



**APPSA 2<sup>nd</sup>**  
**SCIENTIFIC**  
**CONFERENCE**

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# DETERMINANTS OF AGRICULTURAL FINANCE AND EXTENSION SERVICES ACCESS AMONG SMALLHOLDER MAIZE FARMERS: THE CASE OF CONSERVATION AGRICULTURE ADOPTERS IN LERIBE AND BUTHA-BUTHE DISTRICTS

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# INTRODUCTION

- Agricultural credit and extension services are believed to be crucial for boosting agricultural productivity, yet access remains limited for smallholder farmers in Lesotho.
- Agricultural finance programs and interventions in Sub-Saharan Africa have shown some success in reaching smallholder farmers, but challenges remain in ensuring inclusivity, transparency, and sustainability (Nigo and Gibogwe, 2023).
- Lesotho is not an exception, farmers struggle to access finance.

# INTRODUCTION

- Extension services play a crucial role in the dissemination of information and farmers' capacity building.
- Extension services of late offers a complete consulting function that covers concerns linked to risk management, environmental sustainability, marketing for example
- However, it also has challenges that include lack of resources to reach farmers due to inadequate finance, lack of motivation of extension officers and high farmer-extension officer ratios.




# STATEMENT OF THE PROBLEM

- Improving agricultural production and productivity among rural farmers is critical to Lesotho's goal of fulfilling Sustainable Development Goals 1–3 (SDGs).
- Smallholder farmers capacity to invest in inputs, technology, and infrastructure required to boost resilience to shocks like climate change and enhance production is hampered by their inability to get official financial services, such as credit and insurance (Dzanku, 2019).



# STATEMENT OF THE PROBLEM

- Beyond financial constraints, there are constraints accessing extension services readily for farmers mostly due to systemic challenges.
- Extension services are essential for providing farmers with the knowledge, training, and technical guidance needed for successful implementation of farm innovations.



# OBJECTIVES OF THE STUDY

1. To determine factors that influence conservation agriculture farmers' decision to seek agricultural finance
2. To determine factors that influence conservation farmers' decision to seek extension services.

# DATA AND METHODOLOGY

- Eight of the two districts were sampled
  - Leribe and Butha-Buthe

$$Y_1^* = a_1 Y_2^* + \beta_1 X_{1i} + \dots \beta_n X_n + \mu_1$$

$$Y_2^* = a_2 Y_1^* + \beta_1 X_{2i} + \dots \beta_n X_n + \mu_2$$

## DATA ANALYSIS

- Econometrics (Bi-Variate Probit Model)



# TABULATED RESULTS



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Credit Access	Coefficient (B)	Std. error (SE)	t-value(t)	P> t
Constant	-0.268	1.255	-0.214	0.831
Household Income	-0.756***	0.291	-2.601	0.009
Occupation	-0.782*	0.462	-1.693	0.090
Household Head	-0.740**	0.375	-1.970	0.049
Farming Experience	0.295**	0.143	2.054	0.040
Land Ownership	0.896*	0.466	1.920	0.055
Labour	-0.261**	0.124	-2.095	0.036
Sources of Credit	-5.599***	0.617	-9.076	0.000
Source of extension service	0.243*	0.141	1.718	0.086
Extension Contact Freq.	-0.167*	0.098	-1.703	0.089

Access to Extension	Coefficient (B)	Std. error (SE)	t-value(t)	P> t
Constant	0.213	1.082	0.196	0.844
Gender	-0.725***	0.282	-2.568	0.010
Household Income	0.362**	0.177	2.046	0.041
Household Head	-0.740**	0.375	-1.970	0.049
Farmer Group Membership	0.785***	0.294	2.674	0.007
Source of extension service	-0.223**	0.104	-2.146	0.032
Market Information	-0.022	0.372	-0.061	0.952
Source of Credit	-0.049	0.106	-0.460	0.646
Extension Contact Freq.	0.089	0.079	1.127	0.260

# Discussions

- Occupation, household income, farming experience, land ownership and access to agricultural extension play crucial role in decisions regarding credit utilisation.
- Since farming experience is a key factor in determining both productivity and output, it facilitates access to loans.
- Kofarmata and Danlami (2019) and Moahid and Maharjan (2020), also found that a farmer's likelihood of facing loan constraints from banks is reduced with increasing farming experience.

# Discussion

- The study's findings reveal that smallholder CA farmers with higher incomes are less inclined to seek credit but are more likely to access extension services.
- Higher-income smallholder farmers can finance their farming activities independently, reducing their need for agricultural credit.
- The positive effect of land ownership towards access to credit indicates that the more collateral a farmer possesses, the higher the likelihood of accessing credit from institutional sources.



# Discussion

- The variable source of extension services is positive and significant for the dependent variable access to credit and negative for access to extension services.
- Extension services is therefore a critical factor in enhancing access to credit.
- However, source of extension services that is public extension services in most cases in Lesotho negatively influences access to extension services.
- This could be due to systemic challenges referred to earlier that need to be corrected to improve efficiency.

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# Conclusion and Recommendations

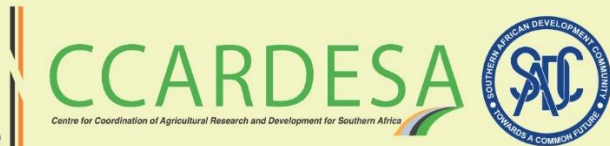
- Since the study revealed that most of the farmers were not members of farmer-based groups or organizations, the study proposes that relevant stakeholders must encourage farmers to form associations and/ or join existing cooperatives or farmer organizations.
- The study recommends that private financial institutions may develop affordable micro-credit products for smallholder farmers to increase their ability to repay debts.
- It is also prudent to consider incorporating digital technologies for efficient knowledge dissemination.

# Conclusion and Recommendations

- There is a need to foster partnerships and collaborations among government agencies, NGOs, private sector stakeholders, and academia to leverage resources, expertise, and networks for holistic agricultural development.



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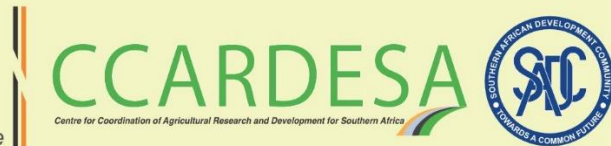


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# THANK YOU



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