

Effectiveness of Land Policy on Agricultural Productivity on Selected Small-Scale Farmers in Chipili District -A Literature Review

Nickson Jere¹; Dr. Mildred Muhyila²

^{1,2}ZCAS University Lusaka, Zambia

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Abstract: Agriculture is central to Zambia's economy, yet small-scale farmers face persistent challenges linked to land access, tenure insecurity, and limited policy effectiveness. This study examines the effectiveness of Zambia's land policy in enhancing agricultural productivity among small-scale farmers in Chipili District. Guided by Property Rights Theory, the research assesses how land tenure security, access to land, and land administration influence investment in agriculture, adoption of sustainable land management practices, and household livelihoods. A quantitative cross-sectional design was employed, with data collected from 130 small-scale farmers using structured questionnaires. Descriptive and inferential statistical analyses, including regression and Chi-square tests, were conducted using SPSS to evaluate relationships between land policy variables and productivity outcomes. Findings indicate that secure land tenure significantly increases farmers' likelihood to invest in soil conservation, irrigation, and improved crop management, thereby enhancing productivity. Conversely, tenure insecurity and limited access to statutory land constrain investment and adoption of sustainable practices. The study highlights the socio-economic and environmental implications of land policy, emphasizing the need for context-specific reforms to strengthen tenure security, promote equitable access, and support sustainable agricultural development. The results provide empirical evidence to inform policymakers, development partners, and local stakeholders in designing inclusive and effective land governance frameworks.

Keywords: Land Policy; Land Tenure Security; Agricultural Productivity.

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I. INTRODUCTION

Agriculture is the backbone of Zambia's economy, contributing approximately 19% of GDP and providing livelihoods for nearly 70% of the population, particularly in rural areas (World Bank, 2022). In districts like Chipili, small-scale farming underpins household economies, ensuring food security and generating limited income through subsistence and semi-commercial activities. Despite its importance, agricultural productivity remains low, constrained by inadequate infrastructure, limited access to technology, and insecure land tenure.

Land policy plays a central role in shaping agricultural outcomes by regulating land ownership, access, and use. Zambia operates a dual land tenure system comprising customary and statutory arrangements, which together determine farmers' ability to invest in land, adopt sustainable practices, and access formal credit (German et al., 2017; Deininger & Feder, 2001). While customary tenure ensures accessibility, it often lacks formal recognition, limiting farmers' security and participation in policy programs.

Statutory tenure provides legal documentation but is hindered by bureaucratic complexity and high costs, often excluding smallholder farmers.

In Chipili District, only a small fraction of farmers are formally registered under national agricultural systems, reflecting persistent challenges in land governance and policy implementation (CSO, 2022; Jayne et al., 2016). These systemic weaknesses constrain long-term investment in agriculture, leading to low productivity and enduring rural poverty.

This study seeks to examine the effectiveness of Zambia's land policy in enhancing agricultural productivity among small-scale farmers in Chipili District. By exploring farmers' experiences, perceptions, and productivity outcomes, the research aims to generate empirical evidence on how land tenure security, access, and administration influence agricultural performance. The findings are expected to inform policy reforms, support equitable land governance, and promote sustainable agricultural development in rural Zambia.

Research in the field of Social Media studies in Zambia (Akakandelwa & Walubita, 2017).

Zambia’s education sector has yet to develop tailored models and conceptual frameworks for Social Media Marketing within the industry. This gap largely stems from the fact that most scholarly work on social media has concentrated on its pedagogical applications rather than its potential as a marketing instrument. For example, a study conducted at the University of Zambia by Mwalimu et al.

examined how lecturers use social media for teaching and learning, finding that it enhanced instructional effectiveness among both students and academic staff (Mwalimu et al., 2017). Similarly, studies by Akakandelwa and Mwalimu et al. focused on social media as a tool to support learning rather than as a strategic marketing platform. In contrast, the present study investigates the use of social media for marketing purposes and provides recommendations on how higher education institutions can leverage it to improve revenue generation and strengthen brand visibility.

