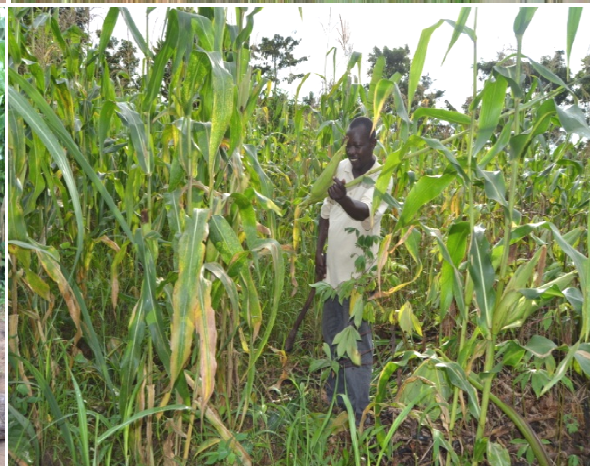


**MID-TERM EVALUATION PROMOTION OF SUSTAINABLE AGRICULTURE IN KAKIRI,
MENDE AND MASULITA SUBCOUNTIES OF WAKISO DISTRICT**

PROJECT NO: 140-002-1297 ZG

Final report February 2016



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Executive Summary

Agency For Integrated Rural Development (AFIRD) is implementing a project entitled ***“Promoting Sustainable Agriculture in Kakiri, Mende and Masulita Sub-counties Project NO. 140-002-1297 ZG”***. Project implementation started in March 2014 and will run up to 31st December 2016. This project was conceived with the goal of contributing to improved farmers livelihood by enhancing food security, raising incomes, bettering health and improving gender relationships. Project activities are targeting a total of 34 farmer groups, of which 18 are ***“Medium”*** groups that also benefited in the previous three year project (March 2011 –February 2014), while 16 are ***“New”*** groups benefiting for the first time in this project. With project No. 140 – 002 – 1297 ZG coming to end of its second year of implementation, AFIRD engaged services of a consultant to undertake an evaluation to assess impact of the project and determine extent of achievement of the set objectives.

Methodology: The methodology used to undertake the evaluation involved consultations with AFIRD staff, information gathering from relevant documents; key informant interviews with AFIRD staff, and partners, household interviews and focus group discussions with beneficiary farmers.

Findings

Context: Findings reveal that the national policies offer a conducive policy environment for implementation of the project while the new institutional setup has streamlined governance and administration of AFRID programmes and the overall institutional setup and management are supporting efficiency and effectiveness of project work. The Executive director, deputy director/programs manager/coordinator and team are well qualified and motivated. AFIRD has instituted measures that facilitate constructive dialogue and shared learning among the team, as well exploitation of internal and external collaborations to enhance project effectiveness and efficiency

There have been changes in the external context in which the project operates. Over the years the project target area has registered a 76.6% increment in population. The high population density in the area coupled with growth of the land market and urbanization has led to more in-migration, land sales for urban purposes, consequently reducing the **land available to the farming households in this area and hence** smaller farm sizes. The soils have been highly degraded due to exhaustion arising out of over cultivation, erosion, nutrients mining without fertilization, limited availability and poor quality of organic fertilizer, and bad farming practices manifesting into low household production levels. The negative effects of climate change, particularly erratic and extreme changes in weather patterns, coupled increased incidences of crop diseases/pests ie (BBW, CWD, CTB,) further contribute to reduced production levels and endanger food security and cash income in the households. Government suspension of the NAADS program and subsequent implementation of Operation Wealth Creation without provision of advisory services impaired farmer access to public extension services.

Relevancy: Project objectives have not changed between the current and previous project phases. The objectives address many pressing needs of poor farmer families in the project area and are in line with objectives and interventions were supportive of national policies. This notwithstanding addressing the following would help to improve the project: Strike a balance between the objective of increasing diversify to meet households food security needs and market orientation to produce certain commodities with a well thought out marketing strategy to increase incomes; intensifying production in a small area of land in light of increasing land constraints; widening the range of options in value addition/supplementary income generating activities introduced to farmers; and strengthening farmer capacity on utilisation of the available foodstuffs.

