

The Contribution of Operation Wealth Creation on Food Security for Smallholder Farmers in Kyanamira Sub County Kabale District

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Citation: Gordon SV, Turyatamba J. The Contribution of Operation Wealth Creation on Food Security for Smallholder Farmers in Kyanamira Sub County Kabale District. J Crop Tech Agri Sci. 2023; 5(5): 008.

Received Date: 27th November 2023

Accepted Date: 11th December 2023

Published Date: 18th December 2023

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Abstract

The study examined the contribution of Operation Wealth contribution program on food security. It was conducted in kyanamira Sub County in Kabale district. The following objectives guided the study; Establishing the support operation wealth creation fostered in addressing food security challenges, analyze the problems encountered in the implementation of Operation Wealth Creation in addressing food security concerns, explore the strategies for addressing food security concerns. The study used a descriptive research design employing both qualitative and quantitative methods. The methods of data collection used were questionnaires, interview guides and reviewing of documents like reports, newsletters, magazines and newspaper articles. Data was analyzed using Statistical package for social science (SPSS) version 16.0. The results of the study revealed that both males and females were engaged in Operation wealth creation, and in addressing food security all the different age groups were involved, with main source of livelihood delivered from crop farming. The Operation Wealth Creation program was contributing to food security by providing and giving out agricultural inputs like starter seed, Animal breeds, and crop seedlings to the smallholder farmers. However, in light of this, food security is still a challenge because the findings indicated that there are some households which get one a day and majority were having two meals a day meaning that several of the households were food insecure. In order to address the food security problems, it was important to engage beneficiaries in the selection process of input identification and more still provide smallholder farmers with food crops rather than the cash crops since majority could not afford growing foods meant only for sale. The study concluded that while operation wealth creation was being carried out, there was a lot to be done because households which still survive on one meal a day, food security in that case is in chronic stages and special attention has to be thought. The recommendation there fore is that, both males and females must work together to embrace food security, farmers should be engaged in the selection process for the inputs they need especially food crops instead of being given cash crops, the extension system should be at the forefront and work hand in hand with the UPDF officers deployed to spearhead Operation Wealth Creation.

Keywords: Operation wealth creation; Food security

Introduction and Background

This research, the contribution of Operation wealth creation on Food security for smallholder farmers was conducted in Kyanamira Sub County in Kable district. Operation wealth creation (OWC), is a strategically Agriculture operation program with the overall goal of enhancing household participation in commercial agriculture production and engagement of smallholder farming communities in resource mobilization and equitable management of agricultural value chains.

According to the world Food summit 1996, food security is defined, when all people at all times have physical and economic access to sufficient, safe, nutritious food that meets their dietary needs and food preferences for an active and healthy life.

The global food security challenge is eminent in the consideration that by 2050, the world must be in position to feed 9 billion people. The demand for food would be 60 % greater than it is today. The global plans include promoting of sustainable agriculture in line to addressing the sustainable development goals (SDGs) by the year 2030. Agriculture sectors have to become more productive by adopting efficient business models, and forging public private partnerships. The sectors have to be sustainable by addressing such issues like malnutrition, hunger and even conflicts for the resources, (FAO, 2019).

Uganda is one of the fastest growing economies in Africa, and agricultural growth is helping the country to progress towards the second sustainable development goal of ending hunger and all forms of Malnutrition by 2030. Despite this sustained economic and agriculture sector growth, Uganda still suffers from the hardships of widespread poverty, food insecurity, hunger and malnutrition. Under nutrition is widespread with 36% of the children chronically under nourished or stunted. The country has been the focus of the United states government global hunger and food security initiative, through such programs like Feed the Future, and the focus by USAID investments was on three values chains, maize, coffee, and beans, with the greatest market potential, nutritional benefits and income potential for farming households, (USAID, 2015).

Uganda's food security has not been the best compared to the rest of the world and Sub Saharan Africa. Nearly 1.4 million people approximately 3.9 % of the total population are food insecure, and the number of people in Uganda experiencing food insecurity in terms of caloric intake is alarming. Uganda's growth in food production has not kept pace with population growth, at an annual rate of 3.2%, and the indicators of food production per capita has been declining for the last 10 years, (FAO 2019).

Uganda has had low adoption and use of modern agricultural technologies, which has contributed to low productivity growth. The government of Uganda tried to tackle this challenge through the implementation of the National Agricultural Advisory Services (NAADS), which was established in 2001. However, based on the NAADS performance, there were structural reforms in 2013, which led to the formation of Operation Wealth creation (OWC) that took over from the NAADS program. The OWC was launched by the president of the republic of Uganda in July 2013, as an intervention to effectively facilitate national transformation. The focus was on commercializing Agriculture, based on deploying the UPDF soldiers to take up the mantle in the implementation process and work with the smallholder farmers, (PPU-President's speech, 2013).

According to the Kabale district local government statistical abstracts, the main source of live hood amongst the households is subsistence farming which takes over 81.5%. Kabale is one the districts which has benefited from government programs like NAADS, Operation wealth creation, Emyoga, youth lively hood among others. Kabale district local government has invested considerable resources to assist farmers in increasing production and improved in their lively hoods. The support to this end considers distribution of inputs to smallholder farmers, and as well providing extension messages to the farmers, (Operation Wealth Creation report, 2015).

Kyanamira Sub County in kabale district has been receiving in puts from the time NAADS started in 2001, until of late when the NAADS program was restructured in 2013 into Operation wealth creation. The inputs the farmers

in the sub county have received range from Animal breeds, crop seeds, Fish fingerings, animal feeds, equipment like hoes and forked hoes, (KDLG Annual reports, 2018).

The number of beneficiaries however, are not spelt out and in regard, the records kept are rather lacking in some sense. The Operation Wealth Creation program in the sub county of kyanamira as well benefited from having one of the prominent Apple farmers and who boosts of using a small piece of land and has harvested a lot of money from the enterprise (The New Vision paper of 14 Feb 2017). This may look to be a small proportion of the adopters of the various projects and programs promoted, however, the question would still remain on, how the biggest percentage have been helped in terms of addressing the food security challenges in the community which has benefited from the NAADS as well as operation wealth creation.

Statement of the Problem

With 70 percent of the world's extremely poor and food insecure people living in rural areas, the role of agriculture which is the predominant economic activity in rural areas is crucial in addressing the challenges of food security. In Uganda, the rural poor depend on agriculture for both their incomes and food entitlements with agriculture accounting for a large share of gross domestic product and employ a large proportion of the population, (USAID 2019). Uganda through the Ministry of Agriculture Animal Industry and fisheries has supported a number of programs geared towards Agriculture developments among which include, NAADS and Operation wealth Creation. Despite Kyanamira Sub county being one of the pioneer sub counties where NAADS program started in Kabale district and where currently Operation wealth creation has been implemented, there was need to conduct a research to ascertain the contribution of operation wealth on food security for smallholder farmers regardless of the program tackling the value chain for commercializing agriculture.

