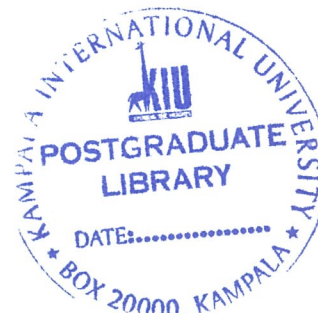


**CONTRIBUTION OF NATIONAL AGRICULTURAL ADVISORY SERVICE
PROGRAMME (NAADS) ON COMMERCIALIZATION OF
AGRICULTURE IN RWAMUCUCU SUB-COUNTY
KABALE DISTRICT
UGANDA**

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**A THESIS SUBMITTED TO THE SCHOOL OF POST GRADUATE
STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF MASTER OF
PUBLIC ADMINISTRATION AND MANAGEMENT OF
KAMPALA INTERNATIONAL UNIVERSITY**



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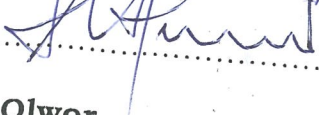
DECLARATION

I, Tindyebwa Joseph, hereby declare that this study is my original work and has never been published and / or submitted for any degree to any university before.

Signed *Htutu* Date..... *24/09/09*

APPROVAL

This work has been approved and supervised by my supervisor
Dr. Sunday Olwor

Signed  Date 23/9/09

Dr. Sunday Olwor

DEDICATION

This work has been dedicated to my family members, my relatives, friends and brethren family of Lift up Jesus church Kabale.

ACKNOWLEDGEMENTS

This is to acknowledge the support of various people without whom this book would not have come out the way it did. To begin with, I thank my parents who brought me forth into the world with all its challenges and excitements; Sister Edith Tukahiirwa and beloved Maama, my dear wife Susan Tindyebwa and daughters, Sister Christine Kaya. You gave me the greatest gift of Love, material, moral and spiritual support; you were my first teachers; in your humility you miraculously gave me all the school requirements, hence lay the foundation for my life. Efforts of my Research supervisor Dr. Sunday Olwor far exceed the regular role of a research supervisor. He and I know too well how he pushed me to the finishing point when I would have fallen out of the race, to the detriment of not just myself but the rest of the people that wish me well. Thanks Dr. Sunday Olwor. I thank my wife and children who are ready to share with me the pains and proceeds of my efforts in as much as I will share theirs. My gratitude also goes to all my lecturers since the time of my undergraduate course, post graduate course at Uganda Christian University BBUC Kabale and post graduate studies at Kampala International University. Special regards goes to Prof. Byarugaba Festus, Prof. Firimon Banugire, Mr. Turyahikayo Everlist and my fellow student Mr. David Karangwa.

Above all, I thank God for letting me transcend what I have gone through, the stamina to do all I do and the capacity to do what would otherwise be impossible, plus all else he does that I am unconscious of yet are for my own good. My gratitude to all the above might not be well accepted if I do not acknowledge the innumerable weaknesses that each of the above may have seen in me. For what has not gone well between me and you, I sincerely apologize.

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LIST OF ACRONYMS

AEP:	Agricultural Extension Programme
AES:	Agricultural Extension Services
BBUC :	Bishop Barham University College
CBO:	Community Based Organizations
CICS:	Competitiveness and Investment Climate Strategy
FF :	Farmer Forum
FGDS:	Focus Group Discussions
ISFG:	Institutional Support for Farmer Groups
KDLR:	Kabale District Local Government Report
LGDP:	Local Government Development Plan
NAADS:	National Agricultural Advisory Services
NARO:	National Agricultural Research Organization
NGOs:	Non Governmental Organizations
PAF:	Poverty Action Fund
PEAP:	Poverty Eradication Action Plan
PMA:	Plan for Modernization of Agriculture
PWDS:	People with Disabilities
SDIP:	Social Development Sector Strategic Investment Plan
SEP:	Strategy for Export Promotion
SNC:	Sub County NAADS Coordinator
W:	Week

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ABSTRACT

The study aimed at establishing the impact of NAADS programme towards subsistence agriculture in Rwamucucu sub-county guided by the theory of agricultural service provision, through creation of awareness about formation of farmers' institutions and building their capacity. The study was guided by the following research questions: What is the impact of NAADS on peasant Agriculture? The study was based on the literature that highlighted on the modernization of agriculture and innovations through the delivery of agricultural extension services, addressing challenges to the commercialization of agriculture and depicting the impact of NAADS on the commercialization of Agriculture. The data was collected using questionnaires and interviews. These were administered to the members of farmers groups and the community members. After the data collection exercise, the results were entered in the computer where it was descriptively analysed and interpreted using frequency tables and pie charts. The study found out respondents knew activities of NAADS programme such as, facilitating farmers in advisory services and farmer technology development, providing various improved seeds and marketing of farmers' products. Farmers are also increasingly promoting production of high value crops like passion fruits, apples, bananas and livestock farming such as goat management, poultry and fish farming. It was also found out that NAADS have promoted greater use of post-harvest technologies and commercial marketing of Agricultural commodities. The study concluded that, there was need to over come the challenges that were prohibiting the commercialization of agriculture. It was recommended that there should be; Provision of legal and policy framework; closer monitoring and supervision of the NAADS programme by stakeholders; Linkage of farmers to market opportunities; value addition; strengthening farmer institutional development; Networking (with NGOs and CBOs) and enhancing the capabilities of public extension workers; increased supply of agricultural inputs to farmers.

CHAPTER ONE

GENERAL INTRODUCTION

Introduction

NAADS is a semi-autonomous organization formed by NAADS Act of June 2001 with a mandate to develop a decentralized, demand driven, farmer-owned and private sector extension service delivery system in Uganda (Namara and Mugenyi, 2004:89). NAADS programme is an agricultural service delivery system that is being implemented through a decentralized government system for the transformation of peasantry-subsistence agriculture to a commercialized system of agriculture.

NAADS programme is decentralized, demand driven, farmer based agricultural extension service delivery system.

The genesis of agricultural extension services can be traced from a historical perspective. By 1914 agricultural extension service provision had spread to Africa by the colonial masters, and today, it has become recognized as an essential mechanism for the delivery of information and advice as an input into modern farming. This is because “agriculture and food play a very important role in economic development. The agriculture sector provides the basis for economic development in majority of developing countries (Andersen Perpinsttrup, 1982: v).

Agricultural extension services focused on promotion of export crops little attention was paid to research on food crops primarily consumed in the colonies. This sabotaged efforts to transform agriculture and expand its productive capacity, (Kidd, 2001:12). The delivery of agricultural extension services in Uganda can be traced chronologically as follows:

Between 1812-1900, it was offered under colonialism whereby the colonial masters concentrated on promotion of export crops.

From 1920 – 1956 Kidd (2001:12) shows us that the delivery of agricultural extension services was done by local chiefs. Local chiefs could “supplement the efforts of field officers and colonial administration in carrying out distribution of various planting materials and seeds that were imported” (Mubiru and Ojacor, 2001:295).

Again the authors maintain that local chiefs were required to enforce agricultural bye-laws formulated from time to time. There was rapid development of export crops and its overwhelming effect on the development and prosperity of the country was very largely due to the assistance given by the local chiefs.

Extension continued undergoing evolutionary process and in the period 1956 – 1961, agricultural extension services were offered by government but through progressive farmers. A credit and loan scheme was worked out for the progressive farmers. The above authors note that large sums of money were availed for them to purchase the required agricultural inputs. Here, emphasis was put on the provision of inputs such as fertilizers, new seed varieties and farm technology.

From 1964 – 1971, the government of Uganda adopted commodity approach. In this period demonstration farms were put in place as a mechanism for technology transfer (Kidd. 2001:12).

In Uganda, agriculture contributes 47% of GDP, 85% of the country's export earnings and to providing employment to about 80% of Ugandan population (Kagina 2003) cited in Namara and Mugenyi (2004:87) increased agricultural productivity is thus viewed as a key element to poverty eradication among farmers.

Background to the Study

NAADS is National Agricultural Advisory Services, which is a programme in the Ministry of Agriculture, Animal Industry and fisheries, created under the plan for modernization of modernization of Agriculture as one of the government efforts to reduce poverty.

Commercialization of agriculture can be defined as the state at which the growing of crops and rearing of animals on the peasant farm scale can be used to contribute towards individual house hold incomes other than for only at subsistence production, with the purpose of improving on economic and social livelihoods of people.

NAADS programme was set up to strengthen the government Plan for the Modernization of Agriculture (PMA) as a strategy to eradicate poverty in Uganda.

The programme is based on public and donor funding, private advisory service delivery, contracting out of AES, farmer ownership, cost sharing and decentralization to Sub-Counties.

The NAADS programme was set up in 2001 to spearhead the transformation of farmers from subsistence farming to market oriented farming. NAADS implementation is decentralized up to Sub-county level. NAADS rolled out gradually from 24 Sub-counties in 6 districts in 2001 to 345 Sub-Counties districts in financial year 2005 / 2006 (NAADS Report, 2006). The main beneficiaries of NAADS are subsistence farmers who constituted 79 and 17 of the rural households at the beginning of programme as compared to commercial farmer.

The programme is responsible for provision for provision of Agricultural advise to farmers .It gives particularly the poor, women, youth and PWDs powers to ask for advisory services for their priority enterprise.

Agriculture has remained a centrally important part of African economy, providing 30- 50% of GDP in most countries, the major source of livelihoods for 70-80% of population's food supplies and revenues from export of cash crops (Toulmin, 2003). Whereas countries have tried to diversify other areas of income generating activities, farming has remained and is likely to remain of central significance to incomes and livelihoods for the foreseeable future (Fafchamps, et al 2001).

Hence agriculture policies were set to address a range of objectives including

- a) Increasing agricultural productivity and contributing to food security
- b) Reducing poverty and improving the livelihoods of rural producers
- c) Increasing the capacity to compete with imported agricultural products
- d) Diversifying agricultural exports
- e) Managing the sustainable use of natural resources-soils, water, forests and grazing-land on which agriculture relies
- f) Ensuring a balanced pattern of development

NAADS programme has guiding principles that help it to fulfill its vision and mission such as;

- 1) Demand driven enterprises/services
- 2) Guide and sensitize farmers to demand for agricultural advisory services
- 3) Ensure that women and other vulnerable groups actively participate and providers

- 4) Ensure that the sub-counties manage and implement NAADS activities
- 5) Ensure that all stakeholders such as researchers, farmers and traders are properly linked.

