

# Agricultural Loans and Farmer's Livelihood in Uganda a Case Study of Nyakayojo Sub County in Mbarara District

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**ABSTRACT:** *The investigation into agricultural loans and farmers' livelihoods in Nyakayojo Sub-County, which is part of Mbarara District, was the main goal of the study. In particular, the researcher wanted to determine whether food production borrowed money had an impact on farmer health in Nyakayojo sub-county, determine the relationship between agricultural loans and farmer income level in Nyakayojo sub-county, and determine the relationship between agricultural loans and farmer output level in Nyakayojo sub-county. By using a cross-sectional survey approach, the researcher collected information from 40 landowners at random. The large percentage of the selected farmers earn among UGX 201,000 and UGX 400,000 per month, the large percentage of them generated and over 500 kilograms (kg) per season, agricultural loans significantly increase farmers' incomes and output levels, and the majority of farmers disapproved of the notion that agricultural loans might improve farmers' health. The researcher came to the conclusion that agricultural loans significantly increase farmers' income and output levels, and that most farmers opposed the notion that agriculture loans may improve farmers' health. The researcher suggests that low-interest loans be made available to farmers in Nyakayojo Sub County in order to increase their working capital and, as a result, the growth of output and income.*

**Keywords:** agricultural loans and farmer's

## Background of the study

There is a rising need for investment in agriculture worldwide due to a sharp rise in population and shifting dietary preferences of the expanding middle class in emerging nations toward higher-value agricultural products (Panos, 2020). By 2050, the amount of food consumed is predicted to increase by 70%, requiring investments of at least \$80 billion annually to meet this demand. Farmers use credit to finance seasonal farming operations or allied ventures like raising livestock, cultivating fish, or buying land or farm equipment (McCathy, 2020). He goes on to explain that this kind of loan also aids in the purchase of supplies like fertilizer, seeds, and pesticides among others. The study found that the demand for agricultural production loans decreased by 6.7% as a result of rising costs, supply and output issues, price volatility, and an increase in government cash transfers (Sara, 2021). Improvement in agriculture is "two to four times more successful in raising incomes among the very poor than growth in other sectors," according to the World Bank (2020).

According to Warmington and Stephanie (2021), agriculture employs the great majority of the world's poor. Most of these farmers cultivate less than 10 acres of land, are located far from paved highways, and have limited access to the superior seed and fertilizer needed to produce robust crops. According to the World Bank (2020), increased financial services are necessary for the development and monetization of agriculture. These solutions must also support longer-term financing for facilities related to agriculture and larger investments in the sector (given that existing transportation and logistics costs are too high, especially for landlocked)

Managing systemic risks through insurance and other risk management strategies while reducing operating expenses while working with small - scale farmers is a significant challenge.

## Statement of the problem

Several people make their living mostly from agriculture (FAO, 2019). According to Atwine (2021), local governments and Organizations like Inclusive Growth and sustainable development, Young Brotherhood for Change, the World Food Program, and Ability beyond the Iris have worked together to provide farmers with financial assistance, extension services, and farm supplies for many years. A lack of high-quality farming inputs, however, results in relatively low agricultural output and earnings (Onyilo & Adong, 2019). Many farmers don't have a thorough understanding of agricultural borrowing, which leads to loan diversion to pay for other things including trading, debt repayment, wedding expenses, and tuition. As a result, there are inadequate sanitary facilities, health services, and commercial prospects in the area. The study's goal is to analyze the impact of agricultural loans on farmers' livelihoods against this backdrop.

## Specific objectives of the study

1. To assess the influence of agricultural loans and farmer's income level in Nyakayojo sub-county.
2. To find out the effect of agricultural loans on farmer's output level in Nyakayojo sub-county.

3. To establish whether agricultural borrowing has an effect on farmer's health in Nyakayojo sub-county.

### Research questions of the study

1. What do you know about agricultural loans?
2. To what extent do agricultural loans contribute to an increase in farmers' level of income?
3. To what extent do agricultural loans contribute to an increase in farmers' level of output?
4. To what extent do agricultural loans improve on the farmers' health?

## METHODOLOGY

### Research design

This study collected data on agricultural loans and farmer livelihood in Nyakayojo Sub County using a cross-sectional survey design. In a cross-sectional study, the investigator measures the outcome and the exposures in the study participants at the same time. The study applied qualitative approach. As a result, this design was adopted in order to statistically establish important conclusions by examining a representative sample of the population.