Objectives of the Study

The study was guided by the following objectives

- (i) To establish the support Operation wealth creation fosters in addressing food security challenges in Kyanamira Sub county Kabale district
- (ii) To analyze the problems encountered in the implementation of Operation Wealth Creation in addressing food security concerns in Kyanamira Sub county Kabale district
- (iii) To explore the strategies for addressing food insecurity in Kyanamira Sub county Kabale district.

Research Questions

The study was guided by the following research questions

- (i) What support has Operation Wealth Creation fostered in addressing food security challenges in Kyanamira Sub county Kabale district?
- (ii) What are the problems encountered in the implementation of Operation Wealth Creation in addressing food security concerns in Kyanamira Sub county Kabale district?
- (iii) What strategies can be applied in addressing food security concerns in Kyanamira Sub county Kabale district?

Rationale and Significance of the Study

The research findings will guide the policy makers in making plans to address food security challenges in the line of implementing Operation wealth creation which is mainly considering commercializing agriculture. The stakeholders involved at the local level are the smallholder farmers who if not well engaged may look at Operation Wealth Creation program as by and large a program for those to invest in bigger investments since commercial agriculture requires a strong base in using the major factors of production including land, labor and capital and shun it for the well to do categories in the agriculture sector.

The findings would become a useful tool for the target beneficiaries, who are the smallholder farmers where the program is geared towards farmer empowerment holistically and would create the sense of ownership and foster sustainability mechanisms for improved livelihoods.

The findings would help in making recommendations based on how the Operation Wealth Creation reaches out to the different smallholder farmers as immediate beneficiaries of the program and create a linkage between the farmers and the UPDF officers who are at the forefront in the implementation process.

The findings will act as a source of reference upon which other upcoming researchers and students would refer to, with proposals made for further research basing on the findings of the study.

Scope and Delimitations of the Study

Geographical scope

On the geographical scope, the study was conducted in Kyamanira Sub County in Kabale district, Uganda. Kabale district is located in south western Uganda and borders with Rwanda in the south. It lies approximately between latitudes 10° south and 1.30° south and longitudes 29° 18"East and 30° 9"East. It is approximately 415 kilometers from Kampala which is the capital city of Uganda. Kyanamira Sub County is located in the Eastern direction of Kabale town along Kabale-Mbarara road and neighbors Kabale Municipality.

Content scope

The study concentrated on Operation wealth creation and food security in the study area. The areas of interest were the support fostered by Operation Wealth Creation, the challenges met in the implementation process and the strategies for addressing food security.

Contexts scope

The Operation wealth creation program was objectively designed to mobilize the masses to engage in commercial agriculture activities to boost household incomes, distribute the agricultural inputs equitably and timely to boost production and productivity at household level and facilitate the rural technological upgrading to allow smallholder farmers to transform themselves.

Time scope

The study considered the time period of 3 years from 2017 to 2020. This was considered bearing in mind that several of the commercial crops and Animal breeds supplied to the farmers have a gestation period through which

they will have reached production phases and usually the tangible outputs are realized after such a period and some impact in the life of the smallholder farmers could be realized.

Theoretical Framework

This research was guided by the food security theories developed by Smith and Malthus. The theoretical approaches to food security are guided as developed theories in the 1970s and 1980s by Adam Smith and Malthus, and one of them is the Neo- Malthusian theory which argues that “food security and sustainable development are intrinsically linked, (Scanlon 2003), and food security exists if a house hold has supply available and means to get adequate food to maintain needs of its members. The second theory is the Climate theory, which explains food insecurity as caused by climatic phenomena. This theory argued that in the national or local level, climate linked phenomena such as drought, floods and landslides are a major factor causing food insecurity, (Cox, 1981). The proponents of this theory argued that food scarcity occurs when the availability of food is less than the food necessity of the population. The argument behind is that famines are primarily caused by a sudden decline in food availability and consider natural drivers as the main causes of food insecurity and analyses their influence on harvests failures and advance in prices of the food stuffs.

Literature Review and Key Points of Departure

The Contributions or Support to Food Security

The restructuring of NAADS in 2013, resulted into formation of Operation Wealth creation (OWC). The NAADS program is a government of Uganda program which was put in place to increase the efficiency and effectiveness of agricultural service delivery and address all the concerns of food and nutrition security in farming communities. It was a semi-autonomous body formed under the NAADS act of June 2001 with a mandate to develop a demand driven, farmer led agricultural service delivery system targeting the poor subsistence farmers, with the main focus on the women, youth and people with disabilities, (NAADS Act, 2001).

According to FAO 2018, adequate food availability means that on average sufficient food supplies are available from domestic production and or imports to meet the consumption needs of all in the country. Similarly, as in the case of individuals, purchasing power of any food stuff requires a stable income from a household and food imports is a determinant of national food security. Therefore in order to boost the production trends and promote food security farmers need to be provided with starter seeds and planting materials and then follows ups made to ensure that provisions made are put to proper use.

The MAAIF, (2019), indicated that the nutritive value of the fruits where potential farmers have worked towards managing a better productivity level, not only does it bring income to the pockets of the farmers but also supplements on food security and brings good health for continuous production on the farm. The demand for fruits is high and this promotes juice production on small and large scales and this is geared towards having better avenues for food, nutrition security among farming communities and even beyond especially those in urban centers.

Food security is the outcome of complex interactions among the natural resource users and management teams with an interaction of political, social and economic factors. To be food secure, all people must have land access, reliable and sufficient, in order to produce quality and quantity food that allow them to lead healthy and effective lives. Food security is much dependent on the environmentally responsible and sustainable use of the world's forest and other natural resources; however, this link is rarely reflected on the national programs, (IFAD, 2018).

Onjango, (2015), notes that a more food secure Uganda can be achieved by increasing the number of prospering smallholder commercial farmers. Some areas of intervention to boost farmers include crop productivity enhancement. This involves setting of farmer platforms which include technology option plots, women assisted demonstration plots, and production test plots. The innovations of promoting farmer field schools which embrace the full participation of farmers in their locality is a good venture. The several foods promoted include beans, Irish potatoes, millet, cassava, and sorghum and these are regarded as food security crops since they are the common foods especially in south western Uganda.

The Problems Encountered in Addressing Food Security Concerns

The MAAIF report of 2012, noted that, NAADS program which had contributed towards transforming the Agricultural sector is used through provision of services in extension and giving out inputs to the farmers was full of conflicts and failed to change hither to subsistence Agriculture. The program was quite often criticized to be full of corruption scandals, with several implementers having conflicting scenarios about its operations.