NAADS is comprised of five (5) components namely;

- a) Offering advisory and information services to farmers
- b) Technology development and linkages with markets
- c) Quality assurance – regulation and technical auditing of service providers
- d) Private sector institutional development through retaining of private service providers
- e) Programme management and monitoring

The main components of NAADS which are contributing to transformation of substance farming to commercialize Agriculture in Rwamucucu Sub-county are; Offering Advisory and information services to farmers, Technology development and linkages with markets. NAADS programme is decentralized demand driven; farmer based agricultural extension service delivery system.

Statement of the Problem

Although NAADS has been in place for over seven years, in Kabale district little has been achieved in terms of commercial production, increased yields, and marketing. Farmers are still stuck in their old farming methods. In Rwamucucu sub-county, the impact of NAADS Programme has not been to the expectation of the peasant farmers where by the desired farmer technology input support has been not met.

The Livestock and crop farming existing in Rwamucucu Sub County is still in traditional agricultural enterprises (Irish potatoes, goats, banana, passion fruits, beans) which are not yet commercially viable compared to the cash crops in other districts. The main source of income in Rwamucucu Sub-county is bananas, but very few people get decent income earnings from it. Hence the importance of diversifying to other cash crops such as apples, passion fruits, modern goat management, poultry, fish farming in order to reduce on income insecurity.

Yet the introduction of NAADS programme in Rwamucucu Sub-county primarily was to address various set backs in the agricultural sector-production and marketing. The study therefore intends to address the challenges of commercialization of agriculture in the sub-county by assessing the impact of NAADS to solve the problem of income insecurity.

Purpose of the Study

The purpose of the study was to establish the role of NAADS programme had impact in commercialization of Agriculture in Rwamucucu Sub-county.

Specific objectives:

- a) To analyze the contribution of NAADS programme towards the commercialization of agriculture in Rwamucucu Sub County.
- b) To assess the challenges faced by NAADS in the commercialization of agriculture in Rwamucucu Sub County.
- c) To establish the strategies have been by NAADS versus challenges faced for enhancement of NAADS Programme as an instrument for commercialization of agriculture in Rwamucucu Sub County (for the next three years through the establishment of farmer institutions, equipping and developing the capacity of farmer institutions).

Research Questions

- a) What is the contribution of NAADS programme towards the commercialization of agriculture in Rwamucucu Sub-county?
- b) What are the challenges faced by NAADS in the commercialization of agriculture in Rwamucucu Sub County and how they are being addressed?
- c) What are the strategies that have been adopted by NAADS for the enhancement of commercial farming in Rwamucucu Sub County and who are the key actors in implementing these strategies?

Scope of the study

The scope of study within this research for the impact of NAADS programme in Rwamucucu Sub County is based on; its geographical scope, the time scope, and the content scope of the research.

The Geographical Scope

The research was carried out in Rwamucucu Sub-county, one of the seventeen rural based Sub-counties of Kabale district. Reference is made as per attached map of Kabale District after the appendix pages; its source is Kabale District Local Government Planning Unit Office. It is located in the Northern part of the District, in Rukiga County..

The Sub-County administration headquarters are 42 km from Kabale via Muhanga and 20km via Shoko Hill Road. This area was been chosen because it was doing well in NAADS programme and there are 150 registered farmer groups of which 80 are actively involved and supported by NAADS Programme.

Time Scope

The study considered the past eight years of NAADS implementation that is 2001-2008 in Rwamucucu Sub County. Where as Rwamucucu Sub-county became the beneficiary since 2002 up today the vision of NAADS is that by the end of 25 years, the farmers will be co-funding towards the provision of advisory services. This research study has been conducted for a period of 8 month since April 2008 to December 2008.

Content Scope

- a) The study focused on strategies and measures for commercialization of agriculture, on other impact on the improvement of peasant farming as well as addressing the challenges faced in the process of commercializing Agriculture.
- b) The study focused to analyze the contribution of NAADS programme towards the commercialization of agriculture in Rwamucucu Sub County.
- c) The study shall assess the challenges faced by NAADS in the commercialization of agriculture in Rwamucucu Sub County.
- d) The study focused on the establishment of the strategies that have been put in place by NAADS versus challenges faced for enhancement of NAADS Programme as an instrument for commercialization of agriculture in Rwamucucu Sub County.

Significance of the Study

The study will address challenges encountered in the implementation of NAADS programme for the commercialization of agriculture as a government programme to reduce poverty.

It will give data to the LGs, the CBOS and funding agencies organizations about ways and means to improve on agricultural performance of NAADS for the benefits of rural communities.

CHAPTER TWO

LITERATURE REVIEW

Structure of Literature Review

This chapter reviews different scholars about delivery of agricultural extension services. The review is done according to the study objectives and research questions. Some scholars analyses the role of agricultural extension services towards the modernization of agriculture in transformation from subsistence farming to commercial farming especially in developing countries such as Uganda, West African countries, and others on the globe that depend majorly on agriculture. However, Rwamucucu Sub-County within Kabale district shall be a relevant case study.

Theoretical Background

According to oxford dictionary, the term programme refers to “a plan of things that will be done or included in the development of something” In this study, programmes refer to a plan of action undertaken by the government in the poverty eradication.

The focus here is mainly Uganda where NAADS programme, under the department of production and marketing is being decentralized at the District level of local Government up to the sub-county level. There are other related government programmes in this context which are decentralized at district and sub-county local governments such as LGDP and PMA, of which sub-counties in Kabale district are the beneficiaries.

The NAADS of PMA is a strategy for promoting agricultural innovations in the context of a peasant economy. Literature review has identified approaches (theories) of agricultural innovations and this study embraces all of them but with special focus on the social organizations of innovations (SOI) theory (Engel, 1995).

Engel identifies several theories of Agricultural innovations;

-Induced innovations theory which emphasizes shifts in relative prices as the main incentives to innovations.

-The integrated innovation approach which emphasizes technology transfer and diffusion mechanisms.

-The networking approach which emphasizes the importance of enterprise co-operation in creating opportunities for innovations.

The social organization of innovation theory which is more comprehensive than any of the above; It emphasizes the ways in which “social” actors organizes themselves for networking for the purpose of accessing and diffusing technology. In this approach the quality of networking is a major determinant of the adoption of technology innovations and their impact on production.

It is this theory which is most consistent with the NAADS programme strategy for service delivery and has been used in arriving at the conceptual framework in the section below:

Strategies of improving the quality of agriculture extension services and innovations for the commercialization of agriculture

Description of the SOI theory; **Source: Engle (1985);**

This theory has assumptions and prepositions as put by Engel (1995) in his book, “the social organization of innovation”, he depicts the basic configurations that are conceptual tools for studying the impact of agricultural innovative performance which act as social and economic driving forces to bring impact in the agricultural sector.

These ideal types are called basic configurations that will be distinguished: farmer driven, industry driven, policy driven research and development driven and donor driven.

These basic configurations can be a strategic framework for improving the quality of agricultural extension services which is applicable for the



improvement of subsistence agriculture to commercial agriculture in Rwamucucu Sub County as explained below; Refer to the next page 11.

Source: BIRTHA MIKKELSEN; (Methods for Development Work and Research); 2002, 2003. He evaluated the impact of project and programmes. He stated that programmes are monitored and evaluated with indicators. He recommended standard framework for monitoring and evaluation for projects.

NAADS programme will follow the same format for the impact on commercialization of agriculture. A relevant approach of monitoring and evaluation has been put forward to justify of why NAADS programme implementation is required necessity for the commercialization of agriculture as basic way of poverty reduction.

An indicator is a proxy for describing or measuring a complex situation or phenomenon, e.g. poverty reduction or well-being. In development work we use indicators to describe projects programmes and project contexts in order to get an overview, but the most important use of indicators are used to measure change that relates to development interventions. Without some kind of indicators we cannot monitor the achievements, progress or impact of development programmes.

As the name suggests, an indicator only indicates-indicators do not tell full truth about the situation and change.

There are several categories of indicators, below is illustration table 2 on page 14 that includes the most common indicator typology with illustrative examples from Natural Resource Management interventions for successfully implementation of programmes and projects aiming to poverty reduction.

Types and Characteristics of M & E Indicators

Type of indicator	Characteristic	Examples
Input indicator	Concern resources devoted to the project/programme	<ul style="list-style-type: none"> Amount of project funding Degree of community input to project planning by socio-economic grouping and sex.
Process indicator	Monitors achievement during implementation, to track progress towards the intended results.	<ul style="list-style-type: none"> Receipt of cash or in-kind payment by socio-economic grouping of household Relatives/equal participation across socioeconomic groups and by women and men in project committee
Output indicator	Identifies short-term results	<ul style="list-style-type: none"> x specified improved cultivation practices on private land adopted by y men and z women farmers Specified institutional mechanisms established and operating satisfactorily for management of natural resources on common land.
Outcome/impact indicator	Relate to the longer-term results of the project	<ul style="list-style-type: none"> % men and % women land users in priority watersheds practice sustainable dry land agriculture and forestry on private and common land Poverty reduced for 95% of participating men and women, well-being increased in terms of livelihoods, access to resources, knowledge, and or rights (each to be defined with stakeholders)

Source: BIRTHA MIKKELSEN; (Methods for Development work and Research); 2002-2003. Table 1

The major reason for trying out an alternative monitoring approach like the MSC was the painful realization that the modified logical framework system 'M' and its partners had struggled to put in place for documentation of activities and organizational learning, did not work.

The attractions of the MSC approach to monitoring at first glance seem to be.

- (a) It is involving and participatory and suits partnership-based organization well;
- (b) It is suited to make use of information which is already generated, for example in partnership review workshop.
- (c) It demands that the information be used at all levels-beneficiary, partner-organization and at country programme levels and finally.
- d) MSC services as a supplement to already functioning parts of traditional M&E system.

However simple and suited the MSC approach may look for an NGO like 'MS', it still involves careful planning and has its own limitations. To get started, 'MS' developed a set of guidelines to guide the story telling as dialogues around the three domains of 'MS's mandate that is:

- (i) Poverty reduction
- (ii) Intercultural cooperation
- (iii) Organization performance

Therefore according to the above stated approach to address poverty, in that regard NAADS programme, it is an essential programme which can benefit farmers of Rwamucucu Sub County for a commercialized system of farming that can address poverty challenges through modern agricultural practices.

Role of NAADS Programme Stakeholders, and Service Providers for Agriculture Technology Development in Kabale District

These roles are in accordance with NAADS implementation guidelines revised in August 2007 by the Ministry of Agriculture Animal Industry and Fisheries. These guidelines are intended to; Create awareness about the process of group formation, Establishing farmer institutions and, Developing the Capacity of farmers' institutions with the purpose to assist farmers to shift from the predominantly subsistence-based way of agricultural production to agricultural

commercialization, for both export and internal consumption which is particularly important to rural farmers that depend on agriculture as their main source of income and food security.

