NAADS PROGRAMME AND FARMERS' WELLBEING IN SEMBABULE DISTRICT; A CASE STUDY LUGUSUULU SUB COUNTY

BY

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DECLARATION

I KATWERE AMOSI do declare that this dissertation is a true, original record of my study carried out in Sembabule district, a case study of Lugusuulu Sub County and it has never been published or submitted for any academic award or for any other purpose anywhere.

Signature

....

KATWERE AMOSI

Date...... 19/07/2013 ....

APPROVAL

I certify that this report by Mr. Katwere Amosi registration number BEAS/31668/102/DU, carried out in Lugusuulu Sub County Sembabule District under my supervision is now ready for submission to the College of Economics and Applied Statistics Kampala International University (KIU).

Supervisor

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DEDICATION

This work is dedicated to my parents; Miss Nakabuye Teo, Mr. Ssebagala Vicent and Madam Nabachwa Harriet who worked hard and sacrificed a lot to ensure that I get educated. May the good Lord reward them abundantly.

ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS

CDD	Community Driven Development
EPRC	Economic Policy Research Centre
FAO	Food Agriculture Organization
IFPRI	International Food Policy Research Institute
MDGs	Millennium Development Goals
MFPED	Ministry of Finance Planning and Economic Development
MGLSD	Ministry of Gender, Labor and Social Developments
MOH	Ministry of Health
NAADS	National Agricultural Advisory Services
NDP	National Development Plan
NGO	Non Governmental Organization
NGOs	Non-Governmental Organizations
NUSAF	Northern Uganda Social Action Fund
PEAP	Poverty Eradication Action Plan
PMA	Plan for Modernization of Agriculture
SACCO:	Savings and Credit Cooperative Organization
UBOS:	Uganda Bureau Of Statistics
VSLA	Voluntary Loans and Savings Associations

ABSTRACT

The topic of the study was NAADS program and farmers' wellbeing in Sembabule district a case study of Lugusuulu Sub County aimed at establishing the relationship between NAADS program and farmers' wellbeing in Lugusuulu sub county Sembabule district.

The study was guided by four specific objectives that is; to find out the demographic characteristics of farmers; to find out the levels of NAADS programme implementation; to find out the levels of farmers' wellbeing and also to find out the relationship between NAADS and Non NAADS farmers' levels of wellbeing in Lugusuulu sub county Sembabule district. The hypothesis of the study was that, there is no difference between NAADS and Non NAADS farmers' level of wellbeing at 0.05 level of significance.

The study used a case study design because it presented an opportunity to conduct an in-depth investigation of the relationship between NAADS program and farmers' wellbeing. Besides this, a case study was chosen because the NAADS program is not in Sembabule district alone, it covers the whole of Uganda and the study could not be conducted in the whole country. Both qualitative and quantitative approaches were used in both data collection and analysis.

This study found out that NAADS farmers were better off than Non NAADS farmers in Lugusuulu Sub county Sembabule District as regards to income levels and no significant difference in terms of livestock levels kept. It was also revealed that there existed no difference between NAADS and Non NAADS farmers' seasonal crop yield levels.

The study concluded that since NAADS farmers have higher income levels than Non NAADS farmers, NAADS program has contributed towards farmers' wellbeing through boosting their income levels and therefore NAADS farmers are better off than Non NAADS farmers although more efforts are still needed to improve on some sectors like crop production and livestock levels. This study thus recommended that, the government should supply good quality seeds in order to boost on the levels of crop yield per season; the District NAADS coordinator should ensure monitoring and supervision of the program implementation processes so as to achieve the program objectives.

CHAPTER ONE

Problem and Its Scope

1.1 Background of the Study

According to the United Nation Development Report (2010), out of seven billion people in the world, over 3.6 billion people depend on agriculture where 1.3 billion people leave in absolute poverty across the globe especially in the Low Developing Countries and more than 1.5 billion people lack access to safe water and more than 2 million people receive no basic health care. The state of African economies report (2011) states that about 46 percent of Africans live on less than a dollar a day and more than two thirds of those people live in rural areas where they depend on agriculture and agriculture-related non-farm activities for their livelihoods. Dione (2009) said while Africa was spending $25 billion annually on food and agriculture imports, and receiving $2 billion yearly in food aid, nearly one-third of the population still suffered from chronic hunger. Like most African countries, poverty still remains the greatest challenge facing Ugandan farmers on a more generalized average.

In Africa, it is well known that agricultural commodities are the major exports and agriculture employs the largest part of the population as well as acting as the major source of food and in East Arica for example Kenya's economy is heavily dependent on agriculture.75% of Kenyans make their living from farming, producing both for local consumption and for export (Uwechue, Ralph (ed.) 1996).

Agriculture is the backbone of Uganda's economy. Many people depend on agriculture to survive that is, as a source food and income. The Ugandan Bureau of Statistics (2013) estimates over 65% of Ugandans are directly dependant on agriculture as a source of income and food. For that reason the government of Uganda has come up with many policies to develop agriculture so as to increase its productivity like agro-zoning, National Agricultural Advisory Services (NAADS) and others. The Government has also made a commitment to ensure the country's progress against the Millennium Development Goals (MDGs) especially the first one which relates to eradicating extreme hunger and poverty. In effect a number of programmes for example Plan for Modernization of Agriculture (PMA), National Agricultural Advisory Services (NAADS), and Prosperity for All (PFA) programmes among

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others have been designed and implemented in order to achieve the above goal. However NAADS seems to be facing a lot of challenges limiting it to achieve its goal of improving farmers' wellbeing as witnessed by the President's call for suspension of the program in 2007 claiming misuse of the funds.

The government of Uganda over time has tried to improve the wellbeing of farmers through pro-active framer initiatives mainly to improve the situations and conditions that many farmers in country are living in. According to the PEAP report (2010), farmers appeared to be amongst the poorest persons in the Ugandan societies. In this arena, the development and funding of the NAADS program is mainly to improve the status quo of the farmers in the society. Over time, the NAADS program under the ministry of Agriculture has so far been included in the budgetary planning of Uganda to avail funds a sustainable measure to improve the farmer's wellbeing in Uganda (Ddumba, 2004).

Just like many other parts of the country, Sembabule district is an agricultural dependent district with majority of its inhabitants mainly depending on the NAADS. The district has embraced agriculture on various levels which includes planting crops and raring animals. The biggest share of the tax collected from the district is collected on agricultural produces in the market. Well as the NAADS program was introduced in the district, not all farmers have embraced the initiative some still depend on their own efforts to make ends meet. Since the program had run in the sub county for more than 4 years, the researcher thought there was need to find out the relationship between NAADS program and Farmers' wellbeing in Lugusuulu Sub County Sembabule District.

1.2 Statement of the Problem

Among the 95 countries counted in the Human Poverty Index, Uganda was ranked 60th, comparable to Tanzania and Cameroon in Sub-Saharan Africa (World Bank Report, 2011). The proportion of people living below the poverty line in Uganda is 31.8% corresponding to over 35 million Ugandans. The present regional break down of the poverty headcounts shows that the poor are mainly in rural areas (42.7%). These are the farmers and at most produce commodities which are under priced at the market. According to the UNDP report (2010), Uganda has over 35 million people with a growth rate of 3.5 per annum. It depends on agriculture for growth domestic product (GDP) and 80% of the populations who live in

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rural areas depend on agriculture. The government of Uganda through its development partners introduced Agricultural Development Program under the PEAP to reduce poverty since they form the majority of the population through the NAADS program. However, among the 80%, more than 42% live below the poverty line and 20% are chronically poor in different parts of the economy, in Sembabule district and particularly Lugusuulu Sub County. Even with the introduction of the NAADs program in the area, the improvement in Agriculture has not been visible with many of the farmers and perhaps one would say that the wellbeing of the framers has not fully been observed. Therefore the researcher's problem is to find out if really the farmers in Lugusuulu Sub County have had a changed level of wellbeing or not as compared to their colleagues who are not members of the NAADS program.

1.3 Purpose of the Study

To find out the relationship between NAADS program and farmers' wellbeing in Lugusuulu sub county Sembabule district.

1.4 Specific Objectives

i. To find out the demographic characteristics of farmers in Lugusuulu sub county Sembabule district.

ii. To find out the levels of NAADS program implementation in Lugusuulu sub county Sembabule district.

iii. To find out the levels of farmers' wellbeing in Lugusuulu sub county Sembabule district.

iv. To find out the relationship between NAADS and Non NAADS farmers' level of wellbeing in Lugusuulu sub county Sembabule district.

1.5 Research Questions

i. What are the demographic characteristics of farmers in Lugusuulu sub county Sembabule district?

ii. What is the level of NAADS program implementation in Lugusuulu sub county Sembabule district?

iii.   What is the level of farmers' wellbeing in Lugusuulu sub county Sembabule district?

iv.   What is the relationship between NAADS and Non NAADS farmers' level of wellbeing in Lugusuulu sub county Sembabule district?

1.6 Hypothesis of the Study

H0: There is no difference between NAADS and Non NAADS farmers' level of wellbeing at 0.05 level of significance.

1.6.1 Scope of the Study

This shows parameters of the study in terms of its content, time and geography. This is aimed at ensuring that the study remains focused on the variables it sets out to investigate as seen hereunder.

1.6.2 Content Scope

The study was limited to analyzing the variables as stated in the specific objectives that is to say; to find out the demographic characteristics of farmers in Lugusuulu sub county Sembabule district; to find out the levels of NAADS program implementation in Lugusuulu sub county Sembabule district; to find out the levels of farmers' wellbeing in Lugusuulu sub county Sembabule district and finally to find out the relationship between NAADS and Non NAADS farmers' level of wellbeing in Lugusuulu sub county Sembabule district.

1.6.3 Time Scope

The study took 4 months in order to meet the submission deadline to the College of Economics and Management sciences.

1.6.4 Geographical Scope

The study was limited to only Lugusuulu sub county Sembabule district. Sembabule District is bordered by Mubende District to the north, Gomba District to the northeast, Bukomansimbi District to the east, Lwengo District to the south, Lyantonde District to the southwest and Kiruhura District to the northwest. Sembabule, where the district headquarters are located, approximately 48 kilometres (30 miles), by road, northwest of Masaka, the largest town in the sub-region. This was because of limited resources to extend the study to

other sub counties in the district as well as the rest of the country. More so because NAADS was being implemented mainly at the sub county level according to the NAADS manual (2001).

1.7 Significance and Justification of the Study

It informs policy makers about the situation of farmers' wellbeing in Lugusuulu sub county Sembabule district. This is very important if the achievements are to be consolidated and the weaknesses improved on.

The study findings are also potentially important as they can guide future studies that would be done about these variables in other geographical settings. Therefore this study has added useful insights in the pool of knowledge about the study subject.

It helps the researcher to meet the partial requirement for the award of Bachelors degree in Economics and applied statistics.

It helps the Government and some NGOs who are interested in NAADS activities by getting a clear picture of NAADS implementation level in Lugusuulu sub county Sembabule district.

1.8 Operational Definitions

Farmers' wellbeing is defined as levels of income, wealth available and farmers' ability to consumption of goods and services (Mishra K Ashok et al. 2002).

NAADS Program is a Government of Uganda organization responsible for the provision of agricultural advisory services to farmers (NAADS implementation guidelines 2010).

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview of NAADS Program

According to NAADS implementation guidelines (2010), The National Agricultural Advisory Services (NAADS) is a Government of Uganda organization responsible for the provision of agricultural advisory services to farmers. NAADS is implemented under the Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and contributes to the attainment of the Government Prosperity For All (PFA) goal of increasing the incomes of the poor. NAADS started in 2001 and is currently implemented in all the districts of Uganda. The program was put in place by an Act of Parliament, the NAADS Act 2001. Phase I of NAADS ended in June 2009 and Phase II began in July 2010.

A key objective of NAADS as per Section 5 (a) of the NAADS Act (2001) is to promote food security, nutrition and household incomes through increased productivity and market oriented farming. In fulfillment of this objective, the Organization will support household food security using the village level approach for farmer mobilization. This will ensure wide coverage of the poor in terms of food sufficiency and nutrition.

2.2 Objectives of NAADS Program

i. Increasing the effectiveness, efficiency, and sustainability (including financing, private-sector participation, farmer responsiveness, deepening decentralization, and gender sensitivity) of the extension delivery service;

ii. Increasing access to and sustaining knowledge (education), information, and communication among farmers;

iii. Increasing access to and sustaining effective and efficient productivity- enhancing technologies among farmers;

iv. Creating and strengthening linkages and coordination within the overall extension services; and

v. Aligning extension to government policy, particularly privatization, liberalization, decentralization, and democratization.

2.3 Challenges in Program Implementation (MAAIF 2010)

In implementing Phase I of NAADS a number of challenges that impinged on achievement of organizational objectives were observed. These challenges included:

i. Over pricing and poor quality of the technology inputs supplied to farmers.

ii. Poor public relations and communication at Local Government (LG) level in conveying the message on provision of support to the six model farmers per parish.

iii. A flawed selection process for the six model farmers leading to community perception that only the 'rich' or those in political leadership are benefitting from NAADS.

Arising from the challenges above, there is community resentment to the way the six model farmers were selected (clandestinely), and this limited farmer participation in the Program.

According to the NAADS master plan and guidelines (MAAIF 2006), the regions are grouped according to the climatic and agro-prosperity indicators and these predetermined the choice of selection of viable enterprises.

The program targets the development and use of farmer institutions and in the process seeks to empower them to procure enterprise-based advisory services, manage linkages with marketing partners, and conduct monitoring and evaluation of the advisory services they receive from the private sector (Uganda, NAADS Secretariat 2001).