The president of the republic of Uganda was as well on several occasions disgruntled by the way the program was handled. The smallholder farmers who were the target beneficiaries ended up being marginalized and this resulted into going back to the drawing board for restructuring the program. According to the speech of the state of the nation report 2013/2014, the president pointed out that the government of Uganda has put a lot of funds in the Agriculture sector but less is seen in terms of uplifting the standards of the common poor farmer. The several officers arrange meetings and consider only getting allowances from organized seminars, workshops rather than giving farmers the inputs for uplifting the standards in their living. This culminated into changing the NAADS program into Operation wealth creation where the president deployed the UPDF officers to man the program and launching hither to in the same year.

The effects of climate change have become eminent, the forces of development are pulling each other, and every farmer is in debt and despair. Vast stretches of land have become water logged, deserts and as seen even the trees have stopped bearing fruits. The application of heavy and strong pesticides and agro chemicals have killed the pollinators like bees and butter flies, the native seeds have been replaced by the hybrids which cannot be saved for the next planting seasons because they are vulnerable to pest attacks and now farmers are consuming the same pesticides, as a way of killing themselves so that they can escape permanently from the un-payable debts, (FAO 2019).

Hazel, (2017) pointed that there are several challenges associated with having agricultural programs achieve the set targets in fostering development. This is in line to the challenges encountered to achieving food security like land fragmentation due to the increased population pressure on the scarce and limited resources. The factor of addressing food security issues has to be well tackled by using well designed government programs and ensure well-coordinated and implemented plans.

Kintu Robert (2014), observes that the effects of climate change are just starting to show case. The clearing of forests to give room to agriculture fields and pasture lands being destroyed through over grazing and transforming marginal landscapes into cultivatable land, burning of crop residues rearing of animals and heaping dung which results into production of methane gas, and using of nitrogen fertilizers, among others raise the green-house gases into the atmosphere. This greatly affects the ozone layer causing global warming that will once again affect the agricultural activities resulting into reduced yields and changing of seasonal trends for Agricultural production.

According to the World Bank report of 2009, although the government of Uganda has attempted to stimulate production through various programs, where the farmers have been given inputs and advisory services, this has not yielded to the results as expected. The government needs to ensure provision of quality inputs, and this will help Uganda to move a step and improve its performance in the Agricultural sector.

The Strategies for Addressing Food Security

According to the World Bank report of 2019, the private-public partnership arrangements are important in the implementation of government programs. The government contracts out the extension services to private individuals and agencies and this is hailed as an efficient means of delivering services to the intended farming communities. The services should be given out following a demand driven approach hence creating a demand driven extension system and this would even minimize on the costs of implementation in the entire process.

UNDP, 2018, report, pointed that supporting young people and women in the Agriculture domain is not a new venture but only needs well organized structures. It is estimated that by the year 2050, global food is predicted to grow by 60% yet many energetic young people are shunning being engaged in agriculture and running from rural areas to urban centers for white collar jobs. Nurturing young people's careers in agriculture should be very vital in order to have a sustainable food production system as means of safe guarding a long term food security system. Supporting women is also central to safe guarding food production since they are the most fully engaged in agriculture production.

According to the budget speech of 2013/2014, various technologies including irrigation were to be supported. The program of supporting irrigation farming by the government was geared towards improving food security under situations of tackling the effects of climate change. The strategies of ensuring that there is enough food for the ever increasing population and considering the adverse effects of climate change, the government's plan to rehabilitate the major irrigation schemes of Mubuku, Doho and Agoro as well as looking forward to setting up mini ones would in the long run address the challenges of food security.

Ngatya, K, 2003, contends that technology adoption can be free to flow if it is farmer initiated. The approach of farmer to farmer creates a bigger opportunity for many to learn from each other. The food security amongst small holder farmers has been seen on the basis of farmers copying technologies from their fellow farmers or getting some crop or animal breeds from their fellow farmers. The tendency of rural farmers waiting to see before they adopt the technology should be well addressed. When the promoted inputs, knowledge based and extension services are welcomed by the farmers and put into practice, the results will bring out food security among the those will have acquired the knowledge and skills and thus use them more to produce for their households.

MAAIF report (2019), concentrates on the idea that research and development have to emphasize work which will improve agriculture production mainly focusing on food production for the households, value addition and marketing in the long run. The use of such technologies like walking tractors manually operated maize millers, seed planters, inter-row animal drawers have increased production efficiency and these have reduced the number of days required to till the land. Under such arrangements, the farmers have quite often had enough food produced for their households and little would be regarded as waste because even the waste products are changed into animal feeds or manure which is taken back to the farms.

NARO report 2017, asserts that, research should be based on the development of technologies for improving systems and enhancing productivity of national priority conditions and options for responding to the emerging challenges and opportunities in addressing food security. The ideas of having a combined mandate of managing the natural resource base on a sustained venture should be emphasized. The adverse effects of climate change should be tackled with an integrated approach of having plans for improving the natural resources. The land management principles should be taken on a serious note because, without well managed land in all spheres of development, the food security challenges may not be tackled fully.

Research Methodology

Research Design

The study research design was descriptive in nature. Both quantitative and qualitative methods were employed meaning that in the inquiry it was a mixed research. The study adopted a cross-sectional approach where information was gathered during a specified time.

Study Population

The target population was the smallholder farmers who had benefited from the Operation wealth creation for the last five years bearing in mind that since its inception in 2013 in the study area, there would be many smallholder farmers who could have been supported. In regard to the period between 2017 and 2020, the list picked from the Sub County indicated that 108 smallholder farmers had received various inputs from the Operation wealth creation program. This meant that from the list of the smallholder farmers supported within that period, a sample would be got, This research as well engaged the Sub county technical team including the Sub county chief and the Agriculture officer as key informants in providing in-depth information about the Operation Wealth Creation program in the sub county.

Sample Size and Sample Selection

The sample size was based on the formula by Slovine which is the formula used to determine the ideal sample size for the population, the formula is $n=N/1+(N*e^2)$, where n is number of samples, N is Total population, e is Margin of error (which is 5% or 0.05). From the total population of 368 farmers who had received support from OWC, the sample size was delivered'

$$\text{Thus } n=N/1+ (N*e^2)$$

$$= 108/1+ (108*0.05^2)$$

$$= 108/1+0.27$$

$$=108/1.27 =85 \text{ respondents}$$

And the sample size considered 85 smallholder farmers.

Sampling Procedure

The study employed a systematic random sampling technique. Systematic random sampling was used to select the farmers for purposes of getting a non- biased representation of the smallholder farmers who would participate in the research. The techniques involved getting an interval considering the nth value, for purposes of getting a uniform representation of the respondents.