Improving diversified yields from agriculture and sustainable environment management. The project achieved fully achieved 11 out of its 15 milestone targets for this result area, performed above 60% on one while it performed below 50% on 3 milestones. Findings revealed that 40% of trained farmers had made and started working using farm plans. Achievements suggest that ***the project is on course to achieve its performance measure requiring that 70% of the target groups have adopted improved farm planning practices.***

The project trained members of the new groups on benefits of diversity in crop production; conducted practical training on appropriate agronomy of selected crops, and supported the new groups with planting materials for bananas, cassava and vegetables. It also trained farmers on soil fertility improvement, soil conservation and crop protection. Findings from the household survey revealed that 88% of respondents were using at least one soil fertility management practice while 83% used soil conservation practice. The findings ***suggest that the project has achieved its performance measure requiring that 70% of the target group has adapted methods to improve soil fertility.***

Provision of refresher training on IPDM notably making organic plant teas for control of crop pests and diseases; supporting household water harvesting, timely delivery of planting materials; increasing the number of groups supported to advertise through radio, and those trained on value addition would enhance achievements under this result area.

Increasing biological and economic productivity of farm animals: The project fully achieved 12 of its 13 milestone targets in this result area. All new farmer groups were trained on construction of appropriate animal houses; and supported to construct a demonstration goat pen. Each of the new groups were also trained on identification of good breeds of animals, diseases and parasite management and control; intensive animal management practices; zero grazing and home grown animal's feeds; growing of fodder plants, and supported with two improved breeds of goats; drugs for multiplication and learning; starter seeds/planting materials of improved fodder for multiplication. The project ***achieved its performance measure requiring that 50% of all target group members who received two animals to be passed on within the group, have built the recommended animal housing for improved animal breeds.***

The introduced breeds have enabled farmers to access breeding animals with high genetic potential in their community. Overall, close to a half (49%) of the sampled respondents reported having at least one improved animal breed in their homes, 31% citing poultry while 29% cited having improved breed of goat. The off-springs were noted to grow faster and are bigger attaining market size in a short period of time-12 month compared to 30 month for the local goats. The improved breeds also fetch a higher price on average 250,000 compared to at most 100,000 for the local goats. Findings suggest that the project has made ***significant strides towards meeting its performance measure requiring that "recipients of the improved animal breeds were able to increase productivity of livestock farming". This is true for medium households but not new groups.***

However the small number of groups trained on feed formulation, limiting the training on feed formulation on maize based rations, varied internalization of knowledge on how to use local herbs in management of animal health, loss of goats due to theft or diseases, increased prevalence of diseases such as African Swine fever in pigs, Foot and Mouth Disease were cited as factors that have impaired achievements in this result area.

Empowering families and farmer groups to manage their socio economic and health concerns

sustainably. Project performed well on 12 out of its 14 milestone targets. Sensitization and community workshops were conducted for mobilizing farmers; groups were selected through a participatory process and the selected groups were trained on group dynamics setting group objectives and development of constitution. The groups subsequently developed their constitutions and majority (86%) of out of the fourteen sampled groups had duly registered at sub-county levels in case of 5 new groups while all sampled medium groups had registered at the district level. Achievements ***suggest that the project has made significant strides towards achieving its performance measure requiring that “90% of farmer groups are registered officially at sub county level”***. Registration was noted to have increased recognition and visibility of the groups among local government leadership and this has enabled groups to access services from other service providers.

Project strengthened capacity of groups in PIM process. Through PIM all groups identified their development projects. Findings revealed that nine groups accounting for 64% of the fourteen sampled groups were engaged in implementing various income generating projects. Achievements suggest that the ***project has made significant strides towards its performance measure requiring that “90% of groups are well organized and successfully implement their development projects”***. In order to support farmers to access markets, the project provided information boards to 15 medium groups, supported 2 medium groups to advertise through radio, while 9 farmers from seven medium farmer groups were supported to participate in two exhibitions organized by PELUM.

With regards to improving nutrition and health of families, the project trained new farmer groups on nutrition for better diet and health; as well as basic domestic hygiene and sanitation practices; supported them to establish vegetable demonstration gardens; and established partnership with KIFAD that facilitated communities members to access VCT services. Findings from the household survey reveal that majority of the households acknowledged using improved hygiene practices.

