic factors such as limited access to credit, low market participation, declining productivity, and environmental challenges. Regression analysis showed that income sources such as social grants and livestock earnings significantly influenced land use decisions, while smartphone ownership was associated with reduced land abandonment. However, propensity score matching results indicated that revitalisation support had no statistically significant effect on reducing land abandonment. The last chapter integrates objectives, findings and contextual reflections from field.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a synthesis of the key findings of the study, drawing together evidence from both the quantitative and qualitative components to address the research objectives. It reflects on how land abandonment and agricultural revitalization programmes influence the welfare of smallholder farmers in Mbhashe. Local Municipality, Eastern Cape. The chapter is structured into four main sections. First, it provides a summary of the study's objectives, method, and key findings. This follows conclusions from empirical results. The chapter then outlines policy-relevant recommendations. Finally, the chapter highlights implications for future research and practice.

5.2 Summary

This study looked at how land abandonment and programmes to revitalise farming affect small farmers' well-being in Mbhashe Local Municipality, Eastern Cape. The main goals were to: (1) find out how much land abandonment happens and its social and economic effects, (2) identify reasons why land is abandoned, (3) check how farming support programmes affect small farmers' welfare, and (4) understand the challenges and benefits of these programmes.

A mixed-methods research design was employed to capture both measurable outcomes and contextual experiences. Quantitative data were collected through structured surveys administered to 154 smallholder farmers and analysed using descriptive statistics and econometric techniques to estimates the effects of revitalisation programmes on land use and welfare outcomes. Qualitative data were gathered through key informant interviews and focus group discussions to provide deeper insights into farmers lived experiences and institutional dynamics. The integration of quantitative and qualitative findings enhanced triangulation and strengthened the validity of the study's conclusions.

Results showed that land abandonment is still a big problem in Mbhashe, causing loss of income, hunger, and less farming in the community. The analysis found that families who get

money from social grants or employment are more likely to stop farming. Other factors, like help from extension officers, loans, gender, age, and education, also contributed. The special analysis showed that farming support programmes did not significantly reduce land abandonment. However, farmers in these programmes earned more from crops and joined cooperatives more often. Interviews pointed out problems such as inputs arriving late, poor access to markets, and lack of ongoing support, which made these programmes less effective.

5.2 Conclusions

The study finds that although government programmes to revive farming are well-meaning, their effects on land use and farmer welfare in Mbhashe are limited. Land abandonment continues not just because farming is unproductive but due to deeper social and institutional issues like an ageing farmer population, weak market systems, and reliance on social grants. People who join these programmes often belong to cooperatives, showing that cooperatives are key for delivering support. However, not everyone benefits equally because of poor coordination and little involvement from private businesses.

The results suggest that both male and female farmers are affected by land abandonment to a similar extent, though the median rate is higher in male farmers. However, the wider range observed among women shows the dynamic and diversity of land use among women. A case study conducted at Msinga, KwaZulu-Natal, found female-headed households have smaller land access and less water for irrigation, which contributes to poorer food security outcomes. This supports the results of structural influence on female farmer variability. An article on gendered effects of land access and ownership on food security in rural settings in South Africa, contextualises why female farmers completely abandon land at times.

This study highlights that land abandonment among smallholder farmers in Mbhashe Local Municipality reflects broader socio-economic and institutional constraints rather than individual farmer choices alone. The findings imply that agricultural revitalisation programmes can contribute meaningfully to improved welfare and sustained land use when they are supported by secure tenure arrangements, reliable extension services, and access to complementary resources. However, the mixed outcomes observed across households suggest that programme effectiveness is highly context-dependent and shaped by demographic factors, labour availability, and institutional coordination. Overall, the study underscores the

importance of integrated, well-targeted policy interventions that address both structural barriers and farmer-level constraints in order to achieve sustainable agricultural revitalisation.