A Service provider will be contracted to facilitate the technology development, and develop farmer capacity in management and use of the technology. He will be responsible for providing the management expertise.

The service provider must identify what technologies to develop, and articulate the Rationale, the why question for selection. The role of Service provider are detailed in Terms of Reference used in Procurement process and to include;

- Facilitate identification of a technology that best meets the farmers expressed needs.

- Identify the associated farmers capacity development needs and undertake capacity development.

- Develop a technology development strategy and work plan.

- Document the process and provide a dissemination plan to ensure lessons and information generated is incorporated as recommendation for the technology.

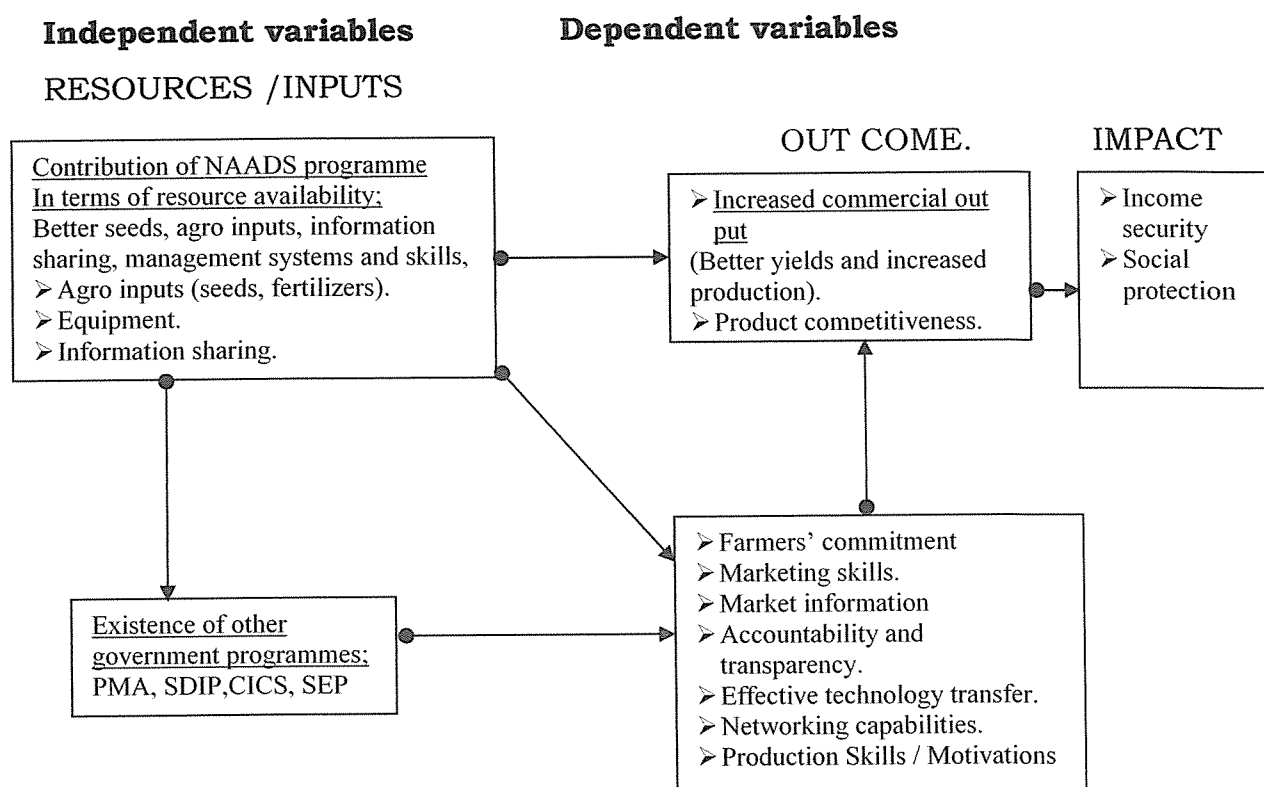
The Technical teams at the District and Sub county levels will in conjunction with farmers under take; Monitoring and Evaluation of Technology Development, Quality assurance; the technical audit team will ensure that the service provider undertakes his/her responsibility in compliance with established standards and guidelines, as well as in accordance to Terms Of Reference.

A Conceptual Frame Work

It is the theory of Engle (1995) which is most consistent with the NAADS programme strategy for service delivery and has been used in arriving at the conceptual framework in the section below:

There are several factors which support the delivery of agricultural extension services. A conceptual framework of these factors can be elaborated as below; on the basis of concept of social organization for innovations by Angel, 2003 and the NAADS design framework.

Linkages between independent and dependent variables as a support to agricultural advisory service delivery impact.



Figure; 1

The conceptual framework emphasizes the fact that commercialization of agriculture through NAADS programme will be influenced by the out puts of NAADS, namely availability of resources improved capabilities of farmer, the policy environment, PMA,CIS,SDIP,SEP, political environment of good will and support, monitoring and evaluation and government policies.

These plus dependent variables such as farmer's commitment, marketing skills, market information, accountability and transparency, effective technology transfer have considerable effect on increased commercial output productivity of enterprises, and competitiveness in local, regional and export markets.

However, the outcome is also influenced by the intervening variables such as the availability of funds from donors, accessibility of roads in the remote areas and natural factors and their management which play a vital role commercial agriculture. These variable impact on the perform once NAADS through the various related donor functional policies and programs.

Review of Related Literature

The theory in this study, basing on NAADS Implementation guidelines 2007 formulated by NAADS secretariat in the Ministry of Agriculture Animal and Fisheries, addresses the challenges of NAADS on commercialization of Agriculture, develop the capacity of farmers institutions by supporting farmers with technology inputs as a strategy to improve on the existing subsistence farming in Rwamucucu Sub County to commercialize agriculture for food and income security.

Whereas Toulmin and Gueye (2003) also comments on the role of family farmers in transformations Western African Agriculture. He comments that; There is, “Need for typology of family farmers to facilitate letter targeting of each category with appropriate technology transfer mechanisms. Key drivers and challenges of agricultural transformation in a peasant economy. The following key drivers are relevant to Uganda’s context in general and Kigezi-Kabale region in particular; Land use change, Environmental change, appropriate technologies to compensate for land scarcity, Structural

Adjustment Policies for pro-poor economic growth based or family farmers, National strategies for agricultural diversification and other sources of livelihoods, Agro-business linkages between family farms, medium and large farms through contract farming with management and agro- processing links,

organization of development focusing on group formation for managing risks and partnership linkages.

While driving towards the “modernization” of agriculture a term which has been interpreted in diverse ways, depending on context but which tends to translate into:

Increase on agricultural land holdings through the allocation of concession to large scale commercial farmers and associated preferential inputs, credits equipments etc;

Decrease in number of very small farm holding and associated population as the modernization process develops. (Toulmin and Gueye 2003, page 11-17).

From the above, taking food and export crops together, many west African countries have been remarkably successful in generating rising levels of output in response to market demand at national, regional and global levels. Toulmin and Gueye 2003, suggests that the farming sector has great capacity to increase production when conditions are right.

The Contribution of NAADS programme towards the Commercialization of Agriculture.

The National Agricultural Advisory Services (NAADS) program of Uganda is an innovative public-private extension service delivery approach, with the goal of increasing market oriented agricultural production by empowering farmers to demand and control agricultural advisory services. Although initial evaluations of NAADS have been quite favorable, these evaluations have been qualitative in nature. This study quantifies the initial impacts of NAADS in the districts and sub-counties where the program was operating by 2005.

According to Benin et al (2007), basing on observed differences across the NAADS and non-NAADS sub-counties, it appears that the NAADS program is having substantial positive impacts on the availability and quality of advisory services provided to farmers, promoting adoption of new crop and livestock

enterprises as well as improving adoption and use of modern agricultural production technologies and practices.

NAADS also appears to have promoted greater use of post-harvest technologies and commercial marketing of commodities, consistent with its mission to promote more commercially-oriented agriculture.

He further says that 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 as other factors affecting productivity. However, NAADS appears to have helped farmers to avoid the large declines in farm income that affected most farmers between 2000 and 2004, due to more encouraging farmers to diversify into profitable new farming enterprises such as groundnuts, maize and rice than to increases in productivity caused by NAADS.

NAADS appears to be having more success in promoting adoption of improved varieties of crops and some other yield enhancing technologies than in promoting improved soil fertility management. This raises concern about the sustainability of productivity increases that may occur, since such increases may lead to more rapid soil nutrient mining unless comparable success in promoting improved soil fertility management is achieved. Continued emphasis on improving the market environment, promoting adoption of more remunerative crop enterprises, and applied agronomic research identifying more effective ways to profitably combine inorganic and organic soil fertility measures in different crop systems can help to address this problem.

Shortage of capital and credit facilities was often cited by farmers as a critical constraint facing them, in addition to scarcity of agricultural inputs, lack of adequate farmland, unfavorable weather patterns and problems of pests and diseases.

These emphasize that the quality of advisory services is not the only important factor influencing technology adoption and productivity, and the need for complementary progress in other areas, especially development of the rural financial system.

Implications are drawn for enterprise targeting and ensuring sustainability of improvements in productivity, as well as for designing and implementing service provision programs in other parts of the Uganda and in other countries.

The available literature also shows that there is a disproportionately higher use and increase in use of improved seeds compared to fertilizers in general and inorganic fertilizers in particular.

This is troubling as it has serious soil nutrient mining implications in the sense that the potential yield improvements associated with the increase in use of improved seeds cannot be sustained. This is consistent with another IFPRI-led study (Nkonya et al. 2005a), which shows that while the NAADS program has had substantial positive impact on the value of agricultural production.

Recent Government strategy for the Impact of NAADS Programme

In the revised NAADS Programme Implementation Guidelines August 2008, the government strategy to strengthen the agricultural policy for the commercialization of agriculture, the identification and selection of category farmers within NAADS Programme groups for capacity development technology in put support with the emphasis on community Agricultural in put procurement method. This is a fundamental strategy to a realize NAADS impact for the next 16 years.

These farmers' categories are 6 Demonstration farmers per parish, 6 lead farmers per parish, 5 model farmers per parish and nuclear farmers at District level.

Their selection is based on NAADS programme criteria guidelines. They are to be supported by the government with a farmer grant to realize a total shift of farmers from the predominantly subsistence-based way of agricultural production to agricultural commercialization, for other export and internal consumption.

Mode of Government Support to Farmers and Repayment

Demonstration farmers will get support for establishing a demo site and this support will be a grant. The demo farmer will manage the site as his/her own business, but will allow members of the group to access it for training purposes. Lead and Model farmers will on the other hand, get ISFG type of funding and modalities of repayment will be the same. This means the support will be for a group and repayment will be to the group, such that other farmers that emerge as lead or Model farmers access and benefit from the recovered funds.