### Study population

Farmers in Nyakayojo sub-county, Mbarara District, made up the research population.

### Sample size determination

The study used a sample of 40 respondents using simple random sampling from a population of roughly 25,000 individuals living in Nyakayojo sub-county.

$$\text{Given } n = \frac{Z^2 pq}{d^2}$$

Where;

n is the required sample

z is the standard normal value at 90% level of significance.

Z=1.645

P is the proportion of farmers who access loans

$$P=0.5, q=1-p \quad q=1-0.5=0.5$$

d is the permissible error 0.1

$$n = \frac{1.645^2 * 0.5 * 0.5}{0.1^2}$$

$$n=67.65=40 \text{ samples}$$

A sample size of 40 respondents was interviewed from Nyakayojo Sub County.

### Data collection method and instrument

Data was collected using questionnaires that was administered to the sample units.

### Variables and measurements

Agricultural borrowing is the independent variable, with indicators such as short-term, mid-term, and long-term loans, while farmer livelihood is the dependent variable, with indicators such as employment opportunities, standard of life and farmer productivity.

**Table 1 showing variables and it's measurements**

Variable	Measurements/Indicators
<b>Dependent variable</b> Farmer livelihood	<ul style="list-style-type: none"> <li>✓ Productivity/output</li> <li>✓ Income level</li> <li>✓ Heath</li> </ul>
<b>Independent variable</b> Agricultural borrowing	Loans (Access)

**Data analysis**

STATA – 14 and MS Excel were used to analyze the data. The raw data collected was sorted, coded and edited for data analysis in form of charts and contingency tables.

**RESULTS****SOCIO – DEMOGRAPHIC CHARACTERISTICS****Table 2 Showing socio – demographic characteristics of the respondent**

Variable	Frequency	Percent
<b>Gender</b>		
male	27	67.5
female	13	32.5
<b>Age bracket</b>		
15-25	10	25
26-35	11	27.5
36-45	15	37.5
46 and above	4	10
<b>Education level</b>		
Primary	16	40
Secondary	11	27.5
Certificate	7	17.5
Diploma	4	10
Degree	2	5
<b>Marital status</b>		
Married	21	52.5
Single	4	10
Divorced	9	22.5
Separated	6	15

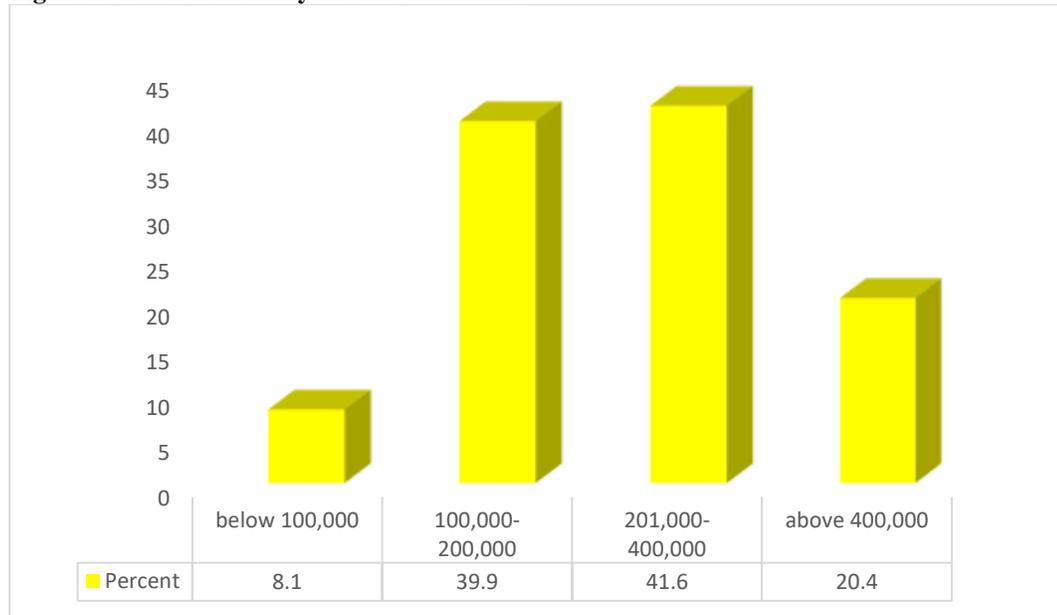
Source: Primary Data (2022)

