

**INFLUENCE OF PLAN FOR MODERNIZATION OF AGRICULTURE ON  
AGRICULTURAL PRACTICES IN KIGULU COUNTY, IGANGA DISTRICT**

**BY**

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## DECLARATION.

I, BARAZA EGONDI SAILUS, do here by declare that the work presented here is original and has never been presented to any University or any institution for any award.

Signed:  .....

Date 2<sup>nd</sup> March 2009.

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## APPROVAL

This research report has been submitted for examination with my approval as the candidate's university supervisor.

Signature: .....

Date: 28th Feb 09

Supervisor's Name: **MR. MUNDU MUSTAFA**

## DEDICATION.

I dedicate this piece of work to Clabraz, Nafula Mercy, and the two Egondis: Tilton and Ashton.

## ACKNOWLEDGEMENT.

I am sincerely grateful to a number of people who have greatly contributed materially, socially and morally to my education let alone writing this work.

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## **ABSTRACT.**

The study was conducted in Kigulu South Constituency, Iganga district. It aimed at analyzing the influence of plan for modernization of Agriculture on Agricultural practices. The main objective of the study was, to find out the influence of PMA (NAADS) on the agricultural practices in Kigulu.

A total sample population of 60 respondents was used, including 46 farmers, 13 extension workers and 1 local Council chairman. 13 were purposively selected, while 46 farmers were selected using stratified random sampling and later proportionate sampling was applied to get proportionate sample.

Generally the methods used to enrich the study with data included: questionnaires, face to face interviews, group discussions and observations. Its analysis involved editing the generalizations on frequency tables to afford computation of percentages related to particular themes.

The findings of the study indicate the following agricultural practices: poultry, livestock keeping, crop farming, mixed farming and irrigation. The role of NAADS was found out to include: development of commercial enterprises, formulation of farmer institutional groups, training of farmers, supply of quality seeds to farmers, soil and crop management among others.

The study has also revealed that NAADS has had great impact on agricultural practices. These are: improvement of soil fertility, control of pests and diseases, promotion of commercial enterprises, promotion of poultry keeping, increase of farmers income and crop production, creation of

farmers' development groups and so many others. The researcher then made the following recommendations: increasing the number of farmers' development groups, giving clear budget for training farmers, changing land tenure system, developing more demonstration farms, increasing supervision and monitoring of farmers, adding variety of crops and number of sub county coordinators.

# CHAPTER ONE

## INTRODUCTION.

### 1.0 Background of the Study.

The plan for modernization of agriculture (PMA) is a holistic, strategic frame work for eradicating poverty through multi-sect oral intervention.

Modernization of agriculture is aimed at contributing to increasing incomes of the poor by raising farm productivity, increasing the share of agricultural production that is market oriented and creating on farm and off farm employment (PMA report, 2000).

According to Tayebwa (1988), agricultural modernization is a transition of agriculture from subsistence to commercial oriented farming system, which involves improving agricultural productivity and increasing out put per unit input.

Hutch son Encyclopedia (2000) looks at agricultural modernization as a general term used to describe the 20<sup>th</sup> century's conscious attempt to apply the modern techniques of farming so as to increase production capacity for both crops and animals.

Modernization of agriculture in Uganda in essence entails the balance between improvement and transformation of existing farming systems depending on the prevailing economical, ecological, technological and social conditions process and not a one time event.

It is important to note that in 2000, Uganda adopted plan for modernization of agriculture (PMA), as a program to address the challenges of poverty through improvement of agricultural practices to meet the growing domestic demand for food, industrial crops and live stock products.

It was taken to mean the national frame work aimed at overcoming key constraints that the farmers are facing so as to increase and overcome poverty. It is part of poverty eradication plan (PEAP), the overall national development programmed (PMA progress report, 2003). In an attempt for the government to listen and respond to people's needs at local levels and for the poor to have a say in planning for better and more responsive services that affect people's agricultural activities and lives, do farming as a business by use of improved methods and the government to have a very important supporting role, the government implemented plan for modernization of agriculture.

