

## Contribution of Agricultural Formal Credit on Smallholder Farmer's Livelihoods: A Case of Ekudzeni Area in the Manzini Region, Swaziland

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### Abstract:

*Agriculture is the largest source of employment for rural households, and 70% of the population in Swaziland relies on this subsistence farming for their livelihood. However, the country is faced with decades of economic slowdown and the ever rising agricultural input prices resulting in high production costs hardly met by small subsistence farmers who are currently dependent on government subsidies and agricultural credit offered by financial institution. The results of the study were generated using data collected through personal interviews and questionnaires from eighty randomly sampled farmers in the study area. Descriptive statistical techniques were used to analyze the data. The results revealed that the majority of farmers of agricultural credit beneficiaries and non-beneficiaries were female (54% and 51%, respectively), and over 50% of all respondents were aged 50 years and above. Results further indicated that the non-beneficiaries were more educated than the beneficiaries an indication that the non-beneficiaries could finance their agribusiness using incomes generated from employment other than farming. All respondents reported to farm on land less than 2 hectares. The t-test results revealed that there was a significant difference of 1646 Emalangenis earned by agricultural credit beneficiaries more than the non-beneficiaries. The t-test further revealed that there was a significant difference in capital employed in agriculture between beneficiaries (E2157) and non-beneficiaries (E973). Farmers benefiting from agricultural finances had an average 2.7ha of land and relatively larger cultivated land compared to non-beneficiaries (2.4ha). Beneficiaries of the formal agricultural credit indicated that they had accumulated assets which enhanced their purchasing power due to credit access. Based on the findings it can be concluded that formal agricultural credit improves farm household livelihoods and it is recommended that financial institutions should continue to intensify their agricultural credit services and most importantly make it easily accessible to farmers in rural areas to improve their livelihoods and minimize their financial challenges.*

**Key words:** Ekudzeni, Formal agricultural credit, Livelihoods, Smallholder farmers

### INTRODUCTION

Agriculture in Swaziland is the largest source of income and employment among people in the rural areas and 70% of the population relies on subsistence farming as a means of earning income (Thompson, 2012). Despite being a major source of livelihood among the poor households especially in developing countries, smallholder farmers are finding it hard to finance their agricultural production due to high production costs as a result of ever increasing agricultural input prices. This has resulted in less and less smallholder farmers' participation in agriculture leading to food insecurity, famine and high dependence on food handouts from UN bodies like World Food Organization (WFP) and Non-governmental organizations for survival. In order to address the situation, government, donors, the private sector, and the NGOs have established different programmes related to provision of agricultural credit to small-scale farmers. Access to agricultural credit is thought to improve livelihoods of small-scale farmers (Zeller and Sharma, 1998). The farmers' access to credit in Bangladesh, for example, resulted in improved household food security, school enrolment and children's health, increased accumulation of asset by households and the general health well-being of women (Zeller and Sharma, 1998; Monganhele, 2006). Different measures have been used to estimate the contribution of agricultural credit on farm household livelihoods including improved household income (Hlophe, 2001; Brad, 2000; Copestake, 2001). Despite the support, agricultural credit programmes are still faced with poor loan repayments, discouraging progress of such assistance, and hence rating smallholder farmers having a poor credit-worthiness (Ledgerwood, 2000). Farmers on the other hand have condemned the financial institutions for not providing the requested loans on time to match the farming seasons, farmers are requested by financial institutions to provide collateral that they do not have and these institutions charge high interest rates, and the procedures involved when applying for the loan is reported to be cumbersome to farmers (Lergerwood, 2000). Nevertheless, Swaziland still believes that agricultural credit support and subsidies are still important for farmers' increased production through government subsidies and agricultural credit offered by financial institution.

