Financial and Technical Constraints in the Adoption of Sustainable Land Management Practices by Smallholder Farmers in Nigeria

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ABSTRACT

Sustainable Land Management (SLM) is widely acknowledged as a crucial approach to ensuring agricultural productivity, environmental sustainability, and poverty alleviation among smallholder farmers in developing nations. Nevertheless, the adoption of SLM practices in Nigeria remains minimal due to ongoing financial and technical challenges. This research investigates the financial and technical limitations that obstruct smallholder farmers in Nigeria from adopting SLM practices. Utilising a mixed-methods approach that incorporated survey questionnaires and key informant interviews from selected farming communities, the study reveals that financial issues including restricted access to credit, elevated input costs, and a lack of affordable financing options form significant barriers to adoption. Additionally, technical challenges such as inadequate extension services, insufficient training for farmers, low awareness of modern techniques, and poor institutional support further constrain uptake. The findings suggest that overcoming these obstacles requires coordinated interventions that include accessible credit schemes, enhanced extension services, subsidised agricultural inputs, and supportive policy reforms. The study concludes that improving smallholders' access to financial and technical resources will significantly enhance the adoption of sustainable land management practices, thus fostering environmental sustainability, food security, and rural development in Nigeria.

Keywords: Sustainable Land Management (SLM); Smallholder Farmers; Financial Constraints; Technical Barriers; Agricultural Development; Nigeria

INTRODUCTION

Sustainable Land Management (SLM) has emerged as a crucial framework for addressing the dual challenges of land degradation and sustainable agricultural production in developing countries. It combines ecological, economic, and social principles to ensure that land resources are utilised efficiently and preserved for future generations (World Bank, 2006). Within the Nigerian context, where agriculture significantly contributes to rural livelihoods and national food security (Magaji & Musa, 2024), SLM is of particular importance. The escalating pressures of population growth, climate variability, deforestation (Ismail, Bash, & Magaji, 2019), and unsustainable agricultural practices have intensified land degradation (Magaji et al., 2025), leading to declining soil fertility, reduced agricultural productivity, and increased vulnerability for smallholder farmers (Olsson et al., 2019; FAO, 2021). Thus, the adoption of effective SLM practices is crucial for securing food security, reducing rural poverty, and meeting the Sustainable Development Goals (SDGs), specifically SDG 2 (Zero Hunger), SDG 13 (Climate Action), and SDG 15 (Life on Land).

Despite the increasing recognition of SLM's advantages, its adoption among smallholder farmers in Nigeria remains limited. Smallholders, who represent over 80 per cent of the farming demographic, encounter numerous challenges that impede the widespread implementation of SLM innovations, such as agroforestry, conservation agriculture, integrated soil fertility management, and water conservation practices (Nkonya et al., 2016). Among these, financial and technical obstacles are especially significant. Restricted access to credit and agricultural financing hampers farmers' capability to invest in technologies that improve land quality (Magaji, Musa, & Dogo, 2023). Simultaneously, insufficient extension services and weak institutional support obstruct the distribution of technical knowledge and skills vital for sustainable practices (Adimassu & Langan, 2019). These difficulties are exacerbated by broader structural issues, including rural poverty (Magaji & Aliyu, 2007),

inadequate infrastructure, and inconsistent policies that fail to provide sufficient incentives for long-term land stewardship (Abdullahi et al., 2020).

Financial challenges related to SLM adoption present in various forms. The initial investment costs for technologies such as improved irrigation systems, soil conservation structures, or organic fertilisers often exceed the financial means of smallholders, who typically operate with minimal profit margins (Yegbemey et al., 2014). Moreover, the absence of affordable credit and insurance options limits farmers' willingness to embrace practices whose benefits are only realised over the medium to long term (Magaji & Yahaya, 2012). In Nigeria, the rural credit market remains inadequately developed (Magaji & Yisa, 2023), with microfinance institutions and commercial banks having a limited presence in remote agricultural regions (Okoye et al., 2022). As a result, farmers often rely on informal financing options, which are insufficient for facilitating the large-scale adoption of SLM practices.

Furthermore, technical challenges intensify the issue. A significant number of smallholder farmers lack the training and knowledge necessary for effectively implementing SLM strategies. Extension services in Nigeria are often understaffed and under-resourced, with the ratio of farmers to extension workers significantly below the Food and Agriculture Organisation's recommended standard (FAO, 2021). This inadequacy restricts farmers' access to new technologies, scientific methodologies, and climate-smart agricultural approaches. Moreover, insufficient research–extension–farmer connections hinder the dissemination of context-relevant innovations that might improve the productivity and resilience of smallholders (Adimassu & Langan, 2019). The absence of technical assistance further diminishes farmers' confidence in adopting unfamiliar techniques, particularly when initial yields may decrease before long-term advantages are realised.