By end of the 2006/07 financial year, the period of the analysis in this study, about UGX 110 billion (in 2000 UGX) had been spent on the program, which had been extended to 545 sub counties (about 83.1 percent of the total sub counties in Uganda at the time) from the initial 24 sub counties in six districts where it had been launched. Furthermore, about 1,622 contracts with private-sector service providers had been signed, more than 40 enterprises had been promoted, and about 40,000 farmer groups and 716,000 farmers (representing about 20 percent of the national farming households) had received services from the program (Uganda, NAADS Secretariat 2007).

By August 2011, NAADS had been implemented in 79 districts and 710 sub counties of which Lugusuulu sub county Sembabule district is inclusive (www.naads.or.ug).

According to the NAADS funding framework, the central government and the donors are expected to contribute 93 percent to the total budget whereas the local government (district and sub-county) and the farmers are expected to contribute 5 percent and 2 percent respectively. NAADS funds are then transferred from MFPED to the district, sub-county and eventually to the beneficiaries in terms of goods and services. The NAADS has an elaborate Monitoring and Evaluation (M&E) manual (NAADS, 2004) illustrating the holistic process from planning to implementation of M&E both at district and sub-county level. The manual clearly spells out the composition of the M&E team and the key indicators to monitor on quarterly, semi- annually and annual basis.

According to the NAADS (September 2001), NAADS is focused on a Strategic Enterprise Approach to compliment the farmer driven participatory approach to enterprise development and promotion, new technologies and increase farmer's access to information in order to transform Uganda's Agricultural sector from mainly subsistence to market oriented farming. The manual also allocated the largest share of NAADS expenditure to the Sub county level that is to say, 77%. This explains why the research will be more effective when carried out at the sub county level (Lugusuulu Sub County).

Implementation of the NAADS program, however, has not been without interference, especially in recent times. In September 2007, for example, the president of Uganda suspended the program, claiming misuse of funds; the program was reinstated in January 2008 (Sunday Monitor 2008). Members of Parliament vehemently opposed the president's move as being contrary to the country's poverty reduction ambitions and called for a thorough evaluation of the program instead (Monitor 2nd August 2007).

2.4 Farmers' Wellbeing
According to Dr. Roberto Leonardi (2012), farmers' wellbeing is defined as access to health facilities by famers and their family members (www.farmerhealth.org.au).

Farmers' wellbeing is defined as levels of income, wealth available and farmers' ability to consumption of goods and services (Mishra K Ashok et al. 2002).

The under-5 mortality rate was 137 per 1000 live births. The infant mortality rate (IMR) stood at 76 per 1,000 live births while maternal mortality rate (MMR) was 435 per

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100,000 live births (MOH 2007). The life expectancy at birth for both sexes was estimated at 52years (MOH 2009; Musoke & Candia 2009).

The national average for the percentage of people living within 5 km radius to a health facility was 57% as of 2000 when a mapping of all health facilities was done. However, there are variations with access ranging from as low as 7% of the population within 5 km of a health facility in Kotido to 100% in Jinja, Tororo and Kampala districts. Rural communities are particularly affected, mainly because health facilities are mostly located in towns along main roads (MoH 2000).

United States Department of Agriculture (USDA) report revealed that, Average farm-operator household income was forecasted to be $83,194 in 2010, up 7.8% from the 2009 estimate. Equity, or net worth, reflected economic well-being better than current income. In 2009, the average net worth of farm-operator households was $915,019.

Although operator households derived most of their wealth from farm assets, many farm households had nonfarm investments, including financial investments and nonfarm real estate (Park Timothy et al. 2010).

Despite the substantial economic progress made by 2006 where the economy steadily grew by about 3.8 percent per year from a declining trend of about –1.2 percent per year in the 1980s. The proportion of the population living under the poverty line declined from 56.4 percent in 1992 to 31.1 percent in 2006 (Uganda, UBOS 2010), several challenges such as increasing productivity; ensuring the sustainable use of natural resources; and further reducing poverty, hunger, and human disease, among others were still out sanding (Uganda, MFPED 2007a).

Recently agriculture has not performed as well as the rest of the economy. For example, from 2000 to 2005 agricultural GDP grew by 4.5 percent per year compared to 5.6 percent for the entire economy (World Bank 2007b). Also, although the incidence of poverty has declined, it is still substantially greater in rural rather than urban areas, 34.2 percent and 13.7 percent, respectively (Uganda, BOS 2010). Since 2000, the Government of Uganda has been implementing the Plan for Modernization of Agriculture (PMA), the broader framework of

the NAADS program, as a key policy initiative aimed at reducing poverty to a level below 28 percent by 2014 (Uganda, MAAIF and MFPED 2000; Uganda, MFPED 2004).

Internationally, countries depend on agriculture to raise farmers' levels of wellbeing such as Pakistan which is among the four most cotton producing countries in the world (International Food Policy Research Institute (IFPRI), 2012).

For rural farmers in United States, off-farm income is the major source of household incomes, although almost half of farmer households have higher incomes than the rest of United States households implying that households depend on farming for their wellbeing (Mishra K Ashok et al. 2002).

In Africa, agriculture is the major source of food. It triggers overall growth, a source of livelihoods, and a way of better management of natural resources and the environment (World Bank 2007). 75% of Kenyans make their living from farming, producing both for local consumption and for export (Uwechue, Ralph (ed.) 1996).

In Uganda over 86% of the population live in rural areas and about 82%rely on agriculture for their wellbeing (www.farmafrica.org). The percentage of the population living below the poverty line rose high at 38 percent in 2003. Despite some very modest economic growth, poverty had increased and there was also a general downward trend in the welfare indicators between 1999/00 and 2002/03 periods (UBOS 2003).

2.5 Conceptual Framework

Independent Variable

NAADS Program

- Provision of advisory services
- Provision of input materials

Intervening Variables

- Farmers' participation level in NAADS
- Length of time farmers have spent in NAADS
- Farmers' attitudes towards the NAADS program

Dependent Variables

Farmers' Wellbeing

- Farmers' income levels.
- Farmers' yields
- Farmers' level of food security
- Farmers' health
- Education
- Housing

Source: Researcher (2013)

As seen in the figure above, the role and activity of the NAADS program are the operational forms or the constructs of the independent variable (NAADS Program) that were used in its measurement while Farmers' income levels, Farmers' total yields, Farmers' level of food security, Farmers' health, education and housing are for the dependent variable (Farmers' wellbeing) that were based on in measuring the impact of the independent variable. The hypothesis was that farmers' wellbeing depends on the role and activity of NAADS program.

It was also thought that the impact of the NAADS program on the farmers' wellbeing can be moderated by a number of factors among others; Farmers' participation level in NAADS, length of time farmers have spent in NAADS and farmers' attitudes towards the NAADS program as indicated as intervening variables in the figure above.

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2.6 Related Studies

According to a report on Beneficiary Assessment of NAADS Program conducted in Pader, Amuria and Moroto districts (October 2010) by UDN, NAADS program scored some benefits among participating members in the community. It was revealed that, over 82.3% of respondents agreed that the program had scored some substantial benefit compared to 11.94% who disagreed that the program had benefited them in any way. The areas of recognizable benefits mentioned were; income levels, productivity, improved technology, skills and practices, diversification of production base, and access to markets among others. 63.3% of respondents acknowledged some improvement in households' food security. 37.9% agreed that the program had led to increase in income, while 41.3% disagreed.

According to the researcher, the 41.3% of the respondents who disagreed may be due to failure of NAADS program to provide farmers with information on potential markets or linkage to potential markets as shown by the report.

The Economic Policy Research Centre (August,5, 2011) shows that there were no significant differences between NAADS and Non-NAADS farmers in terms of the area cultivated, output and yield of maize, groundnuts and rice in Uganda. The only exception was groundnut enterprise where, on average, the area cultivated by NAADS farmers was slightly higher (about 2 acres) relative to their non-NAADS counterparts (1.4 acres).

Furthermore, the findings showed that when farmers were provided with inputs by NAADS (subsidy), they made some reasonable gross profit especially farmers of groundnuts and rice. However, their gross profits were still lower than that of counterparts who did not benefit from NAADS subsidy (EPRC 2011). However this result is consistent with Benin et al. (2007).

In Iganga district, the analysis in 2011demonstrated that NAADS interventions had not had a notable impact on the crop output, productivity and income of the farmers (Geofrey et al. 2011). The results were also consistent with previous studies including Benin et al. (2007). In particular, the study indicated that high imputed cost of inputs provided by NAADS to farmers made the intervention less cost effective. Besides, even when farmers prioritize and make work-plans for enterprises, it is not a guarantee that they will be supplied with inputs

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for the enterprises planned for. For example, according to the 2008/9 Iganga NAADS work plan, up to 20 percent of over 700 enterprises funded were those that were not considered as a priority by the farmers.

The national average for the percentage of people living within 5 km radius to a health facility was 57% as of 2000 when a mapping of all health facilities was done. However, there are variations with access ranging from as low as 7% of the population within 5 km of a health facility in Kotido to 100% in Jinja, Tororo and Kampala districts. Rural communities are particularly affected, mainly because health facilities are mostly located in towns along main roads (MoH 2000).

According to Bakeera *et al*. (2009), barriers to healthcare utilization exist for all the wealth categories along three different axes including: the health seeking process; health services delivery; and the ownership of livelihood assets. Income source, transport ownership, and health literacy were reported as centrally useful in overcoming some barriers to healthcare utilization for the 'least poor' and 'poor' wealth categories. The 'poorest' wealth category was keen to utilize free public health services. Conversely, there are perceptions that public health facilities were perceived to offer low quality care with chronic gaps such as shortages of essential supplies.

However, the researcher thinks that with introduction of NAADS program, farmers are expected to increase their access to health facilities by paying for services in private clinics through improved income levels.

The research carried out in Soroti district by Hansen (2005) about Agricultural development among poor farmers indicated that, there was a significant correlation between ownership of land, ownership of animals and wellbeing, where a higher level of wellbeing was realized among farmers with more acres of land and animals. Non-poor households who receive non-agricultural income had a higher level of wellbeing than poor households who had no any non-agricultural income at all. Further the research revealed that, 85% of non-poor households were food secure, compared with less than half of the poor and less than a tenth of the poorest. More than a quarter of the poorest had a member of household who was seriously sick, compared with less than a tenth of the non-poor. Non poor farmers had most

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of their children attending to school compared to poor households. In summary, the study indicated that farmers who were currently members of NAADS groups were significantly better off than non-member farmers.

According to the researcher, EPRC (August, 5, 2011) findings contradicted Hansen (EPRC 2005) findings, since according to EPRC (2011), there was no significant difference between NAADS and Non-NAADS farmers. This however calls for the same study to be carried out in other parts of the country to find out the level of wellbeing between NAADS and Non-NAADS farmers in Lugusuulu sub county Sembabule District.

ITAD (2008) found evidence of political interference in the process of enterprise selection; in some sub counties, some enterprises were believed to have been selected to meet politicians' demands rather than the needs of farmers. With a limit of three enterprises per sub county with an average of 6,088 households, however, it is inevitable that many farmer groups and farmers may find their preferred enterprise not being included, and consequently they may opt out of the program and hence farmers wellbeing remains un improved (ITAD 2008).

However, the researcher believes that farmers should be just guided on enterprise selection rather than deciding for them as put clear by NAADS implementation guidelines (2010).

The research carried out by for the period between 2004-2007 revealed that the progress in implementing the NAADS program, together with the finding that NAADS service providers, compared to others (public extension officers and other providers not affiliated with the NAADS program), were rated very high on their methods leading to a conclusion that the NAADS program was helping to strengthen the institutional capacity and human resource skills of many farmers to potentially demand and manage the delivery of agricultural advisory services (e.g. enterprises, technologies, practices, and information) that meet their local production and market conditions.

The research further showed that households directly participating in the program had increased agricultural revenue, broader outcome indicators of food and nutrition security as well as overall wealth compared with those in areas where the program had never been

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implemented however livestock enterprises were more developed than crop enterprises, this resulted into higher livestock productivity than crop productivity .

IFPR (2012) showed that, the results from the research carried out in Pakistan indicated a positive impact of Bt cotton adoption on the wellbeing of farmers in Pakistan. Although, the extent of impact varied by agro-climatic conditions and size of farm. Bt cotton appeared most effective in the hot and humid areas where pest pressure from bollworms was high. The per-acre yield gains for medium and large farmers were higher than for small farmers.

However cotton had not been commercially adopted by the whole country by 2010. This implies that farmers' level of wellbeing was higher in farmers who had adopted Bt cotton. It is also thought by the researcher that NAADS farmers in Lugusuulu sub county Sembabule district should have higher levels of wellbeing than Non-NAADS farmers if the programme is well implemented.

According to Benin et al. (2007), the study carried out to assess the Impact of the National Agricultural Advisory Services (NAADS) in the Uganda Rural Livelihoods, the findings revealed that NAADS program had substantial positive impacts on the availability and quality of advisory services provided to farmers, promoting adoption of new crop (e.g. vanilla, groundnuts, maize, and beans) and livestock (e.g. goats and pigs) enterprises as well improving adoption and use of modern agricultural production technologies and practices. NAADS also appeared to have promoted greater use of post-harvest technologies and commercial marketing of commodities, consistent with its mission to promote more commercially oriented agriculture. Although it was not found that NAADS had more impact than other service providers in increasing awareness of new technologies and practices.