Instruments of Data Collection

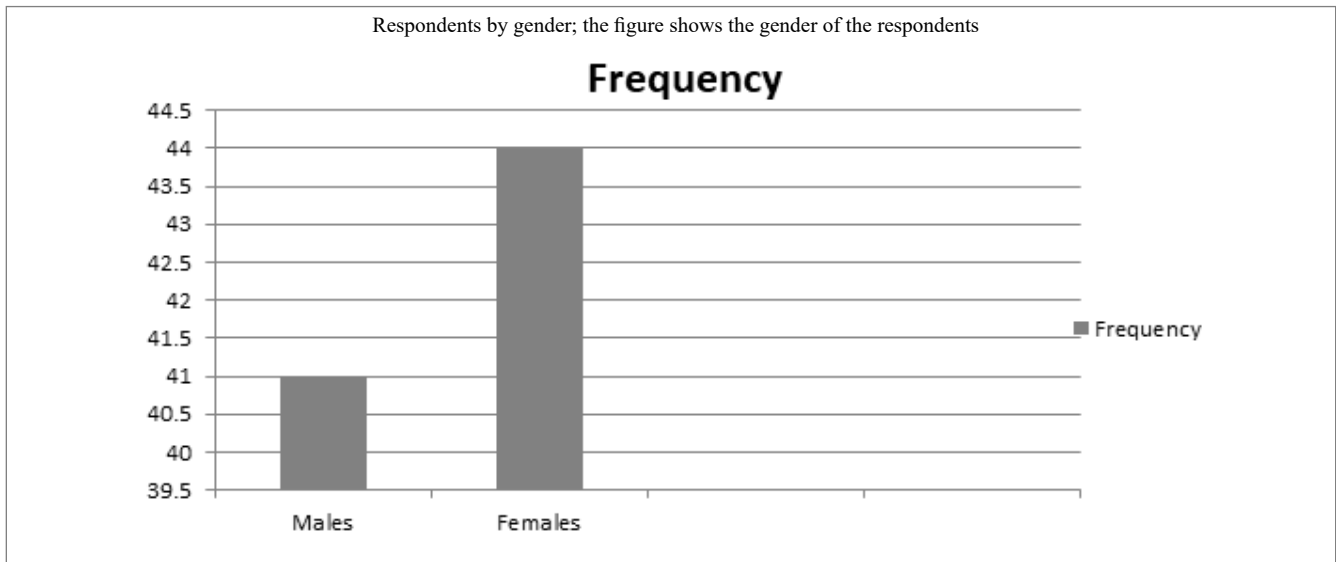
The use of questionnaires and interview guides was employed to get data from the respondents, questionnaires were administered to the small holder farmers and an interview guide was conducted for the sub county chief and the Agriculture officer at the sub county.

Data Management and Preparation for Analysis

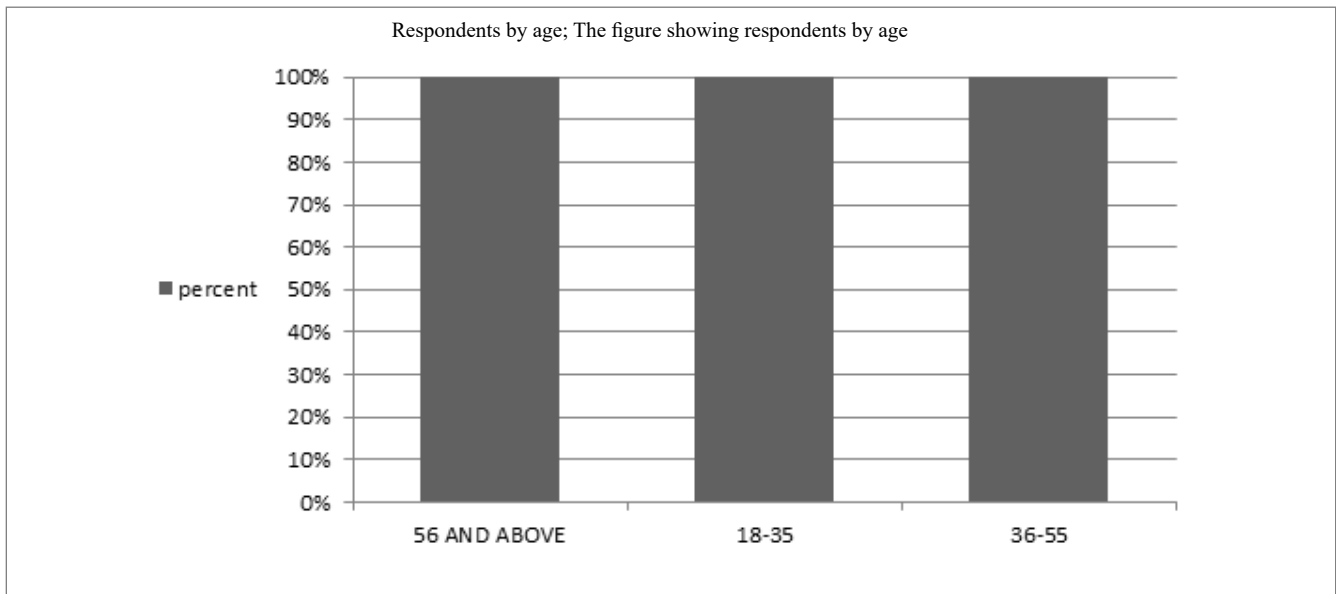
After data collection, questionnaires were checked to see if all the parts were filled. The questions were coded and data analyzed using statistical package for social scientists version 20. The results were later presented in form of tables and charts.

Data Analysis, Key Findings and Discussion

This section worked on analyzing the data collected from the various respondents who filled the questionnaires and the interviews conducted from the key informants. The background characteristics of the respondents were presented first to provide a clear picture of the nature of the people that participated in the study.