Grasping the financial and technical challenges faced by smallholder farmers in Nigeria is essential for formulating targeted policies and interventions that encourage the uptake of SLM practices. Tackling these obstacles necessitates a comprehensive approach that integrates accessible financial solutions, enhanced extension services, farmer training, and supportive institutional frameworks. Consequently, this study examines the financial and technical barriers hindering the adoption of SLM methods among smallholder farmers in Nigeria, providing evidence-based recommendations to facilitate sustainable agricultural transformation and enhance environmental resilience.

LITERATURE REVIEW

Conceptual Definitions

Sustainable Land Management (SLM)

Sustainable Land Management (SLM) is commonly defined as the implementation of land use strategies that merge ecological, social, and economic factors to preserve or enhance the productivity of land resources without leading to degradation (World Bank, 2006; FAO, 2021). According to Nkonya et al. (2016), SLM encompasses a range of agricultural and environmental methods, including soil conservation, agroforestry, rotational cropping, irrigation efficiency, and integrated nutrient management. The concept highlights resilience, resource efficiency, and long-lasting sustainability, positioning it as a vital strategy for combating land degradation (Magaji, 2024), climate change (Magaji, Tanko, & Musa, 2025), and rural poverty (Yakubu, Magaji, & Magaji, 2025).

In Nigeria, the SLM methods are tailored to their specific context and are often influenced by the country's ecological zones. For instance, in the arid northern areas, practices such as water harvesting, zai pits, and shelterbelts are standard, whereas in the more humid zones, agroforestry and soil fertility management prevail (Adimassu & Langan, 2019). The primary objective is to enhance agricultural productivity while preserving ecosystem services essential for livelihoods and environmental sustainability.

Smallholder Farmers

Smallholder farmers are typically characterised by restricted access to land, finances, and technology (Muhammed, Magaji, & Ismail, 2025). According to the International Fund for Agricultural Development (IFAD, 2016), a smallholder farmer typically cultivates fewer than two hectares of land, primarily relies on

family labour (Magaji, 2007), and operates with limited mechanisation (Magaji & Saleh, 2010). In Nigeria, smallholder farmers represent over 80% of the farming population and account for the majority of the country's food production (Okoye et al., 2022). However, they confront numerous challenges, including insecure land ownership, restricted credit access, inadequate infrastructure, and susceptibility to climatic changes (Abdullahi et al., 2020). Understanding their resource limitations is crucial for identifying barriers to the adoption of SLM.

Financial and Technical Constraints

Financial constraints are associated with the economic limitations that impede farmers' capabilities to adopt new technologies or practices (Yegbemey et al., 2014). These limitations include a lack of credit access (Magaji, 2004), insufficient investment capital (Okoroafor, Magaji, & Eze, 2018), high input expenses, and the absence of risk-mitigation tools such as crop insurance (Tanko, Magaji, & Musa, 2025). Technical constraints are associated with gaps in knowledge, insufficient extension services, weak connections between research and farmers, and limited access to innovations (FAO, 2021). Collectively, these obstacles create a self-reinforcing cycle where farmers find it challenging to adopt sustainable practices, even when these practices offer potential long-term benefits.

Theoretical Framework

Various theories offer valuable perspectives for analysing the barriers to adopting Sustainable Land Management (SLM).

Diffusion of Innovations Theory

Everett Rogers' Diffusion of Innovations Theory (2003) is one of the most utilised frameworks in research focused on agricultural technology adoption. It suggests that the acceptance of new practices is influenced by five primary factors: perceived advantage, compatibility, complexity, trialability, and observability. Regarding SLM, smallholder farmers might view these practices as complex, expensive, or misaligned with their immediate survival needs, which can hinder adoption. Additionally, the limited visibility of the benefits and the inadequacy of extension services can impede the diffusion process (Kiptot et al., 2017).

Resource-Based View (RBV) of the Firm

The Resource-Based View asserts that access to essential resources such as financial assets, human capabilities, and technology affects an organisation's effectiveness (Barney, 1991). When applied to smallholder agriculture, the RBV emphasises that a lack of financial and technical resources limits farmers' ability to adopt SLM practices. Farmers with better access to credit, extension services, and innovative tools are more likely to succeed in implementing sustainable methods.