However, despite the efforts by the government of Uganda to modernize agriculture under the program, (PMA), the productivity has remained low. For example, the ministry of agriculture animal industry and fisheries annual performance monitoring and evaluation report, 2004 indicated that agricultural sectors contributed 40.7% to gross domestic product in 2000/2001, 39.7% in 2001/2002, 38.7% in 2002/2003 and 38.5% in 2003/2004.

This means that not all improved crop varieties have been multiplied and distributed to make a remarkable impact .The use of animal technology is still limited to ploughing and the aspects of sawing seeds, weeding, harvesting and transporting products are still done manually. This

has been observed almost in all districts that embraced the plan for modernization of agriculture way back in June 2001 when it was adopted in 24 sub-counties of Arua, Kabale, Mukono, Soroti and Tororo districts. By 2004, this program had already been extended to 21 districts and 183 sub-counties. Iganga is one of the priority districts that adopted the PMA program and in particular Kigulu County. It is against this background that the researcher wishes to find out the influence of plan for modernization of agriculture on the agricultural practices in Kigulu county Iganga district.

#### **.1 Statement of the Problem.**

Despite the development in implementation of plan for modernization of agriculture in Uganda, a number of farmers ignore the recommended packages of modern agriculture.

The aspect of planting, weeding are almost entirely done manually. The use of improved crop varieties has at times not had a remarkable impact on nation production and the rate of adoption of better methods of production; better seed varieties have remained low. That is the reason why the researcher intends to focus on the influence of PMA on the agricultural practices Kigulu County, Iganga district.

#### **.2 Purpose of the Study.**

In a bid to eradicate poverty among the farming communities, the government initiated a plan for modernization of agriculture as part of the comprehensive national strategy to fight poverty (PEAP).

This strategy is also geared towards commercialization and an overall boost to agricultural production. The strategy has now existed for 8 years with in which a lot of activities have been put in place to respond to the government plan (PMA).

The purpose of the study is therefore to find out the influence of PMA on Agricultural activities in Kigulu County.

### **.3 Research Questions.**

The following research questions were generated for the study:

- i). What agricultural practices are being carried out in Kigulu county?
- ii). What is the role of NAADS in agriculture?
- iii). What impacts does NAADS have on agriculture?

### **.4 Objectives of the Study.**

- 1) To identify the current agricultural practices in Kigulu county, Iganga district.
- 2) To find out the role / activities of National Agricultural Advisory Services (NAADS) in Kigulu County.
- 3) To investigate the impact of NAADS on agriculture.

### **.5 The Scope of the Study.**

The prime purpose of this study is to establish the influence of plan for modernization of agriculture (PMA) on agricultural practices in Kigulu county Iganga district. It will focus on two sub-counties of Kigulu namely, Bukoona and Bulange. It will involve farmers, services providers (contractors), sub-county coordinators and district agricultural officers.

## **.6 Significance of the Study.**

The study findings will help the government and other non-governmental organizations interested in improving the peoples livelihoods through agricultural practices to understand the challenges and problems embedded in the practice and therefore take appropriate action.

The study will be useful to policy makers to make appropriate decisions about ways of improving agriculture in the country.

The ministry of Agriculture Animal Industry and Fisheries will obtain important information from the study which will be used to facilitate its activities.

The findings from the study will also be significant to other researchers and academicians in widening their knowledge about the role and activities of NAADS and use it for academic debates let alone as appoint of reference for purposes of similar research.

The findings will also enable and encourage the local people (farmers) in the country and Iganga in particular to gain a deeper understanding of plan for modernization of agriculture (PMA) and its benefits so that they can embrace it.

Lastly the research findings will add literature to the already existing one on plan for modernization of agriculture (PMA) for future research.

## CHAPTER TWO.

### REVIEW OF RELATED LITERATURE.

#### .1 Evolution of PMA in Uganda.

According to Specioza (1996), ever since 1986, substantial efforts have been undertaken in Uganda to create enabling environment to modernize Agriculture. Government committed itself to rehabilitating track / feeder roads and to build district capacity to rehabilitate and build roads.