5.3Recommendations

To enhance the effectiveness and sustainability of agricultural revitalisation programmes, policy interventions should adopt a more integrated and context-specific approach. Priority should be given to strengthening extension services through regular field-based support and improved coordination among implementing institutions to ensure timely and consistent assistance to smallholder farmers. Revitalisation initiatives should be linked more effectively with financial support mechanisms to improve access to credit and productive inputs, while cooperative-based models should be promoted to facilitate market access, information sharing, and collective action. In addition, targeted strategies are required to promote youth participation in agriculture by expanding skills development programmes, improving access to land and resources, and creating viable economic incentives within the agricultural sector. Finally, robust monitoring and evaluation frameworks should be embedded within revitalisation programmes to assess long-term impacts and inform adaptive policy responses.

5.3.1 Policy Implications

The implication of these findings is that revitalisation support alone is not enough to prevent land abandonment or improve welfare outcomes. As emphasised by Vink and Kirsten (2019), the sustainability of agricultural revitalisation in South Africa hinges on reform and consistent smallholder farmer-centred models rather than once off programmes. Policymakers should consider integrating revitalisation with:

- Market access support (for example, cooperatives, off-take agreements)
- Climate-resilient production systems
- Ongoing technical extension services

5.3.2 Promote Youth Engagement and Skills Development:

Targeted programmes that integrate youth training, agripreneurship, and access to digital technologies (for example, smartphone-based extension tools) could renew interest in agriculture and address the ageing farmer challenge.

5.3.3 Leverage Cooperatives and Local Institutions:

Strengthening existing cooperatives through training, governance support, and partnerships with private agribusinesses can enhance input distribution, credit access, and collective marketing.

5.4 Study limitations

- Data and sample constraints – the sample size to represent smallholder farmers in Mbhashe was estimated to be 192. The farmers that were actually found were 154.
- Logistical and Environmental Challenges: Fieldwork was constrained by poor road infrastructure and limited access to certain remote villages, particularly during rainy weather. These challenges may have restricted data collection in the most isolated areas, which could have provided additional perspectives on land abandonment dynamics.

5.5 Suggested areas of future research

- Longitudinal studies to track land-use changes over time and assess whether revitalisation support produces delayed welfare impacts.
- Youth-focused research examining barriers and incentives for agricultural participation among rural youth in the Eastern Cape.

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APPENDICES

7.1 Smallholder Questionnaire

INFORMATION LEAFLET

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Supervisor: This is a research project funded by NRF Thuthuka grant conducted by a staff member. There is therefore no supervisor but the grant administrator.

Name: Mr Zukile Matshaya

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Dear Potential Research Participant,

I am Zoleka Mkhize, as a student at the University of Mpumalanga, in the School of Agricultural Sciences, Faculty of Agriculture and Natural Sciences. You are invited to participate in a research project titled Abandonment of arable crop lands and government efforts

to revamp arable crop lands for food security in rural communities in the Eastern Cape, led by Professor Mzuyanda from the University of Mpumalanga.

The specific objectives of the study are:

1. To determine the extent to which rural households produce their own food.
2. To determine the contribution of their own food production to household food security.
3. To examine why rural households have abandoned arable field cultivation.
4. To identify crop farming government support programmes for rural households.
5. To evaluate rural households' awareness about crop farming support Programmes.
6. To evaluate the success and contribution of government crop farming support programmes to rural households' livelihoods and food security.

If you decide to take part in the study, you will be required to do the following:

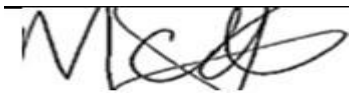
- Sign this informed consent form
- Answer the questions on the questionnaire

The questions are strictly for the purpose of this research study. Please note that your participation in answering this questionnaire is completely voluntary, and you are allowed to withdraw at any time should you wish to. Your name will not be recorded anywhere, and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym, and you will be referred to in this way during data analysis and discussion of results in the research report. All responses will be summed together as a group with other respondents, with no reference to individuals. This research is strictly for educational or academic purposes.