The project has positively impacted on incomes and food security of the target households. Findings reveal that Overall 69% of the households reported that their income had increased in 2015 relative to the situation in 2013 while the noted that their average position on the self assessment ladder had increased from step 3 in 2013 to 5 in 2015 implying a 50% increase in their average step on the ladder. The increase in incomes was attributed to Increased production hence more marketable surplus; increased sources of income due to growing a number of crops notably vegetables, livestock, and non-farm activities; diversification of sources of income by venturing into high value commodities/enterprise in an effort to take advantage of market opportunities in the neighbouring Kampala and up-coming urban centres in Wakiso district; improving the genetic potential of farm animals notably goats which grow faster and fetch higher price; groups establishing savings and credit schemes which have enabled them to internally access credit to invest in farming, other income generating activities as well as smoothening consumption expenditure

Majority (64%) of the households noted that they are more able to meet dietary needs of their household members in 2015 compared to the situation in 2013 prior to the current phase, there was a 36% reduction in the average number of days for the hungry period from 13 in 2013 to 8 in 2015 and an increase in number of meals eaten during the period. Majority (57%) of the households reported that they had enough food reserves to last to the next harvest.

Recommendations:

- a) Augment the advocacy efforts with building capacity of farmers to defend their land rights. Options include supporting farmers to develop a clear advocacy plan; creating awareness among farmers on the relevant

land policies and laws, where they can go to get redress in case of violating their rights, as well as processes they have to follow to acquire authentic land titles; and facilitating farmer linkages to relevant offices that can support them in defending their land rights.

- b) Intensify promotion of intensive use of the available land for enterprise production and income generation
- c) Facilitate intergroup information and cross learning. Options include creating awareness among target groups on other groups that have been supported by the program.
- d) Increase efforts to promote measures climate change mitigation and adaption.
- e) Commission a study on youth involvement in agricultural value chains to establish factors limiting their participation and identifying opportunities/strategies for enhancing youth participation in project activities.
- f) Introduce the focus on market orientation early in project implementation so as to allow farmer groups to gradually evolve into marketing groups/associations.
- g) Increase the collaboration and synergy with the permaculture programme that works with the schools to tap the pupils early and impart skills on sustainable agriculture and issues of environment conservation so as to facilitate and influence mindset change of their parents/guardians
- h) Promote access to agricultural information through use of ICTs.
- i) Promote water harvesting at household level.
- j) Improve on documentation and sharing of results. Document and showcase results from success stories.

List of Acrynorns and Abbreviations

ACSA	Advocacy Coalition for Sustainable Agriculture
AFIRD	Agency For Integrated Rural Development
ASF	African Swine Fever
A2N	Africa 2000 Netwoork.
BBW	Banana Bacterial Wilt
CAADP	Comprehensive African Agriculture Development Program
CBO	Community Based Organisation
CDD	Community Demand Driven Fund
CBSV	Cassava Brown Streak Virus
CTB	Coffee Twig Borer
CMD V	Cassava Mossaic Disease Virus
CWD	Coffee Wilt Disease
FGD	Focus Group Discussions
FMD	Foot and Mouth Disease
GDP	Growth Domestic Product
GOU	Government of Uganda
HIV	Human Immuno-deficiency Virus
KIFAD	Kiyita Family Alliance for Development
KII	Key Informant Interview

LC	Local Council
MADDO	Masaka Diocese Development Organisation
M&E	Monitoring and Evaluation
NAADS	National Agricultural Advisory Services
NAP	National Agricultural Policy
NDPII	National Development Plan II
NGO	Non Governmental Organisation
NOGAMU	National Organic Agricultural Movement of Uganda
PELUM	Participatory Ecological Land Use Management
PIM	Participatory Impact Monitoring
RUCID	Rural Communities In Development
SACCO	Savings and Credit Cooperative
SAP	Sustainable Agriculture Program
SAT	Sustainable Agricultural Technologies
TOR	Terms of Reference
VAD	Voluntary Agency for Development
VCT	Voluntary Counseling and Testing
VSLA	Village Savings and Loans Association
UBOS	Uganda Bureau of Statistics
UNAP	Uganda National Nutrition Action Plan

UNHS

Uganda National Household Survey

1.0 Introduction

1.1 Background

Since 1999, Agency For Integrated Rural Development (AFIRD) has been implementing sustainable agriculture projects in Wakiso District. Farming communities are mobilized and sensitized on improving their livelihoods. The Misereor Germany supported Sustainable Agriculture Program (SAP) is one of the programs of AFIRD that has the overall goal of contributing to poverty alleviation through improved food security and increased incomes at household levels in Wakiso district. The program has been implemented in three year phases in a number of sub counties that include; Namayumba, Kakiri, Masulita, and in the latter years extended to Mende, and Gombe sub counties.