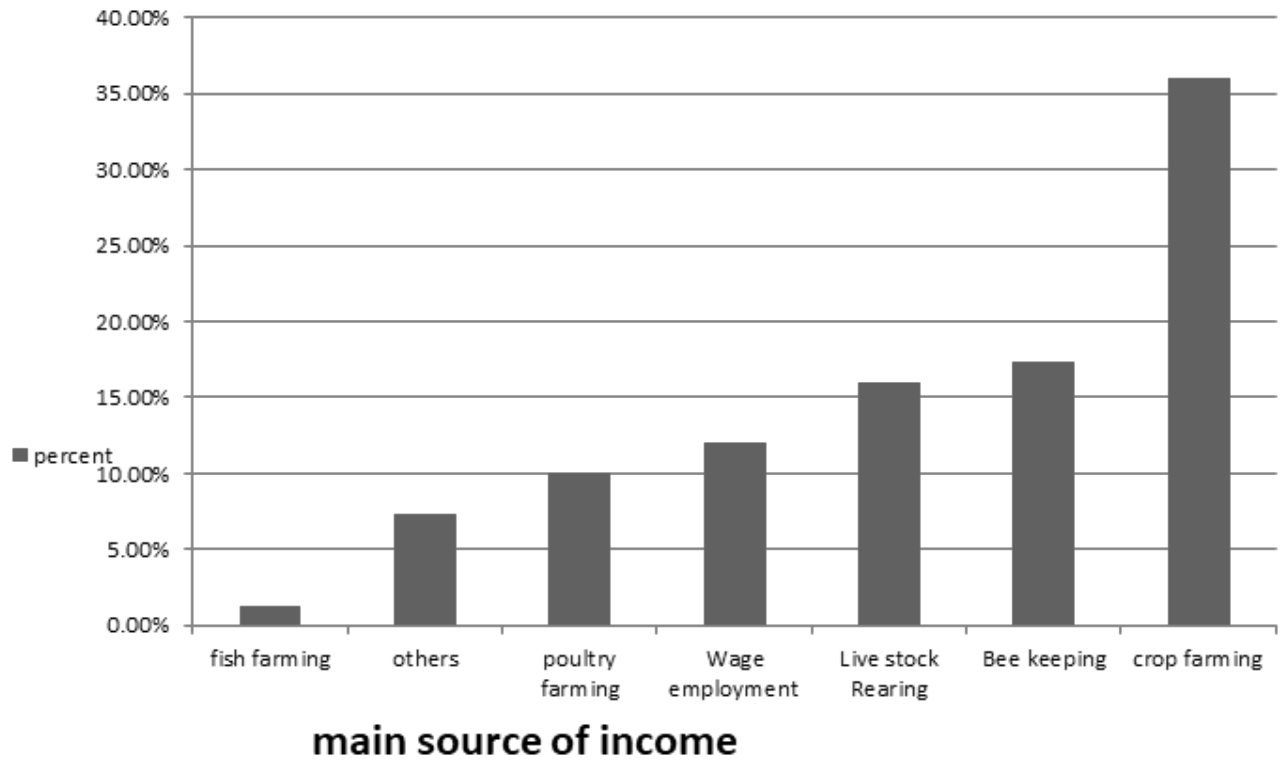


The results indicated that 44 of the respondents were females and 41 were males. The research findings thus indicated that with the females taking the biggest percentage of 51.7% compared to the males with 48.3%, the females in the study area have received more from the Operation Wealth creation program in consideration of the study period. This in a way would bring out the argument that the involvement of females in addressing food security in the area could enhance food production for the households and in the process provide for the different gender in the food production value chain.



The results showed that the age group between 36-55 years were 46.0% and the age bracket of 18 -35 had 32.7% while the least of the percentage was recorded among the age bracket of 56 and above with 21.3%. With the biggest percentage of 46.0 % the age group category is energetic and productive and when engaged well can help in addressing food security challenges by being heavily engaged in the production process resulting into having enough food by the different families and households.

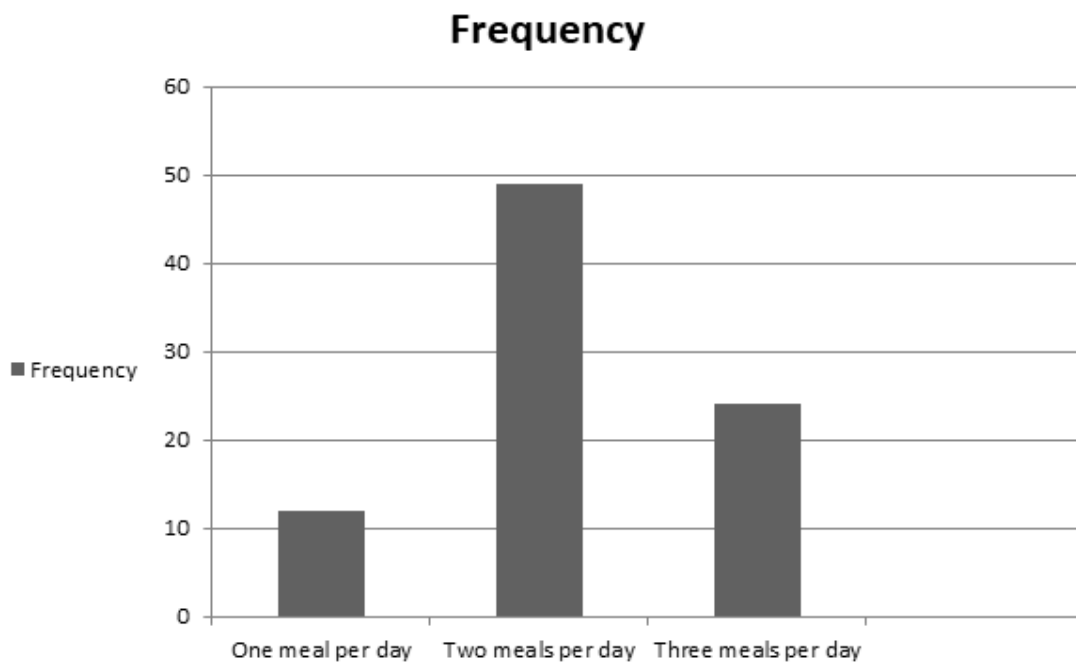
The main source of income; The figure showing the main source of income for the households



The main source of income in the study area was crop farming with 36.0 % and the least was fish farming with 1.3%. Bee keeping which was recorded as the second source of income for the smallholder farmers with (18%) and livestock rearing at (16%), following in the order, this meant that in order to address food security concerns and at the same time address income issues,

Operation Wealth Creation (OWC) should aim at supplying food crop items and supplement with livestock rearing and technically advise the smallholder farmers on good husbandry practices in order to promote food security and later improve on incomes in their households.