Technological input support to these selected farmers can be indicated below:
Refer to the next page 24, table 3.

Table 2: Type of support and estimated funding by farmer category

Farmer category	Support	Estimated cost (U. shs)
Demonstration farmer	TDS on behalf of a group Annual crops	150,000 - 300,000
	Perennial crops	300,000 - 1,000,000
	Livestock	300,000 - 2,000,000
Lead farmer	Planting and breeding materials and advice, Annual crops	300,000 - 1,000,000
	Perennial crops	600,000 - 1,500,000
	Livestock	600,000 - 2,000,000
Model farmer	Enterprise mix, processing, value addition .infrastructure and advice. Annual crops	600,000 - 1,000,000
	Perennial crops	1,000,000 - 2,000,000
	Livestock	1,000,000 - 3,000,000
Nucleus farmer District level	- To be assessed and the estimated cost will depend on the enterprise and type of support	Up to 15,000,000
National level public/private partners	To be assessed and the estimated cost will depend on the enterprise and type support.	More than 15,000,000

Source: NAADS Implementation guidelines August 2008.

Agro-processing resources may be aggregated for more than one sub-county in order to access a processing facility more efficiently.

Research Hypothesis

Challenges to Commercialization of Agriculture

Under NAADS programme, there is a challenge of implementation. The gap between stake holders' expectations and the actual mandate of the NAADS programme is wide. Farmers expect NAADS to give them inputs and start up capital. This is outside the mandate of NAADS. They also demand for micro-finance services in addition to advisory services, (Namara, 2004:43). With these wrong expectations of farmers, it is hard for service providers to execute their responsibility effectively.

There is lack of harmonization between different actors in the field of agriculture advisory services. Different players have different mandates, visions and missions. For instance, the lack of harmonization of government projects has resulted into contradiction and duplication of messages, confusion of farmers, rivalry among projects and programmes and inefficient use of resources, (Mugenyi 2004).

According to Warren Peterson (2001) Government at times set policies on consumer and producer commodity prices subsidized for inputs, credit availability and import substitution. These send direct and indirect private signals to farmers and influence their production decisions.

High fertilizer prices cause farmers to use less of this input. However, much extension service providers play their role; their input may not be reflected in the output.

From the infrastructure point of view, conditions of transport, communication and market facilities affect both farmers and service providers "The capacity to move people, inputs, and produce influences extension activities and capacity: (Ibid, 2002) in advocating for improved extension service delivery, it is crucial to first lay emphasis on infrastructure development.

The other challenge is incompetent service providers, some service providers sub-contract others but under-pay them which leads to de motivation. In other cases, firms present very good CVs but on getting the contract, they employ under qualified service providers

Lack of capital and unavailability of inorganic fertilizers were also cited as common problems. Thus, interventions that address access to credit and affordable chemical fertilizers may help to address the soil nutrient depletion problem. But the more fundamental need is to identify profitable soil fertility management options for farmers in Uganda and to improve the market environment.

Strategies for improving commercial farming in Rwamucucu

Sub County

There are some well-intended strategies to help improve the situation. The PMA marketing and agro-processing strategy (MAPS, MTTI 2005) is a key one that sets out to address issues relating to collective action (support to farmers' organizations, cooperatives and out-grower schemes); physical infrastructure (roads, energy, telecommunications, markets and agro-processing units, post-harvest storage); and market information. These are critical for creating the incentives that is, higher farm gate prices and/or lower input prices--for farm households to sustain higher levels of adoption of improved technologies and practices. Speeding up implementation of the MAPS should be given priority.

Planned programmes of diseases and pest control will be necessary. This will be through using limited quantities of pestles and fungicides. Focus should also be put on cultural and biological controls. Pests and diseases resistant crops will have to be developed. This will be possible if improved cropping and methods are put in place. The good news is that "The international institute of tropical agriculture (ITTA) is developing disease – resistant crop varieties, which offer modest yield increases over existing varieties (The world bank, 1989:95).

Access to credit is one way to improving farmer's access to new production technology and increased productivity. Given this fact, developing countries should encourage their members to improve technology, knowledge and production skills so as to make farmers be able to purchase inputs such as improved seeds and fertilizers (Warren, 2001. It makes no sense to make technology available, yet farmers don't have enough money to access.

In addition, evaluation of a series of projects of other crops has demonstrated that public investment in agricultural research and diffusion of the results are capable of contributing to very large gains to society in terms of food production, economic growth and improving living standards of Farmers (Mugenyi 2004: 94).

Rural feeder roads constitute an essential element of Uganda's strategy for accelerated agricultural growth. Roads are needed to bring in agricultural inputs and implements, facilitate the work extension staff, bring access to manufactured goods, create access to basic social services such as education and health, and provide access to markets for goods.

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CHAPTER THREE METHODOLOGY

Under this chapter, the researcher gives the methodology that is used in conducting the study. Issues of research design, study population, sampling procedures, data collection methods, reliability and validity were considered.

Research Design

This is the “Plan structure, and strategy of investigation conceived so as to obtain answers to research questions” (Kerlinger 2004: 300). The researcher employed descriptive survey. This means that the research was done not strictly under controlled laboratory conditions, but its results were due to direct interactions with the respondents under a less strictly controlled environment. The following methodology matrix was used to design the study with a view to identifying the impact of NAADS on commercialization of agriculture in Rwamucucu sub county Kabale district.

A methodology Matrix:

Objectives	Type and source of Data	Data collection instrument	Analytical tools and out puts
To asses effects of NAADS on commercial agriculture.	Extension services accessed by farmers. Focus group for officials of CBO's - Sub County stakeholders	-Interviews -Semi-structured questionnaires. -Focus group discussions.	-Questionnaire -Interviews
To Assess the challenges of commercializing peasant agriculture.	Women house head farmers. NAADS service providers, Registered host farmer groups	-Semi- structured questionnaires - Focus group discussions.	-Questionnaire -Interviews.
To determine strategies to enhance NAADS programme.	Extension group registered farmers and officials of community based organizations	-Interviews -Focus group discussion questionnaire.	-Data collection analysis.

Table 3

Age bracket of respondents

In order to gather views that were objective, the researcher considered various age brackets of the respondents. Various age brackets were considered. These ranged from 18-24, 25-30, 31-34, 35-40, 41-54, and 54 and above. The researcher below summarizes data in table.

Table: 6 Age Bracket of Respondents

Age bracket	Male(Respondents)	Percentage	Female (Respondents)	Percentage
18-24	7	8.98	6	8.33
25-30	10	12.82	14	19.43
31-34	26	33.51	20	27.80
35-40	16	16.05	15	20.83
41-54	19	24.51	17	23.61
54plus	4	5.13	00	--
Total		100	72	100

Source: Study findings 2008

According to the table above, majority of respondents were in the age bracket of 35-40. These were 32.05 percent of all the male respondents in this age group. In the female category, the highest age bracket was 31-34 who constituted 27.80 percent of all the sampled female respondents.

Next was the age bracket of 31-34. In this age category, there were 20.51 percent which tallied with the age bracket of 41-54 of the male respondents. The female category in this age category of 41-54 had 23.61 percent of all female respondents sampled. There is a small difference between male and female respondents in the age brackets analyzed so far. This implies that both genders dominate these age brackets.

Study Area Population

The Research was carried out in Rwamucucu Sub-county, Kabale district. The general Sub- country population by 1991 census had a population figure 23,668 but have slightly grown to 24,433 by 2002 census. A comprehensive table is provided below.

Table; 4

2002 POPULATION PER PARISH AND GENDER

PARISH	HOUSEHOLD	MALE	FEMALE	TOTAL
Burime	452	1013	1104	2167
Ibumba	757	1822	1983	3805
Kitojo	928	2120	2373	4493
Mparo	628	1633	1711	3344
Noozi	985	2079	2341	4420
Nyakagabagaba	1471	1549	1822	3371
Nyarurambi	483	1239	1595	2833
TOTAL	5612	11505	12928	24433

Source: National housing and population census report 2002

For the Sub-county all the parishes the female population was higher than males. Females constituted about 53% of the total population.

The probable reasons for a higher population density included favorable fertile soils good climate high fertility for women number of infrastructure.

Sampling and Sampling Procedure

As regards sampling procedure, simple random sampling technique was used to ensure that all farmers get equal chances of being selected. This enhanced effective research as the information given was randomly acquired making it reliable.

Through this method, the respondents were selected through a simple random sampling basing on the proportion to their occurrence in the population.

In Rwamucucu Sub County, out of 230 farmers, 150 were sampled. In all these groups, the researcher focused much on the contact farmers who were directly interacting with the rest of the farmers. It was hoped that samples were representative enough in providing objective answers.

Simple random sampling took into account socio-economic factors of the population sample. Stratified Sampling was used where by, the elite class, males, females, illiterate, professional and age-groups all were sampled separately to have unbiased data.

The researcher selected the below sample simple random sampling technique which targeted farmers, CBO leaders, Service providers, LG officials/ councilors from Rwamucucu Sub county.

Sampling frame

Table 5

Category of respondents	Population	Sample
(1) Farmers	160	115
(2) CBO leaders	46	20
(3) Service providers	4	5
(4) LG officials/ councilors	20	10
Total	230	150

Data Collection Instruments

The quality and validity of data depends mostly upon the type of tools or techniques used by researcher for collecting these data (Koul, 2000: 197). The researcher carefully chose the tools that were deemed imperative in the collection of data. Besides literature review four basic techniques were used during data collection. These were questionnaires, interviews, key informant participants observation and Focus Group Discussion (FGDs).

A) Types of data:

Data were categorized into two parts; that is primary and secondary data.

Primary data:

Primary data major sources included; Open-ended and closed questionnaires, interviews, and focused group discussion.

1. Questionnaires

Out of 160 questionnaires, 150 Questionnaires were returned; ten questionnaires were not responded to. This left only 150 questionnaires which were edited and analyzed. These questionnaires were of great help during the study. This tool targeted elite groups who understood English. The questionnaire was divided into two sections. Section one was comprised of personal information of the respondents. In this section respondents were required to give their gender age and occupation. Part B of the questionnaire had close and open ended questions.

In the closed ended questions, respondents were required to tick the correct alternative answers given. In open-ended questions, respondents would mention and where possible explain their answers/opinions.

Interview schedule were administered to 20 members of the farmer groups who didn't know English and those that knew English. The same tool was applied to key informants including the officials, NAADS providers and CSO officials. (See table 5) page 27.

2. Focused group discussion:

Focus Group Discussions targeted some key informants and those who did not know English. This was done by the researcher. The researcher together with research assistants arranged discussions with the selected informants. Four group discussions for farmers were conducted at the interval of two weeks.