Implementation of the current phase entitled ***“Promoting Sustainable Agriculture in Kakiri, Mende and Masulita Sub-counties Project NO. 140-002-1297 ZG”*** started in March 2014 and will run up to 31st December 2016. This project was conceived with the goal of contributing to improved farmers livelihood by enhancing food security, raising incomes, bettering health and improving gender relationships. It is geared at developing empowered communities that are able to manage their socio economic concerns sustainably for improved household incomes. This is to be realized through interventions in three result areas:-

- i. Improved diversified yields and sustainable environmental management.
- ii. Increased biological and economic productivity of farm animals
- iii. Stable empowered families and farmer groups that are able to manage their socio economic and health concerns sustainably.

In this phase, project activities are targeting a total of 34 farmer groups, of which 18 are ***“Medium”*** groups that also benefited in the previous three year project (March 2011 –February 2014), while 16 are ***“New”*** groups benefiting for the first time in this project. Medium groups are located in Mende and Kakiri Sub counties while the new groups are found in Gombe Sub county. At the moment, medium farmers have completed five years of training and extension that started in 2011 and the new groups have completed about two years that started in 2014

With project No. 140 – 002 – 1297 ZG coming to end of its second year of implementation, AFIRD engaged services of a consultant to undertake an evaluation of the project. This report presents the objectives, methodology and findings of the evaluation.

1.2 Objectives of the Study

The purpose of the evaluation was to assess impact of the project and determine extent of achievement of the set objectives after two years of project implementation.

Specifically the study set out to:-

- i. Analyse the relevance of the project strategies.
- ii. A critical assessment of the economic, socio-cultural, and political consequences of the project and how it contributed to the overall objectives of the Project
- iii. How far did funding, personnel, regulatory, administrative, time, other resources and procedures contribute to or hinder the achievement of results.
- iv. Assessment of how far the intended outputs and results were achieved in relation to targets set
- v. Potential for the continuation of the impact achieved and of the delivery mechanisms
- vi. Analysis of social differentiation in project design and implementation and the extent to which the project had a positive impact on disadvantaged groups.
- vii. Ascertain whether the project identified a new way of working that should be shared with others? If so, describe how it is innovative

2 Methods and Approaches for Data Collection

The approach used in undertaking the assignment involved consultations with AFIRD staff, information gathering from relevant documents; key informant interviews with AFIRD staff, and partners, household interviews and focus group discussions with beneficiary farmers.

2.1 Consultative meetings with the client

Two consultative meetings between the consultant, and AFIRD SAP staff¹ were held during which study Terms of Reference (TORs) and expectations were discussed; study methods, data gathering plan and schedule of activities for the evaluation were discussed and agreed upon. The consultant was given a preliminary briefing with regards to project objectives, target areas, and interventions.

2.2 Desk study

Literature was reviewed on relevant project documents including the project proposal, baseline study report, monitoring reports, quarterly and annual progress reports. Literature was also reviewed on national documents including the National Development Plan II, National Agricultural Policy, statistical abstracts and National Household Survey report. Documents reviewed were accessed from AFIRD head office, and the consultants' archives. The literature review enabled the consultant to achieve the following:

- i. Clear understanding of AFIRD SAP project interventions, expected results and indicators of performance as defined in the project documents;

¹ Mr Eustace Sajjabi Executive Director; Mr. Julius Musimenta SAP program coordinator, Ms Vareh Nyakato Assistant coordinator and Monitoring & Evaluation Officer, and Dr. Gerald Kiembe the Animal specialist.

- ii. Documented understanding of the implementation status, activities undertaken, and level of attainment of project outputs/actual deliverables, outcomes and impacts triggered at farmer group and household levels
- iii. Documented understanding of shortcomings and factors that influenced attainment
- iv. Lessons from implementation processes

2.3 Key informant interviews

Key Informant Interviews (KII) were conducted with a total of 11 purposively selected stakeholders. Being an office bearer in a position and institution relevant to activities of the project was used as the criteria for purposive selection of the key informants. The people interviewed included: AFIRD staff, local government leaders, farmer group leaders, and staff of organizations that AFIRD has partnered with. The KII have been vital in furnishing information on staff and stakeholder views on achievements, changes-outcomes and impacts attributed to the project-; shortcomings, factors that have influenced attainment of results, key lessons and implications for the future.