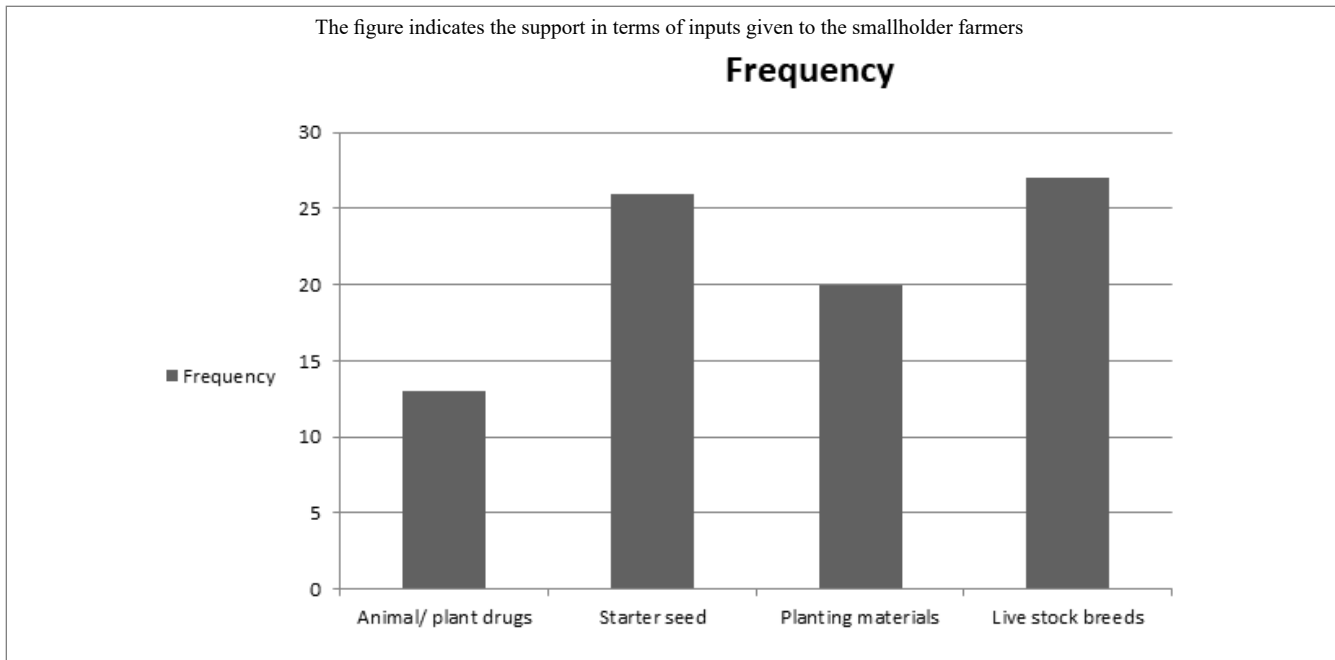
The number of meals taken in a household per member; The figure shows the number of meals taken per household member.



The results indicated that the highest number of respondents recorded during the study, had two meals per day compared to almost half of the households who had 3 meals per day and more still some households recorded to having only one meal a day respectively. This meant that considering those who had only meals per day, these households were chronically food insecure. This is based on the fact that, a food secure household should be having three meals a day for every member within the household and the extent of this food insecurity recorded calls for an intervention in addressing the challenges of food security in smallholder farming communities.

The Support Operation Wealth Creation has given to the Smallholder Farmers

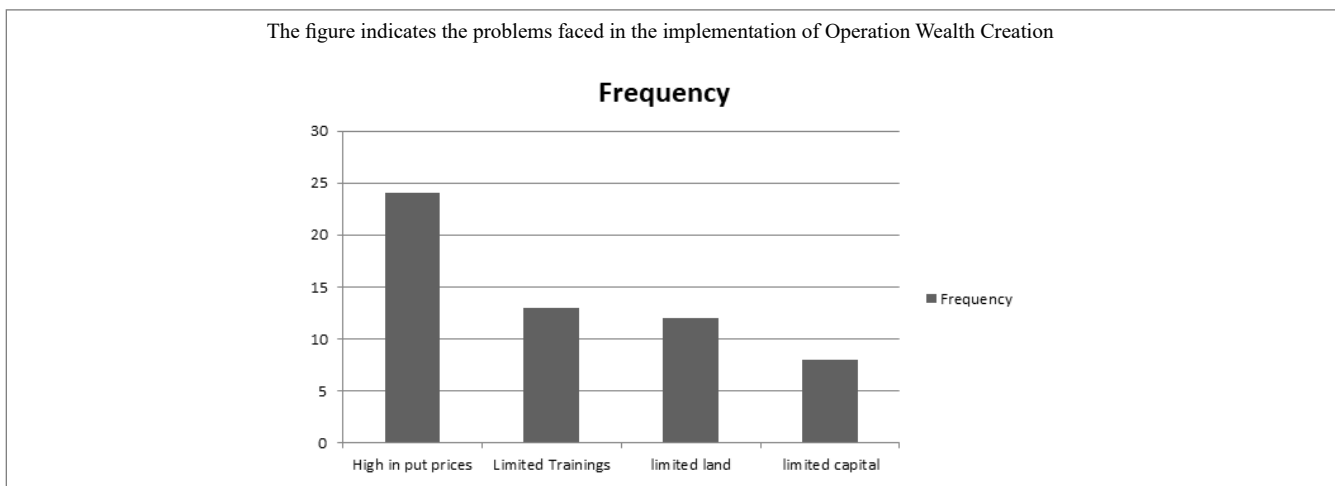
This was captured following the objective one of the study in order to ascertain what households have received from the program in terms of the inputs given out to the respective beneficiaries. The respondents were the small holder farmers who had benefited within the specified period from 2017 to 2020, considering the recent years in the program implementation process.



The results indicated that Operation Wealth Creation distributed inputs to the smallholder farmers with 27 of the farmers receiving livestock breeds, 26 of the farmers receiving starter seed, 20, receiving planting materials like tea seedlings, and 13 , farmers receiving Animal/plant drugs and Agro chemicals. These inputs were issued to farmers of different categories ranging from men, women, youth and the focus was to get them engaged in commercial production. These inputs issued were supplied by the respective suppliers selected by the Operation Wealth Creation team with less involvement of the beneficiaries

The Problems Encountered in the Implementation of Operation Wealth Creation

The study objective which looked at the problems encountered in the implementation of Operation Wealth creation was viewed on the basis of having a liker scale of having farmers strongly agreeing or strongly disagreeing with the situation of the problem at hand. A number of problems were hig hlighted and the responses from the smallholder farmers were captured.