In 1992, National Agricultural Research Organization (NARO) was established with the objective of prioritizing, promoting and coordinating all aspects of crops, livestock, fisheries, agriculture, and engineering and forestry research.

A number of high yield coffee, cotton, cassava, maize, beans, and oil crops varieties have been introduced. Animal traction technology was addressed alongside the efforts of re-stocking in most areas.

#### .2 Agricultural Practices.

According to specioza, (1996), Uganda's agriculture represents a potential force for poverty eradication. The ministry of Agriculture Animal Industry and Fisheries (MAAIF) embarked on the path for modernizing Agriculture with emphasis on small holders constituting 2.5 farm house holds .These house holds own an average of two hectares of land and form 90% of Uganda's population. The small holders practice agriculture which is characterized by in appropriate technologies and subsistence production with limited surplus to generate house

hold income to meet their basic needs. This argument is an agreement with the view of Michael senior (1984), who identifies another type of agricultural practice as mixed cropping in East Africa. He defines it as the growing of several different kinds of crops together on the same piece of land.

Young and Lowry (1977), identifies another form of agricultural practice as crop farming where various types of food crops are grown on a piece of land for purposes of food production.

Bukenya (1984) , on the other hand advances market gardening as the growing of fruits and vegetables on small plots of land in towns for sale as a form of agricultural practice in Uganda .

Morgan (1968), also states that irrigation is an agricultural practice where farmers use dry lands for cultivation through the use of irrigation which is intended to increase production and therefore improve on livelihoods. This view is in agreement with that of Michael (1984) who argues that some parts of East Africa have very little rainfall and in many parts or regions, rainfall is very un reliable and that in some cases, the problem of low and unreliable rain fall have been tackled by irrigation. This seems to show how un favorable climatic conditions hinder agricultural practices because they create water shortage, loss of pasture making agricultural production very difficult.

David Waugh (1986), identifies another form of agricultural practice as commercial farming in Europe and North America has led to mechanization is changing agricultural practices from subsistence to commercial agriculture.

### **3 The Role of National Agricultural Advisory Services in Uganda (NAADS) in Uganda.**

The NAADS programmed received approval by the cabinet of the government of Uganda as national programmed late 2000. This was followed by negotiations with donors and development partners (Agricultural sector programmed annual report, 2001). The governing body of NAADS is the board of directors. The NAADS body was established by the (NAADS act June, 2001) as a semi-autonomous body responsible to the ministry of Agriculture Animal Industry and Fisheries (MAAIF). The objectives of the board include providing guidance on policy, coordinate on to the NAADS programmed, supervision and support to the NAADS secretariat. It is also responsible for setting targets and approving work plans and budgets for NAADS.

According to PMA progress report (2003), NAADS was designed as an evolving process with lesson learning on development practices.

Agriculture trade show news letter, volume 01; October (2003), states that NAADS is a new program in the ministry of Agriculture Animal Industry and Fisheries (MAAIF) established by the act of parliament under NAADS act in 2001. It was convened under PMA as one of the government's strategy to poverty eradication through the transformation of subsistence to market oriented farming by increasing farm level productivity and profitability.

Farmer empowerment is the cardinal principle of NAADS. It empowers farmers particularly the economically active, rural and low income households and marginalized groups to ask for advisory services for their priority enterprises.

The news letter highlights the first class services offered by NAADS as: (i) Advisory and information services to farmers, (ii) Technology development and linkages to markets, (iii) Quality assurance of services, (iv) Private sector institutional development, and (v) program management and monitoring.

#### **.4 The Impact of Plan for Modernization of Agriculture (PMA) on Agricultural Practices.**

According to the NAADS executive director Silim Nahdy ,(New vision-Kampala 7<sup>th</sup>-8<sup>th</sup> October 2007) , the NAADS program registered positive impact as seen in 2005 mid term review .The evaluation indicated increase in productivity at the house hold level by an average of 27% .

In a statement ahead of the national launch of prosperity for all programmed popularly known as (Bonna Bagaggawale ) , Nahdy said access to technologies had increased by 64% and improved availability to extension services for the participating farmers and thus household income increased by 41% per capita income in NAADS sub counties .