Out of farmers from the selected areas of Nyakayojo, minority (32.2%) were females while the majority (67.5%) were males. Majority (37.5%) were between 36 and 45 years, minority (10%) were at least 46 years of age, 25% were between 15 and 25 years and 27.5% were between 26 and 35 years. Minority (40%) of the respondents' education level is primary, 27.5% of the respondents' education level is secondary, 17.5% of the respondents' education level is certificate, 10% of the respondents' education level is

diploma and minority (5%) of the respondents' education level is degree. Furthermore, majority (52.5%) of respondents were married, 22.5% of the respondents were divorced, 15% of respondents were separated and the remaining minority (10%) of respondents were single.

**INFLUENCE OF AGRICULTURAL LOANS ON FARMER'S LIVELIHOOD**

**Figure 1: Level of monthly income of farmers**



Source: Primary Data (2022)

The findings from figure 1 revealed that majority(41.6%) of the selected farmers' earn between UGX 201,000 – UGX 400,000 monthly, 39.9% of selected farmers' earn between UGX 100,000 – UGX 200,000 monthly, 20.4% of the selected farmers' earn at least UGX 400,000 monthly and the remaining 8.1% of the selected farmers' earn less than 100,000 monthly.

**Table 3 Agricultural loans and farmers' level of income**

Chi – Square Tests					
	Value	df	Asymptotic significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Person Chi-Square	4.353 <sup>a</sup>	1	0.04		
Continuity Correction <sup>b</sup>	6.565	1	0.46		
Likelihood Ratio	7.012	1	0.06		
Fisher's Exact Test				0.67	0.46
Linear-by-Linear Association	2.978	1	0.353		
N of Valid cases	40				

Source: Primary Data (2022)

The extent to which agricultural loans increase farmers' level of income is presented in table 4.2.1.

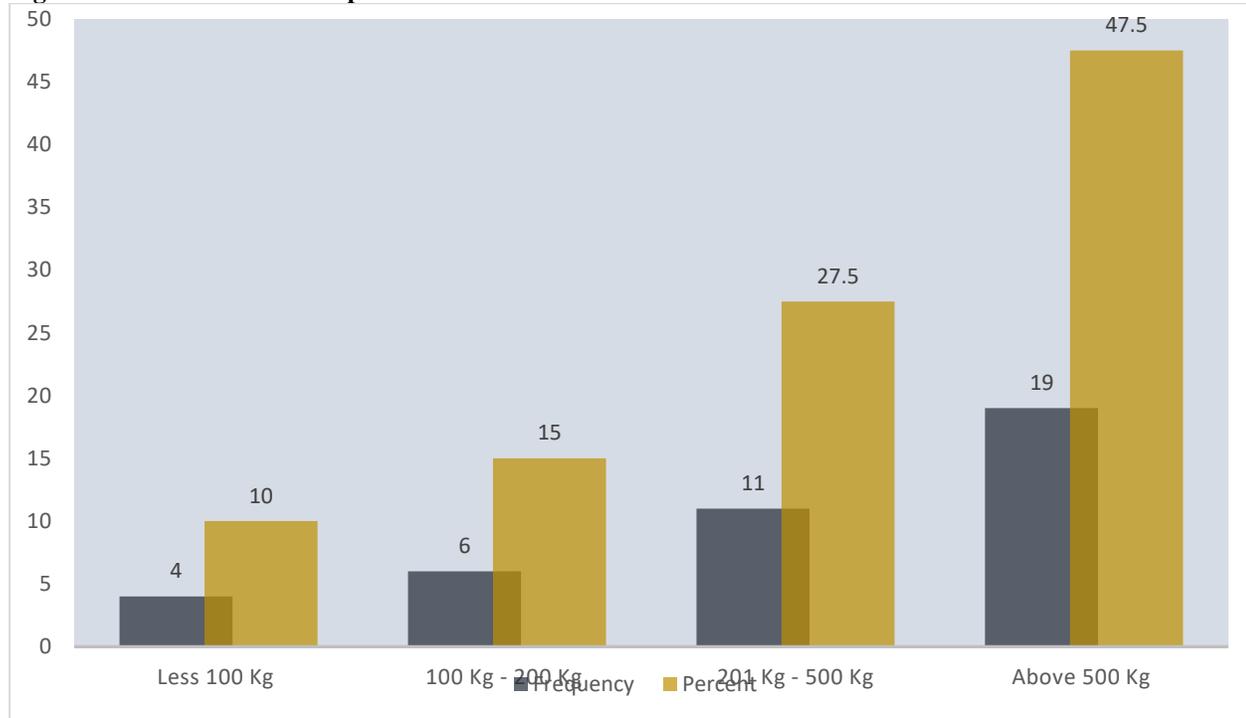
H<sub>01</sub>: Agricultural loans does not significantly increase farmers' level of income