3. Observation:

The researcher critically observed the operations of farmers groups used for the agricultural extension services in the study area. This was done in demonstration farms that were visited by the researcher with the assistance of peasant farmers and the service providers. The details are given in the analysis in the next chapter.

Secondary data:

Secondary data was got from various documents. Dictionaries were used to get definitions of key terms relevant for the research. Later the researcher analyzed the extracted definitions and information to fit the purpose of the study. The main documents analyzed include; articles journals and magazines that contain relevant information on PMA, NAADS service providers' reports and delivery of agricultural extension service were used. Such materials were of fundamental help in literature review.

Validity and Reliability

The researcher administered the study tools in a pre-testing exercise to farmer groups. This was done to find out whether these tools would enable him achieve the study objectives. The gathered data were analyzed, interpreted in relation to objectives of the study. The test results were given within chapter 4 of this research study.

Data Analysis Techniques

Data analysis means “categorizing, ordering, manipulating and summarizing data to obtain answers to the research questions” (Kerlinger, 2004:134). The purpose of analysis was to reduce data to an intelligible and interpretable form so that the relations of research problems could be studied and tested. In analyzing data, there were two techniques used, that is; qualitative and quantitative techniques.

(a) Quantitative data analysis

In quantitative data analysis, the data was organized, classified and tabulated. In editing, the researcher would check the gathered raw data for accuracy, usefulness and completeness. The data was classified into different categories basing on the respondents' gender, occupant, level of education and age.

(b) Qualitative analysis

Under qualitative data analysis, the material was organized in order to discover inherent facts. These data were studied to explore the new facts or to re-interpret already known existing facts. Later it was analyzed in a more detailed descriptive form as is clearly indicated in chapter four.

Ethical Consideration

The researcher got an authorizing letter from the relevant authorities of Kampala International University. The privacy of the informants was respected. Afterwards, study instruments for data gathering were employed in the field. Thereafter data analysis interpretation and presentation followed. There was interaction with NAADS service providers and farmer groups.

Problems encountered during the Study

The researcher faced some fieldwork problems such as delay by the respondents to give information voluntarily, poor road networks especially during rainy season hindered the timely delivery of information required. The secretarial bureaus were limited by constant availability of electricity required for secretarial work such as typing, printing and photocopying.

There was need of money for transport, paying research assistants and facilitating focus group discussions since voluntarism is declining in the community.



The above constraints were addressed by the researcher through better communication approach to convince selected farmer group leaders to be interviewed, CBOs to voluntarily give information and assist the researcher in the research field work. The researcher endeavored to acquire the required amount of money by use of his income savings to facilitate all research necessities during the study.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF THE RESULTS

Introduction

This part contains the presentation, analysis and interpretation of the results of the study. It presents the results along three research questions. That is what is contribution of NAADS programme towards the commercialization of agriculture, what are the challenges facing the implementation of NAADS, what are the strategies for the commercialization and improvement of agriculture in Rwamucucu Sub County.

The findings of the study are presented by use of tables that are well interpreted and other results are either presented descriptively or as quotations in their original form since the data are both quantitative and qualitative, reflecting on the following research questions, which guided the study:

1. What is the impact of NAADS on peasant agriculture?
2. What is the contribution of NAADS towards commercial farming?
3. What should be the established strategies in order to effectively promote commercial agriculture in the Sub-county?

Socio- economic background of respondents

The researcher considered socio-economic characteristics of respondents. These included gender, age, level of education, and occupation. The following sections examine fully these variables.

Whereas there were four (4)male respondents constituting 5.13 percent in the age bracket of 54 plus, female respondents in the same age bracket were zero, implying that it was hard to get female respondents in that age category who would give information regarding to the subject of study.

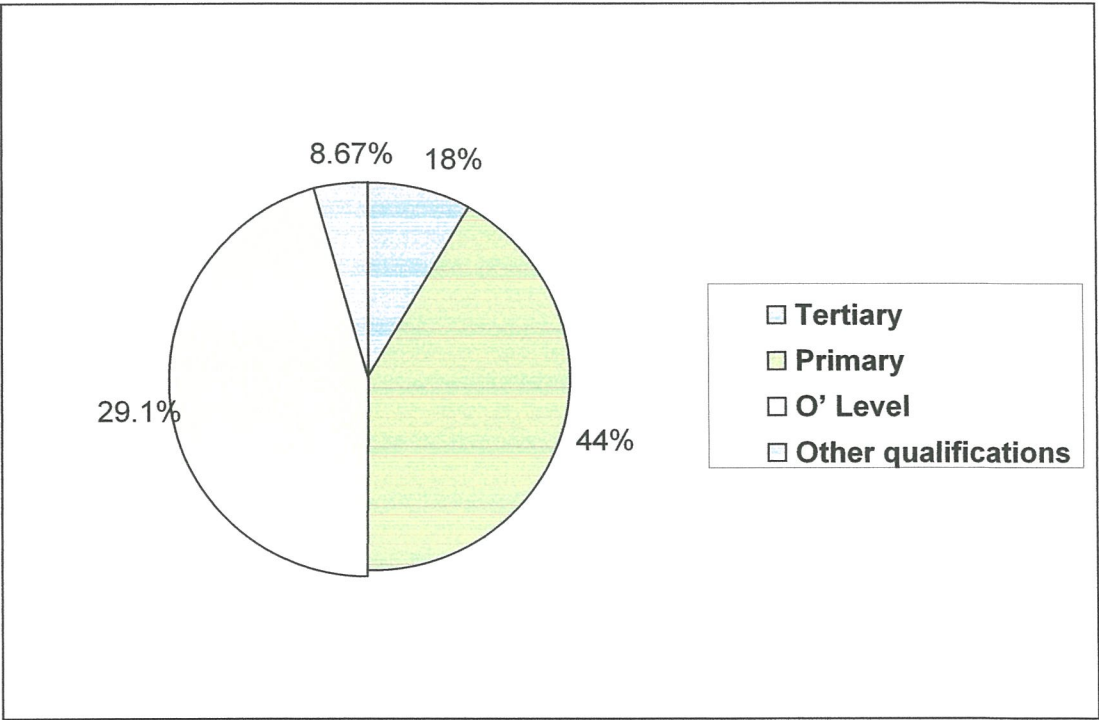
These various age brackets were important because, respondents in each age bracket understood the impact of NAADS on the commercialization of Agriculture differently. This enabled the researcher to get a wide range of views.

Education levels of respondents

This section deals with the education level of the respondents. This was done purposely to get various education levels. They ranged from Advanced level, Diploma level, Degree and other qualifications. The detailed data is given in

The researcher summarized data in the figure below as follows

Figure 3. Education level of respondents



Source: Study findings 2008

According to the data in table 3 and figure III respectively, a big number of respondents had attained primary seven levels. There were 44 percent of all the sampled population in this category. Female respondents dominated this category with 47.22 percent of all the female population sampled. There were 30.76 percent of all the male respondents sampled.

Majority respondents also dominated ordinary level with 29.33 percent of all the sampled population. From the gender perspective, male respondents dominated this group. There was 41.03 percent of all the male population sampled, whereas only 27.78 of the female population constituted this category.

The study further established other courses that respondents had attained above the degree level. Most of these were post graduate diplomas and certificates. Data shows that 10.26 percent of the male respondents were in this category compared to 6.94 percent of the female respondents.

These various education levels point out the different levels of understanding this implies that the researcher gathered various views on the impact of NAADS programme on the commercialization of agriculture from different people of various education backgrounds who gave differing views. This therefore signifies reliability and validity of data.

The Contribution of NAADS towards the commercialization of agriculture

In the first place the respondents were asked whether they have ever about the NAADS programme. They all anonymously agreed that they had heard about the NAADS programme. . The researcher concluded that the people knew the NAADS programme. The next question required the opinions of the respondents about the contribution of NAADS towards the commercialization of agriculture.

To answer this question, questionnaires were given to various respondents who were asked about their opinions on the activities of NAADS programme that contribute to the improvement and commercialization of agriculture. This was followed by an interview to key informants, farmers, and other members who involved in agriculture, their views made significant contributions to finding answers to this question.

From the administered study, it was found out that the NAADS programme has got some positive impact on the commercialization of agriculture. This was reflected from the responses in the questionnaire. For instance the respondents were asked to comment on whether the NAADS programme activities has contributed to the improvement of agriculture.

The results obtained are presented in Table 8 below;

Table 7. NAADS activities have contributed to the commercialization of agriculture.

Item	Responses					
	Agree		Undecided		Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
NAADS activities promote the commercialization of agriculture.	45	30	85	57	20	

$\Sigma = 150$; *f*=No of farmers

From Table 1, (f) signifies the respondent farmers, % indicates the percentage analyzed. It is indicated that 45 (30%) of the respondents who participated in the study strongly believed that the NAADS programme contribute to the commercialization of agriculture, 85(57%) agreed,

8(05%) strongly disagreed as 12(08%) disagreed. This indicates that most of the respondents; 130(87%) in total had the same belief on the contribution of the NAADS programme. Also when the key informants were contacted in face-to-face interviews to seek their detailed opinion on the activities of NAADS, it was indicated that they had contributed greatly towards the commercialization of agriculture.

The crop enterprises that were cited included, banana planting, passion fruits growing, improved breeds of goats and poultry, apiary, projects for communities and some Irish potato growing projects.

In another finding, Respondents were asked to give their opinion on whether there were other agencies other than NAADS that contributed to the commercialization of agriculture. The results obtained are presented in Table (9).

Improvement of commercial agriculture

In the first place the researcher asked respondents their opinions whether there has been improvement of commercial agriculture since the introduction of NAADS programme. Their opinions are summarized below.

Table 8 . Improvement of commercial agriculture

Opinion	Responses	Percentage
Yes	82	54.7
No	68	45.3
Total	150	100

Source: study findings 2008.

This means that on the ground commercial agriculture has not gone to the required standards as expected. The researcher went a head to ask respondents to state the degree of improvement.

The degrees were excellent, very good, good, fair, and others. The opinions of the respondents are summarized in the table below.

Table 9. Degree of improvement of commercial agriculture

Item	Responses									
	Excellent		Very good		good		Fair		Others	
Has Commercial agriculture Improved from peasantry farming?	<i>f</i>	%	<i>F</i>	%	<i>F</i>	%	<i>f</i>	%	<i>f</i>	%
	00	00	00	00	72	51	68	45	10	7

$\Sigma = 150$; *f*=No of farmers

Table 12 indicates that excellent means the degree of improvement of commercial agriculture at 100%-95% very good means 95%-80% then good means 80%-70% 68(45%) of the respondents said that there has been improvement of agriculture though not the best.