Stieneke (2007) defines agricultural credit as finance meant for agriculture production and development, and such funds are provided by different organizations, cooperatives like SACCOs, financial institution like banks and micro-finances that extend agricultural credit support for agribusinesses. Such credit support ease farmers' access to farm inputs in time and producing at the right time of the season, enhancing their productivity. Increased productivity may results in increased farmers' revenue enough to recover all costs of production and marketing, increased household incomes, and improved access to assets necessary for improved livelihoods. Agricultural financing has been in existence for the past few years in Swaziland, and this includes the microfinance system where small amounts of capital are lent to small-scale farmers with little or no collateral. The most known financial institutions and programs that provide financial support to small-scale farmers in Swaziland include Swaziland Development Finance Corporation (Fincorp), Swazi Bank and Inhlanyelo Fund among others. Swazi Bank is one of the financial institutions providing formal credit to farmers. It was established in 1965 by the late King Sobhuza the second in an effort to finance development projects in Swaziland which is formerly known as Swaziland Development and Savings Bank (SDSB). Among other services, the bank provides short-term to long term loans to smallholder farmers of Swaziland. It funds both crops and livestock agribusinesses like sugarcane farming, field crops and vegetable production, piggery production, cattle feedlot farming. The agricultural funds accessed are intended to facilitate farmers with capital to purchase inputs at the right time and carry out farming operations at the right time for an increased output, revenues, increased farm households' incomes and improved living standards, and generally contributing towards the country's economy. The Inhlanyelo Fund is an NGO translated as the seed fund, established in 1991 to promote and support entrepreneurial talent at grass roots level by providing loan capital for Swazi micro-business project. Inhlanyelo Fund had disbursed over 42 million to over 10,000 grassroots entrepreneurs across the country since its inception over 20 years ago, ultimately tackling the issues of poverty reduction, job creation ,and economic growth in the country.

Despite of the anticipated potential of formal agricultural credit for increased agricultural production, improved agribusiness, and creation of job opportunities assist in income and assets accumulation for improved livelihoods among the small-scale farming community, however, poverty remains one of the major problems faced by the rural farming households in Swaziland. According to Roberts and Henning (1998), agricultural credit services have failed to address the poverty in Africa because of constraints of operating in an unfavorable market environment including hostile terms of trade, ever fluctuating exchange rate regimes, harsh international trade control measures, and protectionism of domestic producers through control of commodity price, all these distorts the operations of the agribusiness sector. In addition, poor farmers sometimes find it hard to repay the loans (Poulton et al., 2002). However, Otieno (2007) reported that limited access to credit is still one of main factors hindering the success and development of agribusinesses in Africa. Access to savings and credit can smoothen household income flows, and stimulate the productive potential of families. The Swazi Sugar Industry is said to be facing “a severe financial crisis” (Matsebula, 2007), “access to credit is a major obstacle for new entrants in the sugar industry; small holders are unable to access credit from financial institutions” (Nkosi, 2003). Nkosi (2005) insisted that access to credit is a key obstacle to success for these farmers. The question, however, arises that with so much emphases on this finance provision does this finance support has any significant positive impact towards improving these smallholder farmers lives through their income accumulation in Swaziland. This questions may be answered through a review of several studies related to the subject matter, however, there is limited information related to the contribution of access to agricultural formal credit on small-scale farmers specifically in Ekudzeni area under Manzini region of Swaziland. The main objective of the study was to identify farmer's socio economic characteristics and determine the contribution of formal agricultural credit on smallholder farmer's livelihoods and also find out the challenges of farmers accessing formal credit.

## **METHODOLOGY**

### **Research design:**

A case study survey approach that is descriptive in nature was used as Brad (2000) tackled his study in a similar manner. The study used smallholder farmers that were credit beneficiaries from Inhlanyelo Fund and Swazi Bank and those that are not beneficiaries of credit to compare their livelihoods for the two groups of farmers, to find out if there is any significant difference.

### **Study area, Sampling method, Data collection and Analysis:**

The study was conducted at Ekudzeni area which is under Manzini region in Swaziland. Eighty farmers on livestock and maize production were selected for the study. First respondents were categorized into two groups (Beneficiaries and Non Beneficiaries). From a list of one hundred and twenty units (120) farmers at Ekudzeni area, Eighty (80) farmers were

randomly selected in a good manner for unbiased and better results. Out of these frame forty one farmers randomly selected under credit beneficiaries and thirty nine farmers under noncredit beneficiaries according to sample size (Beneficiaries N1 =41 and Non Beneficiaries N2=39). Data were collected through personal interviews using well-structured and internal reliability tested questionnaires. It is also based on pre tested questionnaire to assure validity, normality and analysis as researchers like Hlophe (2001), Singh and Masuku (2014) and Singh et al. (2015).

In this research descriptive statistics was used to analyze the data for both beneficiaries of formal agricultural credit and non-beneficiaries groups and t-statistic was used to compare the variables related to the socio-economic characteristics between famers benefiting and non-beneficiaries of agricultural formal credit access. This comparison was used to identify the benefits associated with agricultural credit access from Inhlanyelo fund and Swazi Bank.

