International Journal of Academic Pedagogical Research (IJAPR)
ISSN: 2643-9123
Vol. 7 Issue 2, February - 2023, Pages: 62-71

The Impact Of Rice Growing To The Development Of People In Uganda A Case Study Of Kibimba Sub County-Bugiri District

Basoga Emmanuel 1, Mr. Kabanda Richard 2, Dr Ariyo Gracious Kazaara 3, Tukamuhebwa Deus 4, Kamugisha Nelson 5, Mutesi Catherine 6, Isabirye Benefansi 7, Barigye Brighton 8, Twinematsiko pascal 9

1 Metropolitan International University, 2 Lecturer Metropolitan international University , University Secretary metropolitan international university 3 , lecturer Metropolitan International University 4, Metropolitan International University 5, Lecturer Metropolitan International University 6, Lecturer Metropolitan International University 7, Metropolitan International University 8, Metropolitan International University 9

Abstract: *Through a case study of Kibimba Sub County, the study's goal was to look into how growing rice impacted human development in Uganda. The following goals served as the study's foundation: To identify the difficulties faced by rice producers in Kibimba Sub County, Bugiri District, to investigate the effects of paddy cultivation on household income in Kibimba Sub County, Bugiri District, and to determine methods for raising household income. According to the data, a one percent rise in household income-increasing methods would, on average, result in a 0.1650 percent improvement in human development, holding all other variables constant. And therefore from findings, keeping other factors constant, a one percent increase in the strategies of increasing household income would on average lead to 0.1650 percent increase in the development of the people. The p-value (0.00) is less than 0.05 which implies that ways of increasing household income have a positive significant effect on the development of the people. The significance of the Fishers ratio (F = 76.89) was tested using an ANOVA, which revealed that it was less significant than the critical significance of 0.05 (Sig F =.00111). The conclusions were approved as a result. Because it imposes a stronger penalty on the model and hence assumes a linear regression model, Y=0.75 + 1.234 (HOUS) +0.669 (CHANG) +0.165 (STRAT) +Et, the R squared value (0.576) was greater than the adjusted R squared value (0.457). If poor policies are dummy If all other variables stayed unchanged, the average level of human development (Y) would be 0.75. This is because things like price changes, unfavorable conditions, provision of fertilizer, and incentives are all fictitious. By providing finance and other services, the institution may support agriculture and help farmers become more successful. Farmers should make each effort to raise the caliber of the rice they produce, and one way to do this is by storing the grain properly. Merchants should make an effort to prevent price changes since this will encourage farmers to produce higher-quality goods. The community leaders should ensure training and awareness creation among rice growers, formed of the new farming techniques rice varieties, market opportunities and other relevant information that can aid them in increasing and improving production levels.*

Keywords: **RICE GROWING AND DEVELOPMENT OF PEOPLE**

Background of the study

Given the amount of land used for cultivation and the number of people who depend on it, rice is the most significant crop in the world. 1995 FAQ; WARDA's Africa Rice Center; (2009).

Africa's agricultural and agricultural methods are relying more and more on rice.

In the region between East and South Africa, Madagascar is the main producer of rice.

By 2001, East African nations were apparently producing 5003,137 metric tons yearly, falling short of the predicted demand of 625,795 metric tons mainly because low crop yields. Tanzania is thought to produce only a little bit more than 500,000 tons of rice annually, making it the greatest producer in East Africa.

With a record-high import of 9 million tons of rice in 2006, Africa has emerged as a major player in the global rice market. The fact that rice has become the food source in sub-Saharan Africa with the rapid speed of growth over the past ten years helps to explain Africa's emergency as a major importer of rice (UNESCO, 2003).

In fact, the percentage growth in rice demand is quicker in this region than anywhere else in the world (WARDA, 2005) due to population growth (14% annually), rising wages, and a shift in consumer preferences toward rice, especially in urban areas (Kenmore P, 2003). This is occurring across sub-Saharan Africa's sub-regions (SSA).