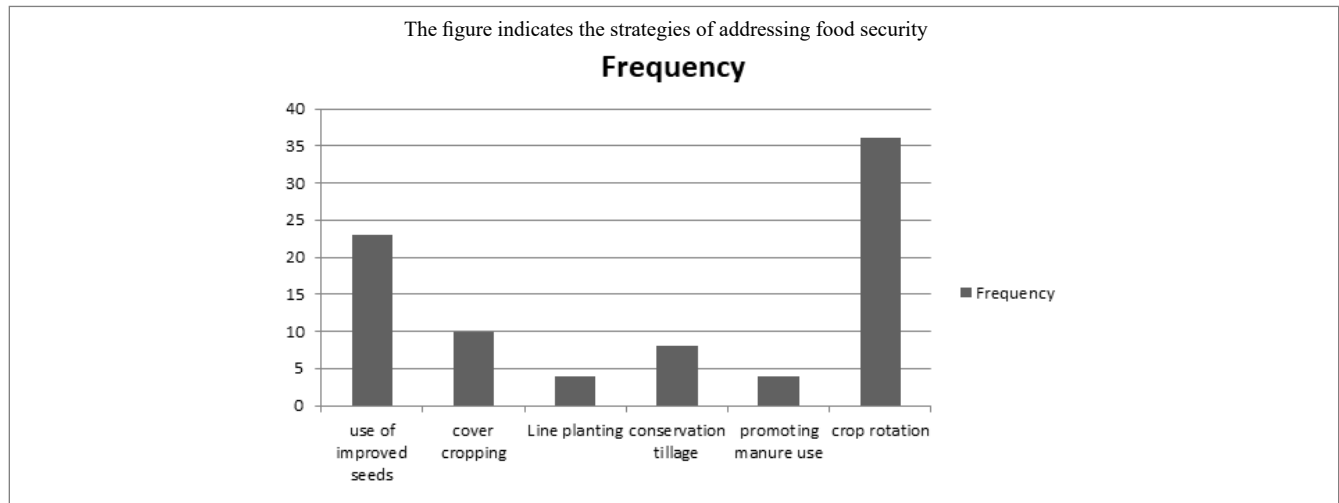


The study findings indicated that Operation Wealth Creation faced challenges ranging from effects of climate change, farm and land related, extension service delivery, post-harvest handling and marketing. The biggest problem recorded was high prices tagged on the inputs distributed to the farmers and the least was the limited capital in investing into the project activities. The smallholder farmers would be given these inputs by the UPDF officers who took the overall task of looking for the suppliers and only informed the beneficiaries the prices tagged on the inputs. The respondents pointed out that they have not received enough trainings as a measure of ensuring farmers take an upper hand of caring for and looking after the respective enterprises. The limited land was also recorded as a problem because the enterprises being

promoted OWC like tea growing would be embraced by few farmers, and more still such enterprises are seen as only for commercial purposes and not for food security. The farmers would prefer the food security crops like Irish potatoes and Beans which are grown alternating from season to season.

The Strategies for Addressing Food Security

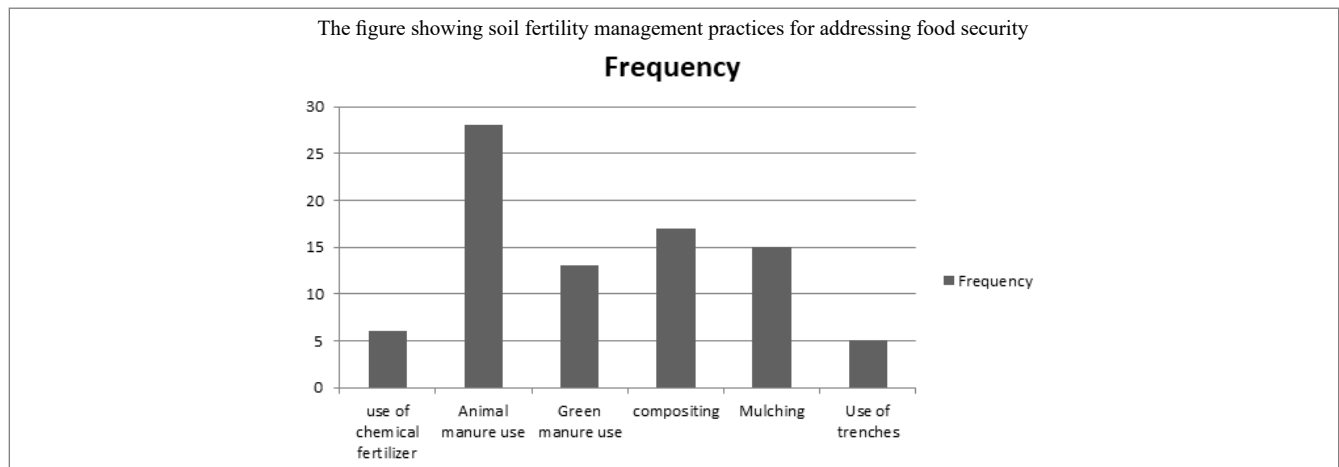
The study findings on the strategies looked at the practices and technologies promoted, the means and approaches in delivering the services and the gender aspects in production. All these were captured and given the ranks according to the farmer's responses.



The study findings indicated crop rotation with the highest response as a major practice farmers use to work on ensuring households have food of different varieties in their homesteads. The least recorded farm practice was on use of such agronomic practices like Line planting and promoting of manure use. This meant that in order to have enough food in the household small holder farmers both men and women have to work hard and embrace

such agronomic practices to support the crop rotation element in ensuring food security in their households.

As a strategy of promoting food security, there was an inquiry on Soil fertility management practices and the farmer's responses were captured.



The research finding revealed that the use of Animal manure would be a good practice for soil fertility management which should be taken on by all the smallholder farmers. The biggest comparative advantage on this use of manure was that at least farmers were receiving animal breeds which would in the long run produce the required manure, with only the aspect of the farmers being taught on how to make the animal manure by the extension workers. This practice was not new per say but would be accelerated

basing on the fact that respondents who were beneficiaries had received Zero grazing Dairy cows that would be zero-grazed and in the long run produce animal manure for fertilizing the crop fields. The research findings indicated that use of trenches was however the least practice and this should be taken on seriously as well considering the effects of climate change and the continuously degradation of the land as observed in the study area.

Discussion of the Research Findings

The discussion of the findings was followed according to the objectives of the study and this pointed out a detailed outlay of the results.

The Support Operation Wealth Creation Fosters in Addressing Food Security Challenges

The research findings indicated that Operation wealth creation in the design to address food security targeted both females and males. However, from the findings in the study area which considered 85 responses from smallholder farmers, 49 were females and 41 were males. The findings therefore indicated that during the period between 2017 and 2020 according to the time scope of the study, females were more in embracing the Operation Wealth Creation program. The involvement of women on the forefront in the agricultural production value chain provides the better avenue in promoting agricultural production.

In light of the president of Uganda engaging all especially the female counter parts in all spheres of development, it even rhymes with his speech made in 2013/2014 state of the nation address, when he was launching the Operation Wealth Creation with the focus on national socio-economic transformation for all and ensuring transforming subsistence farmers into commercial farmers. The females have taken a bigger hand in agriculture sector right from embracing the government programs, farming in the gardens, looking after the crops in the fields and looking after the inputs given to them, and the entire agricultural value chain, and looking at the findings of the study, there is no doubt that, the females were leading in fostering the development of the Operation wealth creation program.