H<sub>a1</sub>: Agricultural loans significantly increase farmers' level of income

The p-value (0.04) is less than the standard alpha value (0.05), so we reject the null hypothesis that asserts the two variables are dependent of each other. Therefore, agricultural loans significantly increase farmers’ level of income. To put it simply, the result is significant – the data suggests that the two variables are associated with each other.

The survey's findings are consistent with a World Bank’s (2021) study, which found that access to capital is a major hindrance to SME expansion and the second most commonly reported barrier to SMEs expanding in emerging markets and developing countries. This clearly demonstrated that SMEs thrive when working capital is available. Smallholder farmers use production loans to: increase their incomes, diversify their incomes, improve their living conditions and send their children to school.

**Figure 2: Amount of farm output**



Source: Primary Data (2022)

The findings from figure 2 revealed that majority (47.5%) of the farmers’ output per season was above 500 Kg, 6 (15%) of farmers’ output per season was between 201 Kg – 500 Kg, 11 (27.5%) of farmers’ output per season was between 100 Kg – 200 Kg and the remaining 4(10%) of farmers’ output per season was less than 100 Kg.

**Table 4 Agricultural loans and farmers’ level of output**

Chi – Square Tests					
	Value	df	Asymptotic significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Person Chi-Square	7.454 <sup>a</sup>	1	0.01		
Continuity Correction <sup>b</sup>	5.565	1	0.43		
Likelihood Ratio	6.131	1	0.05		
Fisher’s Exact Test				0.78	0.28
Linear-by-Linear Association	4.363	1	0.253		
N of Valid cases	40				

Source: Primary Data (2022)

The extent to which agricultural loans increase farmers’ level of output is presented in table 4.2.2.

$H_{01}$ : Agricultural loans does not significantly increase farmers’ level of income

$H_{a1}$ : Agricultural loans significantly increase farmers' level of output

The p-value (0.01) is less than the standard alpha value (0.05), so we reject the null hypothesis that asserts the two variables are dependent of each other. Therefore, agricultural loans significantly increase farmers' level of output. To put it simply, the result is significant – the data suggests that the two variables are associated with each other.

The survey's findings are consistent with a Wahced's (2017) study, which found that access to agricultural loans will help the farmers to increase on their agricultural yields and that government should put more emphasis on extending agricultural loans to farmers since the study revealed that an increase in agricultural loans increases agricultural output.

**Table 5 To greater extent, agricultural loans improve farmers' health condition**

Category	Frequency	Percent
Strongly Agree	6	15.0
Agree	8	20.0
Strongly Disagree	10	25.0
Disagree	16	40.0
<b>Total</b>	<b>40</b>	<b>100.0</b>

Source: Primary Data (2022)

The researcher revealed that majority (65%) of the farmers were not in support of the view that agricultural loans improve farmers' health condition while minority (36%) were in support of the view that agricultural loans improve farmers' health condition while minority.

The study findings is consistent with the study conducted by Siddiqi (2004) who suggested that agricultural loans does not directly influence human health in any way.

### Conclusions

The conclusions of the study were as follows; Agricultural loans greatly raise the income of farmers. In addition, agricultural loans also greatly raise farmers' output levels. Furthermore, majority of farmers were not in favour of the idea that agricultural loans may benefit farmers' health condition.

### Recommendations of the study

The researcher suggests that low-interest loans be made available to farmers in Nyakayojo Sub County and Uganda at large in order to increase their working capital and, as a result, the growth of output and income in the country.

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