The above is also in agreement with the international food policy research institute (IFPRI-1999) , report, NAADS is reported to have reached all the 79 districts, 720 sub counties and all the 10 agro-zones of Uganda ,” so far over 40,000 farmers groups about 800,000 house holds are benefiting from the program”.

On the negative impact the report reveals that depletion of soil nutrients is at a high rate in places where PMA has taken root due to the use of fertilizers. However, this report did not point out the fact that some farmers are illiterate and cannot read the manufacturer’s instructions which can lead to improper use of the fertilizers and poisoning.

Silim Nahdy (New vision Kampala), October 7/899(2007), goes on to reveal that significant variability in performance was found in districts, with some districts performing poorly as a result of local government commitment. He identified other challenges affecting NAADS impact as poor marketing and agro-processing capacities, overlapping agricultural related programs, undeveloped input supply systems, persistent pests and diseases that affect crops and livestock. However, he said that the programme was designed to address most of the challenges that are beyond its mandate.

Iganga district news report (2003, 2004), reveals that NAADS has taught farmers how to grow upland rice as opposed to paddy rice that leads to destruction of wet lands. The same news report indicated that farmers in Kigulu County have adopted farming methods as a result of constant training by service providers. This is depicted by massive production of mainly beans, upland rice and ground nuts.

David Waugh (1986) states that agricultural modernization in Europe has taken the form of commercial farming which has led to mechanization, increased farm size, increased use of chemicals and increased field size. In relation to Uganda these are aims of PMA except that large farms are not yet being established in most parts of Uganda because under NAADS one piece of land can be shared by many farmers (IMF-Uganda adjustment with growth 1987-1994). Agricultural modernization in Uganda is also all about changing from subsistence to commercial agriculture like in Europe.

## CHAPTER THREE

### METHODOLOGY.

#### **.1 Introduction.**

This chapter presents the methodologies that were used to carry out the study on the influence of PMA on agricultural practices. It represents among others the research design, study area and population, sample size and sample selection, data collection techniques, research instruments, research procedure, data presentation and analysis.

#### **.2 Research Design**

A predominantly qualitative design was utilized to carry out this study. In this design the study respondents were interviewed using self administered questionnaires to literate ones who could fill questions at their own convenience. The illiterate respondents' questionnaires were administered by the researcher himself through personal interview.

#### **.3 Sampling Procedure.**

Due the qualitative nature of the study, purposive sampling was used to select respondents from the extension workers and local councils, 10 respondents were selected from the categories, 5 from each group. For the farmers, stratified random sampling was used to select members who participated in the study and later proportionate sampling was applied to get the proportionate sample.

Because of the detailed information that was required from the study, it was difficult to use a big sample size let alone the limitation of resources to use during data collection. The

researcher therefore, found it convenient to use a sample size of 60(sixty) respondents including the key informants

#### 4 The Sample Study Area and Population.

The study was carried out in Kigulu south constituency, Iganga district. Kigulu south has three sub counties under NAADS program which include; Bulamagi, Nakigo and Nakalama. The area was chosen for study because it is one of the counties embracing NAADS program in Eastern Uganda.

The study population comprised of farmers in Kigulu south, NAADS sub county coordinators, NAADS service providers and local council III Chairperson. Both male and females were interviewed. These people gave information on PMA (NAADS) and basically first hand agricultural information. They were distributed as follows;

Table 1: Showing Type/Category and Number of Respondents.

<b>Respondents</b>	<b>Number</b>
Farmers	46
NAADS sub county coordinators	03
NAADS service providers	10
Local council III chairperson	01
Total population	60

Source: Primary Data

## **.5 Instruments for data collection.**

Data was collected from, the field using questionnaires and conducting interview schedules using interview guide.