Sustainable Livelihoods Framework (SLF)

The Sustainable Livelihoods Framework (Chambers & Conway, 1992) offers an alternative perspective by focusing on the available assets (human, natural, financial, physical, and social capital) within households. This framework highlights that the adoption of SLM relies not only on financial and technical resources but also on social networks, institutional support, and environmental conditions. It illustrates how poverty, ineffective governance, and environmental pressures interact to create obstacles for SLM adoption among smallholders in Nigeria (Carney, 1998).

Institutional Theory

Institutional Theory stresses the importance of both formal and informal institutions in influencing behaviour (North, 1990). Regulations, extension systems, credit institutions, and customary land tenure can either promote or hinder the adoption of SLM. In Nigeria, the presence of fragmented agricultural policies and a lack of institutional coordination have been identified as significant challenges to the widespread implementation of SLM practices (Abdullahi et al., 2020).

Together, these theories offer a comprehensive framework for understanding the financial and technical limitations smallholder farmers encounter. They underscore both individual decision-making processes and the structural and institutional factors that impede adoption.

Empirical Review

Increasing empirical research has investigated the barriers to adopting Sustainable Land Management (SLM) practices, with a particular focus on financial and technical limitations. These studies encompass global, regional, and national contexts, revealing both general trends and specific challenges faced by smallholder farmers.

On a global scale, financial capacity consistently emerges as a crucial factor influencing SLM adoption. For example, Yegbemey et al. (2014) found in Benin that limited access to credit and savings significantly diminished farmers' engagement in soil fertility management and agroforestry practices. Similarly, Kassie et al. (2015) reported that in Ethiopia, access to credit and extension services notably enhanced the likelihood of adopting conservation agriculture. In Malawi, Holden and Otsuka (2014) noted that financial barriers discouraged farmers from making long-term investments in soil fertility practices, despite their established advantages.

Technical constraints also significantly impact global studies. Nyanga et al. (2016) found that in East Africa, poor extension services and low literacy rates weakened the effectiveness of SLM dissemination initiatives. In Kenya, Kiptot et al. (2017) showed that farmer field schools enhanced farmers' technical knowledge and increased the adoption of integrated pest management and soil fertility practices. Pannell et al. (2014) similarly pointed out that insufficient access to hands-on training undermines the effectiveness of sustainability initiatives within the smallholder contexts of the Asia-Pacific region. These observations underscore the pervasive nature of financial and technical barriers as impediments to the adoption of sustainable land management (SLM).

In Sub-Saharan Africa, various studies have confirmed the importance of addressing financial and technical challenges. Mekuria and Waddington (2017) noted that financial incentives, such as microcredit and subsidies, play a crucial role in promoting sustainable intensification practices. In Tanzania, Kaliba et al. (2018) found that financial assistance, when combined with extension services, had a significant impact on the adoption of conservation agriculture. In Ghana, Akpalu (2013) found that improved market access and rural infrastructure reduced transaction costs, thereby facilitating greater adoption of SLM.

Technical limitations are also widespread in the region. Marenya and Barrett (2009) found that inadequate knowledge about soil and limited access to technical information hindered the uptake of soil conservation practices in Kenya. Similarly, Shiferaw et al. (2009) indicated that even in the presence of financial incentives, technical obstacles such as low literacy rates, insufficient extension services, and a lack of farmer education hindered the effective implementation of new practices. A common issue in Africa is that adoption rates tend to remain low in areas with poor extension-to-farmer ratios and inconsistent follow-up of government programs.

In Nigeria, empirical research identifies similar yet often more pressing challenges. Abdullahi et al. (2020) found that high input prices and limited extension outreach significantly hindered the adoption of soil conservation methods among rural farmers. Okoye et al. (2022) emphasised that underdeveloped rural credit markets compelled farmers to rely on informal lending, which proved inadequate for financing capital-intensive initiatives such as irrigation and agroforestry.

The deficiencies in extension services are particularly significant. According to the FAO (2021), the ratio of extension agents to farmers in Nigeria is under 1:3,000, which is substantially lower than the FAO's recommended ratio of 1:800. Akinola (2021) highlighted that the absence of training in soil fertility management leads farmers to resort to unsustainable practices, including bush burning and excessive fertiliser application. Ajibade and Yusuf (2021) also noted that ineffective knowledge transfer weakens the adoption of climate-smart agricultural technologies.