## **RESULTS AND DISCUSSION**

Table 1 show the classification of the studied population in terms of gender and it reveals that 53.7% of the respondents were female farmers and they were the majority as males formed only 46.3% of the population of credit beneficiaries. Then for the non-beneficiaries the results reveal that 51.3% were females and 48.7% were males indicating that in general females dominate in agricultural production compared to males in the study. This result indicates that the impact was not significant based on Chi-square value which was 0.18 only.

Table 1 revealed that majority of the farmers which were 34% were aged between the ages of 60-69 years under beneficiaries, while for the non-beneficiaries majority of the farmers which were 46% were those aged 50-59 years. The next largest group was those between 40-49 years and the least dominant were farmers between the ages 30-39 years showing that older farmers were the most active groups in farming than the younger ones.

Table 1 shows the education level of the farmers and indicated that education had impact on beneficiaries but not significant (Chi-square value was only 0.23). The present results revealed that 29.3% of the population under study that were credit beneficiaries received primary education 'then 30% of the non-beneficiaries received primary education under non-beneficiaries. Those who had received up to secondary level education formed 24.2 % of the population under beneficiaries and 23.1% under non-beneficiaries. The least groups were those that had tertiary level education being 9.4% of beneficiaries and 7.7%. It was observed that most of the farmers had received formal education.

Table 1 indicated that 48.8 % of the farmers had over 15 year experience in farming for beneficiaries and 53.8% for non-beneficiaries this also corresponds with the ages of the farmers considering that most of them were over 40 years of age. Farmers with experience between 8-11 years were 24.4 and 15.4% respectively of the beneficiaries and non beneficiaries' population. Farmers had started a bit late in farming with the least years are 7.3% and 7.7% respectively.

Table 1 describe that mean difference in farm size were not significant in beneficiaries and non beneficiaries, but had positive impact though covariance was high in non beneficiaries, the results also show that the farmers had a varied area of land with the largest number 53.8% for non beneficiaries and 63.4% for beneficiaries operating on land that is less than 2 hectares, the second largest group is that of those with land 2.0-4 hectares of land as they constitute for 28.2% for non beneficiaries and 24.4% of beneficiaries.

Table 1 indicates that the mean difference of the house hold size of farmers under the study were not significant (t-test). On the basis of mean, standard deviation and covariance we can conclude that family size had linked with beneficiaries.

Table 2 Compromises some major socio economic characteristics aspect comparing the income distribution of beneficiaries and non-beneficiaries, amongst other variables included. As shown in the table households' incomes were higher amongst formal agricultural credit beneficiaries (E 6502.70) than non-beneficiaries (4856.71). The difference of E1646.00 representing an increase of 34% was statistically significant (P<0.01).

Capital used to start an enterprise between the beneficiaries and noncredit beneficiaries E2156.56 and E972.54, respectively. This suggest that there was a statistical significance (P<0.01) increase on capital of beneficiaries as compared to that of non-beneficiaries.

The average age of household heads of beneficiaries homes were found to be older (54.52 years) than their counterparts (51.87 years). The mean difference was statistically significant P<0.01). This suggest that the younger farmers were more motivated and adventurous in borrowing credit from financial institutions.

The significance mean difference ( $P < 0.01$ ) in years spent at school between the two parties suggest that non-beneficiaries of credit were more educated than credit beneficiaries. Formal agricultural credit beneficiaries spent on average about 7 years in school whereas non-beneficiaries households spent an average of about 8 years. This could be attributed to the fact that relatively noncredit beneficiaries are educated than formal credit beneficiaries.

Half of the respondents who were credit beneficiaries indicated that they to having acquired some assets. While majority of the respondents (27.5%) indicated that they acquired kitchen utensils such as pots, plates cups. About 25% acquired bedroom items such as a bed, wardrobe and blankets, 7.5% respondents were able to build a house and electrical wiring for their houses to get electricity and another 7.5% were able to buy poultry stock. About 7.8 % of respondents acquired farming implements, while 2.5% of the beneficiaries were able to buy school uniforms for their children (Figure-1).

The respondents were also asked if they had any financial benefits that they attained by being beneficiaries of formal credit, a multiple response question was used to ask the respondents so each respondent had an option of more than 1 response to the financial benefits they derived from credit beneficiaries. A majority of the respondents, which was 72% indicated that being credit beneficiaries allowed them to enhance their purchasing power while 70% of respondents felt like they now had easy access to a range of credit amount in financial institutions since they were already known and trusted clients. About 40% indicated having credit access improved their standards of living have improved. About 32.5% could afford hospital fees, 35% afforded school fees and 25% have gained business skills (Figure-2).