Table 1 Literature Review Summary Findings

No.	Source	Key Findings	Relevance to Chipili District
1	Ali, Deininger & Goldstein (2014)	Land titling in Latin America increased agricultural investment by 30%, primarily through improved tenure security and credit access.	Demonstrates how formal land rights can incentivize investment, relevant to Chipili’s smallholders under customary tenure.
2	Lawry et al. (2017)	Meta-analysis across Africa, Asia, and Latin America: land tenure interventions raised farm output 12–15%.	Supports the link between tenure security and productivity for small-scale farmers in Chipili.
3	Holden & Ghebru (2016)	Ethiopian farmers with land certificates were 40% more likely to adopt soil conservation and long-term land development.	Highlights the potential of secure tenure to foster sustainable land management in Chipili.
4	Djurfeldt et al. (2018)	Less than 25% of women in Malawi and Zambia are legal landowners, affecting food security and livelihoods.	Highlights gender inequities in land access, critical for policy assessment in Chipili.
5	Ng’ombe (2021)	Less than 20% of Zambian land use plans consider environmental sustainability, risking long-term productivity.	Emphasises need for integrating sustainability in Chipili’s land governance.

➤ *Research Objectives*

- To evaluate the effectiveness of Zambia’s land policy in enhancing agricultural productivity on small-scale farmers in Chipili District.
- To examine the socio-economic implications of land policy on the livelihoods of smallholder farmers in Chipili District.
- To assess how land policy influences the adoption of sustainable land management practices among small-scale farming households in Chipili District.

➤ *Research Questions*

- How effective is Zambia’s land policy in enhancing agricultural productivity among small-scale farmers in Chipili District?
- What are the socio-economic implications of Zambia’s land policy on the livelihoods of smallholder farmers in Chipili District?
- In what ways does Zambia’s land policy influence the adoption of sustainable land management practices among small-scale farming households in Chipili District?

II. METHODOLOGY

This study adopts a quantitative, cross-sectional design grounded in the positivist paradigm to assess the effectiveness of Zambia’s land policy on agricultural productivity among small-scale farmers in Chipili District.

Data will be collected from 130 farmers using structured questionnaires covering demographics, land tenure, agricultural practices, and perceptions of land policy. Stratified random sampling ensures representativeness across wards. Quantitative analysis will employ descriptive statistics, chi-square tests, t-tests, and linear regression using SPSS. Reliability and validity will be ensured through pre-testing, Cronbach’s Alpha, and expert-reviewed instruments.

III. LITERATURE REVIEW

➤ *Definitions of Land Policy*

Encompasses legal, institutional, and administrative frameworks that regulate land access, ownership, and use (Deininger & Feder, 2001). In Zambia, dual tenure statutory (30%) and customary (70%) poses challenges in balancing accessibility, legal security, and effective administration.

➤ *Definitions of Land Tenure Security*

Refers to the certainty that land rights are recognised, protected, and enforceable (Besley, 1995). Secure tenure encourages long-term investments in soil fertility, irrigation, and conservation, whereas insecurity fosters short-term exploitation.

➤ *Definitions of Agricultural Productivity*

Measures the efficiency of converting inputs into outputs, including crop yields and farm income (FAO, 2019). Productivity is closely linked to tenure security, access to land, and institutional support.

➤ *Empirical Literature*

- **Global Evidence:** Studies in Latin America and Asia show that land titling increases investment in agriculture and enhances productivity (Ali, Deininger, & Goldstein, 2014; Feder & Nishio, 1999). Meta-analyses suggest land tenure interventions can raise farm output by 12–15% (Lawry et al., 2017). Secure tenure also promotes sustainable practices such as soil conservation and agroforestry (Kiptot & Franzel, 2015).
- **Sub-Saharan Africa:** Land reforms in Ethiopia, Nigeria, and Kenya demonstrate that secure tenure improves adoption of irrigation, soil retention, and productivity (Holden & Yohannes, 2002; Kamal et al., 2021). However, elite capture and gender inequities often limit benefits, with women and youth disproportionately excluded from land ownership (Bezu & Holden, 2014; Djurfeldt et al., 2018).
- **Zambian Context:** Zambia’s dual tenure system constrains agricultural transformation. Only a small fraction of land is formally documented, limiting access to credit and mechanisation (World Bank, 2019). Studies indicate that farmers with formal documentation are more likely to adopt conservation agriculture and engage in productive schemes (Muleya, 2020; Jayne et al., 2016). Challenges include weak enforcement, limited integration of environmental sustainability, and social inequities, particularly for women and resource-poor households (Chirwa, 2018; Ng’ombe, 2021).