Despite positive effects of NAADS on adoption of improved production technologies and practices, no significant differences were found in yield growth between NAADS and non-NAADS sub- counties for most crops, reflecting the still low levels of adoption of these technologies even in NAADS sub-counties, as well other factors affecting productivity. However, NAADS appears to have helped farmers to avoid the large declines in farm income

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that affected most farmers between 2000 and 2004, especially in the trailblazing NAADS districts.

According to the researcher, the findings of his study in Lugusuulu Sub County may be different from that of Benin et al. (2007). This may be because of the time that has passed since 2007 as well as the fact that his study is based at a micro level compared to Benin's study that was based on a macro level.

Kebirungi Harriet (2011) revealed that NAADS Program had increased Household income and nutritional levels; Imparted knowledge and skills, and further enhanced land and soil conservation techniques; Institutionalized farmer groups for easy access to its services as well as economic contribution of women to house hold. However, the gender poverty reduction strategy implementation was lacking in content in the sense that issues of access, participation in decision and control of resources were not highlighted, in addition, program services were male dominated and this scenario negatively affected food security in Bubare, Kabale District.

Oleru J. et al. (2005) showed that 25% and 22.5% of NAADS crop farmers and NAADS goat farmers ranked tobacco as priority crop enterprise for cash. The same crop ranked first among non-NAADS farmers. Goats were ranked as the first priority livestock enterprise by 50% NAADS goat farmers, 45% non-NAADS farmers in NAADS sub-counties and 52.5% non-NAADS farmers outside NAADS sub-counties. NAADS was also promoting rice and pigeon pea enterprises which farmers ranked low. The results also suggested that there was a mismatch between what NAADS and farmers considered priority enterprises which might influence farmers' capacity in the production of selected enterprises.

A report by Justice and Peace Commissions of Moroto Diocese and Gulu Archdiocese with support from Community Development Resource Network (May 2011) entitled "Has NAADS Improved Farmers' Standards of Living?" an Assessment in selected sub counties in Moroto, Nakapiripirit, Pader and Gulu Districts revealed that, in terms of income, farmers produced little or no output and therefore did not have much to sell. It also noted limited efforts by NAADS to link farmers to markets; Food insecurity was reported in households supported by the NAADS program; Less than half of farmers interviewed

in all the sub counties (except Puranga) had realized increase in production as a result of NAADS. Farmers' income levels did not change significantly and thus their ability to pay for medical bills and education. Some farmers also benefited from other government projects and programmes like (CDD, NUSAF), NGOs and SACCOs and VLSAs.

In conclusion, Lugusuulu sub county Sembabule district had not been studied as far as NAADS program is concerned at micro level rather than at macro level which created doubt in the findings since conclusions were just generalized with regard to macro studies. In addition, other studies were carried out in other sub counties in other districts like Soroti, Tororo, Amulia among others, with Sembabule district exclusive as explained in the previous studies above. Therefore, a research gap existed which provoked the researcher to conduct a study to find out the relationship between NAADS program and farmers' wellbeing in Lugusuulu sub county Sembabule district.

CHAPTER THREE

METHODOLOGY

3.1 Research Design
The study was a case study design employing both quantitative and qualitative approaches in both data collection and analysis. A case study design was preferred because it presents an opportunity to conduct an in-depth investigation of the relationship between NAADS program and farmers' wellbeing in Lugusuulu sub county Sembabule district. Besides, a case study was chosen because NAADS program is not in Sembabule district alone, it covers the whole of Uganda and the study could not be conducted in the whole country. Lugusuulu Sub County was therefore used as a case from where the findings were expected to give a general picture of what is happening in Sembabule district and probably the whole of Uganda where the program is implemented.

3.2 Population of the Study
The study was interested in farmers in Lugusuulu sub county Sembabule district. This was because NAADS program targets farmers.

3.3 Sample Size
A sample size of 120 respondents was taken from the target population (172 farmers of Nalukonge village) consisting of both NAADS and Non NAADS Farmers. This is because a representative sample, according to Gall (1996) gives results that can be generalized to the study population. Solven's formula was used to compute the minimum sample size as seen below.

$n = N/[1+N(\alpha)^2]$ Where;

n= sample size

N= target population

$\alpha = 0.05$ coefficient of validity

3.4 Sampling Procedures

Purposive sampling was used to select a village (Nalukonge village) among the sub county villages since the whole Sub County could not be interviewed due to limited time and costs. Purposive and Simple random sampling were also used to choose respondents with in the village. This was because some of the NAADS farmers were easily identified by the use of the sign posts that indicate the NAADS project undertaken by each farmer. In addition, both purposive and simple random sampling methods are easy to apply. Nalukonge village was purposely selected because it has many NAADS farmers though the list of members was not clear.

3.5 Data Collection Methods

In this study, questionnaires were used to collect primary data from farmers in Lugusuulu sub county Sembabule district. This is because questionnaires help to minimize costs and time compared to face to face interviews. Questionnaires also enable the researcher to get some data that may require the farmer to first consult from family members as far as the research variables are concerned. More so, because questionnaires enable the farmers to fill them at their convenient time.

3.5.1 Data Collection Instrument

Questionnaires

Well-designed questionnaires by the researcher were used to collect data from the farmers in Lugusuulu Sub County. Sembabule District.

This instrument was preferred because it allows many respondents to be interviewed at the same time and therefore saves time and money. A questionnaire containing both closed and open ended questions was used to capture data from the farmers.

The questionnaire was written in simple English and the respondents who were not able to read and write in English, questions were read out to them in their local language and responses recorded by the researcher. This was done in order to reduce the non-response rate as well as capturing accurate data from the respondents.

3.5.2 Data Gathering Procedures

3.5.2.1 Before Data Gathering

The researcher;

Designed the questionnaire. After, the questionnaire was presented to experts like the researchers' supervisor and the Head of department to determine its validity. The questionnaire was filled by use of a pencil for easy corrections or adjustments by the respondent.

Acquired an introductory letter from the Head of Department. This introduced the researcher to the authorities in the study area as well as emphasizing the academic purpose of the study.

Sought permission from the authorities (LC1 Chairmen and Sub county NAADS coordinator). This provided security to the researcher against the violent farmers who tried to resist the study. Besides, farmers responded positively to the study since it incorporated the authorities.

Made appointments with busy farmers. It was very hard for some farmers to be caught at their homes and the researcher made appointments with them.

3.5.2.2 During Data Gathering

The researcher;

Ensured smartness since it shows responsibility and also the fact that people determine education levels basing on the code of dressing as well as politeness when taking to respondents.

Was time conscious in case of any appointments with respondents. This also involved proper timing of the farmers.

Read through some questionnaires and corrected mistakes. At the end of each data collection day, the researcher went through the collected questionnaires and simple or obvious mistakes were corrected to reduce on the load of work.

Was neutral (unbiased). The researcher avoided emotions and suggestive or leading questions to the respondents during data collection.

3.5.2.3 After Data Gathering

The researcher;

Edited data. Data editing was done to check for consistency, logic and completeness of the responses given after collecting all the questionnaires.

Coded data. After editing, quantitative data was coded and then entered in the computer using SPSS for easy analysis.

3.6 Data Processing and Analysis

Cross tabulations, frequency counts and means, were run in order to establish the relationship between the study variables.

This was also aided by the construction of tables, pie charts and bar graphs so as to present data.

A two way ANOVA was carried out to compare the data collected from NAADS and Non NAADS respondents at 0.05 levels of significance using the F distribution since data was collected from two different populations. The following formulas were used;

(k - 1) degrees of freedom associated with the numerator of the formula for F;

(n - k) degrees of freedom associated with the denominator, where,

K= number of populations

n = total number of sample observations.

$$\text{SS Total} = \Sigma X^2 - \frac{(\Sigma X)^2}{n} \quad \text{where,}$$

ΣX^2 = sum of the squares of all observations.

$(\Sigma X)^2$ = square of the sum of all the observations.

$$\text{SST} = \Sigma \frac{T_c^2}{n_c} - \frac{(\Sigma X)^2}{n} \quad \text{where,}$$

T_c^2 = square of the column (treatment) totals.

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n_c = number of samples in each column (treatment).

SSE= SS Total-SST

MST = SST/ (k-1)

MSE = SSE/ (n-k)

F= MST / MSE

3.7 Validity and Reliability

The researcher used expert judgment to test for validity of the research instrument. Test re-test method was used by the researcher to measure reliability of the research instrument.

3.7 Ethical considerations

The respondents' consent to participate in the study was sought before they are enrolled for the study. To facilitate this, the researcher explained to each respondent the intentions of the study and why it is necessary for the respondent to participate. However, the respondents were also informed of their freedom to decline responding to any question they are not comfortable about.

The respondents were assured of total confidentiality of their responses on the grounds that their names shall not appear anywhere in the research report and to ensure this, they were told not to write their names on the questionnaires.

3.8 Limitations of the study

Some respondents delayed filling of questionnaires and some intended to dodge the questionnaire despite the benefits explained to them. The researcher handled this by scheduling time for data collection. For the case of nonresponse or delay, the researcher went back to the field and collected data to reach the desired number of filled questionnaires.

Some respondents asked for facilitation in terms of money or a drink in order to fill the questionnaires. This was managed by explaining to them that, the study is purposely for academics and no any organization is funding it.

Some respondents were not in position to read and write. This was overcome by reading and interpreting the questions in their local language as well as filling their responses by the researcher.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, DISCUSSION AND INTERPRETATION OF FINDINGS

4.1 Demographic Characteristics of NAADS Famers in Lugusuulu Sub County Sembabule District.

Under this objective, the questionnaire covered four questions about the Gender, age, marital status, and level of education of the NAADS respondents. The findings were as below;

Table 4.1: Showing the Gender of the NAADS Respondents

Gender	Freq.	Percent
Male	26	43.33
Female	34	56.67
Total	60	100.00

Source: Primary Data

Figure 4.1: A Pie Chart Showing the Gender of the NAADS Respondents.
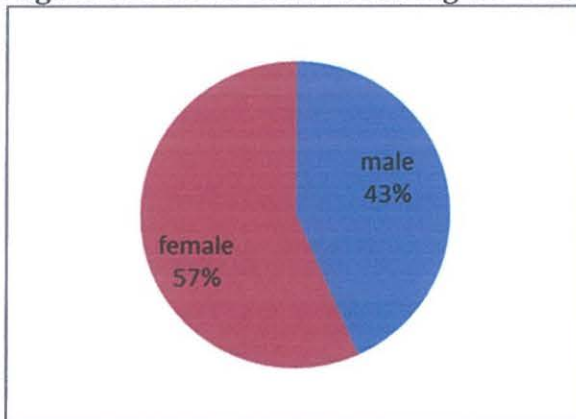
Source: Primary Data

Most of the respondents were female with a percentage of 56.67(34) and males were few with a percentage of 43.33(26) as shown in the figure above. This could be as a result of women participation in village development groups from where NAADS program access them whereas men engage in other activities such as "Boda boda" riding, alcoholism among others.

Table 4.2: Showing the age bracket of the NAADS Respondents

Age bracket	Freq.	Percent
below20	3	5.00
20-29	8	13.33
30-39	12	20.00
40-49	15	25.00
50above	22	36.67
Total	60	100.00

Source: Primary Data

Figure 4.2: A Bar Graph Showing the Age Bracket of the NAADS Respondents.
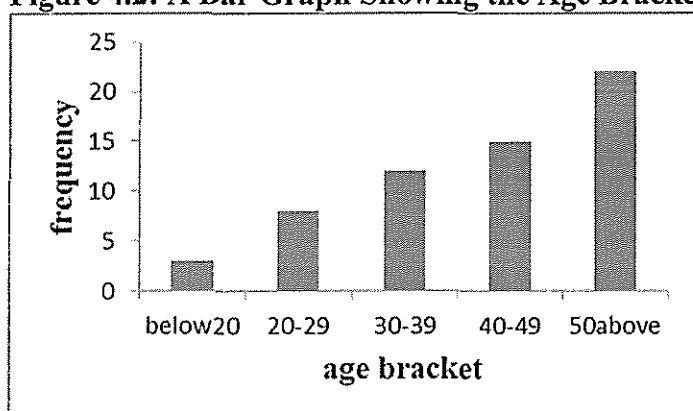
Source: Primary Data

The common age of the respondents was 50 and above with (22) 36.67 percent, followed by 40-49 with (15) 25.00 percent, 30-39 were (12), 40-49 were 11 20.00 percent, 20-29 were (8) 13.33 percent and below 20 were 3 as can be seen from figure 4.2 above. This was an indication that most of the youth are left out of the NAADS program and elderly farmers are favored because of their accumulated resources like land.

Table 4.3: Showing Marital Status of the NAADS Respondents

Marital status	Freq.	Percent
Married	47	78.33
Single	4	6.67
Widowed	7	11.67
Divorced	2	3.33
Total	60	100.00

Source: Primary Data

Figure 4.3: A Pie Chart Showing Marital Status of the NAADS Respondents.
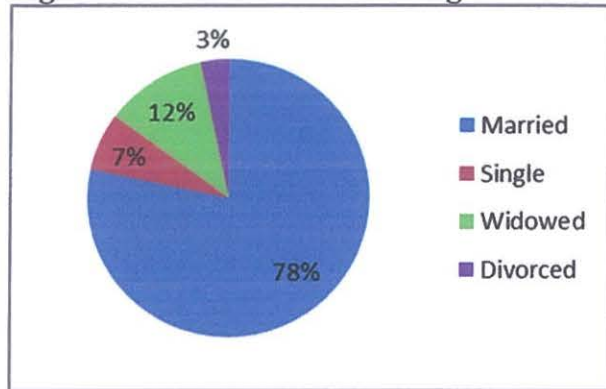
Source: Primary Data

Figure 4.3 above reveals that most of the respondents were married with (47) 78.33 percent, widowed were (7) 11.67 percent, single were (4) 6.67 and divorced were (2) 3.33 percent. This showed that NAADS program operates among elderly farmers who are already married.