2.4 Formal Survey

Field data collection was conducted between 5th and 13th January 2016 in Mende and Gombe sub-counties. The approach used in data collection relied on questionnaire interviews with a total of 72 individual households and 14 focus group discussions with groups of beneficiary farmers. These methods were employed to collect data on farmer awareness and use of sustainable agricultural production practices, utilization of crop and animal production practices, changes in food security, and income levels. Other issues covered include:- farmer access to capacity development services from AFIRD, farmer rating of ability to access markets, establishment of linkages, as well as awareness and use of alternative energy sources in the home.

A total of 14 Focus Group Discussions (FGDs) were conducted during the study. The FGDs were conducted with mixed groups of men and women. The discussions sought understanding of activities undertaken by AFIRD SAP, group development; knowledge acquisition and utilization; sustainable production practices adopted savings and credit mobilization in the groups; collective marketing; gender relations, use of energy saving technologies; lobbying and advocacy.

Individual household conversational interviews undertaken with the help of a semi-structured questionnaire were conducted with a total of 72 randomly selected households (37 from new groups and 35 from medium groups). The household interviews were vital in furnishing information on beneficiary households and helped in verifying and enriching information

obtained from focus group discussions. The interviews were supplemented by physical verification through direct observation.

2.5 Data analysis

Qualitative information collected from focus group discussions, and key informant interviews has been subjected to content analysis to identify the emerging themes with regard to the various project focus areas. Quantitative data from the household questionnaire survey was entered into a spreadsheet and analysed using SPSS. Descriptive statistics notably means, and percentages have been used to analyse the findings. Tables and graphs have been used to present the findings.

3 FINDINGS

3 Overall context and governance of the project

3.1 Context project is operating in

3.1.1 The context at national level

Land and Population: Uganda is a landlocked country with a surface area of 241,038 square kilometres; about a third is covered by fresh water bodies and wetlands while land area stands at 199,807.4 sq. kms. Situated astride the Equator, the country has favourable soil and tropical climatic conditions for agriculture. Vegetation is mainly composed of savannah grassland, woodland, bush land and tropical high forest. The population is estimated at 35.8 million people of whom 81.6% live in rural areas surviving on agriculture. More than half (52 %) of the population are female, while 58% are below 18 years of age. The annual population growth rate stands at 3.03% while the average population density has increased from 48 persons per square kilometres in 1969 and 123 in 2002 to 174 in 2014 (UBOS 2014).

Economic trends: On the macro level the country has registered remarkable economic progress with GDP growth sustained at an average of 5.5% over the last five years. The good GDP performance has contributed to reduction in poverty levels. The percentage of the population living below the poverty line (“absolute poverty”) declined from 24.5% in 2009/10 to 19.7% in 2012/2013. Nearly 6.7 million Ugandans lived in poverty in 2012/13. However the reduction in poverty levels has not been uniform across all locations. The incidence of poverty remains higher in rural areas (22.8%) compared to only 9.3% in urban areas (UBOS-UNHS 2014).

Importance of Agriculture in the economy: Agriculture is the mainstay of the Ugandan economy, employing the largest share (72%) of the country’s total labour force, 77% of whom are women, and 63% being youth. The sector accounted for 24.8% of the country’s GDP in 2013/14. Its contribution to total goods export earnings was 40% in 2012/13 and even 54% in 2013/14. The agricultural sector is a major source of raw materials for the agro-processing industry, a market of non-agricultural output and a source of surplus for investment and remains very important to provide a basis for growth in other sectors of the Ugandan economy (GOU-NDPII 2015). This makes agriculture an entry point for poverty eradication.

Agricultural production is mainly assured by smallholder farmers. Farmers who are categorised as subsistence are estimated to deliver between 75–80% of the total agricultural output and marketed agricultural produce. For the rural population, agriculture is not only a source of food but also contributes to income and employment. Subsistence farming is the main source of household earnings for 42.4% of the households in Uganda (UNHS 2012/2013).

Despite its importance in the economy, the **sector's performance in recent years in terms of production and productivity, food and nutrition security has not been satisfactory**. Agriculture and livestock production grew only at around 1% in the last 4 years (MFPED 2015). The growth rate is significantly lower than the target of 6% set in the Comprehensive Africa Agriculture Development Program (CAADP) and the National Development Plan. The low productivity growth in the agricultural sector has been attributed to: high costs of inputs, slow technological innovations and adoption - particularly amongst women farmers being the majority labour force; poor production techniques; declining soil health; poor management of pests and diseases; limited access to land and agricultural finance that disproportionately affects women and youth farmers; a weak agricultural extension system limiting access to relevant information, knowledge and technology - with access to extension services lowest among women; over dependency on rain-fed agriculture as well as limited market access. Connectivity problems between the production areas and final markets lead to high transportation costs that reduce agricultural profit margins. The negative effects of climate change - notably prolonged dry spells, flooding and severe storms - have exacerbated the challenging conditions in which farming communities in Uganda are forging a living, and affected agriculture productivity since they rely on rain-fed conditions (Vision 2040 and NDP II).