They said that it has been fairly done. 72(48%) agreed that it was good, while 10(7%) were undecided on whether the degree of improvement has been good or bad. This leads to a conclusion that most of the people who were interviewed agreed that there were was some degree of improvement though not a convincing one.

When the researcher contacted some respondents in the face-to-face interaction, it was revealed that the improvement in commercial agriculture was there but not the required one.

The improvements cited were seeds improvements, improved yields, and availability of markets.

The opinions of the people on the reasons for improvement of commercial agriculture are highlighted in the table below;

Table 10. Factors for improvement of commercial agriculture

Reasons for improvement of commercial agriculture	Frequency	Percentage
Improved seed varieties	90	59.33
High yields	06	4.67
Quality products	14	9.33
Market availability	21	14.00
Chemicals for plants	10	6.67
Others	09	6.0
Total	150	100

Source: study findings 2008

Data from table 10 indicates that there are over six reasons for the improvement of agriculture. The table shows that 59.33 percent of respondents pointed out that, improved seed varieties was the best done improvement in commercialization of agriculture. This was followed by market availability at 14 percent. Quality products, chemicals for plants and other improvements followed in that rank of order respectively.

The researcher interviewed some respondents. It was indicated that market availability and improved seeds were some of vivid examples that NAADS programme can be emulated of. They gave an example of the improved Irish potatoes that yield high and are quick to mature. Besides the marketability of such had improved because they were being demanded every where especially in Kampala. In return the farmers confessed that their pockets were getting full time and again from such improved seed varieties. This led to the researcher to conclude that there have been some improvements in commercial agriculture though not a substantive one.

Challenges faced during the implementation of NAADS programme

The researcher inquired the opinions of respondents as to whether there were challenges faced during the implementation of NAADS programme. The views of the respondents were captured and presented in the table below.

Table 11: challenges faced during the implementation.

Item	Responses					
	Agree		Undecided		Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
There are Challenges to implementation of NAADS.	92	78	58	22	00	00

$\Sigma = 150$; *f*=No of farmers

Table 11 indicates that 92(78%) agreed that there are challenges faced during the implementation of NAADS, while 58(22%) were undecided. This left none in disagreement. This leads to a conclusion that most of the people who were interviewed agreed that there were challenges faced during the implementation of NAADS.

When the researcher interviewed 150 (NAADS farmers) respondents in the face-to-face interaction, it was revealed that a lot of challenges do exist, and sometimes these have hindered the commercialization of agriculture.

The challenges cited were financial resources, lack of commitment by people to join farmer groups, the road network being poor, pests and diseases, and others.

The opinions of the people on these challenges are highlighted in the table below.

Table 12: Challenges faced during the implementation of NAADS programmer.

Challenges faced during the implementation of NAADS.	Frequency	Percentage
Poor road Network	21	14
Lack of Resources	89	59.33
Reluctant people to join farmer groups	10	6.67
Pests and diseases	7	4.67
Poor implementation by local Government	14	9.33
Other challenges	09	6.0
Total	150	100

Source study findings 2008

Data from table 12 indicates that there are several challenges faced during the implementation of NAADS. The table shows that 59.33 percent of respondents pointed out that, the biggest challenge to the commercialization of agriculture were lack of resources. This was followed by the poor road Network at 14 percent. Poor implementation strategy by the government and other challenges followed in that rank of order respectively. The researcher interviewed respondents. It was found that lack of resources was the greatest challenge facing the commercialization of agriculture. This was revealed by farmers that they were poor to have what it takes to put up commercial farming and this, in one way or the other affected the progress of NAADS towards realizing the objective. They gave an example where farmers fail to get money for pesticides, and other necessities.

Lack of proper road network was one of the challenges that was highlighted during the study. This was supported by 14 percent of all the respondents.

They argued that if proper roads were available, may be it would have been easier to make movement and reach farmers in their respective farms.

But since the road network was poor, commercializing agriculture has remained a night mare. This is because farmers are not easily reached and transportation of agricultural products has is a big problem.

Another challenge faced was poor implementation by the government. This was supported by 9.33 percent.

An interview with one staff member from the farmer group revealed that the NAADS Programmes are being implemented haphazardly in a way that they do not come out as expected. Some funds are diverted and the choosing of farmer groups is based nepotism and segregation manner.

Strategies for the Commercialization of agriculture

Under this the researcher asked respondents to give in their opinions on how agriculture can be commercialized and improve on the production capacity. The views of the respondents were captured and summarized below.

The respondents said that the government should continue giving their support to farmer groups by providing farm input equipments, train farmers in leadership and management skills, mobilize more financial resources to support farmers through credit access and increase information awareness for the farmers.

Table 13. What can be done to commercialize agriculture?

What can be done to commercialize agriculture	Frequency	Percentage
Increased information awareness	23	15.3
Capacity building (training)	27	18.0
Resources availability	63	42.0
Supply of farm input equipment	37	24.7
Total	150	100

Source: Study findings 2008

Table 13 above shows the views of the respondents on how to commercialize agriculture. From the table above it can be asserted that resource availability is very crucial for overcoming the challenges facing farmers so that there is commercialization of agriculture. This view was supported by 42% of all respondents. The farmers argued that if they were provided with agricultural input in loans or in kind. They can increase their cash crop production since labor is not a constraint.

They further said that; with the resources being available, they can be able to buy pesticides, buy more farm machinery and increase on the size of their farms. Resources availability was followed by the supply of farm equipment, which had 24.7% of the respondents. They argued that if the farmers are supported by the government, with farm inputs equipment such as seeds, machinery and other equipments they can increase on their production and improve on the commercial of agriculture.

Next to this, was capacity building for the local farmers. The farmers needed to be trained in agricultural improvement skills, leadership and management skills. Some farmers need leadership skills to enhance their output.

This view was supported by 18% of all the respondents. This fact is very true. The people need skills that can allow them have better production capacity to do what is required of them.

Training is very crucial for the farmers and should be spearheaded, if farmers and the government are to realize the objective of attaining commercial farming.

Another way of overcoming the challenges as identified by farmers was to increase knowledge of the local farmers. This view was supported by 15.3 %. Respondents argued that if the local farmers were equipped with knowledge and information skills to handle agricultural inputs, they would minimize and solve problems as soon as they arise.

Indeed this is true the government should support local leaders and individuals with the necessary knowledge and information skills for handling agricultural needs. They should support seminars, workshops and other activities for increasing information awareness among the local farmers.

In accordance to the general analysis by the researcher, it is a major finding that females participates more that men in commercial agricultural promotion through the assistance of NAADS programme activities in Rwamucucu Sub-County. The distribution of improved seed varieties to potential demonstration farmers and model farmers have greatly led to the improvement of commercial agriculture to some extent, refer to table 13 pages 46.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter discusses the results based on the research questions and the results presented in chapter four. From the discussions, logical conclusions were made from which workable recommendations were highlighted and areas for further research were also identified.

Discussion of the findings

The discussion of the results was made according to the objectives of the study and the research questions whose answers were thought. The results are discussed according to the objectives.

From the first objective of the study, the first research question was derived. From the study results it was found that both farmers and community leaders were aware of NAADS programme and its potential benefits. This was ascertained by asking a number of questions from respondents and key informants.

For example, it was found out that respondents knew activities of NADS programme such as, facilitating farmers in advisory services, providing improved seeds and marketing of farmers' products. Many respondents 100% supported this idea. This implies that many people were aware of the NAADS programs and its activities. And indeed this is true, because many farmers were heard talking literally that any good thing is from NAADS. According the PEAP report 2006, it was reported that NAADS programme as a plan for the modernization of agriculture was rolling out to many areas in the country and farmers were getting absorbed in the business.



From the same objective, another question was asked and this was has NAADS improved on the commercialization of agriculture? The findings show that some respondents said it has improved others said it has some long way to go.

From the results it was shown that 82 (54.7%) of all the sampled population. 68(45.3%) said there has been little or no improvement in commercial agriculture since NAADS programme. This means that on the ground commercial agriculture has not gone to the required standards as expected. However others said that 68(45%) there has been improvement of agriculture though not the best.

They said that it has been fairly done. 72(48%) agreed that it was good, while 10(7%) were undecided on whether the degree of improvement has been good or bad. This leads to a conclusion that most of the people who were interviewed agreed that there were was some degree of improvement though not a convincing one. From the governments, there has been improvement on the commercialization of agriculture. Farmers have adopted commercial farming and their lives have improved.

Farmers have embraced the programme and Indeed, NAADS has improved on commercialization of agriculture in a way that; There has been extension of services in the areas of animal husbandry, fish farming than those in the Non-NAADS districts. 86% of the farmer groups felt their access to information had increased over time compared to 59% of non-NAADS farmer groups. The findings indicate that there is already a clear indication that NAADS is increasing the availability and quality of agricultural advisory services and farmers are adopting technologies like improved groundnuts varieties, grafted and budded mangoes and upland rice. Farmers are also increasingly promoting production of high value crops like vanilla, cardamom and garlic. Up to 77% of the NAADS farmer groups reported having a technology demonstration site within 3Km of their household, compared to 22% of non-NAADS groups. On the other hand I agree with the findings.

However, the above is far from being achieved as the programme is yet to significantly have a tangible impact on the lives of people.

From the second objective of the study, the second research question was derived. This question stated, "What has been the impact of NAADS on the commercialization of agriculture?" From the study results it was found that many people could tell the impact of NAADS programme on the commercialization of agriculture. This was ascertained by asking a number of questions from respondents and key informants

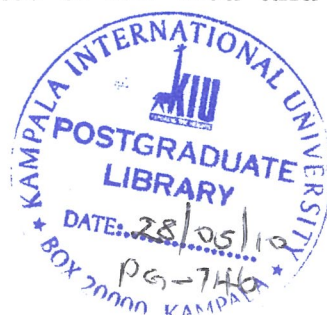
It was also found out that 85 (70%) of the respondents who participated in the study believed that the NAADS programme could contributed to the commercialization of agriculture, 55(57%) undecided, 10(13%) disagreed. This indicates that most of the respondents; 150(87%) in total had the same belief on the contribution of the NAADS programme towards the commercialization of agriculture. This is true the impact of NAADS on the commercialization of agriculture can go on unnoticed. According to Benin et al (2007) through their assessment of the impact of NAADS, it was revealed that the impact is positive however it leaves a lot to be desired.

He says it appears that the NAADS program is having substantial positive impacts on the availability and quality of advisory services provided to farmers, promoting adoption of new crop and livestock enterprises as well improving adoption and use of modern agricultural production technologies and practices. NAADS also appears to have promoted greater use of post-harvest technologies and commercial marketing of commodities, consistent with its mission to promote more commercially-oriented agriculture. 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 as other factors affecting productivity.