Table 4.4: Showing the level of education attained by the NAADS Respondents

Level of education attained	Freq.	Percent
None	10	16.67
Primary	32	53.33
Secondary	14	23.33
Tertiary	3	5.00
University	1	1.67
Total	100	100.00

Source: Primary Data

Figure 4.4: A Bar Graph Showing the Level of Levels of Education Attained by the NAADS Respondents
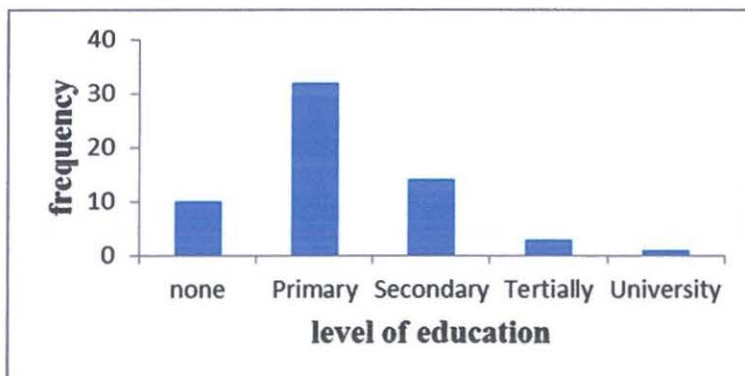
Source: Primary Data

The education levels of respondents were, primary level with (32) 53.33 percent, secondary 14 (23.33) percent, none 10 (16.67) percent, tertiary 3 (5.00) percent and university 1 (1.67) percent as can be seen from the figure 4.4 above. This was because most of the respondents got married when they were in primary.

4.2 The Level of NAADS program in Sembabule District

This objective involved the number of visits, type of input materials received by the members from the NAADS program and the number of times farmers received the materials last year. Below are the findings, analysis, interpretation and discussion;

Table 4.5: Showing the Number of Visits Conducted by NAADS Officials for Advisory Services

Number of visits conducted	Freq.	Percent
One visit	2	3.33
Two visits	5	8.33
Three visits	16	26.67
Four visits	20	33.33
Five visits	13	21.67
Six visits	4	6.67
Total	60	100.00

Source: Primary Data

Figure 4.5: A Bar Graph Showing the Number of Visits Conducted by NAADS Officials for Advisory Services

Source: Primary Data

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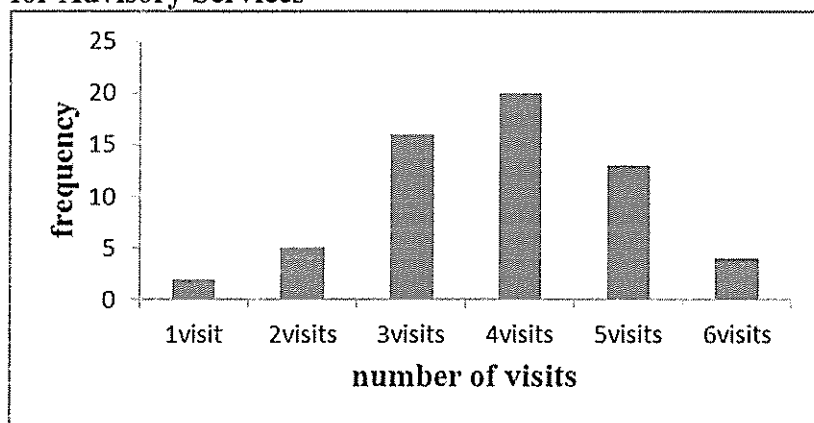
From figure 4.5 above, the respondents who were visited by NAADS officials four times a year were (20) 33.33 percent, three times were (16) 26.67 percent, five times were (13) 21.67 percent, two times a year were (5) 8.33 percent, six times were (4) 6.67 percent and finally those who were visited only once a year were (2) 3.33 percent. Since most of the respondents were visited at least two times, NAADS program implementation level is quite high and this shows government's involvement to improve on the farmers' wellbeing in Lugusuulu sub-county Sembabule District by sending its officials to provide advisory services which is similar to Benin et al. (2007).

Table 4.6: Showing the type of input materials received by NAADS Respondents

Input materials received	Freq.	Percent
None	5	8.33
Seeds	17	28.33
Goats	18	30.00
Cow	20	33.33
Total	60	100.00

Source: Primary Data

Figure 4.6: A Pie Chart Showing the Type of Input Materials Received by NAADS Respondents
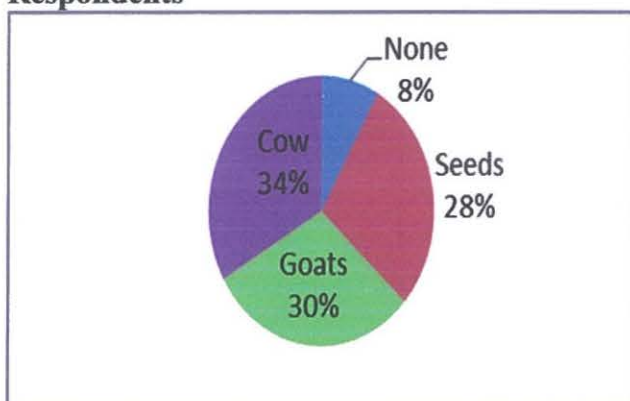
Source: Primary Data

Most of the respondents received a cow (20) 33.33 percent followed by Goats (18) 30.00 percent, seeds (17) 28.33 percent and those who missed input materials were (5) 8.33 percent as can be seen from the figure above. This showed that the major emphasis was put in animal keeping since majority of the farmers rear animals.

Table 4.7: Showing the Number of Times NAADS Respondents Received the Input Materials Mentioned in Table 6.

Number of times farmers received input materials last year	Freq.	Percent
One time	48	87.27
Two times	5	9.09
Three times	1	1.82
Four times	1	1.82
Total	55	

Source: Primary Data

Figure 4.7: A Pie Chart Showing the Number of Times NAADS Respondents Received the Input Materials Mentioned in Table 6.
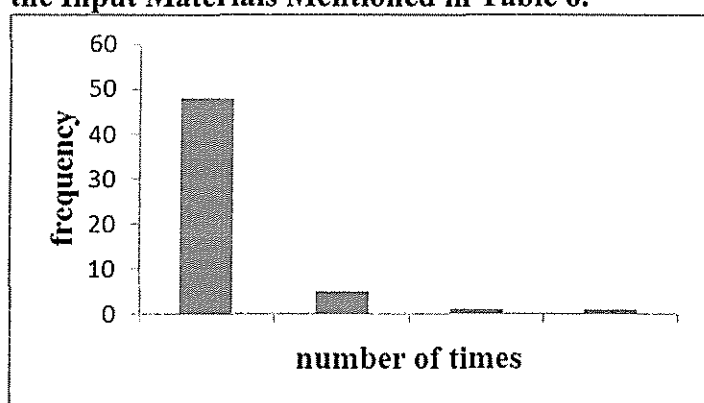
Source: Primary Data

Majority of the respondents received input materials once last year with (48) 87.27 percent, followed by those who received twice last year with (5) 9.09 percent, respondents who received materials three and four times last year were (1) 1.82 percent. This was done to ensure equitable distribution of materials among farmers.

4.3 The Level of NAADS Farmers' Wellbeing

This objective focused on six categories that is, farmers' income levels, food security levels, health, yields, education and housing levels of famers.

Table 4.8: Showing the Income Levels of NAADS Respondents per Month

Income levels	Frequency
0	1
5000	1
20000	2
25000	1
30000	3
40000	3
50000	5
55000	1
60000	3
70000	2
90000	2
100000	3
104000	1
120000	1
150000	3
200000	2
250000	1
260000	1
300000	2
350000	2
400000	2
420000	1
450000	2
500000	4
600000	1
650000	1
700000	1
800000	1
900000	2
1000000	2
2500000	1
3000000	1
5000000	1
Total	60

Source: Primary Data

Most of the respondents earn between 20000 and 500000 shillings and a few earn beyond 500000 shillings per month as seen from the table 4.8 above. This could be as a result of accessing advisory services from NAADS officials that enable them to add value on their farm output which fetch more income in return as compared to Non NAADS farmers in table 22 below.

Table 4.9: Showing the Levels of Savings by NAADS Respondents per Month

Level of saving per month	Freq.
0	4
3000	2
5000	2
10000	5
15000	3
20000	5
25000	1
30000	2
40000	3
50000	7
60000	1
70000	1
80000	2
100000	4
150000	4
200000	4
250000	1
300000	4
400000	1
600000	1
1500000	1
1800000	1
2000000	1
Total	60

Source: Primary Data

Most of the respondents save between 10000 and 300000 shillings per month, only 6 respondents save at most 5000 shillings including a few people who save over 1000000 plus per month. This could be as a result of accessing advisory services from NAADS officials that enable them to add value on their farm output which fetch more income in return and increase their level of savings compared to Non NAADS farmers in table 23 below.

Table 4.10: Showing the Number of NAADS Respondents who Store Food for Future Consumption

Farmers who store food	Frequency	Percent
No	18	30.00
Yes	42	70.00
Total	60	100.00

Source: Primary Data

Figure 4.8: A Pie Chart Showing the Number of NAADS Respondents who Store Food for Future Consumption
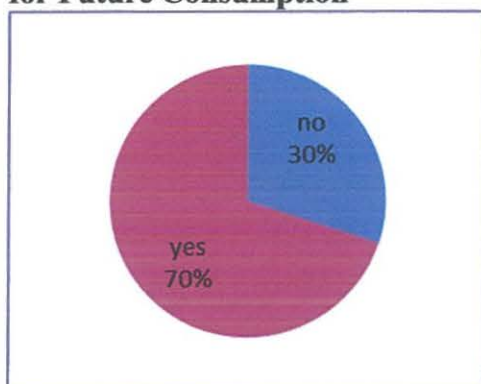
Source: Primary Data

Majority of the respondents store food for future consumption as can be seen from the figure above (42) 70.00 percent and those who do not were (18) 30.00 percent. This could be that most of the respondents practice subsistence farming.

Table 4.11: Showing the Number of Meals Taken a Day by NAADS Respondents

Meals taken a day	Frequency	Percent
Once	11	18.33
Twice	39	65.00
Thrice	10	16.67
Total	60	100.00

Source: Primary Data

Figure 4.9: A Pie Chart Showing the Number of Meals Taken a Day by NAADS Respondents
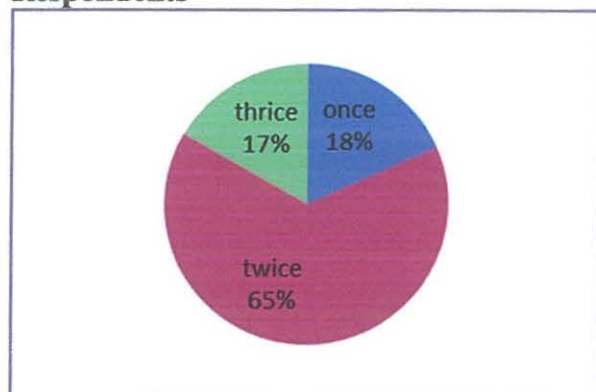
Source: Primary Data

Respondents who take meals twice a day were (39) 65.00 percent, once a day were (11) 18.33 percent and thrice a day (10) 16.67 percent. Since most of the respondents are able to eat twice a day, this showed that farmers' wellbeing has improved. And the 18.33 percent that take one meal a day could be as a result of over dependence on milk products like "Bongo".

Table 4.12: Showing the Number of Sick Family Members of NAADS Respondents Last Month

Sick family members	Freq.	Percent
Zero	11	18.33
One	24	40.00
Two	19	31.67
Three	5	8.33
Five	1	1.67
Total	60	100.00

Source: Primary Data

Figure 4.10: A Bar Graph Showing the Number of Sick Family Members of NAADS Respondents Last Month
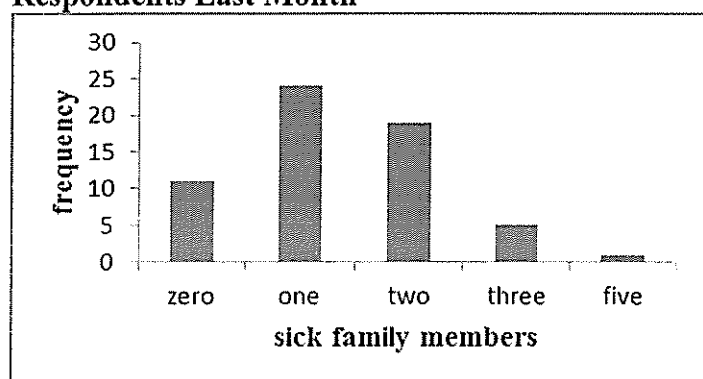
Source: Primary Data

The respondents with one sick family member were (24) 40.00 percent, two sick family members were (19) 31.67 percent, no sick person were (11) 18.33 percent, three sick family members (5) 8.33 percent and five sick members were (1) 1.67 percent as shown in figure 4.10 above. Most of these sick cases were mainly as a result of malaria as shown in the figure 4.11below.