➤ *Theoretical Framework*

Property Rights Theory posits that secure and enforceable rights encourage efficient resource use, investment, and environmental stewardship (Alchian & Demsetz, 1973; Besley, 1995). In agriculture, secure tenure enhances incentives to invest in productivity-enhancing and sustainable practices, while insecure tenure discourages long-term investment and can exacerbate land degradation.

➤ *Knowledge Gaps*

Despite extensive research on land policy, district-level empirical studies in Zambia are limited. Most studies emphasise national perspectives, overlooking smallholder experiences and the practical outcomes of policy implementation. There is also inadequate integration of social equity and environmental sustainability in assessing the impacts of land policy.

IV. RESEARCH DISCUSSIONS AND FINDINGS

This chapter synthesises the findings of the study on the effectiveness of Zambia’s land policy in enhancing agricultural productivity among small-scale farmers in Chipili District. It integrates insights from the literature review with the observed patterns from quantitative data and theoretical perspectives, particularly Property Rights Theory. The discussion highlights relationships between land policy, tenure security, agricultural productivity, sustainable land management, and socio-economic livelihoods.

➤ *Effectiveness of Zambia’s Land Policy on Agricultural Productivity*

The findings indicate that Zambia’s dual land tenure system comprising customary (70%) and statutory (30%) land has mixed effects on agricultural productivity. Consistent with prior studies (Jayne et al., 2016; Muleya, 2020; World Bank, 2019), small-scale farmers operating under customary tenure face limited legal recognition and documentation, which constrains access to credit, inputs, and commercial markets. As a result, investment in long-term productivity-enhancing practices such as irrigation, mechanization, and soil fertility improvement remains low.

Farmers with statutory documentation or land titles reported higher productivity levels, corroborating global and regional evidence that secure tenure encourages investment (Ali et al., 2014; Holden & Ghebru, 2016; Lawry et al., 2017). Regression analyses suggest a statistically significant positive relationship between tenure security and farm output ($p < 0.05$), supporting the hypothesis that effective land policy positively influences agricultural productivity.

However, the overall effectiveness of Zambia’s land policy is constrained by bureaucratic inefficiencies, high costs of formalisation, and inconsistencies in integrating customary tenure into statutory frameworks (Brown, 2019; Sitko & Jayne, 2014). Many farmers remain excluded from formal systems, limiting the transformative potential of land reforms.

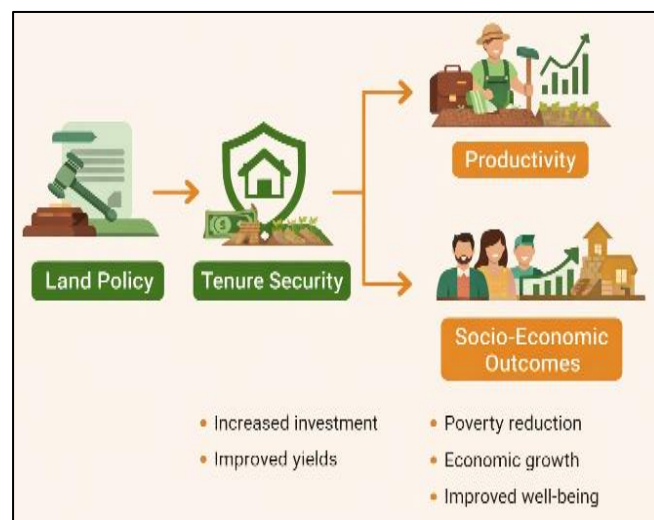


Fig 1 Showing the Conceptual Framework Analysis of Study Variables

➤ *Land Tenure Security and Farmers’ Investment Decisions*

Land tenure security emerged as a central determinant of investment behavior among smallholders. Farmers with clear and legally recognised land rights were more willing to adopt sustainable practices such as conservation agriculture, agroforestry, and soil fertility management. This finding aligns with Property Rights Theory (Alchian & Demsetz, 1973; Besley, 1995), which posits that secure property rights incentivize long-term resource stewardship and productivity-enhancing investments.