Nowadays, rice is produced in much more than 75% of the African nations, which have a population of nearly of about 800 million. The residents of the cape Comoros, Gambia, Guinea-Bissau, Liberia, Madagascar, Egypt, Reunion, Senegal, and Sierra Leone predominantly eat rice as their main staple meal.

Rice output has been growing at a rate of 6% per year in recent years (2001-05), with only 30% of the rise in production attributable to an increase in productivity and 70% due to land expansion (Beddington, 2012). The rained systems have seen a significant growth, especially the two main systems that account for 78% of the rice farmland in west and central Africa (WCA): the highland rained lowland systems (Japan International Cooperation Agency , 2007). Nonetheless, there is a demand for rice.

Africa produced about 20 million tons of rice in 2006, exceeding 20 million tons for the first time, according to OISRIZ (ICIRAD's observatory of international rice statistics), and output is estimated to increase by 7% monthly in the future. The situation is most dire in West Africa, where the rice industry is by far the most substantial in SSA. Domestic rice consumption is growing at a rate of 8% per year, outpacing rice production rates of 6% per year, despite upward trends in both local and international rice prices. Imports, worth more than 1.4 billion dollars annually, are used to close the production-consumption deficit in this area.
More than any other product, rice has been collected, eaten, and grown by both men and women through antiquity (Kenmore, 2003). In addition to Antarctica, all seven hemispheres on earth produce rice, which is currently grown in more than 122 nations. From the equator to latitudes of 53 degrees North (in China) and 35 to 40 degrees, as well as elevations up to 2400 meters above sea level, rice can be cultivated (Kenmore, 2003).

It is estimated that rice is grown on 15000000 acres of land worldwide, with an average yearly production of 500 million metric tons (Tsuboi 2004). This represents 29% of the world's total grain crop output (IFPRI,, 2000). Rice was the primary staple food for more than half of the world's population in 2004.

On the hand, the green revolution of the 1960/1970s,
saved the world from a catastrophe of eminent food shortage, it was the drastic increase in rice production that answered the then desperate food demands of the world’s growing
populations. Today, more than 2 billion people in Asia alone derive 80%of their calories intake from rice according to projected population growth (Jam Song , 2003), a number of people living on rice worldwide is expected to reach 3.5 billion in 2025. The importance of the crop in food security and social economic stability is therefore self-evident.

Problem Statement
From 27,000 tons in 1980 to an approximated 180,000 tons now, rice production has continuously grown, making it one of the most frequently produced food crops in the nation (MAAIF, 2008, Bureau of statistics Report, 2018). One of the top municipalities is Kibimba Sub County growers of rice in Uganda and the Bugiri district (Sasakawa Africa and the Japan International Cooperation Agency, or JICA). The primary source of income and employment for those residing in Kibimba Sub County is rice farming, which also substantially increases the income of both individuals and households.

The fact that some people still live in grass-thatched households, poor housing facilities, poor roads, and a weak transport network, among other things, show that rice farming has not improved the social and economic situations of the populace.

By examining the impact of rice farming on human development in Kibimba Sub County in the Bugiri District, the study aims to establish the contradiction.

Specific Objectives
1. To establish the challenges affecting rice farmers in Kibimba Sub County in Bugiri District.
2. To examine the impact of rice growing on the household income in Kibimba Sub County in Bugiri District
3. To ascertain strategies of increasing the household income in Kibimba Sub County in Bugiri District.

Research Questions
1. What are the challenges affecting rice farmers in Kibimba Sub County in Bugiri District?
2. What is the impact of rice growing on the household income in Kibimba Sub County in Bugiri District?
3. What are the strategies of increasing the household income in Kibimba Sub County in Bugiri District?