When compared to other countries in Africa, smallholder farmers in Nigeria encounter both similar and comparatively greater challenges. While nations like Ethiopia and Kenya have established relatively robust extension systems and microfinance networks to support SLM (Adimassu & Langan, 2019; Kassie et al., 2015), Nigeria falls behind in these domains. The combination of weak institutional frameworks with financial and technical obstacles results in slower rates of adoption. For example, while Ghana and Tanzania have successfully utilised public–private partnerships to bolster rural credit schemes and extension services (Kaliba et al., 2018; Akpalu, 2013), Nigeria's initiatives remain inadequately funded and inconsistently executed. This comparative analysis illustrates that institutional and governance deficiencies are just as critical as financial and technical limitations in Nigeria.

Research consistently concludes that financial and technical constraints are the most significant barriers to the adoption of SLM on global, regional, and national levels. These challenges are intricately connected: a shortage of financial resources prevents farmers from acquiring the essential inputs and tools they need. Concurrently, insufficient technical knowledge and weak extension services impede their ability to implement available practices effectively. In Nigeria, these issues are exacerbated by institutional deficiencies and policy inconsistencies, putting smallholders at a disadvantage compared to their peers in some other African nations. Tackling these impediments necessitates integrated strategies that enhance access to credit, strengthen extension services, improve training, and build institutional capacity to facilitate sustainable agricultural advancements.

METHODOLOGY

Research Design

This research utilised a mixed-methods design, integrating both quantitative and qualitative strategies. The quantitative aspect facilitated the collection of quantifiable data regarding the financial and technical challenges faced by smallholder farmers. Conversely, the qualitative aspect offered more profound insights into the views, attitudes, and experiences of farmers and significant stakeholders concerning the adoption of Sustainable Land Management (SLM) practices. The mixed-methods framework was selected to enhance the validity of the findings through triangulation and to ensure a comprehensive understanding of the complex obstacles that influence adoption decisions (Creswell & Creswell, 2018).

Study Area

The research was conducted in selected agricultural communities across three ecological zones in Nigeria: the Sudan Savannah (e.g., Jigawa State), the Guinea Savannah (e.g., Niger State), and the Derived Savannah (e.g., Oyo State). These zones were intentionally chosen as they reflect varying agro-ecological conditions where the issues of land degradation and levels of SLM adoption differ markedly. In these regions, agriculture is the primary occupation, with smallholder farmers predominantly cultivating cereals, legumes, and tubers. The areas also face significant challenges, such as soil erosion, desertification, and declining soil fertility, which make them suitable for assessing barriers to SLM adoption.

Population and Sampling

The focus population for this study comprised smallholder farmers, defined as individuals growing fewer than 2 hectares of land, as well as key agricultural stakeholders, including extension agents, local cooperative leaders, and representatives from agricultural development programs. A multistage sampling method was applied. In the initial stage, states were deliberately chosen from each ecological zone. In the subsequent stage, two Local Government Areas (LGAs) were randomly selected from each state. Finally, four farming communities were chosen from each LGA, and households were sampled randomly.

Utilising Yamane’s (1967) formula for determining sample size at a 95% confidence level, a sample of 400 smallholder farmers was identified. Additionally, 20 key informants (extension officers, community leaders, and policy stakeholders) were intentionally selected for qualitative interviews to gather detailed insights into financial and technical obstacles.

Data Collection Methods

Both primary and secondary data were gathered. Primary Data: Structured Questionnaires were distributed to smallholder farmers to collect quantitative information on demographic details, access to credit, technical expertise, extension services, and the adoption of SLM practices. Key Informant Interviews (KIIs) were conducted with extension agents, cooperative leaders, and policymakers to investigate the institutional, financial, and technical issues related to the adoption of SLM. Focus Group Discussions (FGDs) involving groups of farmers were conducted to document collective experiences, perceptions, and coping strategies.

Secondary Data: Secondary data were sourced from relevant references, including FAO reports, government agricultural data, and peer-reviewed journal articles concerning SLM adoption in Nigeria.

Data Analysis

Quantitative data were assessed using both descriptive and inferential statistical methods, supported by SPSS (version 25). Descriptive statistics, including frequencies, means, and percentages, were used to summarise the socioeconomic characteristics and adoption trends of the respondents. Inferential statistics, including logistic regression analysis, were employed to investigate the impact of financial (e.g., access to credit, income level) and technical (e.g., access to extension services, training) factors on the probability of adopting SLM practices. The logistic regression model was outlined as:

$$\text{Logit}(Pi) = \ln(Pi / 1-Pi) = \beta 0 + \beta 1X1i + \beta 2X2i + \cdots + \beta kXki + \varepsilon i$$

Where:

1. Pi = probability of farmer adopting SLM practices
2. X1i, X2i,…, Xki = explanatory variables (income, education, access to credit, extension services, farm size, etc.)
3. $\beta 0, \beta 1, \ldots, \beta k$ = regression coefficients
4. εi = error term.