National and agricultural sector policy context: The National Vision 2040, National Development Plan (NDPI) 2010/11- 2014/15 as well as its successor NDP II 2015/16-2019/20 which provide the overarching development policy framework for Uganda recognize the importance of agriculture in transforming the country's economy. These policies emphasize the need to increase agricultural production and productivity in a sustainable manner. Uganda's Vision 2040 envisages "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years". The NDP I stressed the need to uplift the welfare of all Ugandans through the "*Prosperity for All*" (PFA) policy that focuses on increasing production and wealth accumulation. NDPI had eight objectives among which was "Increasing household incomes and promoting equity". The goal of PFA is to improve the lives of all Ugandans in all aspects - higher incomes, better nutrition, and improved access to services such as health, education, water, and reliable energy. The Government of Uganda is implementing the PFA through the NAADS (National Agricultural Advisory Services) programme, and agriculture is its major component.

NDP I prioritized agriculture as one of the key productive sectors driving growth of the economy, employment and food security of Uganda's population. The Agricultural Sector Development Strategy and Investment Plan (DSIP) 2010/11-2014/15, which was the agricultural component of NDP I and shaped developments in the sector over the last five years envisaged a competitive, profitable and sustainable agriculture sector.

The successor plan NDPII whose theme is “Strengthening Uganda’s Competitiveness for Sustainable Wealth Creation, Employment and Inclusive Growth” identifies agriculture as one of the opportunities for growth and a priority development area. It stipulates that agriculture aims to ensure sustainable and market-oriented production, food security and household incomes in the country. Key development thrusts include: i) increasing production and productivity; ii) addressing challenges in the selected thematic technical areas including critical farm inputs mechanization and Water for Agricultural Production.

The **National Agricultural Policy (NAP)** 2013 was developed with an overall objective promoting food and nutrition security and to improve household incomes through coordinated interventions that will enhance sustainable agricultural productivity value addition; providing employment opportunities and promoting domestic and international trade. This goal is to be achieved through interventions that address the six inter-related specific objectives of NAP:-

- a) Ensuring household and national food and nutrition security for all Ugandans
- b) Increasing incomes of farming households in crops, livestock, fisheries and all other agricultural related activities
- c) Promote specialization in strategic, profitable and viable enterprises and value addition through agro-zoning
- d) Promote domestic, regional and international trade in agricultural products
- e) Ensuring sustainable use and management of agricultural resources
- f) Develop human resources for agricultural development

3.1.2 The context at regional level

Bordering Kampala, Wakiso district has a total population of 2,007,700 people living in 504,620 households. Majority (68.2%) of the population lived in areas demarcated as rural parts of the district in 2014. The rate of population growth in the district has increased from 4.1% between 1991 and 2002 to 6.61% between 2002 and 2014. The project target sub-counties have a combined total of 31,714 households² and total population of 128,875 people (Table 1). Over the last 12 years the project target area has registered a 76.6% increment in population representing 55,894 people relative to the figure of 72,981 people who were there in 2001. The high population density in the area coupled with growth of the land market and urbanization has led to more in-migration, land sales for urban purposes, consequently reducing the **land available to the farming households in this area and hence** smaller farm sizes. Bachmann, L. and Kiguli, D. 2015, reveal that land sales to urban purposes, more in migration, high price of land, absentee land lords reclaiming their land with more and more farmers being affected are problems related to land in Wakiso. Plots were also noted to be smaller today compared to 10 years ago.