The research findings indicated that Operation Wealth Creation program worked towards addressing food security concerns by involving all age group categories from the youth to the elderly. The age bracket of 36-55 years however, was the most engaged and the least were those above 55 years, this meant that the more productive age group was fully involved and this will foster the implementation of the program and at the same time encourage other age groups especially those below 36 years to come with the good mindset of engaging in Agriculture as the lucrative venture for development. The research study conquers with the Agriculture sector in Uganda employs approximately 66% of the country's working population according to MAAIF 2013, which is tasked with increasing rural farmer's access to food stuffs and working towards improved household food security and nutrition security.

The study findings also indicated that the main source of income for the householders engaged in operation wealth creation was crop farming and mainly with smallholder holder farmer practicing subsistence farming using the common tool, the hoe in doing all the garden work. Due to the nature of the terrain, the farmers cultivate on the hill sides and grow a variety of food crops like beans, maize, sorghum, Irish potatoes, which are somehow used as food crops at the same time cash crops.

The research findings indicated that Operation Wealth Creation had contributed to the food security by providing the inputs to smallholder farmers engaged in the program. Such inputs included animal breeds of Cattle, pigs, poultry, starter seed of bean and maize, crop seedlings of tea and apples, among others. These inputs are geared towards promoting food security and increasing the income levels of the households. The study findings were

aligned with the previous studies of FAO (2013), which noted that adequate food availability means that on average sufficient food supplies are available from domestic production and or imports to meet the consumption needs of all in the country when the farmers have access to the inputs like Animal breeds, crop improved seeds and good extension services.

Problems Encountered in Addressing Food Security

In light of the problems faced in addressing food security, the study findings showed that there are households where members eat only two meals a day. The basis of having two meals a day meant that the food in such households is not enough and more still, to some extent even some of the households had only one meal a day and this goes to the extremes with the conclusion that food security is still wanting. The supported households under Operation Wealth Creation, was a representative of several households which either had two meals per day, or a single meal instead of the recommended three meals per day, this indicated that such households were food insecure and a lot has to be done to address this food security concern.

The findings of the study indicated that, the inputs supplied to the farmers were very expensive and high prices tagged on them meant very few farmers benefited and if the prices were subsidized, then support would be extended to many farmers and thus create a bigger base for addressing the challenges households face in the process of spearheading government programs and tackling their common faced challenges at household levels.

The research study findings indicated that the deployment of UPDF officers to oversee the operation wealth creation has not brought in the expected positive changes but instead the technical aspects as far as extension is concerned have not been met. The inputs are given to the farmers identified without involving them in the selection process which was the case during the operations under NAADS program. The supplies are made late and the quality of some inputs was not up to standards. The findings were thus in line to the challenges pointed out by Gen.Salim Saleh (2015), who outlined a full range of operational challenges and gaps affecting the implementation of Operation Wealth Creation (OWC). Such challenges included among others delivery of low quality and quantity of inputs, late delivery of inputs to farmers, the high mortality rate of planting material and breeding stock attributed to drought and poor management, delivery of inputs to wrong agro-ecological zones, poor-harvest handling and processing, inflation of the price of inputs especially livestock, supply of "air" or nothing, beneficiaries connive with suppliers and sign for technologies without a receipt in exchange for money.

The research found out that the operation Wealth Creation program supplied the inputs lately past the seasons and in situations where the inputs would be supplied in time the seasonal and climatic changes like heavy rains and sometimes prolonged drought affected the production trends of food security crops like beans, Irish potatoes and vegetables gardens. The heavy rains through runoffs would destroy the gardens and crop fields. This was related with the earlier research conducted by Robert (2014), who observed that Agriculture's effects in climate change are just starting to show case. The clearing of trees for Agriculture land and transforming the marginal landscapes into cultivatable land has resulted into accelerated erosion and flooding in the lower valleys.

Conclusion, Recommendations and Areas of Further Research

Conclusion

The research findings indicated that the biggest number of the respondents had only two meals in a day, and considering the factor of food security as pointed out by Malthus and Smith in the Neo-Malthus theory where “food security exists if a house hold has supply available and means to get adequate food to maintain needs of its members”. Then the conclusion made is that smallholder farmers in kyamanira Sub County are food insecure and the Operation wealth Creation program has a long way to go in order to address these challenges, before concentrating on promoting commercializing Agriculture as the main focus of the program.

Recommendations

The Operation Wealth Creation program in the study area was guided by the deployed UPDF officers and these were seen as enforcement officers rather than extension agents, and a number of smallholder farmers feared taking the inputs and left it in the hands of few who were not properly educated for the noble cause of agriculture commercialization as the central focus of the program. The recommendations are thus hinged on the findings of the study following the study objectives.

According to the study findings it is recommended to fully engage and sensitize the males to work together with the females in order to spearhead farming and address the challenges of food security. This is based on the fact that when both males and females are involved in the Agricultural value chain, then the element of food insecurity will be tackled because, these categories will both be aware of what affects their families rather than finding it leaning on one side especially on females who are mainly engaged in farm activities all year round. The engagement of the youth is very paramount, because they are the ones who are still energetic and more still, will be helped by the adults as mentors to embrace production and productivity engagements in the Agriculture domain as basis for supporting food production and even graduate to commercialized farming as the core element for Operation Wealth creation program.

Based on the findings of the study where the respondents pointed out the challenge of the high prices tagged on the inputs, and not being involved in the selection process of what inputs they needed as beneficiaries, the recommendation, is that the beneficiaries should be engaged in the selection process of the inputs to be given to them because they will take up the initiative to take good care of the enterprises and at the same time ownership will be cemented on the basis of having been engaged in the implementation process of the program.

In light of the problems encountered in addressing food security, the findings of the study indicated some households which still have one meal a day, and this indicator shows that there is chronic food insecurity. The recommendation is that, instead of looking at commercializing agriculture with some of the crops including promotion of growing Tea, Coffee, farmers should be given crops which can as well work as food crops and at the same time cash crops, Avocado, Irish potatoes, beans and sorghum, cabbages and sweet potatoes, which are the common crops within the area.

The recommendation of embracing the extension service system to work with the deployed UPDF officers should be well addressed. This is based on the finding where the smallholder farmers saw the UPDF officers as enforcement agents rather than being extension service providers. The strategy of having well managed crop gardens for an improved value chain under agricultural production calls for a combined force to ensure the extension system is systematic. The UPDF officers would not provide the technical advice to the farmers in order to address food security concerns, and thus recommendable for the government to review the current operations and include the extension service providers for advisory service delivery with the UPDF officers playing an over seeing role in the entire program of Operation wealth creation.

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