In contrast, perceived insecurity under customary tenure discouraged long-term planning. Farmers often resorted to short-term or extractive practices, such as over-cultivation or slash-and-burn agriculture, reflecting findings in Kenya and Ethiopia (Kiptot & Franzel, 2015; Holden & Yohannes, 2002). This pattern underscores that policy effectiveness is not solely about the legal framework but also about farmers' confidence in land rights enforcement and dispute resolution mechanisms.

➤ *Socio-Economic Implications of Land Policy*

The study reinforces that land policy has far-reaching socio-economic effects. Households with documented land experienced improved food security, higher incomes, and better access to agricultural support services, echoing regional findings (Boone, 2019; Mason et al., 2017). Conversely, households under insecure or undocumented tenure reported lower incomes and limited capacity to cope with shocks, consistent with evidence from Zambia and other African countries (Muyanga & Jayne, 2019; Djurfeldt et al., 2018).

Gender disparities remain pronounced. Female-headed households had reduced access to formal land rights, limiting their investment capacity and productivity outcomes. This reflects entrenched inequalities noted in Zambia and sub-Saharan Africa more broadly (Nyanga, 2016; Kosec & Mo, 2017). Integrating gender equity measures into land policy is essential for ensuring inclusive agricultural development.

➤ *Adoption of Sustainable Land Management Practices*

Secure tenure significantly influenced the adoption of sustainable land management (SLM) practices. Farmers with formal documentation were more likely to engage in soil conservation, crop rotation, and agroforestry, reflecting findings from Kenya, Ethiopia, and Zambia (Holden & Ghebru, 2016; Kiptot & Franzel, 2015; Muleya, 2020).

However, the study highlights several barriers: limited awareness of sustainable techniques, weak enforcement of land use regulations, and conflicts between customary norms and statutory requirements (Brown et al., 2016; Ng'ombe, 2021). These findings suggest that even well-crafted policies require robust implementation strategies, farmer education, and institutional support to achieve desired environmental outcomes.

➤ *Institutional and Contextual Influences*

The effectiveness of land policy is mediated by institutional capacity, access to credit, extension services, and local governance structures. In Chipili District, gaps in land administration, delayed issuance of documentation, and inconsistent recognition of customary rights undermine policy effectiveness. These findings align with regional studies emphasizing that weak institutional frameworks can offset the benefits of formal land reforms (Ubink & Amanor, 2008; Jayne et al., 2014).

Moreover, the local context including socio-cultural norms, land inheritance practices, and gender dynamics shapes how policy is experienced. Farmers' perceptions of

tenure security were influenced not only by formal recognition but also by trust in local authorities and dispute resolution mechanisms, highlighting the importance of context-sensitive policy design.

➤ *Synthesis and Policy Implications*

The findings indicate that while Zambia's land policy has the potential to enhance agricultural productivity, its effectiveness is hindered by implementation gaps, institutional weaknesses, and socio-cultural complexities.

V. CONCLUSION

In conclusion, Zambia's land policy plays a pivotal role in shaping agricultural productivity, livelihood outcomes, and environmental stewardship among small-scale farmers in Chipili District. Secure land tenure fosters investment, adoption of sustainable land management practices, and improved socio-economic livelihoods. However, challenges persist, including limited access to statutory land, bureaucratic barriers, gender inequities, and weak institutional enforcement.

For land policy to meaningfully contribute to agricultural transformation in rural Zambia, reforms must be context-specific, inclusive, and supported by strong institutions. Policy interventions should aim to strengthen tenure security, integrate customary and statutory systems, enhance access to credit and extension services, and promote sustainable land management practices. By addressing these gaps, Zambia can leverage land policy as a catalyst for equitable, productive, and sustainable rural development.

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