Qualitative data gathered from interviews and focus group discussions (FGDs) were transcribed, categorised, and analysed through thematic analysis, focusing on recurring themes related to financial and technical obstacles. The convergence of findings from both the quantitative and qualitative aspects enhanced the reliability of the results.

Validity and Reliability

To ensure content validity, the questionnaire underwent review by specialists in agricultural economics and sustainable development prior to its administration. A pilot test was conducted with 30 farmers to refine the instruments. The reliability of the survey items was evaluated using Cronbach's alpha, wherein a value of 0.70 was deemed acceptable (Nunnally, 1978). The triangulation of data sources further bolstered reliability.

Ethical Considerations

Ethical approval was obtained from the appropriate institutional research ethics committee. Informed consent was obtained from all participants, and respondents were assured of anonymity and confidentiality. Participation was voluntary, and individuals had the right to withdraw at any point without repercussions.

RESULTS AND DISCUSSION

Socioeconomic and Demographic Characteristics of Respondents

Table 1 outlines the socioeconomic profile of the 400 smallholder farmers who participated in the survey. A significant majority (67.5%) were men, indicating the gendered dynamics of land ownership in rural Nigeria. The average age was 42 years, suggesting that most farmers fall within their economically active age range.

Approximately 62% had only primary education or no formal education, highlighting the low literacy rates that may hinder technical understanding. The average farm size was 1.8 hectares, which confirms the smallholder classification of the respondents.

Table 1: Socioeconomic and Demographic Characteristics of Respondents (n = 400)

Variable	Category	Frequency (%)	Mean (SD)
Gender	Male	270 (67.5)	
	Female	130 (32.5)	
Age (years)			42.3 (11.5)
Education Level	None	110 (27.5)	
	Primary	140 (35.0)	
	Secondary	100 (25.0)	
	Tertiary	50 (12.5)	
Farm Size (hectares)			1.8 (0.7)
Annual Income (₦)			420,000 (115k)

The results indicate that the participants were generally low-income, possessed small agricultural lands, and had limited educational backgrounds. These aspects are likely to be significant in determining the adoption of Sustainable Land Management (SLM) strategies.

Uptake of Sustainable Land Management (SLM) Strategies

The rates of adoption for specific SLM strategies were comparatively modest (see Table 2). The highest level of adoption was observed in soil fertility management practices (such as using organic manure and crop rotation) at 45.5%. In contrast, more advanced strategies, such as agroforestry (23%) and water harvesting systems (18%), were less frequently adopted. This implies that farmers are more likely to embrace methods that demand fewer financial resources and less technical expertise.

Table 2: Adoption of SLM Practices by Farmers

Practice	Adoption (%)
Soil fertility management	45.5
Agroforestry	23.0
Conservation tillage	28.5
Water harvesting structures	18.0
Crop-livestock integration	32.0

Financial Constraints

More than 70% of farmers indicated that limited access to credit was a significant obstacle to implementing SLM. Approximately 64% mentioned that the high expenses associated with inputs (such as organic fertilisers and improved seedlings) deterred their adoption. In comparison, 55% pointed out the lack of crop insurance and financial risk-sharing options.

A participant from a focus group in Niger State remarked, “We understand that planting trees and preserving soil is beneficial, but without funds for seedlings or fertilisers, how can we proceed? The banks do not reach out to us.”

These observations correlate with the findings of Okoye et al. (2022), who identified the underdeveloped rural credit markets as a challenge to agricultural innovation in Nigeria.

Technical Constraints

Technical challenges were also prevalent. Almost 60% of respondents reported a deficiency in extension services, while 48% noted a lack of technical knowledge regarding the practical application of SLM practices. Just 22% had participated in a training session on SLM in the previous three years.

An extension officer in Jigawa State commented, "We are too few to serve all the farmers. Each extension worker is responsible for over 2,000 farmers, so many remain unaware of sustainable land practices."

This is consistent with the FAO (2021), which stated that the ratio of farmers to extension workers in Nigeria falls significantly below international standards, thereby restricting farmer education and the adoption of climate-smart practices.