Hypothesis of the study

Ho: There is no relationship between the challenges affecting rice farmers and the development of people

Ha: There is a relationship between the challenges affecting rice farmers and the development of people

Ho: There is no relationship between the household income and development of people

Ha: There is a relationship between the household income and development of people

Ho: There is no relationship between the strategies of increasing household income and development of people

Ho: There is a relationship between the strategies of increasing household income and development of people**Methodology**

Research Design

Because Kibimba Sub County in the Bugiri District has a large population, the researcher chose a descriptive research design for her study. To enable collection of data from the respondents, the researcher will employ descriptive metrics like percentages. A correlation research strategy was used in the study. A correlation study design is a type of quantitative research that examines the relationship between two or more quantitative variables from a similar group of participants to evaluate whether they share any attributes (Sekaran, 2016). Any two quantitative variables could theoretically be associated (Amin, 2016). The study's use of a correlation research design enabled the researcher to determine the relationship between the study's variables (Sekaran, 2016).

Econometric model.

Model specification. The econometric model for this precise study was;

$Y=\beta 0 + \beta 1 * (HOUS) + \beta 2 * (CHANG) + \beta 3 * (STRAT) + Et.$

Where Y refers to the development of the people

Hous denotes household income

CHANG denotes challenges affecting rice farmers (dummy)

STRAT denotes the strategies of increasing household income (dummy)

Et denotes the error term

Study Population

Greg Lawrings (2015) defined population as the individuals who reside in a particular location. The population description and population sampling strategy will be included in the research population. 100 rice farmers and 20 community leaders in Kibimba Sub County, Bugiri District, will be the population that will be targeted. To obtain a sample, the researcher will employ a sampling technique.

Table 1: Target Population

Respondents	**Target Population**
Rice farmers	100
Community leaders	20
Total	**120**

Population and Sampling technique

The population from which the sample was taken involved the rice farmers and Community leaders in Kibimba Sub County in Bugiri District. The respondents will be got from various respondents in the District in order to come up with accurate data to help the researcher get all that was needed.

Table 2: Sample Size

Respondents	**Target Population**	**Sample Size**	**Percentage**
Rice farmers	130	100	83%
Community leaders	30	20	75%
Total	**160**	**120**	

Source: Field data (2021)

The researcher used a sample size of 100 respondents from the 130 rice farmers which was 83% of the target population, 20 Community leaders which is 75% of the target population.

Research Instruments

The primary and secondary sources of information and data will both be used by the researcher. The researcher will use questionnaires as instruments for data collection when collecting primary data. The researcher will use publications by well-known authors in this sector, such as magazines, articles, books, and newspapers, to gather the required secondary data.

Questionnaires

The targeted population was literate and so able to complete the questionnaires, so this choice of tool was made. The responders had enough time to think about their answers. Self-administered questionnaires provide a simple way to gather data from a representative sample of a large population.

Data Collection Procedure
The Researcher made sure that he or she has the respondents consent towards the study in order to make data collection from them easy and accurate. The researcher went ahead to seek appointments from the rice farmers and the community leaders in order to design questionnaires to avoid having excess or less. The researcher then reached to the respondents on the agreed times to carry out data collection.

Data Quality mechanism

By first conducting an experiment, the questionnaire's validity was confirmed. Prior to the actual data collection effort, the pilot testing or study was carried out on a variety of rice farmers and community leaders to guarantee consistency in its findings.

The consistency of the responses provided by the participants throughout the study is a measure of the reliability of the research instruments. Throughout the survey, the researcher took into consideration the common responses from the majority of the respondents.

Data Processing and Analysis
The researcher went on and gathered the questionnaires from respondents in order to know the number of respondents who responded to the questionnaires from the sample size that was used. Data was processed from the questionnaires that were administered to the respondents. The material was collected according to its assigned codes and entered into the statistical package Statistical Package for Social Scientists (SPSS) to produce descriptive and inferential statistics that will generate the mean, mode, and median, which will establish the implications of the study (Oso & Onen, 2017)

RESULTS

Response rate of respondents

The response rate of the respondents is explained in the table below:

Table 3: Response rate

Respondent Groups	Number of Questionnaires Distributed	Retrieved Questionnaires	Percentage (%)
Rice farmers	**25**	**20**	**67**
Community leaders	**15**	**10**	**33**
TOTAL	**40**	**30**	**100**

Source: Primary data (2022)

Demographic profile of respondents

Gender composition of respondents

Table 4: Gender Composition of respondents

Response	Frequency	Percentage
Male	**20**	**67**
Female	**10**	**33**
Total	**30**	**100**

Source: Primary Data 2022

From table 4, it can be seen that the majority of respondents were males that was (20) representing 67% of the total number of respondents, 10 respondents were female representing 33% of the respondents. This is an indication that gender sensitivity was taken care off so the findings therefore cannot be doubted on gender grounds; they can be relied for decision making.