#### **Problems encountered by smallholder farmers when accessing credit:**

Table 3 shows that the most important problem that smallholder farmers in Swaziland face when accessing credit were that financier's wanted collateral (11.7%). This is in accordance with findings of Pattern and Jay (1998) that is the vital factor influencing credit access to formal credit is collateral. Smallholder farmers are poor and had fewer assets to qualify as collateral so they more likely than those with good assets hence not considered for credit. About 10% of the farmers who participated in the study reported that financiers considered livestock production as a very risky business and as such their loan applications were sometimes not considered or rejected because of this reason. Another important problem reported by 9.2% farmers was that financiers wanted too many documents which are not easily accessible to smallholder farmers, hence this was also hindered their credit access. Other problems reported by the farmers include, lack of information on availability of financial services, unwillingness of lenders to do business with smallholder farmers, financiers did not understand farming operations, high interest rates, lack of business management skills of smallholder farmers made it difficult for financiers to trust that loans will be repaid, financiers also take too long to respond to loan requests thus farmers end up losing the suitable planting time, loan officers are not behaving friendly, all documents are written in English which some farmers do not understand and informal markets offer lucrative prices yet they are not considered as reliable markets.

#### **Summary and Conclusion:**

The analysis used both descriptive analysis and regression techniques. The results of the descriptive analysis revealed that household heads benefiting in credit had increased that income than non-credit beneficiaries headed households. The t-test results revealed that credit beneficiaries had a household income that was 34% greater than income for non-beneficiaries. The results also revealed that there were also differences in capital used in production, age of household heads, years of schooling of households heads, household size and farm size between the beneficiaries and non- beneficiaries of formal credit. According to the observed results it can be concluded that formal credit plays a crucial role in improving farmers' livelihoods through increased income. The existence of credit in the Swaziland is gradually improving living standards of households and thus promoting rural development and promoting economic growth in the country. The findings of the study are more useful for academician, researchers and policy makers for future planning and actual agricultural development.

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## APPENDIX

**Table-1**

### Distribution of Beneficiaries and Non Beneficiaries according to their socio-economic characteristics

Characteristics	Beneficiaries (41)		Non Beneficiaries (39)	
	Frequency	Percentages	Frequency	Percentages
<b>1. Gender</b>				
Males	19	46.3	19	48.7
Females	22	53.7	20	51.3
<b>2. Age</b>				
30-39	08	19.5	03	07.7
40-49	09	21.9	07	17.9
50-59	10	24.4	18	46.2
60-69	14	34.2	11	28.2
<b>3. Education level</b>				
Never	09	22.1	07	17.9
Primary level	11	29.3	12	30.8
Secondary level	10	24.2	08	20.5
High school	06	15.0	09	23.1
Tertiary	05	09.4	03	07.7
<b>4. Years in farming</b>				
4-7	03	07.3	03	07.7
8-11	10	24.4	06	15.4
12-14	08	19.5	09	23.1
15 & above	20	48.8	21	53.8
<b>5. Farm size in hectares</b>				
Less than 2.0	26	63.4	21	53.8
2.0-4.0	10	24.4	11	28.2
4.0-6.0	02	04.9	04	10.3
6.0-8.0	01	02.4	02	05.1
8.0-10.0	02	04.9	01	02.6

<b>6. Household size of farmers</b>				
1-4	07	17.1	05	12.8
5-8	31	75.6	30	76.9
9-12	03	07.3	04	10.3

Table-2

### Socio Economic Characteristics of Beneficiaries and Non Beneficiaries

Characteristics	Mean values of households characteristics			
	Beneficiaries	Non-beneficiaries	t-value	p-value
Household income(E)	6502.70 (3061.36)	4856.71 (323.85)	12.895	0.013**
Total capital (E)	2156.56 (1305.13)	972.54 (157.00)	1.224	0.003**
Mean Age of household	51.87 (13.04)	54.52 (14.43)	35.475	0.014**
Average Years of school	7.35 (4.24)	8.35 (5.35)	12.467	0.756
Average Household size	6.45 (1.34)	7.45 (3.57)	18.459	0.012**
Average Farm size	2.73 (1.56)	2.46 (1.49)	16.576	0.011**