Table 4.13: Showing the Type of Sickness that Affected the NAADS Respondents Last Month

Type of sickness	Freq.	Percent
Malaria	31	63.27
Typhoid	1	2.04
Flu	10	20.41
Chest pain	1	2.04
Others	6	12.24
Total	49	100.00

Source: Primary Data

Figure 4.11: A Pie Chart Showing the Type of Sickness that Affected the NAADS Respondents Last Month
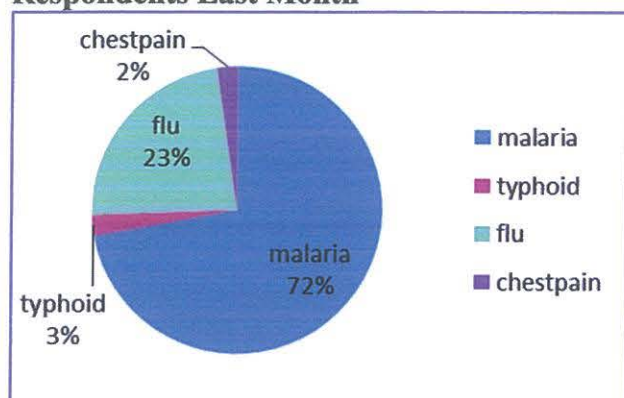
Source: Primary Data

Malaria is high in Lugusuulu sub county with (31) 63.27 percent, flu (10) 20.41 percent, other diseases (6) 12.24 percent, chest pain and typhoid was (1) 2.04 percent. High rate of malaria cases was as a result of bushes around peoples' homes.

Table 4.14: Showing the Level of Crop Yield by NAADS Respondents per Season

Crop yield	Frequency
0	4
2	1
3	1
5	2
10	1
20	1
30	1
40	2
50	2
70	1
80	1
100	7
150	3
180	1
200	1
220	1
250	1
300	3
450	2
500	4
600	2
800	2
1000	9
1300	1
1500	1
1800	1
2000	2
3000	1
10000	1
Total	60

Source: Primary Data

Table 4.14 above shows that 9 respondents yield over 1000 Kilograms followed by 7 respondents who yield 100 Kilograms, 4 respondents either yield 500 Kilograms or none, 3 respondents either yield 300 or 150 Kilograms and a few who either yield 500 or below 100 Kilograms per season. This is due to subsistence method of farming.

Table 4.15: Showing the Type of Livestock Kept by NAADS Respondents

Livestock kept	Freq.	Percent
None	2	3.33
Goats	21	35.00
Cows	25	41.67
Pigs	12	20.00
Total	60	100.00

Source: Primary Data

Figure 4.12: A Pie Chart Showing the Type of Livestock Kept by NAADS Respondents
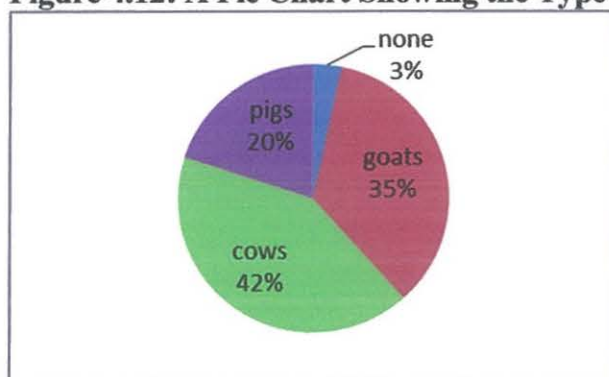
Source: Primary Data

Most of the respondents rear cows with (25) 41.67 percent, goats (21) 35.00 percent, no animal pigs and no animal kept were (12) 20.00 percent and (2) 3.33 percent respectively. The keeping of cows, goats and pigs was as a result of farmers' culture, availability of land, fodder, and water.

Table 4.16: Showing the Level of Livestock Kept by NAADS Respondents

Level of livestock	Frequency
1	6
2	6
3	4
4	1
6	2
7	1
8	1
10	2
15	2
16	1
17	1
20	2
25	2
30	1
40	4
50	4
60	1
70	1
75	1
80	2
100	4
150	3
200	1
300	2
400	1
600	1
2000	1
Total	58

Source: Primary Data

Table 4.16 above shows that 6 respondents rear either two or one animal on their respective farms, most of the respondents keep animals ranging between 3-150 animals and only a few rear above 150 animals. Higher levels of livestock were due to availability of enough land and water compared to Non NAADS farmers as indicated in table 4.32 below.

Table 4.17: Showing the Number of Children at School by NAADS Respondents

Children at school	Frequency	percent
0	6	10.00
1	7	11.67
2	16	26.67
3	14	23.33
4	8	13.33
5	5	8.33
6	1	1.67
7	3	5.00
Total	60	100.00

Source: Primary Data

Figure 4.13: A Pie Chart Showing the Number of Children at School by NAADS Respondents
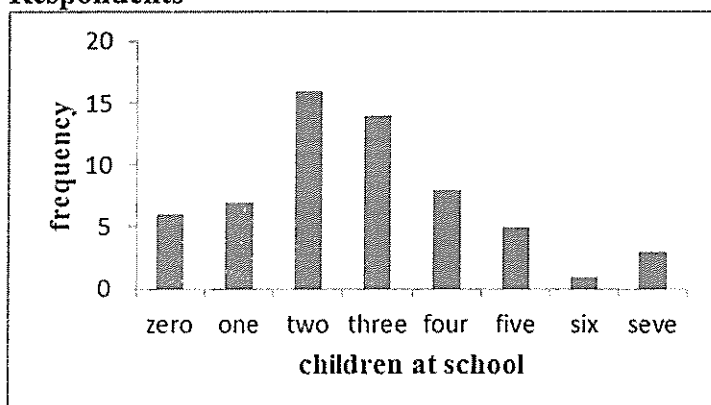
Source: Primary Data

Respondents with two children at school were many with (16) 26.67 percent, three children (14) 23.33 percent, four children (11) 13.33 percent, one child (7) 11.67 percent, no child (6) 10.00 percent, five children (5) 8.33 percent, seven and six children were (3) 5.00 percent and (1) 1.67 percent respectively as shown by figure 4.13. Farmers' ability to educate their children has increased however the 10 percent of the respondents who do not take any of their children to school is due to limited funds and very long distances to nearby schools.

Table 4.18: Showing the Type of House NAADS Respondents Live in.

Type of house	Frequency	Percent
Temporary	3	5.00
Semi-permanent	10	16.67
Permanent	47	78.33
Total	60	100.00

Source: Primary Data

Figure 4.14: A Pie Chart Showing the Type of House NAADS Respondents Live in.
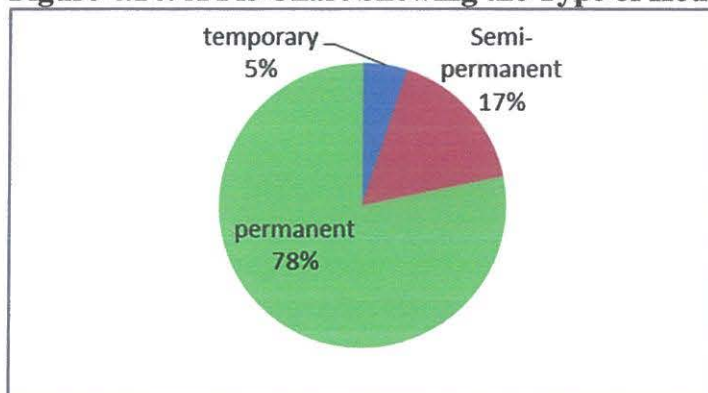
Source: Primary Data

The respondents who live in permanent house were (47) 78.33 percent, semi-permanent (10) 16.67 percent and those in temporary were (3) 5.00 percent. This could be as a result of making bricks by farmers themselves and improved income levels as seen in figure 4.14 above hence improved levels of accommodation.

Table 4.19: Showing the Number of Rooms of NAADS Respondents' House

Rooms in house	Frequency	Percent
Two	7	11.67
Three	17	28.33
Four	23	38.33
Five and above	13	21.67
Total	60	100.00

Source: Primary Data

Figure 4.15: A Pie Chart Showing Number of Rooms of NAADS Respondents' House
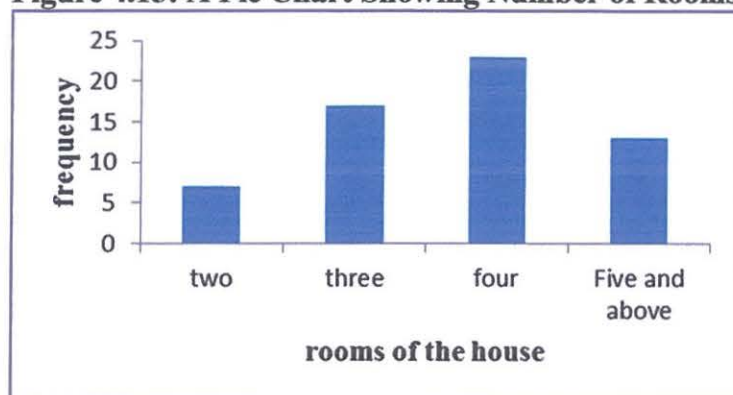
Source: Primary Data

Respondent with four rooms were leading with (23) 38.33 percent followed by three rooms (17) 28.33 percent, five rooms and above and two rooms with (13) 21.67 percent and (7) 11.67 percent respectively. This showed a high level of wellbeing among the NAADS farmers in terms of accommodation.

4.5 The Demographic Characteristics of Non –NAADS Farmers

Under this objective, the questionnaire covered four questions about the Gender, age, marital status, and level of education of the Non NAADS respondents. The findings were as below;

Table 4.20: Showing the Gender of the Non- NAADS Respondents

Gender	Frequency	Percent
Male	26	43.33
Female	34	56.67
Total	60	100.00

Source: Primary Data

Figure 4.16: A Pie Chart Showing the Gender of the Non NAADS Respondents.
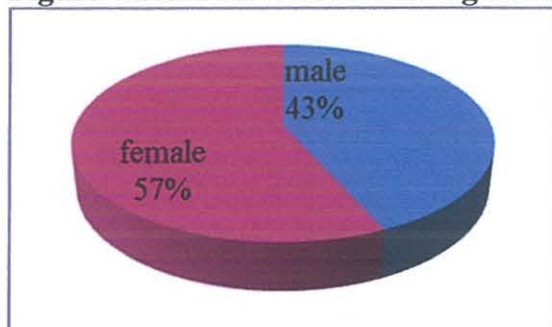
Source: Primary Data

Most of the respondents were female with a percentage of 56.67(34) and males were few with a percentage of 43.33(26) as shown in figure 4.16 above. This could be as a result of actively involving themselves in farming than males who engage in other activities such as "Boda boda" riding, alcoholism among others.

Table 4.21: Showing the age bracket of the Non- NAADS Respondents

Age	Freq.	Percent
below20	2	3.33
20-29	21	35.00
30-39	14	23.33
40-49	11	18.33
50above	12	20.00
Total	60	100.00

Source: Primary Data

Figure 4.17: A Bar Graph Showing the Age Bracket of the Non NAADS Respondents
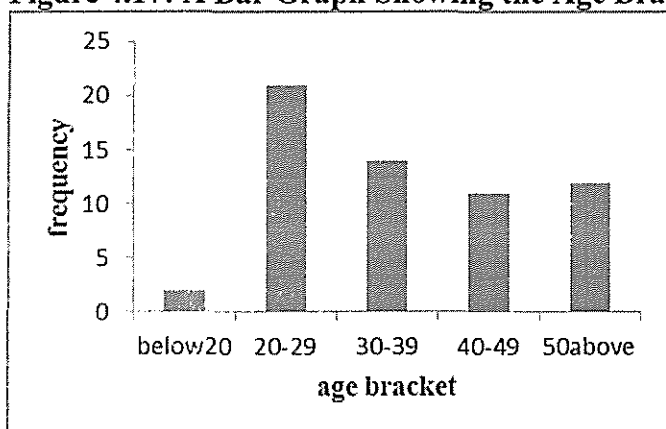
Source: Primary Data

The common age of the respondents was between 20-29 with 21respondents followed by 30-39 with 14, 50 and above were 12, 40-49 were 11 and below 20 were 2 as can be seen from table 4.21 above. This was an indication that most of the youth are left out of the NAADS program.

Table 4.22: Showing marital status of the Non- NAADS Respondents

Marital status	Frequency	Percent
married	40	66.67
Single	8	13.33
Widowed	7	11.67
Divorced	5	8.33
Total	60	100.00

Source: Primary Data

Figure 4.18: A Bar Graph Showing marital status of the Non NAADS Respondents.
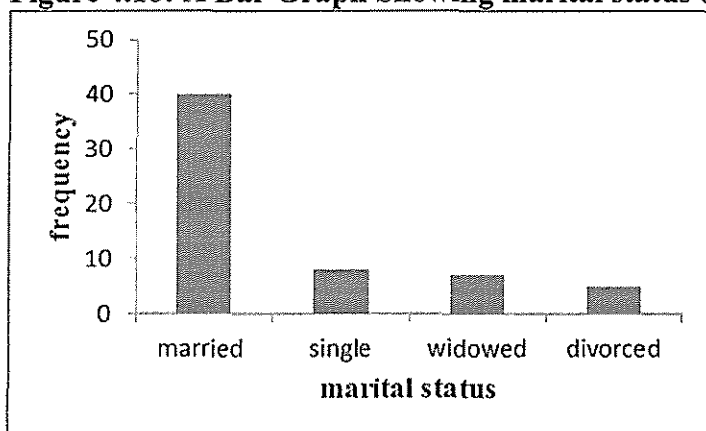
Source: Primary Data

The figure 4.18 above reveals that most of the respondents were married with (40) 66.67 percent, single were (8) 13.33 percent, widowed (7) 11.67 percent and divorced were (5) 8.33 percent. This showed that it is very rear for two married partners to be members of the NAADS program.