² Including 3,590 households in Masulita Town Council

Table1.1: Distribution of population by Sub County in 2001 and 2014

Name of Sub/county	Population distribution by sex in 2001 and 2014					
	2001			2014		
	Men	Women	Total	Men	Women	Total
Masulita	10007	10159	20166	12,887	12,462	25,349 ³
Mende	4104	8862	12966	13,268	13,495	26,763
Gombe	19341	20508	39,849	37,134	39,629	76,763
Total	33452	39529	72981	63,289	65,586	128,875

Source: 2002 and 2014 National Housing and Population Censuses

The originally fertile soil, favourable climatic conditions; coupled with farming vocation of the people provided a strong foundation for agriculture in the area. Land in the project area is the basic production resource. Over the years plot sizes have become smaller as a result of population pressure while the soils have been highly degraded due to exhaustion arising out of over cultivation, erosion, nutrients mining without fertilization, limited availability and poor quality of organic fertilizer, and bad farming practices. These have negatively impacted on household production levels. The negative effects of climate change, particularly erratic and extreme changes in weather patterns, further contribute to reduce production levels and endanger food security. Increased incidences of crop diseases/pests like Banana Bacteria Wilt (BBW) for bananas, Coffee Wilt Disease (CWD) and Coffee Twig Borer (CTB) in Coffee, and Cassava Brown Streak Virus have affected the crops that were key for food security and cash income in the households.

The above setbacks notwithstanding, findings from the UNHS 2012/13, revealed that the proportion of the people in central Uganda that lived below the poverty line declined from 10.7% in 2009/10 to 4.7% in 2012/13. The region registered an increase in **average monthly household income** in real terms from UGX 313,000⁴ in 2009/10 to UGX 346,000 in 2012/13. The monthly income levels for the region in 2012/13 were higher than the national average of UGX 227,000.

The 2011 Uganda Nutrition Action Plan (UNAP) whose objective is to ensure that all Ugandans are properly nourished so that they can live healthy and productive lives highlights that very often Ugandans consume monotonous and unvaried diets, which frequently cause micronutrients deficiencies. Diet diversification is included as core on the list of indicators monitoring nutritional progress. The UNAP set the target of having “75% of the dietary energy consumption provided from foods other than cereals and starchy foods by 2016”. The UNHS 2012/13 revealed that prevalence of food energy deficiency stood at 39.7% in central Uganda slightly above the national average of 38% among the Ugandan population. Central region with the proportion of dietary energy consumed from staple foods (cereals and tubers) at 60%

³ Include population of Masulita Town Council which was curved out of the original Masulita sub-county

⁴ Approx. 92 Euros in 2009/10 to 102 Euros in 2012/13

below the national average of 68%, is still far from the national target of having 75% of dietary energy consumption provided from foods other than cereals/starchy foods. All the other food groups (vegetables 2%, meat/fish 7%, sugar 8%, nuts/pulses 11%) had an almost negligible role in the diet of households. The poor food and nutritional security coupled with poor domestic hygiene and sanitation impair health of the people.

3.1.3 Recent changes in the external environment.

- **Rapid urbanization in project area.** Towards end of 2015 Gombe sub-county formally a rural sub-county in Wakiso district was elevated to an urban division of the newly created Nansana Municipality. The rapid urbanization in project area is contributing to reducing land available to farming enterprises, while it opens up other opportunities in form of non farm activities and market for farm produce.
- **Reducing size of farm sizes.** The project proposal described the target population as smallholder farmers with an average of 2.5 acres of land. Findings from a recent study by Bachaman L, and Kiguli D, 2015; revealed that the average plot size in the AFIRD intervention area is getting smaller with more and more people being affected as land lord reclaim the land from tenants who have no land titles. The land lords who have not claimed their land have tended to increase their rental fees thereby affecting sizes farmers can hire. Findings from key informant reveal that most farmers are squatters on the land without land titles on documentation to support their ownership hence it is easy for absent land lords to evict them while others sale off the land due to pressures from the land lords or in hope of exploiting other opportunities offered by rapid urbanization. For instance members of Gobero Organic Farmers group in Mende have lost up to 80% of their land. In Kigogwa, in Gombe division of Nansana Municipality an entire village is at the verge of losing their land as the former land lords sold to other owners who established a quarry and plastic tanks industry and are in the process of expanding their activities threatening the community members with eviction.
- **Depreciation of the Uganda shilling.** In 2015 the Ugandan shilling depreciated to the lowest level in a 12 year period since 2003. The shilling to dollar exchange rate raised to UGX 3650 per us dollar, while 1 euro went up UGX 3850. This depreciation led to sudden increase in prices of commodities. For example fuel prices rose from; petrol UGX 2850 to 3850 per litre and diesel 2650 to 3200 UGX per liter. Due to inflation, there has also been a rise in cost of living.
- **Construction/rehabilitation of roads:** The government has rehabilitated community access roads during the last one year of project implementation in both Gombe and Mende sub-

counties. Examples include the Wakiso to Matuga road. Construction of roads has enhanced access to communities and project target groups.