However, NAADS appears to have helped farmers to avoid the large declines in farm income that affected most farmers between 2000 and 2004, due more to encouraging farmers to diversify into profitable new farming enterprises such as groundnuts, maize and rice than to increases in productivity caused by NAADS. NAADS appears to be having more success in promoting adoption of improved varieties of crops and some other yield enhancing technologies than in promoting improved soil fertility management. This raises concern about the sustainability of productivity increases that may occur, since such increases may lead to more rapid soil nutrient mining unless comparable success in promoting improved soil fertility management is achieved. Continued emphasis on improving the market environment, promoting adoption of more remunerative crop enterprises, and applied agronomic research identifying more effective ways to profitably combine inorganic and organic soil fertility measures in different crop systems can help to address this problem.

The researcher agrees Samuel Benin and his friends that, if the programme is implemented properly it would have enormous benefits. From the little that has been implemented, farmers have benefited considerably.

According to PMA 2006 report, farmers have benefited from NAADS programme thus suggesting that, as a whole there have been an increase in yields and incomes, farmer groups are getting sharp increases in their products, sometimes in excess of 200%. For food crops, the incremental net revenues average about US\$260 per acre. Groundnuts enterprises show very good incremental net revenues at about US\$500 per acre per year, followed by beans US\$265, Matooke at US\$200, and Maize at US\$150. Vanilla enterprises are extremely lucrative with estimated net returns of US\$8,000 per acre annually. Average revenues for livestock enterprises show that good incremental net revenues can be attained particularly for the pigs, poultry and goats. The goats appear to be quite an attractive enterprise because of low feed and labour costs.



Incremental net revenues are being estimated at about US\$140 per year for a herd of five (female) served by improved breed (Boer goat) and Poultry enterprises show about US\$70 per year net revenues for small brace of chicken.

The impact of NAADS is becoming visible among farmers in several districts participating in NAADS. However, there are also a number of lessons and challenges that have emerged. One major challenge is the budget limitations affecting the roll out of the programme to additional districts and sub counties. Other key challenges are; availability and capacity of the service providers to meet farmers demand for advisory services; capacity of local governments to co-fund and manage privately delivered advisory services.

The other objective was to establish the challenges faced in the implementation of NAADS programme. Thus the researcher asked respondents to highlight on these challenges. It was revealed that a number of challenges were faced. Majority of respondents cited lack of credit facilities, lack of resources (financial and machinery) and others. The results show that 68(45%) strongly agreed that there are challenges faced during the implementation of NAADS, 72(48%) agreed, while 10(7%) were undecided. This left none in disagreement. This led to a conclusion that most of the people who were interviewed agreed that there were challenges faced during the implementation of NAADS.

From my own observation, it is true that most of the farmers lack these resources and at times are handicapped in obtaining these resources and facilities. The same challenges were also cited by Benin and his friends in their assessment. They cited issues like Shortage of capital and credit facilities. They said these were often cited by farmers as a critical constraint facing them, in addition to scarcity of agricultural inputs, lack of adequate farmland, unfavorable weather patterns and problems of pests and diseases.

In addition to the above, the situation in Kabale is aggravated by the poor transport network where accessing farmers is a big problem.

From the above challenges, it can be asserted that the quality of advisory services is not the only important factor influencing technology adoption and productivity, and the need for complementary progress in other areas, especially development of the rural financial system. Implications are drawn for enterprise targeting and ensuring sustainability of improvements in productivity, as well as for designing and implementing service provision programs in other parts of the Uganda and in other countries.

The study also intended to establish ways of overcoming these challenges that were faced in the implementation of NAADS programme.

These strategies are in line with what other scholars have suggested these include: Provision of legal and policy framework; Link to market opportunities; recognizing indigenous knowledge; Targeting and gender sensitivity; Networking and enhancing the capabilities of extension service providers; increased use of ICTs in extension; increased use of private extension service providers.

However emphasis should be put in the capacity building of the farmers so that they are equipped with the necessary knowledge and skills for increasing commercial production. Under this, the government has already achieved something. The 2005/2006 NAADS report states The National Agricultural Advisory Services (NAADS) programme facilitated farmers to acquire knowledge and skills and enhanced their capacity to realize increased agricultural productivity and incomes. "The PMA evaluation of NAADS undertaken by an independent firm Sangria (2005), aimed at assessing the impact of NAADS on farm households based on five main indicators namely; Empowerment of farmers, Availability of services, Quality of services, Adoption rates and Increase in yields and incomes.

However something can be done, it is important to identify and promote enterprises that can be both profitable and adopted by large numbers of other analysis done such as Diao et al. (2003) shows that non traditional exports in general (e.g., cut flowers, vanilla, and fish) have a small base and so cannot produce huge positive impacts on overall productivity and incomes. In rolling out the NAADS program to other districts and sub-counties, priority should be given to promoting profitable enterprises that can be adopted by large numbers of farmers (whether or not most households are already engaged in them); and if profitable enterprises are not adopted, priority should be given to identifying and addressing the Constraints that are preventing widespread adoption of such enterprises.

Although NAADS is has been in operation since 2001, pests and diseases are still a menace to its proper implementation strategies. According to the NAADS coordinator, there are many pests and diseases, which have affected smooth running of service delivery. These include; farmer termites, coffee and banana wilt diseases. During FGDs with two contact farmers from Mparo parish it was found out that some crops like banana and coffee might be wiped out from the area despite extension services under NAADS. Though observation, the researcher saw most of the coffee and banana gardens affected by the above-mentioned diseases, including demonstration farms especially in Mparo Parish.

(Namara Mugenyi 2004:93) he has recommended that farmers should be supported with microfinance to increase on agricultural production. Other scholars argue that farmers expect service providers to offer them loans and yet this is outside the mandate of NAADS. The researcher discovered that failure to integrate loan or credit provision into NAADS programme has made implementation difficult. One farmer, the chairman passion fruit group in number had the following to say on this.

“Service providers have given us the knowledge but we want money to build the stores. I have been taught new methods of harvesting and looking after my gardens but see, the harvested coffee is rotting on the compound.

Language barrier was seen as another challenge hindering implementation. Through FGDs in Noozi parish the researcher discovered that contracts to deliver agricultural extension services are at times offered to service providers who do not know the local language. Some of them are Baganda, and Basoga who are forced to use English yet majority of farmers are illiterate. This has not only sabotaged effectiveness and efficiency in the delivery of agricultural extension services but has also repulsed some farmers from groups.

The researcher also discovered lack of commitment of the service providers. In a group interview with the NAADS coordinator and secretary procurement committee, it was revealed that some service providers go late to meet with farmers. Even when they have failed to keep time, they spend few minutes with farmers and go back their businesses.

In the same way, the informants indicated that some service providers encourage putting fertilizers in demonstration farms alongside the road where people will be able to see. This leaves the bigger part of the demonstration farms uncatered for, hence creating a wrong impression to farmers. Although the interviews attributed this to lack of commitment, the researcher thinks that is due to lack of adequate supervision of sub-county authorities causing service providers to do shoddy work.

Conclusions

Following the findings of the study, the researcher was able to draw a number of conclusions. The conclusions are in line with the objectives and findings that guided the study as expressed below.

The study concludes that the NAADS programme has contributed an impact on commercialization of agriculture though not a substantive one. This is because there were a lot of irregularities in the programme. The farmers were lacking facilities and were not well equipped with the necessary knowledge and skills for improving agriculture.

- 1) The study also concludes that NAADS programme had in the process to improve the commercialization of agriculture. The challenges highlighted included issues like Shortage of capital and credit facilities. They said these were often cited by farmers as a critical constraint facing them, in addition to scarcity of agricultural inputs, limited adequate farmland, unfavorable weather patterns and problems of pests and diseases.
- 2) The study also concluded there is a need to over the challenges that were prohibiting the commercialization of agriculture. The solutions given in overcoming these challenges included; the provision of resources, equipping farmers with farm inputs and plant machinery, Provision of legal and policy framework through farmer training, monitoring and supervision by NAADS programme stake holders; Linkage to broader market opportunities; recognizing indigenous knowledge; boosting the farmer institutional development and gender sensitivity;
- 3) Networking and enhancing the capabilities of extension service providers; increased use of public agricultural front line extension workers

Therefore there are certain key factors that cannot be ignored in the design and implementation of service provision programs. For example, it is seen that reduction in farm size (due to increasing population pressure) was one of the main factors driving farm households to adopt improved seeds/breeds and many of the improved agricultural management practices in order to raise productivity.

Community bye-laws are important factors in the adoption of some of the soil and water conservation and agro-forestry practices. Also, lack of capital and insecurity reasons cited for not adopting or abandoning adoption of several improved technologies and practices need to be adopted. Therefore, the success(or failure) of agricultural service provision in raising productivity and incomes in a sustainable fashion will to a large extent depend on how these factors (or information on them) are utilized or incorporated in design and implementation of programs.

Addressing many of these issues will require that more rapid progress occurs on other pillars of the PMA, at the same time as NAADS is being rolled out to the entire country. Recommendation on improvement of NAADS design and implementation.