Education level of the respondents

Table 5: Education level of respondents

Education level	Frequency	Percentage
O Level	5	17
A Level	15	50
Diploma	6	20
Degree and above	4	13
Total	**30**	**100**

Source: primary data 2020

Table 5 above clearly shows that 6 respondents had diplomas and they had a percentage of (20%) of the sample size, 5 respondents had O level certificates and they had a percentage of (17%) of the sample size, 15 respondents had results showing that they had finished an A level, and they had a percentage of (50%) of the sample size. Finally, 4 respondents had results showing that they had degrees and other higher-level qualifications, and they had a percentage of (4%) of the sample size.

Table 6 shows the dependency of education level using the chi-square test.

Chi-square	Sigma squared computed	probability
Sigma squared	6.345	0.047

Since the chi-square value (6.345) is greater than the p-value (0.047), we reject the null hypothesis and conclude that development of the people depends on education level of respondents.

Age distribution of respondents

Table 6: Age distribution of respondents

Respondents age	**Frequency**	**Percentages**
15-19	5	17
20-29	7	23
30-39	15	50
40+	3	10
Total	**30**	**100**

Source: Primary Data 2020

According to table 4 above, 15 respondents were the majority and their age was in the range of (30-39) with a percentage of (50%) of the respondents, followed by 7 respondents who had their age ranging from (20-29) with a percentage of (27%), and finally 3 respondents who had the age bracket of 40+ years were with a percentage of 10% of the respondents. Nonetheless, the minimum and maximum ages were 17 and 50, respectively, matching the criteria for a good central tendency.

Data Presentation, Analysis and Interpretation of findings

This section involved the findings of the study which aimed at investigating the impact of rice growing to the development of people in uganda. The presentation of the findings were based on the research questions of the study which were:

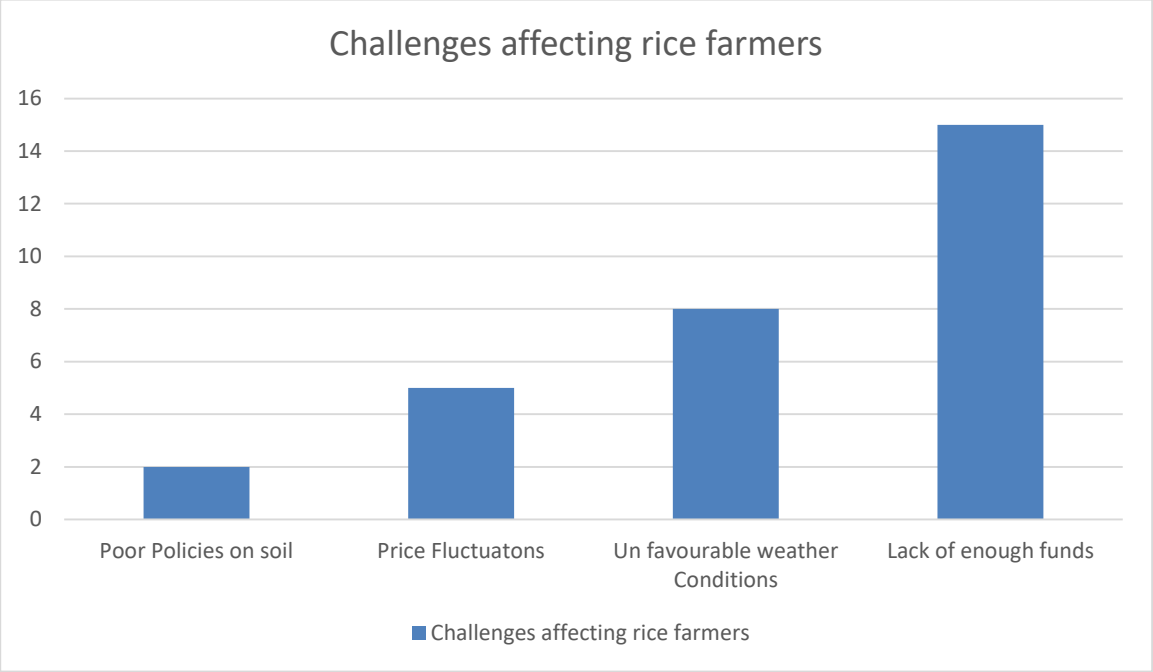
What are the challenges affecting rice farmers in Kibimba Sub County in Bugiri District?