Significance level \* P&lt;0.05, \*\* P&lt;0.01

Values in parenthesis ( ) are standard deviations

Table- 3

### Problems encountered by Smallholder farmers when accessing credit

Problem	Percentage
Financiers want collateral	<b>11.7</b>
Livestock production is considered too risky	<b>10.0</b>
Financiers want too many documents	<b>09.2</b>
Lack of information on financial services available	<b>10.0</b>
Unwillingness of lenders to do business with small farmers	<b>08.0</b>
Financiers do not understand farming operations	<b>04.3</b>
High interest rate	<b>02.5</b>
Lack of business management skills of smallholder farmers make it difficult for financiers to trust that loans will be repaid	<b>01.8</b>
Financiers take too long to respond to loan requests thus farmers end up missing suitable planting time	<b>01.8</b>
Loan repayments not structured according to production cycle	<b>02.5</b>
Informal markets offer lucrative prices yet they are not considered as reliable markets	<b>01.8</b>
All documents are written in English which farmers don't understand	<b>03.5</b>
Some policies not encouraging for agriculture, e.g. land tenure system, water permit issues, etc.	<b>08.0</b>
Lack of consistency	<b>08.0</b>
Some rules and regulations	<b>08.0</b>

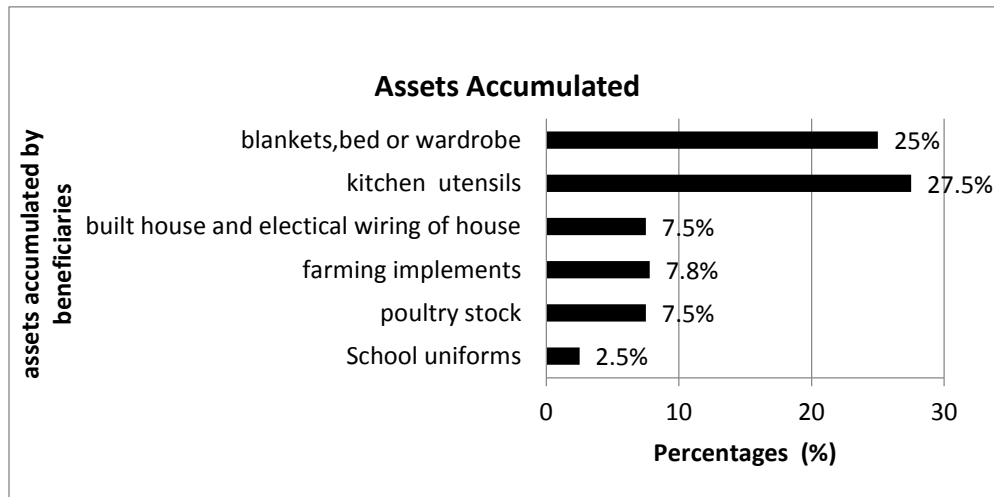


Figure-1: Asset accumulation and other benefits for beneficiaries

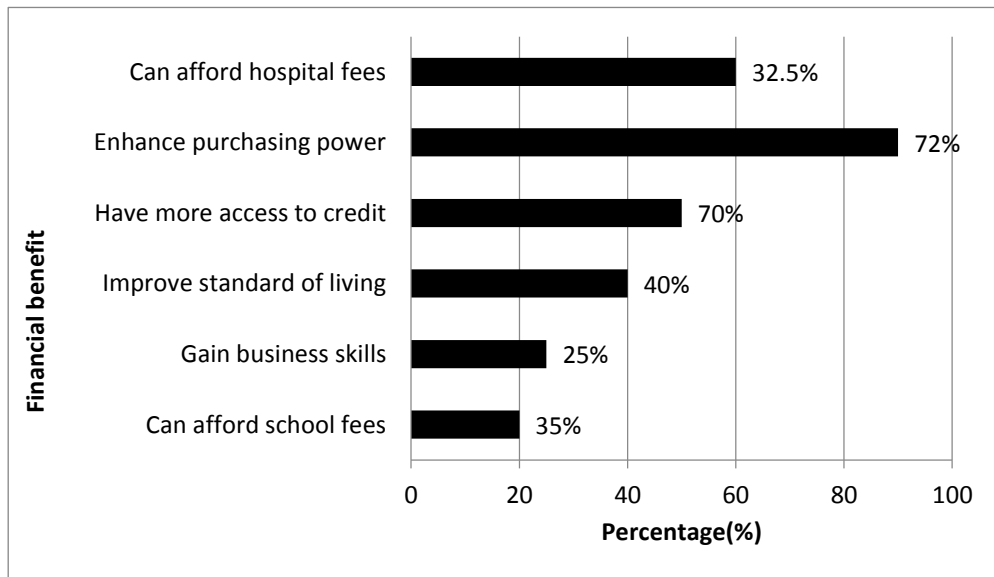


Figure-2: Financial benefits of beneficiaries