### **.5.1 Questionnaires.**

Questionnaires contained both close ended and open ended questionnaires. They were administered by the researcher himself by encoding and ticking the appropriate responses by the respondents. Open ended questions were used to allow respondents give their own views or opinions so that the researcher could get more and enough information as required. Face to face interview was preferred because it enabled an informal exchange and allowed probing and clarification of ideas in a controlled manner. The researcher ensured that time set for interviews and discussions were not in conflict with the time use pattern of the respondents. The questionnaires were designed in English and this was administered to respondents who were literate. The researcher translated the questions into local language which was easily understood by the respondents who were illiterate; this was done in order to solicit for enough information required.

## **.6 Data Collection Procedure.**

A letter of introduction was secured from the Institute of Open and Distance Learning of Kampala International University and taken to the local authorities of the area to get permission and introduce the researcher. The authorities allowed the researcher to carry out the study. The researcher then approached the respondents, introduced himself, and explained the

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND DISCUSSION OF DATA.

#### .1 Introduction.

This chapter shows the influence of PMA on agricultural practices in Kigulu South Constituency with the presentation, analysis and discussion of data collected from the field.

#### .2 Agricultural Practices in Kigulu South.

To find out the agricultural practices in Kigulu, the researcher requested the respondents to list the agricultural practices and the results were tabulated as seen below.

**Table 2: Showing agricultural practices in Kigulu South.**

Agricultural practices in: Nakigo, Nakalama, Bulamagi sub-counties	Frequency of respondents	Percentages
Poultry	45	75
Livestock	45	75
Crop farming	58	97
Mixed farming	58	97
Irrigation	38	63

Source: Primary Data

From the above table, crop farming and mixed farming scored the highest frequency which means that most farmers are engaged in both practices.

The table also shows that there is poultry farming in the constituency. This was identified by 75 percent of the respondents interviewed. This means that poultry is not widely spread like other practices.

From the table, 75 percent of the respondents identified livestock as one of the farming practices in Kigulu. This means livestock is also moderately spread.

Finally, Irrigation was the least mentioned as it scored 63 percent of the responses.

### 3 Finding out the Role of NAADS in Kigulu South.

Respondents here were required to identify the role of NAADS in Kigulu South through questionnaires and oral interviews. Their responses were therefore summarized in the table below:

**Table 3: The role of NAADS in Kigulu South.**

Role of NAADS	Frequency out of 60	Percentages
Development of commercial enterprises	58	97
Formulation of farmer development groups	20	33
Training of farmers	58	97
Linking farmers to markets	30	60
Supervision and monitoring of farmers	20	33
Supplying of seeds to farmers	58	97
Soil and crop management	20	33

Source: Primary data

concerned. These therefore, point out some of the challenges that the NAADS face in the implementation of their projects in these sub-counties and in the country as a whole.

#### 4 Impact of NAADS on agricultural Practices in Kigulu County.

Specific objective three was to investigate the impact of NAADS on agricultural practices in Kigulu South. Respondents were asked to identify the benefits of NAADS to farmers and the respondents got from them were summarized on the table below:

**Table 4: Showing the impact of NAADS on agricultural practices.**

Responses	Frequency Out of 60	Percentage
Education of farmers	58	97
Improvement of soil fertility	05	8.3
Control of pests and diseases	10	17
Promotion of commercial enterprises	58	97
Promotion of poultry keeping	58	97
Increase of farmers' income	10	17
Increase of crop production	58	97
Creation of farmers' development group	30	60
Creation of employment opportunity	20	33
Provision of better quality seeds	58	97
Linkage of farmers to markets	30	60
Introduction of better and Modern farming methods	58	97
Increased use of chemicals	40	67
Total respondents	60	100

Source: Field findings.

The Findings from the above table have been outlined under the following;

**.4.1 Education of Farmers.**

From the above table education of farmers is among the leading influence of PMA on agriculture in Kigulu as revealed by 97 percent of the total responses.

**.4.2 Improvement of Soil Fertility.**

This was the least noted impact of NAADS because only 8.3 percent of the respondents said that due to constant use of fertilizers as emphasized by the NAADS officials, there is notable improvement in soil fertility especially for those farmers who have taken more than two years under NAADS programme.