What is the impact of rice growing on the household income in Kibimba Sub County in Bugiri District?

What are the strategies of increasing the household income in Kibimba Sub County in Bugiri District?

Challenges affecting rice farmers

Figure 1: Views on the challenges affecting rice farmers



Primary data: 2022

The study's findings, as shown in the figure above, showed that 15 farmers in Kibimba Sub County faced the challenge of not having enough money, followed by 8 farmers who told the researcher that their biggest challenge was adverse weather conditions in the area. Some respondents provided data showing that price swings were an extra challenge they encountered while growing rice, and that insufficient fertilizer application in Kibimba Sub County was a further obstacle.

REGRESSION ANNALYIS

Table 9: Model summary

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.75	.347		3.401	.001
	Challenges affecting rice farmers	.669	.086	.315	1.342	.056
	Household income	1.234	0.234	0.212	3.421	0.041
2						
3	Strategies of increasing household income	.1.650	0.456	0.789	2.457	0.03

	Adjusted R Square	.457			Sig.	0.011
	R squared	.567			F-statistics	76.89

Ho: There is no relationship between the challenges affecting rice farmers and the development of people

Ha: There is a relationship between the challenges affecting rice farmers and the development of people

Ho: There is no relationship between the household income and development of people

Ha: There is a relationship between the household income and development of people

Ho: There is no relationship between the strategies of increasing household income and development of people

Ho: There is a relationship between the strategies of increasing household income and development of people

A one percent increase in household income would, on average, result in a 1.234 percent improvement in human development, holding all other variables constant. The fact that the p-value (0.041) is less than 0.05 suggests that household income has a positive significant impact on people's development.

If all other parameters maintained the same, a one percent rise in the difficulties faced by rice farmers would, on average, result in a 0.669 percent increase in the level of human development. The fact that the p-value (0.056) is greater than 0.05 indicates that the challenges encountered by rice farmers have a small but beneficial impact on how well people are doing.

If all other parameters remained constant, a one percent rise in household income-increasing methods would, on average, result in a 0.1650 percent gain in human development. The p-value (0.00) is less than 0.05, indicating that methods of increasing household income have an impact on how well people are doing.