The researcher under this study finally recommends the approach and strategy through which the implementation of NAADS programme in Rwamucucu Sub county can assist farmers to shift from Subsistence farming to commercialized agriculture by effectively putting into consideration;

- a) Provision of legal and policy frame work
- b) Closer monitoring and supervision of NAADS programme by stakeholders for quality assurance in agricultural service provision
- c) Linkage of farmers to market opportunities
- d) Value addition

- e) Strengthening farmer institutional development
- f) Networking (with NGO's and C BO's) and enhancing the capabilities of
- g) Public extension of workers
- h) Increased and efficient supply of agricultural in puts to farmer

The effect of NAADS Programme In-puts, NAADS Programme Out-puts, NAADS Programme out Come which results to NAADS Programme Impact as explained below;

Result Oriented Recommendation Theory for NAADS Programme Input, Output, Outcome and Impact

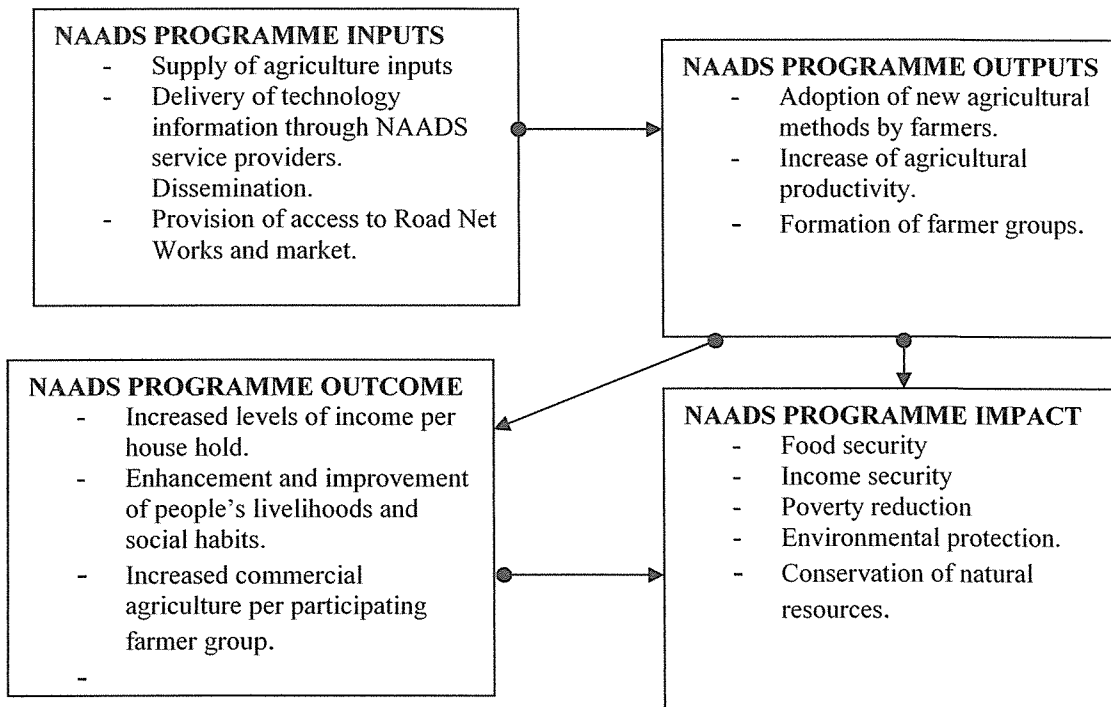


Figure 4

In light of the conclusions under section 5.3, the researcher made the following recommendations;

There is need to develop demand driven, client oriented, and farmer-led agricultural advisory service delivery system, in particular targeting women and the poor.

NAADS is grounded in the Ugandan government's overarching policies of: decentralization, liberalization, and increased participation of the people in governance through its policy frame work.

NAADS should be seen as a reform process, and as such is meant to assist in transforming the role of farmers, technological development and in transforming the role of those that support farmers in their development.

This means that there must be a change in the various roles of all the actors (government support services, farmers participation, and increase of farmer groups, donor and other development support agencies), in the development of their capacity to perform these new roles, and in the mode of operation of agricultural advisory service providers that will culminate in a total shift from subsistence farming to commercialization of agriculture.

The researcher recommends that if commercialization of agriculture is to be achieved, there is need to;

1. Reinforce a network of actors for agro-enterprise selection and development. Strengthen farmers' institutional capacity to link with actors from government, private sector and civil society, who play a role in supporting agro-enterprise development.
2. Build capacity to improve effectiveness & efficiency of individual farmer groups to demand and use services to ensure provision of support services
3. Next, it is recommended that technological revolution in agriculture be improved through research. In Uganda, National Agriculture and Research Organization (NARO) has been mandated to carry out research. As such, it has a branch in Kabale; Karengyere and Kacwekano) research centers, and other coordinated research institutions and universities around the country.

However, these are not enough. Many research centers should be opened within the university, at sub county level and in rural areas so that farmers “again what they want – greater production and high standards of living” (Marilee Grindle, 1998).

4. Farmers should be enabled to access capital via microfinance. Again soft loans should be extended to farmers who need them to allow them set up storage facilities for honey, and buy modern bee-hives.

5. Funding of NAADS activities should get rid of bureaucratic structures and be made in time to avoid delays. When this is done, improved seed varieties and animal hybrids will be made in time to avoid delays. When this is done, improved seed varieties and animal hybrids will be purchased and distributed to farmers groups before agricultural seasons elapse. Still service providers will be paid in time hence motivating them to work hard.

6. Monitoring and evaluation should be prioritized to assess the success or loopholes within the implementation of service provision. It should be emphasized that at each stage, reports should be forwarded to the sub-county and district authorities for action.

It is also important that civil servants ensure Result-Oriented Management (ROM) by moving about in different villages where farmers groups exist.

Other recommendable targets to assist farmers shift from the predominantly subsistence-based way of agricultural production to agricultural commercialization, for both export and internal consumption through NAADS programme in Rwamucucu sub-county and Kabale District include:

1. Strengthen promotion of perennial enterprises such as tea, temperate fruits- (especially apples, apples, pears and grapes), cattle, beekeeping, in addition to annual enterprises like Irish potatoes, vegetables, fish farming etc.
2. Strengthen agro-processing and value addition

3. Continue with practical training of farmers for capacity building and technology development.

It is hoped that when the above recommendations are put into action NAADS programme will continue deepening effectiveness and efficiency in the delivery of agricultural extension services.

This shall lead to increase agricultural commercialization and export oriented production which is important particularly for rural farmers who depend of agriculture as their main source of income and food security. There will be hope of sustainability of extension services and commercialized agriculture for decent income earnings even when NAADS has pulled out in 2025.

Areas for further research

The study has focused on the strategies of improving effective of NAADS. Results show that more information is needed on several aspects of commercialization of agriculture especially on initiatives for group formations and management of NAADS at the grassroots. For further research study, the researcher suggests the following;

- a) There should be a study to be carried out on effectiveness of community organizations for agricultural transformation of the peasant economy to commercial farming.
- b) A study could be carried out on the effectiveness of NAADS programme in improvement of the livelihoods of the people.
- c) Study could also be carried out on the role ICT in promoting commercial farming.

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APPENDICES

Appendix: 1

Questionnaire

Kampala International University
Institute of Open and Distance Learning
Post Graduate Studies
P.O. Box 20000
Kampala
Mob Tel: 0782 343774

Dear Sir / Madam,

I am Tindyebwa Joseph pursuing Master of Arts in Public Administration and Management of Kampala International University, currently I am doing a research proposal on the topic; **“The contribution of NAADS Programme on commercialization of agriculture in Rwamucucu Sub County”**. You are kindly asked to help in answering the questions below;

Section A: CHARACTERISTICS OF FARMERS

(i) Age (Tick the right)

- | | |
|-------------|--------------------------|
| (a) 18 – 25 | <input type="checkbox"/> |
| (b) 26 – 35 | <input type="checkbox"/> |
| (c) 36 – 55 | <input type="checkbox"/> |
| (d) 56+ | <input type="checkbox"/> |

(ii) Sex (tick the right)

- | | |
|------------|--------------------------|
| (a) Female | <input type="checkbox"/> |
| (b) Male | <input type="checkbox"/> |

(iii) Occupation

- | | |
|------------------|--------------------------|
| (a) Peasant | <input type="checkbox"/> |
| (b) Trader | <input type="checkbox"/> |
| (c) Professional | <input type="checkbox"/> |

(iv) Level of education

(a) Primary 7 ☐

(b) O, level ☐

(c) Tertiary / University ☐

SECTION B: EFFECTIVENESS OF NAADS PROGRAMME IMPLEMENTATION

Interview Guide for CBO officials

1. (a) Have you heard of NAADS Programme in Rwamucucu Sub County?

(Tick the right alternative)

(a) Yes ☐

(b) No ☐

(c) If yes in 1 (a) above, what do you know about it?

.....

.....

2(a) Are you aware that the sub county of Rwamucucu has a role to play in the provision of agricultural extension services to farmers?

(a) Yes ☐

(b) No ☐

(c) If yes in 2(a) above, mention the roles of the sub county in the provision of agricultural extension service through NAADS Programme

(i)

.....

(ii)

.....

(iii)

.....

(iv)

.....

3 (a) Has there been improvement of commercial agriculture since the introduction of NAADS in Rwamucucu Sub County?

(i) Yes ☐

(ii) No ☐

(b) If in 3(a) above, what is the degree of improvement? (Tick the right alternative)

(i) Excellent (ii) Good (iii) Fair (iv) other (please specify)

(c) If, in 3 (a) above, why? Give reason for your answer.

(i).....

.....

(ii).....

.....

Appendix 2:

OBSERVATION CHECKLIST FOR CBO OFFICIALS

The following is a list of what was observed during the research study;

- How impacts of NAADS on commercialization of agriculture has brought income security in Rwamucucu sub-county.
- The effect of crop and livestock enterprise diversification towards the commercialization of agriculture Rwamucucu Sub-county.
- The adoption of technologies for crop / livestock production, marketing and processing in Rwamucucu Sub-county through NAADS programme.
- The adequacy and effective implementation of NAADS and participatory methodologies used for the promotion of commercial agriculture in Rwamucucu Sub-county.
- The challenges faced by NAADS implementation in Rwamucucu Sub-county and how they are being addressed.
- What strategies and who are the key actors in implementing these strategies for sustainable commercial agriculture in Rwamucucu Sub-county.

Appendix: 3

INTERVIEW GUIDE FOR KEY INFORMANTS;

Commercialization of agriculture

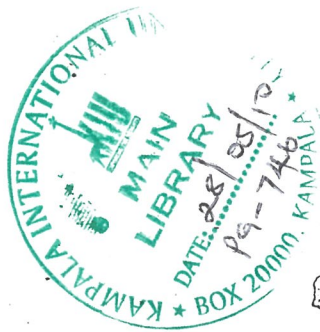
1. When was NAADS introduced for the improvement of agricultural productivity?
2. When was NAADS introduced in the Sub-county?
3. How has it improved on commercialization of agriculture?
4. Is NAADS addressing the need for improve agricultural production? If so, how effectively is it doing that?
5. How much in quantity of livestock and crop production has been achieved since the introduction of NAADS in Rwamucucu Sub-County?
6. Has NAADS programme improved commercial agriculture and agricultural livestock crop yield since its introduction in Rwamucucu Sub-County?
7. What are the roles of the Local Government of Rwamucucu Sub-county in the commercialization of agriculture under the NAADS programme?
8. What are the quality and quantity of agricultural products after the introduction of NAADS in the Sub-county?
9. What other strategies / interventions should be adopted by the beneficiaries, civil society organizations in improving commercial agriculture.

N.B: This interview guide was used as a guide to Focused Group Discussion.

The above research questions acted as an eye opener upon which all research proposal findings are directed to answer the study findings.



MAP: KABALE DISTRICT



NTUNGAMO DISTRICT

RUBANDA

RUKIGA

KABALE MUNICIPALITY

NIDORWA

KEY



RIAMUEU EU SUBCUNTY

OUTSIDE BOARDERS
KABALE DISTRICT.

Source: Kabale District
Local Government
Planning Unit.