Your co-operation and participation in the study will be greatly appreciated. Please sign the informed consent below if you agree to participate in the study.

Kindly answer each question honestly and accurately, as your participation in this process is essential to the success of this study.

Yours faithfully



Prof. Mzuyanda Christian Zoleka Mkhize

QUESTIONNAIRE

Evaluating the Impacts of Land Abandonment and Agricultural Revitalisation Programmes on Smallholder Farmers' Welfare in Mbhashe, Eastern Cape.

CONSENT SLOT

Dear participant,

I would like to request your voluntary participation in the study on the topic indicated above. As you agree to participate in this study, please note that you are free to withdraw from the study at any point in time if you feel like withdrawing. Your views and responses will be treated with strict secrecy and confidence. Furthermore, your identification will not be revealed at any point in time. The information you provide to us as you participate in this study will be used for the writing of a thesis and/or for publications.

Name of participant: …….....

Signature of participant: ……. Date: …….....

Name of the investigator: …….....

Signature of the investigator: ……. Date: ……...

RESEACHERS

This research project involves two researchers, namely:

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Prof. Mzuyanda Christian (Supervisor)

Tel: 013 002 0269

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INSTRUCTIONS

1. From the questionnaire items below, tick (√) in the appropriate box with the answer you want to give.
2. Tick (√) one box per item, unless stated otherwise

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender

1. Male 2. Female 3. Other

2. How old are you? (age in years) …….....

3. What is your marital status?

1. Married 2. Single 3. Divorced 4. Widowed/Widower

4. What is your highest level of education?

1. No formal education 2. ABET/ Adult school 3. Primary 4. Secondary 5. Tertiary

5. What is your household size? (number of people in the household, including yourself) ……

6. Source of income (off-farm activities)

1. Employed 2. Unemployed 3. Self-employed 4. Social grant 5. Pension 6. Other, please specify

6. Approximately how large is your farmland? (Provide if you have a garden or field or both, and specify sizes separately)

Garden size: ___ hectares / m²

Field size: ___ hectares

8. What is your main source of water?

1. River 2. Dam 3. Borehole 4. Rainwater 5. Other, please specify

9. Do you have an irrigation system in place? Yes/No

Yes No

10 What is the type of irrigation system

1. Farrow 2. Drip irrigation 3. Sprinkler 4. Other, please specify

SECTION B: Socio-Economic Consequences of Land Abandonment

1. Have you or your household stopped farming any land in the past 10 years?

Yes No

2. If yes, how much land (in hectares) is currently unused?.....

3. What were the main reasons for abandoning the land? (Tick all that apply)

Lack of input (fertiliser, seeds) Lack of water Poor soil Lack of labour Lack of access to market Lack of support programmes

Other (please specify): ……

4. Since abandoning land, have your household's food expenses increased?

Yes No

5. Has land abandonment affected your household income?

Yes No

6. If yes, in what way? ……..

SECTION C: Factors Influencing Land Abandonment

1. Are there any government programmes available to support smallholder farming in your area?

Yes No

2. Have you ever applied for support?

Yes No

3. If not, why? (Tick all that apply)

Didn't know about them Application process complicated Not eligible Never received feedback

Other (please explain): _____

4. In your own opinion, why do smallholder farmers abandon land?.....
.....
.....
.....
.....

SECTION D: Impacts of Agricultural Revitalisation Programmes

1. Are you currently receiving support from any revitalisation programme? (Yes/No)

Yes No

2. If yes, which program?.....

3. What kind of support do you receive? (Tick all that apply)

Seeds Fertiliser Training Equipment Financial assistance Market access

4. Has this support improved your productivity?

Yes No

5. Has your household income improved since receiving support

Yes No

How has the support affected your willingness to continue farming?