Table 4.23: Showing the level of education attained by the Non- NAADS Respondents

Level of education attained	Freq.	Percent
none	10	16.67
Primary	26	43.33
Secondary	13	21.67
Tertiary	9	15.00
University	2	3.33
Total	60	100.00

Source: Primary Data

Figure 4.19: A Bar Graph Showing the level of education of the Non NAADS Respondents.
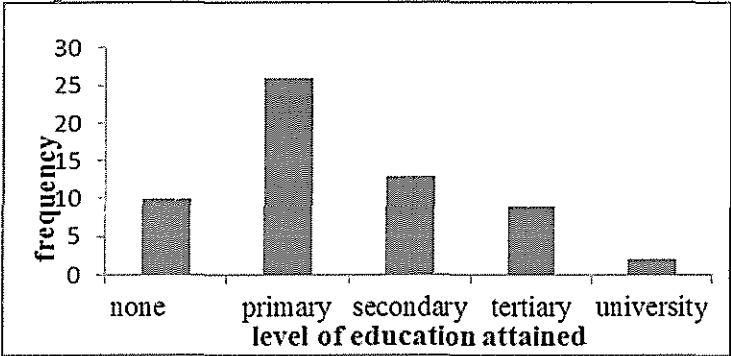
Source: Primary Data

The education levels of respondents were, primary level with (26) 43.33 percent, secondary 13 (21.67) percent, none 10 (16.67) percent, tertiary 9 (15.00) percent and university 2 (3.33) percent as can be seen from the table 4.23 above. This is because most of the respondents got married when they were in primary.

4.6 The Level of wellbeing of Non NAADS Farmers

This objective focused on six categories that is, farmers' income levels, food security levels, health, yields, education and housing levels of famers.

Table 4.24: Showing the income levels of the Non- NAADS Respondents per month

Income levels	Freq.
0	3
5000	4
7000	1
10000	6
20000	6
25000	1
30000	6
40000	1
50000	7
60000	3
80000	1
90000	1
100000	5
130000	1
140000	1
150000	3
200000	3
240000	1
290000	1
300000	4
400000	1
Total	60

Source: Primary Data

Most of the respondents earn between 10000 and 50000 shillings and very few earn beyond 50000 shillings per month as seen from the table 4.24 above. This could be as a result of lacking advice in their farm operations and over dependency on seasonal harvests.

Table 4.25: Showing the level of savings of the Non- NAADS Respondents in a month

Level of savings per month	Frequency
0	11
500	1
2000	4
3000	1
4000	1
5000	3
10000	10
15000	3
20000	7
25000	1
30000	3
40000	1
50000	5
70000	1
80000	3
100000	4
200000	1
Total	60

Source: Primary Date

Majority of the respondents do not save (11 respondents), among those who save, 10 respondents save only 10000 shillings per month followed by 7respondents who keep 20000 shillings and 5 respondents (50000). Majority of those who save are forced by their village development formed groups. Some do not save because of their drinking behavior.

Table 4.26: Showing Non- NAADS Respondents who store food for future consumption

Farmers who store food	Freq.	Percent
No	26	43.33
Yes	34	56.67
Total	60	100.00

Source: Primary Data

Figure 4.20: A Pie Chart Showing the Non NAADS Respondents who store food for future consumption.
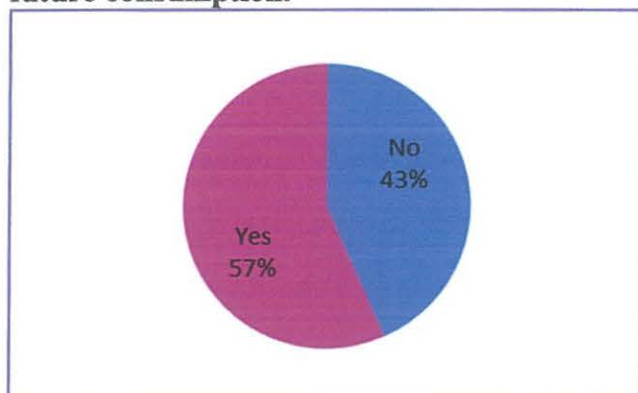
Source: Primary Data

Majority of the respondents store food for future consumption as can be seen from the figure 4.20 above (57 percent) and those who do not were 43 percent. This could be that most of the respondents practice subsistence farming.

Table 4.27: Showing the number of meals taken by the Non- NAADS Respondents a day.

Meals taken a day	Freq.	Percent
Once	13	21.67
Twice	32	53.33
Thrice	14	23.33
4times	1	1.67
Total	60	100.00

Source: Primary Data

Figure 4.21: A Bar Graph Showing the number of meals taken by the Non NAADS Respondents a day
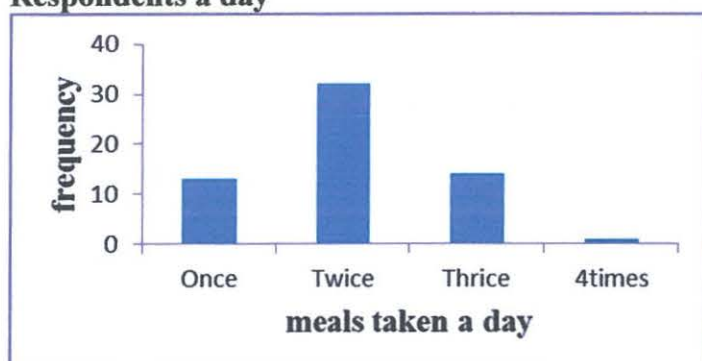
Source: Primary Data

Respondents who take meals twice a day were (32) 53.33 percent, thrice a day were (14) 23.33 percent, once a day (13) 21.67 percent, and 4times a day were (1) 1.67 percent. Since most of the respondents are able to eat twice a day, this showed that farmers' wellbeing has improved. And the 21.67 percent that take one meal a day are as a result of over dependence on milk products like "Bongo".

Table 4.28: Showing family members of Non NAADS Respondents who fell sick last month

Members who fell sick last month	Freq.	Percent
Zero	4	6.67
One	17	28.33
Two	14	23.33
Three	12	20.00
Four	9	15.00
Five	3	5.00
Six	1	1.67
Total	60	100.00

Source: Primary Data

Figure 4.22: A Bar graph showing the number of family members of Non NAADS Respondents who fell sick last month

Source: Primary Data

The respondents with one sick family member were 17, two sick family members were 14, three sick members were 12, four sick members were 9, no sick person were 4, five sick members were 3 and six sick members were 1as shown in table above. Most of these sick cases were mainly as a result of malaria as shown in the figure below.

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Table 4.29: Showing the Type of sickness that affected the Non NAADS Respondents last month.

Type of sickness	Freq.	Percent
Malaria	39	69.64
Typhoid	1	1.79
Flu	9	16.07
Others	7	12.50
Total	56	100.00

Source: Primary Data

Figure 4.23: A Bar Graph Showing the type of sickness that affected the Non NAADS Respondents last month.
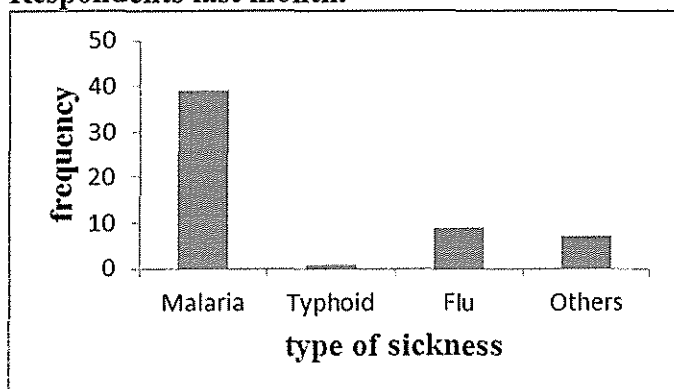
Source: Primary Data

Malaria is high in Lugusuulu sub county with (39) 69.64 percent, flu (9) 16.07 percent, other diseases (7) 12.50 percent, and Typhoid (1) 1.79 percent. High rate of malaria cases is a result of bushes around peoples' homes.

Table 4.30: Showing the level of seasonal crop yield of the Non NAADS Respondents

Level of crop yield Crop yield	Frequency
0	2
2	1
3	2
5	2
20	3
25	1
30	3
40	1
50	4
100	10
150	1
200	7
300	5
400	4
500	2
600	3
700	1
800	1
1400	1
1500	1
1600	1
1800	1
2000	2
2300	1
Total	60

Source: Primary Data

10 respondents yield over 100 Kilograms followed by 7respondents who yield 200 Kilograms, 5 respondents (300Kilograms) and 4 respondents either yield 400 or 50 Kilograms of crop per season as shown in the table above. This was due to application of traditional methods of cropping.

Table 4.31: Showing the type of livestock kept by the Non NAADS Respondents

Livestock kept	Frequency	Percentage
None	17	28.33
Goats	10	16.67
Cows	14	23.33
Sheep	2	3.33
Pigs	17	28.33
Total	60	100.00

Source: Primary Data

Figure 4.24: A Pie Chart Showing the type of Livestock kept by the Non NAADS Respondents.
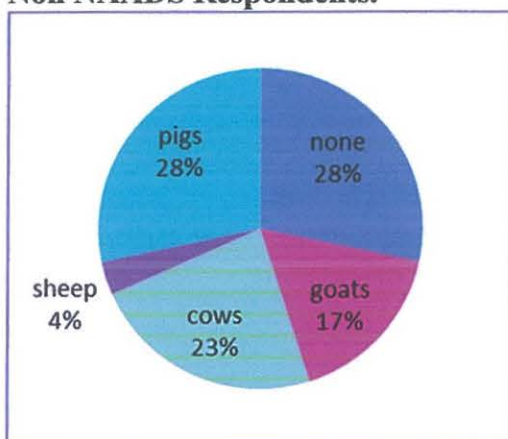
Source: Primary Data

Most of the respondents either rear pigs or do not rear any animal at all as shown by (17) 28.33 percent from the table above followed by (14) 23.33 percent who rear cows, followed by (10) 20 percent who rear goats and lastly followed by (2) 3.33 percent who rear sheep. The keeping of goats, cows, sheep, and pigs is as a result of their culture, availability of land, fodder, and water. Pigs dominate because they are cheap to acquire and maintain compared to other animals.

Table 4.32: Showing the level of livestock kept by the Non NAADS Respondents

Level of livestock	Frequency
1	7
2	10
3	8
4	3
5	1
6	1
10	1
17	1
20	3
30	2
47	1
48	1
50	1
68	1
80	1
Total	42

Source: Primary Data

Table 4.32 above shows that most of the respondents rear only two animals on their respective farms (10 respondents), 8 respondents with 3 animals, 3 respondents with either 4 or 20 animals, 2 respondents with 30 animals and one person kept at least 5 animals. Majority of the respondents rear pigs as seen in figure 4.24 above.

Table 4.33: Showing the number of children at school of the Non NAADS Respondents

Children at school	Freq.	Percent
Zero	9	15.00
One	14	23.33
Two	10	16.67
Three	13	21.67
Four	11	18.33
Six	2	3.33
Seven	1	1.67
Total	60	100.00

Source: Primary Data

Figure 4.25: A Bar Graph Showing the number of children of the Non NAADS Respondents at school
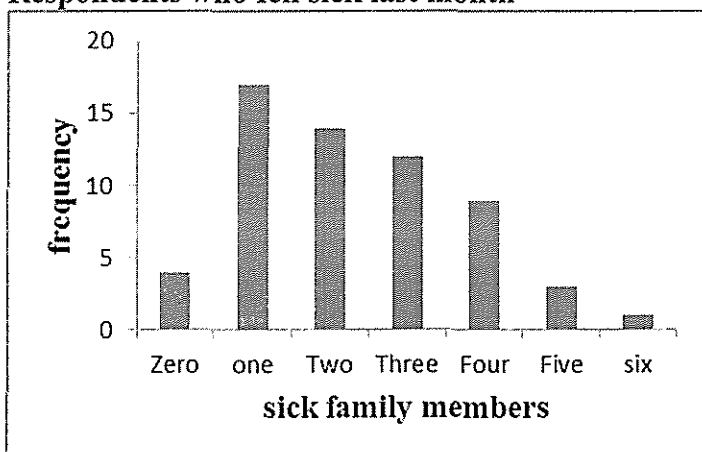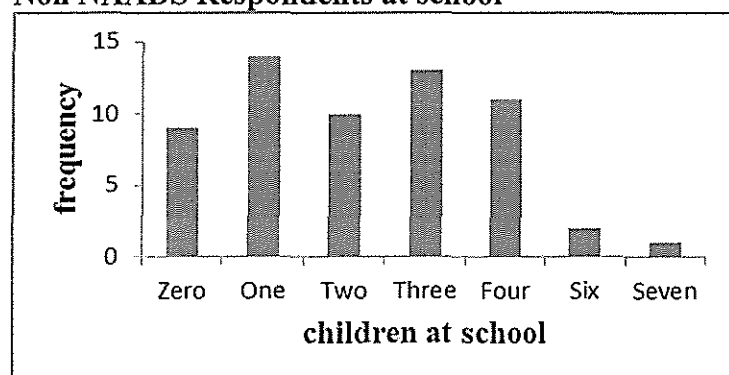

Source: Primary Data

Respondents with one child at school were high with (14) 23.33 percent, three children (13) 21.67 percent, two children (11) 18.33 percent, no child (9) 15.00 percent, six (2) 3.33 and seven children were (4) 8 percent. Only one child at school is as a result that most of the respondents were young between 20-29 years as shown by figure. The 9 percent of respondents who do not take any of their children to school is due to limited funds and very long distances to schools.