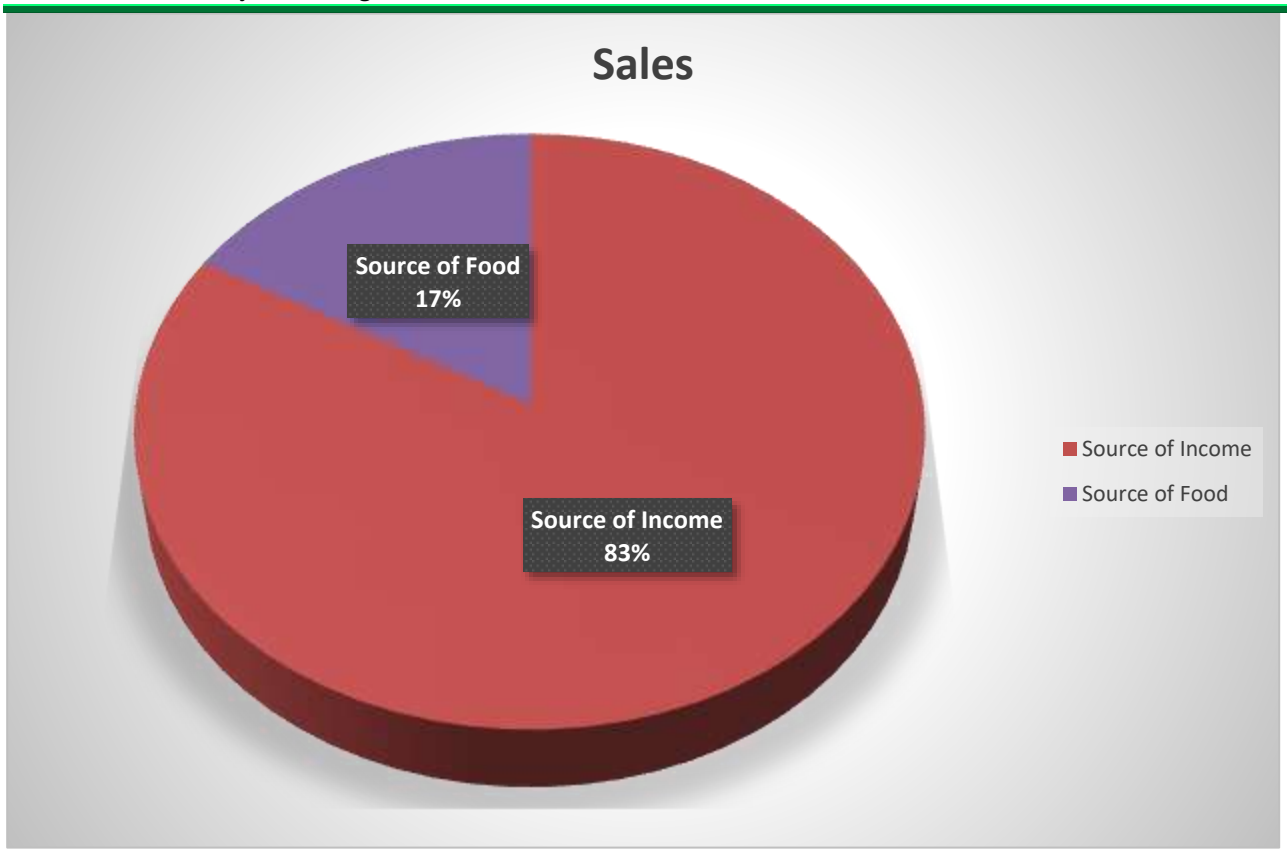
The significance of the Fishers ratio (F = 76.89) was tested using an ANOVA, which revealed that it was less significant than the critical significance of 0.05 (Sig F =.00111). The findings were approved as a result. Because it penalizes the model more severely, the R squared value (0.576) was higher than the adjusted R squared value (0.457).

$$Y=0.75 + 1.234* (HOUS) +0.669* (CHANG) +0.165 * (STRAT) +Et$$

If dummy poor policies 1, dummy price fluctuation 2, dummy unfavorable 3, dummy incentives 1, dummy innovation 2 and dummy fertilizers 3 are equal to zero, on average development of the people (Y) would be 0.75 leaving other factors constant.