Much less Less Same More Much more

SECTION E: Perceived Challenges of Revitalisation Programmes

1. What challenges have you experienced with revitalisation programmes? (Tick all that apply)

Delays in delivery Poor communication Inadequate training Lack of follow up Benefits don't reach smallholders

Other: (specify) ……

2. In your opinion, how can these programmes be improved?

7.2 Focus Group Discussion (FGD) Guide for farming households

Objective: To analyze the perceived challenges and benefits of revitalisation programmes on smallholder farmers in Mbhashe.

Target: 5 -10 farmers
Number of FG: FGD number:
FGD Questions

1. Who was the FG? Introductions

Theme 1: Awareness of government revitalisation programme

2. Are you aware of the agricultural revitalisation programme that was implemented in your area?

Theme 2: Participation

3. Have you participated in the programme? And if so, how?

Theme 3: Benefits

4. What are the benefits of this programme? Have you noticed any improvements in the yield of crops?

Theme 4: Challenges and advice

5. Are there any challenges that you observed in accessing farming support programmes in the area? What could you advise the government going forward?

Proposal Certificate

UNIVERSITY OF MPUMALANGA

FACULTY OF AGRICULTURE AND NATURAL SCIENCES
Postgraduate Studies Committee

Certificate of Approval – Research Proposal

Date of this Approval:	**22 May 2025**

Student Details

1	Student Name:	Zoleka Kwenzokuhle- Mkhize.
2	Student Number:	220318492
3	School	School of Agricultural Sciences.
4	Degree Registered for:	MSc Agric.
5	Date of First Registration:	March 2025
6	Supervisor(s):	Prof. Mzuyanda Christian Dr. Sukoluhle Mazwane

Evaluating the impact of Land Abandonment and Agricultural Revitalization Programs on Smallholder Farmer's Welfare in Mbhashe, Eastern Cape.

Chairperson: Prof. DM Parker.

Signature:

Date & Official Stamp:

UNIVERSITY OF MPUMALANGA
03 -06- 2025
FACULTY OF AGRICULTURE AND NATURAL SCIENCES

Ethics Certificate

UNIVERSITY OF MPUMALANGA

Creating Opportunities

MEK Ngcobo

School of Agricultural Sciences

Mbombela Campus.

Dear **Zoleka K. Mkhize, 220318492**

Protocol Reference Number: UMP/Mkhize220318492 /MSC/SAS/2025/1

Project Title: Evaluating the impact of Land Abandonment and Agricultural Revitalization Programs on Smallholder Farmers' Welfare in Mbhashe, Eastern Cape

In response to your application received on **31/08/2025,** The Research Ethics Committee: Faculty Research Ethics Committee has considered the above mentioned application and the protocol has been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interviews Schedule, Informed Consent form, Title of the project, Location of the study, Research Approach and methods must be reviewed and approved through the amendment/ modification prior to its implementation. In case you have further queries, please quote the above reference number.
PLEASE NOTE: Research data should be stored securely in the School/ division for a period of 5 years. The Ethical Clearance certificate is only valid for a period of 3 years from date of issue. Thereafter, Recertification must be applied for on an annual basis.

Wishing you the best with your study.

Yours faithfully,

.....

MEK Ngcobo (Chair)

Cc: Faculty Research and Innovation Committee Chair: .....

DECLARATION OF INVESTGATOR(S)

I/We fully understand the conditions under which I am/we are authorised to carry out the abovementioned research and guarantee to ensure compliance with these conditions. I agree to completion of a yearly progress report.

....

Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

SASA Congress Conference Acceptance Letter

Ms Zoleka Mkhize
Department of Agricultural Sciences
University of Mpumalanga
South Africa
Email: 220318492@ump.ac.za
05 May 2025

RE: Acceptance of Abstract for the 2025 South African Sociological Association (SASA) Conference.