**.4.3 Control of Pests and Diseases.**

This was noted by 7 percent of the respondents who pointed out this impact of NAADS that farmers can now identify pests and diseases and their appropriate remedies as a result of constant training on how to treat live stock and spray crops using appropriate chemicals and pesticides.

**.4.4 Promotion of Commercial Enterprises.**

This was among the most dominant impact of NAADS because 97percent of the respondents noted it. They said NAADS gave pigs and goats to farmers to rear for commercial purposes. The goats were given for not only for sale but also for milk production which has improved the nutrition of the local people as well.

**4.5 Promotion of Poultry (local birds) keeping.**

This impact had 97 percent of the respondents. Keeping of local birds for both local consumption and sale using deep litter systems has been realized in NAADS sub counties.

The birds are well fed, properly treated and protected from the prey birds and animals which have enabled farmers to increase the number of birds hence increased sales and income.

**4.6 Increase of Farmers' Income.**

Respondents noted that farmers under NAADS programmed grow high yielding crops and this has led to high output meaning there is increase in produce for both consumption and sale which has increased farmers in come as can be seen on the table below:

**Table 5: Showing one farmer sampled.**

Farmer	Seasons	Acreage	Output	Sale
Wabwire	1	1 ½	5 bags	25,000
	2	1 ½	10 bags	500,000

Primary source

The above table supports the views of 17 percent of the respondents who noted that there is increase in farmers' income under NAADS programmed. It gives an increment of about 50 percent of income of the farmer per season.

**4.7 Increase of Crop Production.**

From the table, 97 percent of the respondents said that crop production has increased. For instance from an acre ten bags of ground nuts was realized by Agaga Nalya development group

in Bulamagi sub- county after joining NAADS in 2005 as they compared it to the previous 2 or 3 bags per acre before joining NAADS which they attributed to poor farming methods formerly practiced. This is in line with the International Food Policy Research Institute (IFPRI) report (1999) that NAADS has led to increased crop production and incomes of the poor in NAADS sub- counties.

That is 21 percent increment in crop production and 51 percent increment in income per capita in these areas.

#### **.4.8 Creation of Farmers' Development groups.**

This impact was noted by 50 percent of the respondents who said that under NAADS farmers are being mobilized to form development groups to empower them to have access to free services, loans and training such that they farm jointly and share the profits jointly. Among the notable groups were Adaga Nalya development group, Madingadin Farmers Association, Nakigo Farmers Association and many others. This is inline with the New Vision Friday, 9<sup>th</sup> July 2004, which outlined one of the NAADS benefits as being mobilizing of farmers into groups.

#### **.4.9 Creation of Employment Opportunity.**

This was identified by 33 percent of the respondents. They noted that some job opportunities have been created for instance chairman farmers' forum, NAADS coordinators, service providers who are paid by the local government. The farmers are also engaged in piggery, poultry and commercial activities introduced by NAADS who would otherwise be jobless.

#### **4.10 Provision of Improved Quality Seeds.**

Ninety seven percent of the respondents identified this impact of NAADS. They said that farmers are often supplied with high quality improved seeds of crops like groundnuts called Serena, Upland rice and Maize free of charge every season. The seeds are improved fast maturing, drought and disease resistant which has led to increased crop yields. This is in agreement with Specioza (1996) who stated that modernization of agriculture involves provision and use of better seeds in agricultural practices.

#### **4.11 Linking of Farmers to Markets.**

This was noted from 60 percent of the respondents who talked about NAADS linking farmers to markets. They said that NAADS providers buy farmers produce at prices than in the local markets from farmers under the programmed moreover at the farmers' farms or locality, so they do not even meet transport costs to the markets. This agrees with the PMA report 2002/2003, page 13 that says that NAADS supported farmers and buyer partnership by linking organized farmers to reputable produce buyers like Mukwano Group of Companies, Nile Breweries.

#### **4.12 Introduction of Better and Modern Farming Methods.**

Here 97 percent of the respondents noted that NAADS has introduced modern farming methods for instance use of improved fast maturing crop seeds, application of fertilizers and proper crop maintenance.