Table 4.34: Showing the Type of house of the Non NAADS Respondents

Type of house	Freq.	Percent
Temporary	12	20.00
Semi-permanent	10	16.67
Permanent	38	63.33
Total	60	100.00

Source: Primary Data

Figure 4.26: A Bar Graph Showing the type of house of the Non NAADS Respondents.
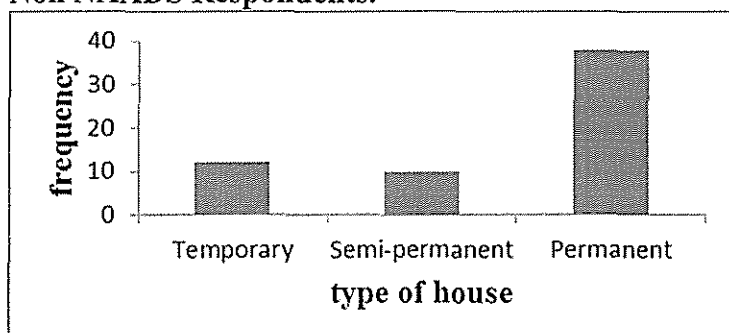
Source: Primary Data

The respondents who live in permanent house were (38) 63.33 percent, temporary (12) 20.00 percent and those in semi-permanent were (10) 16.67 percent. This could be as a result of making bricks by farmers themselves hence improved levels of accommodation.

Table 4.35: Showing the number of rooms of the house of the Non-NAADS Respondents

Rooms of the house	Freq.	Percent
One	8	13.33
Two	21	35.00
Three	10	16.67
Four	14	23.33
5roomsabove	7	11.67
Total	60	100.00

Source: Primary Data

Figure 4.27: A Pie Chart Showing the number of rooms of house of the Non NAADS Respondents
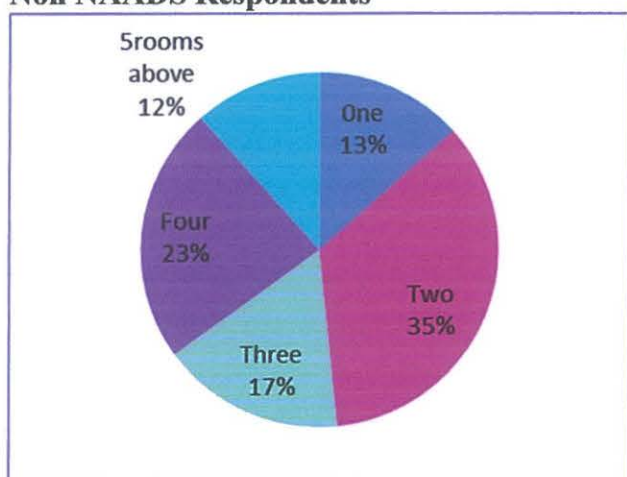
Source: Primary Data

Respondent with two rooms were leading with (21) 35.00 percent, four rooms (14) 23.33 percent, three rooms (10) 16.67 percent, one room (9) 13.33 and finally 5 rooms and above were (7) 11.67 percent. Although most of the respondents were living in permanent houses, the number of rooms was limited due to limited resources to put up big houses.

4.7 The Relationship between NAADS and Non NAADS Farmers' Level of Wellbeing

The relationship was based on farmers' income, crop yield and livestock levels, shown with help of a respective ANOVA table at 0.05 Level of Significance. The relationship was based on the hypothesis stated below;

H0: $\mu_1 = \mu_2$ (there is no difference between NAADS and Non NAADS farmers' level of wellbeing in Lugusuulu Sub-County Sembabule District at 0.05 level of significance).

H_1: $\mu_1 > \mu_2$ (NAADS farmers' level of wellbeing is greater than that of Non NAADS farmers in Lugusuulu Sub-County Sembabule District at 0.05 level of significance).

Where, μ_1= NAADS farmers' mean

μ_2= Non NAADS farmers' mean

Table 4.36: An ANOVA Table comparing Income Levels between NAADS and Non NAADS Farmers in Lugusuulu Sub-County Sembabule District at 0.05 Level of Significance.

Source of variation	SS	DF	MS	F
Treatments	3.44661E+12	1	3.44661E+12	8.428
Error	4.8255E+13	118	4.08941E+11	
Total	5.17016E+13	119		

Source: Primary Data, Appendix 4

Since the computed value of F (8.428) exceeds the critical value of F (3.94), the null hypothesis is rejected at 0.05 level of significance and the alternative hypothesis is accepted. It is therefore concluded that there exists a relationship between NAADS program and farmers wellbeing in terms of income earned per month since the mean income of NAADS farmers per month is greater than that of Non NAADS farmers in Lugusuulu Sub-Couty Sembabule District. This is consistent to BA (October 2010).

Table 4.38: An ANOVA Table comparing the levels of livestock among the NAADS and Non NAADS Farmers in Lugusuulu Sub-County Sembabule District at 0.05 level of significance.

Source of variation	SS	DF	MS	F
Treatments	175943.2	1	175943.2	3.542
Error	4867586	98	49669.24	
Total	5043529	99		

Source: Primary Data, Appendix 6

Since the computed value of F (3.542) is less than the critical value of F (3.95), the null hypothesis is accepted at 0.05 level of significance and the alternative hypothesis is rejected. It is therefore concluded that there is no relationship between NAADS program and farmers wellbeing in terms of livestock levels kept. However the difference between the computed and critical value of F is slight (i.e. 0.408) which implies that there exists a slight relationship between NAADS program and farmers' wellbeing in Lugusuulu Sub-Couty Sembabule District. This is also similar to Hansen (2005).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. SUMMARY OF FINDINGS

The main objective of this study was to establish the relationship between NAADS and farmers wellbeing in Lugusuulu Sub county Sembabule District. A two way Analysis of variance (ANOVA) was used at 5 percent level of significance. The findings revealed greater income levels among NAADS farmers compared to Non NAADS farmers in Lugusuulu Sub county Sembabule District and no significant difference between the livestock levels among the two groups. There also existed no difference between NAADS and Non NAADS farmers' seasonal crop yields as seen in chapter four above.

5.2. CONCLUSION

This study found out that NAADS farmers had higher income levels than Non NAADS farmers and there was also no significant difference between the livestock levels kept among the two groups. This could be due to extension of advisory services to farmers that has enabled them to add value to their livestock products like milk which generate more income per month despite the low levels of livestock. The level of crop yield was still very low which could be due to provision of poor quality seeds to farmers. The study also revealed that NAADS program implementation level is quite high since most of the respondents were visited and at same time received input materials at least once last year. However, since NAADS farmers have higher income levels than Non NAADS farmers, NAADS program has contributed towards farmers' wellbeing through boosting their income levels and therefore NAADS farmers are better off than Non NAADS farmers although more efforts are still needed to improve on some sectors like crop production and livestock levels.

5.3. RECOMMENDATIONS

The government through NAADS program should encourage farmers to save by extending SACCOS and micro finance institutions to villages so as to enable farmers to invest in other non-farm businesses.

NAADS program implementers at district level should ensure equitable distribution of input materials so as to improve on income inequalities among farmers.

The government should supply good quality seeds in order to boost on the level of crop yields per season.

Health programs like sensitization should also be incorporated into the program implementation guidelines in order to lower the high levels of sickness among the farmers especially by providing free mosquito nets to farmers.

The government should encourage farmers to reserve food for security purposes as well as teaching them the impacts of selling off all their food to their lives.

The District NAADS coordinator should ensure monitoring and supervision of the program implementation processes so as to achieve the program objectives.

5.4. Areas for Further Research

The results presented in this dissertation are not very conclusive and should be treated as being preliminary. Further analysis of the survey data about the study needs to be done to validate these findings and provide greater confidence in explaining the relationship between NAADS and farmers wellbeing in Lugusuulu Sub County Sembabule District.

A study should be carried out to find out the contribution of NAADS program to women's economic growth.

Further research should be carried out to establish the contribution of NAADS program to agricultural productivity.

A study should also be conducted to assess the contribution of NAADS program to food security levels.

REFERENCES

Anderson, J. R. (2007). *"Agricultural Advisory Services."* Mimeo, World Bank, Washington, DC.

Benin Samuel, Nkonya Ephraim et al (2012). *Impact of Uganda's National Agricultural Advisory Services Program,* International Food Policy Research Institute: research monograph. Washington, D.C.

Benin Samuel, Nkonya Ephraim et al. (2007). *Assessing the Impact of the National Agricultural Advisory Services (NAADS) in the Uganda Rural Livelihoods.* International Food Policy Research Institute: research monograph. Washington, D.C.

Economic Policy Research Centre (August, 5, 2011). *An insight into the performance of the National Agricultural Advisory Services programme,* Makerere University campus, Website: www.eprc.or.ug.

Friis-Hansen Esbern (2005). *Agricultural development among poor farmers in Soroti district, Uganda: Impact assessment of agricultural technology, farmer empowerment and changes in opportunity structures.* Paper presented at Impact Assessment Workshop at CYMMYT, Mexico. (efh@diis.dk).

Geofrey Okoboi, Fred R. Muwanika, Xavier Mugisha and Majidu Nyende (2011). *Economic and Institutional Efficiency of the National Agricultural Advisory Services' Programme:* The Case of Iganga District. EPRC Working Paper.

International Food Policy Research Institute (IFPRI), (2012). *Bt cotton adoption and wellbeing of farmers in Pakistan.* Washington, DC, U.S.A.

ITAD (Information, Training and Agricultural Development). (2008). *"Performance Evaluation of National Agricultural Advisory Services."* Mimeo, ITAD, UK.

Kebirungi Harriet (2011). *Gender Responsiveness in the NAADS Programme; the case of Bubare, Kabale District-Uganda;* A Paper presented at the IAFFE 2011 Annual Conference held in Hangzhou, China. (kebirungiv@yahoo.co.uk).

Ministry of Agriculture, Animal Industries and Fisheries (MAAIF). (October, 2010). *NAADS implementation guidelines.* Kampala: NAADS Secretariat: MAAIF.

Ministry of Agriculture, Animal Industries and Fisheries (MAAIF). (2006). *NAADS Master Plan.* Kampala: MAAIF.

Ministry of Health Uganda (2007). *Health Management Information System reports.* Available at: www.health.go.ug.

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Ministry of Health Uganda (2009). *Uganda Health Workforce Satisfaction and Intent to Stay among Current Health Workers (unpublished).*

Mishra K. Ashok, El-Osta S. Hisham et al. (2002). *Income, Wealth and Economic Wellbeing of farm house holds.* U.S Department of Agriculture. Agricultural Economic Report number 812. Washington, DC.

MoH Uganda, (2000). *Health Sector strategic Plan (2000/01 – 2004/05)* Ministry of Health, Uganda. MoH Uganda, August 2000.

Musoke C and Candia S (2009). *The President's Speech on the 47^{the} Independence Anniversary Ceremony at Kololo Air Strip. New Vision,* Vol. 24 No. 211, October 9, 2009; Kampala, Uganda.

National Agricultural Advisory Services (NAADS). (March, 2004). *Monitoring and Evaluation Manual.* Kampala: NAADS. Secretariat.

National Agricultural Advisory Services (NAADS). (2001). *NAADS Programme Implementation Model Manual.* Kampala: NAADS Secretariat.

Oleru J. A.R. Semana A.R. Et Al. (2005). *Assessing the level of farmers' participation in the choice of enterprises promoted by NAADS in Arua district, northwestern Uganda.* Department of Agricultural Extension Education, Makerere University, Namulonge Agricultural and Animal Production Research Institute, Kampala,Uganda

Park Timothy, Ahearn Mary (December 2010). *A Report from the Economic Research Service on Agricultural Income and Finance Outlook,* USDA, **www.ers.usda.gov**

Sunday Monitor (Kampala, Uganda). (2008). *"NAADS: Is It Business as Usual or Unusual?"* March 9.

Sunday Vision (Kampala, Uganda). 2006. *"Sh10 Billion Entandikwa Loans Still Unpaid."* July 22.

UBOS (November 2003). *Uganda National Household Survey20002/2003.* www.ubos.org.

UBOS.2010. *Statistical Abstract.* Entebbe, Uganda: Uganda BOS.

Uganda Debt Network (October 2010), *A Report on Beneficiary Assessment of NAADS Programme conducted in Pader, Amuria and Moroto districts, Kamwokya-Kampala Uganda.*

Uganda, MAAIF and MFPED (Ministry of Finance, Planning, and Economic Development).2000. *Plan for Modernization of Agriculture: Eradicating Poverty in Uganda.* Entebbe, Uganda: MAAIF.

Uganda, MFPED (Ministry of Finance, Planning and Economic Development). 2004. *Poverty Eradication Action Plan, 2004/5–2007/8*. Kampala, Uganda: MFPED.

Uganda, MFPED. (2007a). Background to the Budget 2007/08 Fiscal Year: *Re-orienting Government Expenditure towards Prosperity for All*. Kampala, Uganda: MFPED.

Uwechue, Ralph (ed.) (1996). *Africa Today*, Third Edition, Africa Books Limited, pp.866- 867.

World Bank (2007), *A Rightful Role for Agriculture in Africa's Growth*. Washington, DC.

World Bank. (2007a). World Development Report, 2008: *Agriculture for Development*. Washington, DC: World Bank.

World Bank. 2007b. *World Development Indicators.* World Bank, Washington, DC. http://data.worldbank.org/indicator.

APPENDIX 1
TRANSMITTAL LETTER FOR THE RESPONDENTS

Dear Sir/ Madam,

Greetings!