Dear Ms Mkhize:

This serves to confirm that your abstract titled "Evaluating the Impact of Land Abandonment and Agricultural Revitalization Programs on Smallholder Farmers' Welfare in Mbashe, Eastern Cape," submitted to the working group *Sociology of Poverty, Inequality and Social Policy,* has been accepted for presentation at the 2025 SASA Annual Congress. Thank you for your submission.

The conference, with the theme *'Colonial Legacies, Postcolonial Realities: South Africa, 30 Years Later'* will be held at the University of Mpumalanga, South Africa, between the 23rd and 26th of June 2025.

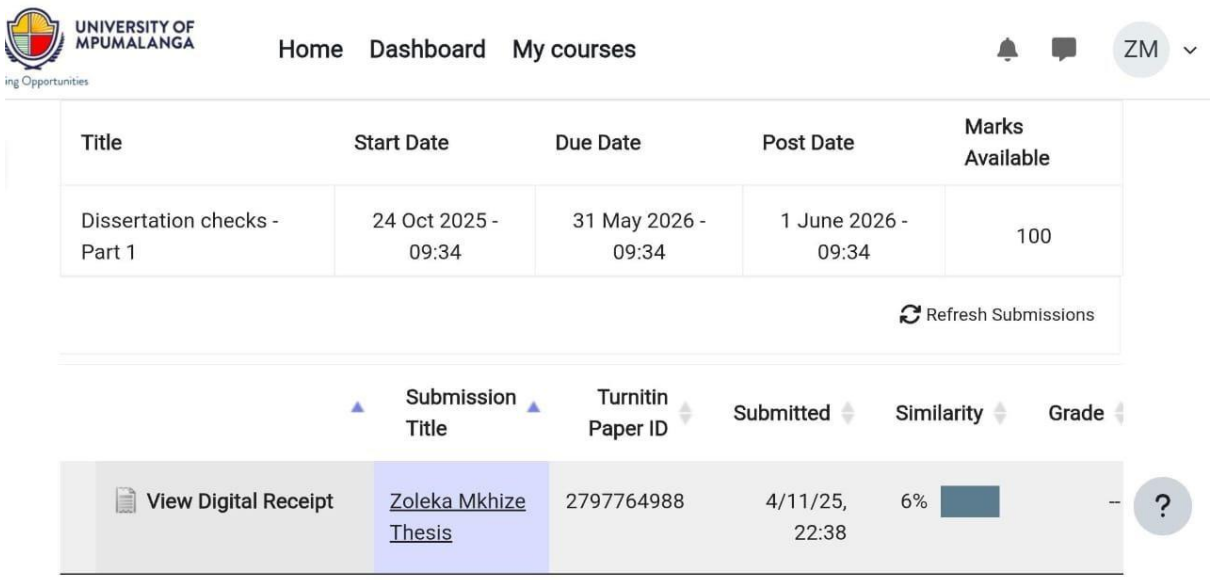
Please keep an eye on the SASA website for details on membership and the conference registration process.

We look forward to your contribution.

Thank you.

Jimi O. Adesina, PhD
Working Group Convenor
adesij@unisa.ac.za

Turnitin Report



English Editor Certificate

SATI
SOUTH AFRICAN TRANSLATORS' INSTITUTE

Reference No:1000686

kufazano@gmail.com
+27631434276
4 November 2025

To whom it may concern,

RE: CONFIRMATION OF LANGUAGE EDITING

This serves to confirm that I edited a Master of Science in Agriculture dissertation written by Zoleka Kwenzokuhle Mkhize (student number 220318492) titled, "Evaluating the impact of Land Abandonment and Agricultural Revitalisation Programmes on Smallholder Farmers' Welfare in Mbhashe, Eastern Cape".

The scope of my editing comprised:

- Spelling
- Tense
- Vocabulary
- Punctuation
- Word usage
- Language and sentence structure
- References

If you need any further details, kindly contact me on the details provided above.

Yours faithfully

Kufakunesu Zano
Dr Kufakunesu Zano, PhD (English). A member of the South African Translators' Institute, Ref 1000686