#### **4.13 Increased Use of Chemicals.**

This was noted by 40 percent of the respondents. They claimed that the chemicals had led to poisoning because some farmers forget the instructions yet they cannot read them for themselves. This was a negative impact even though on the positive side they noted that it has improved on soil fertility and disease control.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS.

#### 5.1 Introduction.

In this chapter, the results were summarized in relation to what was already known or asserted as presented in the review of literature and chapter four.

#### 5.2 Summary of results.

In summary the study was about the influence of plan for modernization of agriculture on agricultural practices in Kigulu South Constituency. The methods of data collection used were: questionnaires, oral interviews, direct observation, sampling and library research.

Findings were analyzed using percentages from tables and qualitative methods. Objectives and their results included the following: Objective 1 was to establish the agricultural practices in Kigulu South and it was responded upon by 46 farmers, 3 NAADS Sub-County Coordinators, 10 NAADS Service Providers and 1 Local Council III who listed the following practices: poultry, livestock, crop farming, mixed farming and irrigation. Objective 2 was to identify the role of NAADS and the following roles were identified: development of commercial enterprises, formulation of farmer development groups, training of farmers, linking farmers to markets, supervision and monitoring of farmers, supplying seeds to farmers, soil and crop management.

Objective 3 was about investigation of the impact of NAADS on agriculture and the results were as follows: education of farmers, improvement of soil fertility, control of pests and disease, promotion of commercial enterprises, promotion of poultry(local birds

keeping), increase of farmers' income, increase of crop production, creation of employment opportunity, provision of better quality seeds, linking of farmers to markets, introduction of better and modern farming methods and increased use of chemicals.

### **5.3 Conclusion.**

Basing on the results presented, interpreted, analyzed and discussed, plan for modernization of agriculture through NAADS has had a great impact on agricultural practices in Kigulu South. These include; education of the farmers, promotion of commercial enterprises, promotion of poultry keeping, increased crop production, provision of better quality seeds and introduction of better and modern farming methods.

Despite the following positive impacts the respondents identified some problems which were faced by the farmers under the NAADS program such as delayed supply of seeds, reluctance in supervision and monitoring, lack of cooperation in groups and higher prices of required equipment like sprayers, pesticides and fertilizers that they could not afford let alone delayed funding.

### **5.4 Recommendations.**

The number of farmers' institutional groups should be at least raised to over two hundred through massive mobilization and sensitization because; the number existing is very few as compared to the number of farmers in Kigulu South.

Government should come up with a clear budget to give farmers who have already learnt better methods to leave groups for new members to maximize resource utilization.

More demonstration farms should be set up at least in each parish from sub county level so that more farmers can access quality services provided by NAADS in Kigulu South.

There should be change in the land tenure system from fragmented small holdings to land consolidation to effect this joint agricultural production or cooperative farming advocated for under NAADS programmed.

There should be more funding of this programmed so that all the roles of NAADS can be witnessed on equal grounds.

Supervision and monitoring of farmers should be rapid because, most farmers are illiterate yet instructions on most of the pesticides are written in English which they do not understand so there is need for more instruction to avoid poisoning.

A research is needed to find out the problems faced by farmers and NAADS which has made it not realize its goal by 1005 in Kgulu South.

Farmers should join NAADS for those who have not and those under it should stick to because it has potentials of eradicating poverty among those under it as can be reflected on this impact.

Further research is needed to find out the land carrying capacity and the soil PH to avoid environmental degradation as it was warned by the NEMA report (2004/2005).

More varieties of seeds should be added to farmers for instance, millet, sorghum, banana on top of the already existing maize, groundnuts and upland rice to divert farmers' agricultural practices.

The rural population should be encouraged to join NAADS, although politicizing the programme should be avoided as some farmers are shying away from its political perspective.

The number of NAADS coordinators per sub county should be increased to at least 20 per sub county from one such that they easily reached by the many farmers as one per sub county is not effective and even rare or difficulty to find in office.

## 5.5 **Review.**

This chapter has shown the overall summary on the study of the influence of plan for modernization of agriculture on agricultural practices in Kigulu South. It has included the methods of data collection used and the objectives of the study.