Impact of rice growing on household income

Figure 2: Impact of rice growing on household income

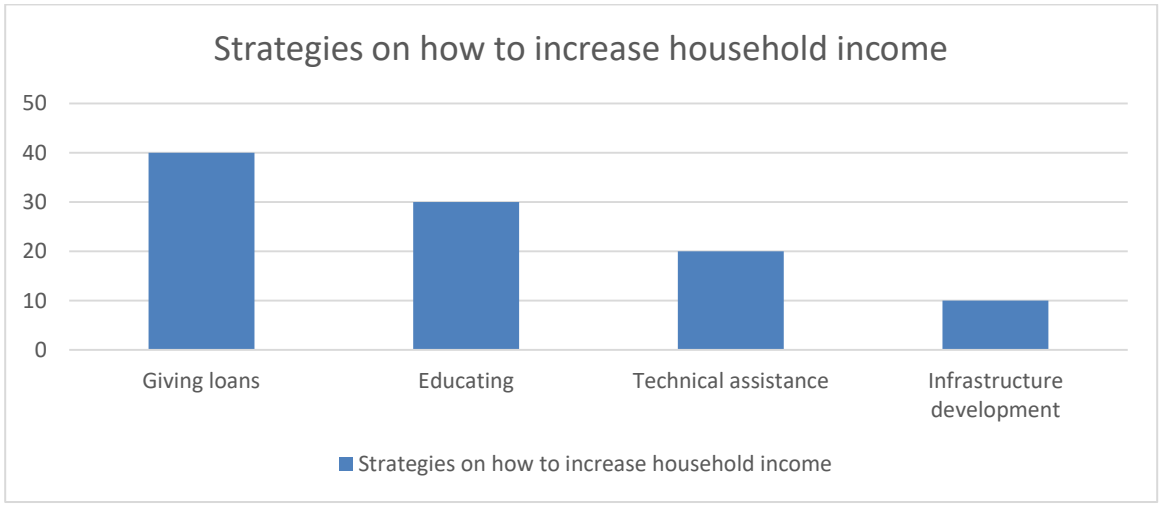


Research Data: 2022

According to the figure above, the findings of the study presented results indicating that 83% of the respondents presented results indicating that the farmers in Kibimba Sub County use rice growing as their source of income in the community and lastly 17% of the respondents presented results indicating that they grew rice and it helped them as a source of food.

Strategies on how to increase household income

Figure 3: Strategies on how to increase house hold income



Research Data: 2022

According to the study's findings, 40% of respondents told the researcher that getting loans would improve their household incomes, followed by 30% of respondents who said that learning more agricultural technology would. 20% of respondents gave data demonstrating that offering technical support to farmers was another approach to increase their household income, and the remaining respondents showed data showing that adopting infrastructural development was yet another way to do so.

Conclusions

The study's findings and findings showed that several farmers in Kibimba Sub County had a difficulty with not having enough money. A few farmers, however, told the researcher that their biggest problem was the poor weather in the area. Some respondents were given data showing that price swings were an extra difficulty they experienced while growing rice, and that insufficient fertilizer application in Kibimba Sub County was a further obstacle.

The findings of the study also indicating that majority of the respondents presented results indicating that the farmers in Kibimba Sub County use rice growing as their source of income in the community and lastly some of the respondents presented results indicating that they grew rice and it helped them as a source of food.

The study's findings showed that some respondents told the researcher that obtaining loans would boost their household earnings, and then some respondents told the researcher that getting greater farming methods knowledge would improve their household incomes. Finally, the placed much emphasis results showing that implementing infrastructure development was another approach to increase farmers' family income. A few respondents also offered reports demonstrated that giving farmers technical support was another way to improve their income.

Recommendations

Financial institutions should finance large scale agriculture like rice growing in big o boost production and farmers welfare. The institution can enhance agriculture by extending credit and other services to enable farmers to improve productivity.

Farmers should try their best to improve on the quality of rice their growing and this should be done through good storage of rice.

Traders should also try to avoid price fluctuations this will moral to the farmers to produce more quality price.

The community leaders should ensure training and awareness creation among rice growers, formed of the new farming techniques rice varieties, market opportunities and other relevant information that can aid them in increasing and improving production levels.

The government should encourage minimum price legislation for rice so that farmers earn higher incomes from their output this policy would motivate more people to engage in rice growing and in the long term increase the commercialization of large scale agriculture in the economy

Similarly, the government is recommended to ensure rural infrastructure development to reverse the looming problem of limited access to better market for agriculture produce.

Amenities like roads and electricity will enable rice growers increase output and sell in better marketing.