I am a student of Bachelors degree in Economics and Applied Statistics Kampala International University. Part of the requirements for the award is a research Report. My study is entitled, **NAADS Programme and Farmers' Wellbeing in Sembabule District; A Case Study of Lugusuulu Sub County**. Within this context, may I request you to participate in this study by answering the questionnaires? Kindly do not leave any option unanswered. Any data you will provide shall be for academic purposes only and no information of such kind shall be disclosed to others.

May I retrieve the questionnaire within five days (5)?

Thank you very much in advance.

Yours faithfully,

Mr. Katwere Amosi

APPENDIX 1A

INFORMED CONSENT

I am giving my consent to be part of the research study of Mr. Katwere Amosi that will focus on NAADS Programme and Farmers' Wellbeing in Lugusuulu Sub County Sembabule District.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation anytime.

I have been informed that the research is voluntary and that the results will be given to me if I ask for them.

Initials: _____

Date: _____

APPENDIX 1B

RESEARCH INSTRUMENT: QUESTIONNAIRE

Part 1: Demographic Profile of Farmers in Lugusuulu Sub County Sembabule District

1. Gender

   1. Male   2. Female

2. Age:

   1. Below 20   2. 20-29   3. 30-39   4. 40-49   5. 50 above

3. Marital status:

   1. Married   2. Single   3. Widowed   4. Divorced

4. Level of education attained:

   1. None   2. Primary   3. Secondary   4. Tertiary Institution   5. University

5. Are you a member of NAADs? (if 1, skip to question 9)

   1. No   2. Yes

Part Two: Questionnaire to Determine the Level of NAADS Program in Lugusuulu Sub County Sembabule District.

6. How many visits were conducted in your village last year for advisory services by NAADS officials?

7. Which kind of input materials did you receive last year from NAADS officials? (if 1, skip to question 9)

   1. None   2. Seeds   3. Goats   4. Cow   5. Fertilizers

8. How many times did you receive the above mentioned materials last year?

Part Three: Questionnaire to Determine the Level of Farmer's Wellbeing in Lugusuulu Sub County.

Income Levels

9. What is your level of income in a month? [   ]

10. How much do you save per month? [   ]

Food Security Levels

11. Do you store food for future consumption? [ ]

    1. No   2. Yes

12. How many meals do you take a day? [ ]

    1. Once 2. Twice 3. Thrice 4. 4times

Farmers' Health

13. How many members of your family fell sick last month? (if none skip to [ ]

    Question 15)

14. What type of sickness? [ ]

    1. Malaria   2. Typhoid   3. Flu   4. Chest pain   5. Others

Farmers' Yields

15. What is your level of crop yields per season? [   ]

16. What type of livestock do you keep? (if 1, skip to question18) [ ]

    1. None 2. Goats 3. Cows 4. Sheep 5. Pigs

17. What is your level of livestock per year? [   ]

Education

18. How many children do you take to school? [ ]

Housing

19. Which kind of house do you stay in? (Mud and grass-temporary, mud and iron sheets-semi permanent, bricks and iron sheets-permanent). [ ]

    1.Temporary house   2. Semi-permanent house   3. Permanent house

20. How many rooms does your house have? [ ]

    1.1 room 2. 2 rooms 3. 3rooms 4. 4 rooms 5.5 rooms and above

A REPORT ON CHALLENGES MET WHILE COLLECTING DATA IN NALUKONGE LCI LUGUSUULU SUBCOUNTY SEMBABULE DISTRICT FROM 24TH-30TH JUNE 2013.

Data collection started on 24th June and ended successfully on 30th the same month. Data was collected from 120 farmers of which 60 were either NAADS or Non NAADS farmers. However the researcher met the following challenges;

- ❖ Requisition of money or physical items like T-shirts and Sodas.
- ❖ Respondents devalue provision of data to collectors since they do not realize any benefits after the study.
- ❖ NAADS farmers were scattered and the researcher had to move through isolated areas to meet the respondents.
- ❖ Some of the NAADS farmers pretended to be Non NAADS farmers and were questioned as Non-members.

Recommendations

- ❖ The government should sensitive people on provision of data if legally needed to save data collectors from any unnecessary disturbances.
- ❖ Study findings should always be presented to respondents after data analysis.

Conclusion

The above mentioned challenges were met with a few respondents and therefore the researcher wishes to thank the farmers of Nalukonge LC1 for their cooperation.

CARRICULUM VITAE

PERSONAL DETAILS

NAME   : KATWERE AMOSI

DATE OF BIRTH   : 25th November 1990

SEX   : Male

ADDRESS   : Kawaala-Rubaga division Kampala

EMAIL ADDRESS   : sonkoamos@yahoo.com

PHONE NUMBER   : 0773785184/0703639736

NATIONALITY   : Ugandan

MARITAL STATUS   : Single

EDUCATION BACKGROUND

PERIOD	INSTITUTION	QUALIFICATION
2010 – 2013	Kampala International University, main branch Kampala	Undergraduate (bachelor of Economics and applied Statistics)
2008-2009	Masaka Secondary School	Uganda Advanced Certificate of Education
2004-2007	Masaka Secondary School	Uganda Certificate of Education
1996-2003	St. Joseph Mateete Primary School, Sembabule District.	Primary Leaving Examinations

RESPONSIBILITIES HELD

- An active member of Uganda Statistics Society (USS)
- The Treasurer Kampala International University Economics and Statistics Students' Association (KIUESSA) from 2011-2013.
- The class coordinator from 2010-2013.
- School team cricketer Masaka Secondary School from 2004 to 2009.

CARRIER OBJECTIVE

Seeking an opportunity of challenges, to consistently solve problems in an effective/creative manner in a challenging position and enhance my professional skills in a dynamic and stable workplace, and thereby contribute to the growth of the organization.

PERSONAL QUALITIES, ABILITIES AND COMPETENCES

- 100% Commitment, Effective Time Management, Open to new ideas & concepts.
- Computerized skills in Microsoft office and statistical packages
- Good Communication skills and leadership qualities.
- Resourceful organizer and team builder.

WORKING EXPERIENCE AND SKILLS

1. Sembabule District Local Government in the planning unit during my industrial training in 2012.

Skills and Experience Acquired

- Data collection, entry and analysis using SPSS and STATA.
- Field surveying, hand tabulation and data presentation through Lot Quality Assurance
- Monitoring and evaluation
2. Research study conducted in Lugusuulu Sub county Sembabule District in 2013

Skills and Experience Acquired

- Data collection, entry, analysis and discussion of results with help of Epidata and STATA.
- Comparing different populations using Analysis of variance (ANOVA).

LANGUAGE PREFERNCES

LANGUAGE	ORAL	WRITTEN	LISTENING ABILITY
ENGLISH	GOOD	GOOD	GOOD
LUGANDA	Excellent	Excellent	Excellent
Lunyankole	Fair	Fair	Fair

REFEREES

Pr. Godwin Ssempebwa.

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Vice President Uganda statistics society (USS).

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Mr. Batte frank

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DECLARATION

I hereby declare that the above information is true to the best of my knowledge. I promise to abide by the rules and norms of any organization to ensure the achievement of its goal.

APPENDIX 4

Table Showing NAADS and Non NAADS farmers' Level of Income Per Month

NAADS farmers' income levels (n_c=60)	Non NAADS farmers' income levels (n_c=60)
0	0
5000	20000
40000	7000
25000	60000
90000	120000
120000	25000
250000	180000
55000	40000
180000	350000
140000	180000
180000	80000
300000	90000
104000	500000
120000	130000
450000	140000
400000	450000
250000	600000
260000	240000
600000	290000
700000	1200000
800000	400000
420000	
900000	
2000000	
600000	
650000	
700000	
800000	
1800000	
2000000	
2500000	
3000000	
5000000	

Source: Primary Data,

Table Showing NAADS and Non NAADS farmers' seasonal crop yield levels

NAADS farmers' crop yield level (n_c=60)	Non NAADS farmers' crop yield level (n_c=60)
0	0
2	2
3	6
10	10
10	60
20	25
30	90
80	40
100	200
70	1000
80	150
700	1400
450	1500
180	1600
200	1000
220	1800
250	700
900	800
900	1400
2000	1500
1200	1600
1600	1800
9000	4000
1300	2300
1500	
1800	
3000	
10000	

Source: Primary Data

APPENDIX 6

Table Showing NAADS and Non NAADS farmers' Livestock Levels

NAADS farmers' livestock level (n_c=58)	NAADS farmers' livestock level (n_c=42)
6	7
12	20
12	24
4	12
12	5
7	6
8	10
20	17
30	60
16	60
17	47
40	48
50	50
30	68
160	80
200	
60	
70	
75	
160	
400	
450	
200	
600	
400	
600	
2000	

Source: Primary Data

APPENDIX 7

F Distribution: Critical Values of F (5% significance level)

v_2 \ v_1	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	243.91	245.36	246.46	247.32	248.01
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.41	19.42	19.43	19.44	19.45
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.74	8.71	8.69	8.67	8.66
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.91	5.87	5.84	5.82	5.80
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.68	4.64	4.60	4.58	4.56
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.00	3.96	3.92	3.90	3.87
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.57	3.53	3.49	3.47	3.44
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.28	3.24	3.20	3.17	3.15
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.07	3.03	2.99	2.96	2.94
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.91	2.86	2.83	2.80	2.77
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.79	2.74	2.70	2.67	2.65
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.69	2.64	2.60	2.57	2.54
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.60	2.55	2.51	2.48	2.46
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.53	2.48	2.44	2.41	2.39
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.48	2.42	2.38	2.35	2.33
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.42	2.37	2.33	2.30	2.28
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.38	2.33	2.29	2.26	2.23
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.34	2.29	2.25	2.22	2.19
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.31	2.26	2.21	2.18	2.16
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.28	2.22	2.18	2.15	2.12
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.25	2.20	2.16	2.12	2.10
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.23	2.17	2.13	2.10	2.07
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.20	2.15	2.11	2.08	2.05
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.18	2.13	2.09	2.05	2.03
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.16	2.11	2.07	2.04	2.01
26	4.22	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.15	2.09	2.05	2.02	1.99
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.13	2.08	2.04	2.00	1.97
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.12	2.06	2.02	1.99	1.96
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.10	2.05	2.01	1.97	1.94
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.09	2.04	1.99	1.96	1.93
35	4.12	3.27	2.87	2.64	2.49	2.37	2.29	2.22	2.16	2.11	2.04	1.99	1.94	1.91	1.88
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.00	1.95	1.90	1.87	1.84
50	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13	2.07	2.03	1.95	1.89	1.85	1.81	1.78
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	1.99	1.92	1.86	1.82	1.78	1.75
70	3.98	3.13	2.74	2.50	2.35	2.23	2.14	2.07	2.02	1.97	1.89	1.84	1.79	1.75	1.72
80	3.96	3.11	2.72	2.49	2.33	2.21	2.13	2.06	2.00	1.95	1.88	1.82	1.77	1.73	1.70
90	3.95	3.10	2.71	2.47	2.32	2.20	2.11	2.04	1.99	1.94	1.86	1.80	1.76	1.72	1.69
100	3.94	3.09	2.70	2.46	2.31	2.19	2.10	2.03	1.97	1.93	1.85	1.79	1.75	1.71	1.68
120	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96	1.91	1.83	1.78	1.73	1.69	1.66
150	3.90	3.06	2.66	2.43	2.27	2.16	2.07	2.00	1.94	1.89	1.82	1.76	1.71	1.67	1.64
200	3.89	3.04	2.65	2.42	2.26	2.14	2.06	1.98	1.93	1.88	1.80	1.74	1.69	1.66	1.62
250	3.88	3.03	2.64	2.41	2.25	2.13	2.05	1.98	1.92	1.87	1.79	1.73	1.68	1.65	1.61
300	3.87	3.03	2.63	2.40	2.24	2.13	2.04	1.97	1.91	1.86	1.78	1.72	1.68	1.64	1.61
400	3.86	3.02	2.63	2.39	2.24	2.12	2.03	1.96	1.90	1.85	1.78	1.72	1.67	1.63	1.60
500	3.86	3.01	2.62	2.39	2.23	2.12	2.03	1.96	1.90	1.85	1.77	1.71	1.66	1.62	1.59
600	3.86	3.01	2.62	2.39	2.23	2.11	2.02	1.95	1.90	1.85	1.77	1.71	1.66	1.62	1.59
750	3.85	3.01	2.62	2.38	2.23	2.11	2.02	1.95	1.89	1.84	1.77	1.70	1.66	1.62	1.58
1000	3.85	3.00	2.61	2.38	2.22	2.11	2.02	1.95	1.89	1.84	1.76	1.70	1.65	1.61	1.58

OFFICE OF THE HOD
SCHOOL OF ECONOMICS AND APPLIED STATISTICS

Friday 14th June, 2013

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR MR. KATWERE AMOSI REG NO. BEAS/31668/102/DU
TO CONDUCT RESEARCH IN YOUR SUB COUNTY.

This is to introduce to you the above mentioned, a 3rd year 2nd Semester student at Kampala International University pursing a Bachelor of Economic Science and Applied Statistics. He is carrying out a research study on **NAADS PRORAMME AND FARMERS' WELLBEING IN LUGUSUULU SUB COUNTY. (A CASE STUDY OF SEMBABULE DISTRICT).**

You are kindly requested to offer him the necessary assistance especially on Objectives, Methods, Analysis and Findings, he also need information about time, Business ownership. Then this will enable him collect the required data so as to complete him research project.

Any assistance rendered to him will be highly appreciated.

Yours in service,

Pr Sempebwa Godwin B.
HOD - School of Economics and Applied Statistics

"Exploring the Heights"