The chapter has presented the conclusion of results as they were presented, interpreted and analyzed in relation to the positive and negative impacts of NAADS. The chapter finally has gone an extra mile to outline the recommendations made by the researcher from the above data as presented, analyzed and discussed in the previous chapters.

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APPENDIX C (1)  
Letter of introduction



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*Office of the Director*

24<sup>th</sup> April 2008

TO WHOM IT MAY CONCERN:

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR ~~MS/MRS/MR.~~ BARAZA ERONAI SAKUKU

REG. #.....JPE|13881|61|DU.....

The above named is our student in the Institute of Open and Distance Learning (IODL),  
pursuing a Diploma/Bachelors degree in Education

He/she wishes to carry out a research in your Organization on:

INFLUENCE OF PLAN FOR MODERNIZATION  
OF AGRICULTURE ON AGRICULTURAL PRACTICES  
IN KIGALI COUNTY IGANDA DISTRICT

he research is a requirement for the Award of a Diploma/Bachelors degree in Education  
ny assistance accorded to him/her regarding research will be highly appreciated

Yours Faithfully,

A handwritten signature in black ink, appearing to read 'Joseph Muhwezi'.

JOSEPH MUHWEZI  
HEAD, IN-SERVICE

**APPENDIX: 2**

**Questionnaires to Farmers**

Dear respondent,

This questionnaire is aimed at helping me get information that will enable me analyze the influence of plan for modernization of Agriculture (PMA) on agricultural practices in Kigulu South.

The information you give will be treated with maximum confidentiality.

Thank you very much for your time.

Name.....Sex.....

Date.....Year.....

Village or area of residence .....

1. Do you farm? (tick where applicable)

Yes  No

2. If you farm, name the agricultural practices you do in Kigulu South?

- i) .....
- ii) .....
- iii) .....
- iv) .....

3. Name the crops that you grow.

- i) .....
- ii) .....
- iii) .....
- iv).....

4. Name the animals that you rear

a). Animals

i) .....

ii) .....

iii) .....

b). Birds

i) .....

ii) .....

iii) .....

5. Are you under NAADS programmed?

(Tick where applicable)

Yes  No

If yes

how did you join?

.....

7. And when did you join this programmed (tick one)

2001  2002  2003  2004

2005  2006  2007

8. List down the roles of NAADS in Kigulu South or your area of residence?

.....

9. How have you benefited from being under the NAADS programmed?

10. Give any problem you have faced under this program.

11. What is your view about NAADS program in Kigulu South?

Thanks very much.



**APPENDIX: 3**

**Questionnaire to the Local council Three (LC.111)**

Dear respondent,

This questionnaire is aimed at helping me get the information that will enable me analyze the influence of plan for modernization of Agriculture (PMA) on agricultural practices in Kigulu South.

The information you give will be treated with maximum confidentiality.

Thank you very much for your time.

Name..... Sex.....

Date..... Year.....

Village or area of residence .....

1. When was NAADS program introduced in Kigulu South?

.....

2. Who are the people who qualify to join this program? .....

.....

3. How is this program funded?

.....

4. What is their role?

.....

5. What are their failures?

.....

6. What do you recommend?

.....

Thank you very much.

**APPENDIX: 4.**

**Questionnaires to NAADS Sub-county Coordinators and Service Providers.**

Dear Respondents,

This questionnaire is aimed at helping me to get information that will enable me analyze the influence of PMA on Agricultural practices in Kigulu South.

The information you give will be with maximum confidentiality.

Thank you very much.

Name ..... Sex .....

Date.....Year.....Sub-county

No. of farmers .....

1. Name the farming practices dominant in the area you have extended your program in Kigulu south?

- i) .....
- ii) .....
- iii) .....
- iv) .....

2. What are you supposed to do for farmers or what is your role?  
.....  
.....

3. What have you achieved in Kigulu South?  
.....  
.....

4. What problems have you faced in trying to implement NAADS in Kigulu

South?

i) .....

ii) .....

iii) .....

5. What is the way forward?

.....

.....

Thank you very much.