Regression Results (Determinants of SLM Adoption)

A logistic regression analysis was conducted to evaluate the influence of socioeconomic, financial, and technical factors on the adoption of SLM (Table 3).

Table 3: Logistic Regression Results on Determinants of SLM Adoption

Variable	Coefficient (β)	Std. Error	Odds Ratio (Exp β)	p-value
Age	-0.012	0.008	0.99	0.124
Education level	0.215	0.078	1.24	0.006**
Farm size	0.342	0.115	1.41	0.002**
Annual income	0.0004	0.0001	1.00	0.001**
Access to credit	0.672	0.183	1.96	0.000***
Access to extension services	0.498	0.171	1.65	0.004**
Training participation	0.571	0.201	1.77	0.005**
Constant	-2.120	0.612	-	0.000***

Notes: **p < 0.05; ***p < 0.01

The regression analysis reveals that factors such as credit access, education, extension services, and farm size have a significant impact on the adoption of sustainable land management (SLM). Farmers who possess higher levels of education and income are more inclined to adopt SLM, whereas limited access to credit decreases the chances of adoption by nearly 50%.

DISCUSSION OF FINDINGS

The results indicate that financial and technical challenges play a crucial role in the adoption of SLM practices among smallholder farmers in Nigeria. Financial limitations, particularly the lack of credit access and high input prices, represent the most substantial hurdles, aligning with findings by Yegbemey et al. (2014) and Kassie et al. (2015), who reported similar issues in Benin and Tanzania, respectively. The regression analysis indicated that farmers with access to credit were nearly twice as likely to adopt SLM practices, underscoring the need for enhancements in rural financing systems.

Technical obstacles, notably inadequate extension services, also surfaced as a significant impediment. Only 20% of farmers had received any training, highlighting the persistent underfunding of agricultural extension

services in Nigeria (Akinola, 2021). This implies that even with financial resources available, the absence of technical expertise and institutional support can impede effective implementation.

The collective evidence emphasises the interconnected nature of financial and technical challenges. For instance, a farmer who has access to credit might still not adopt SLM practices if they lack the requisite technical knowledge. Conversely, a farmer who is technically proficient but lacks financial resources may be unable to invest in necessary inputs. Therefore, addressing these challenges necessitates comprehensive strategies, including enhancing financial inclusion, subsidising input costs, bolstering extension services, and investing in farmer education.

The findings of this study contribute to the larger conversation on sustainable agriculture in Africa, reinforcing the need for holistic, multi-faceted interventions (Adimassu & Langan, 2019). Policies aimed at improving both financial accessibility and technical capabilities are essential for the widespread adoption of SLM practices and the sustainability of Nigeria's agriculture.

CONCLUSION

This study examined the financial and technical challenges that smallholder farmers in Nigeria encounter when attempting to adopt sustainable land management (SLM) practices. The results highlighted that inadequate credit access, high input costs, and insufficient financial support mechanisms pose significant financial challenges to sustainable development. On the technical front, inadequate extension services, limited training opportunities, lack of access to modern agricultural technologies, and insufficient institutional support markedly hinder adoption. These issues collectively sabotage efforts to promote environmental sustainability, food security, and rural livelihoods. The study concludes that without addressing these financial and technical obstacles, smallholder farmers will continue to employ unsustainable practices that exacerbate land degradation and poverty.

RECOMMENDATIONS

1. Enhancing Rural Credit Systems: Government and financial institutions should create credit schemes that are friendly to farmers, featuring low interest rates, flexible repayment options, and collateral-free lending designed explicitly for smallholders.
2. Capacity Development and Extension Services: Investments in agricultural extension should be amplified, focusing on farmer education, practical demonstrations, and utilising ICT-based platforms to share knowledge regarding SLM.
3. Subsidies and Incentives for SLM Inputs: Policymakers ought to offer subsidies for quality seeds, fertilisers, and land management tools to alleviate the financial burdens associated with adoption.
4. Collaborative Efforts Among Stakeholders: Collaboration between government entities, NGOs, donor organisations, and farmer cooperatives should be encouraged to facilitate technical innovation, knowledge exchange, and resource sharing.
5. Policy Advances: A cohesive land use and agricultural development policy should be established to incorporate SLM, supported by robust institutional structures and monitoring frameworks.
6. Advocating Climate-Smart Agriculture: Incorporating climate-resilient land management strategies into agricultural policies can bolster long-term sustainability and enhance resilience against environmental disruptions.

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