- **Operation Wealth Creation(OWC):** In line with its 'Prosperity For All (PFA) policy, the GOU came up with the Operation Wealth Creation (OWC) Programme through which it provides inputs notably planting materials and seed animals to farmers under the National Agricultural Advisory Services (NAADS). Though not accessible to all farmers, it perpetuates the dependence syndrome and farmers' expectation of handouts from development agencies. Farmers form groups just to receive inputs after which they abandon them hence this disorients the farmer institutions. The program distributed inputs to farmers without accompanying it with technical extension services to prepare the farmers for proper use of these planting materials and management of the resultant crops. This was tantamount to dumping and increased demand for extension services from the few NGOs operational in the project area.
- **Shift to single spine extension services:** Public extension services in Uganda were delegated to local governments which would recruit staff in production departments. The National Agricultural Advisory Services (NAADS) established as a semi-autonomous organisation, also had staff (coordinators) at district and sub-county levels who would oversee outsourcing of agricultural advisory services to farmers in addition to procurement of seed inputs to selected farmers. In 2014, the presence of NAADS was drastically reduced, its coordinators at district and sub-county levels being relieved of their duties. This further impaired farmer access to public extension services. In 2015, the Government relaxed the suspensions and allowed the local governments to re-appoint/reinstate the former NAADS coordinators and to also recruit new staff to operate under the single spine extension services. However this had not been put in effect in Wakiso district.

The Uganda National Agricultural Extension Service (NAES) that is mandated to deliver agricultural advisory services to the farmers is undermanned - with one to two extension agents (EAs) per sub-county being responsible for 4,000 to 6,000 farming households. The EAs are not only few but they are also underequipped suffering from severe logistical limitations which impair their capacity to deliver services to farmers. They are therefore not capable of giving adequate advisory support to the farming households.

- **Prevalence of fake inputs on the market:** It was noted that fake inputs notably implements, seeds and feeds. It was noted a farmer bought 4 tons of pig feeds but it turned out that he had been sold saw dust which impaired growth of the animals causing the farmer enormous

loses. Although the project provided starter feeds to recipients of the poultry they get challenged in subsequently finding the concentrate feeds. The unregulated system for vegetatively propagated planting materials negatively affect farmers who purchase disease plants from the road side nurseries.

- In 2014 the effects of climate change slowed down the achievements of results for the implemented project activities. Much of the period was without rains and the dry season was longer than usual. This brought about high temperatures which led to prolonged droughts. This resulted into poor establishment of animal feed multiplication gardens and also reduced agro forestry activities and Vegetable production.
- Rampant theft of farm animals and produce discouraging farmers from engaging in some enterprises like goats, poultry, coffee and bananas.
- Disease outbreaks notably for poultry and cattle which have negatively affected production and marketing of animals. For instance Foot and Mouth Disease(FMD) emerged in the area between July and September 2015, likewise African Swine Fever has been rampant which increase costs of disease management.

3.2 Governance and Management

3.2.1 Institutional setup

The organisational setup of AFIRD has the Council and its sub-committees (Executive Committee, Programmes sub-committee and the Finance and administration sub-committee) as the top most governance organs of the organisation comprising of people from academia, research, ministry of agriculture animal industries and fisheries, as well as persons from civil society and sets the policy guidance and overall direction of the organisation. AFIRD has reorganized its governance and administrative structures to improve its performance. The new structure introduced positions of the Executive Director (ED), Deputy ED/ programs manager, program officers in charge of specific areas and field staff (*see the new and old organogram in Annex 1*). Two Subcommittees (Programmes subcommittee and the Finance and administration subcommittee) were also established to help the Executive committee in execution of governance duties. It was noted that these governance committees and programs were established to streamline administration of the organization and ensure that AFIRD was professionally ran, facilitate access to professional advice from experts on the board, and enhance participation of various structures. Establishment of new governance structures was noted have streamlined management of project activities and provided advice from experts.

The Executive Director is responsible overseeing program implementation, and providing quality checks. The executive director is supported by the Deputy Ed/programs manager who is responsible for managing implementation of the programs/project activities but is also involved in field work along with the other programme officers. The project M&E staff takes charge of data collection for the regular Result Monitoring in addition to providing training to farmer groups and follow-up visits.

Apart from the SAP, there are presently other projects carried out by AFIRD in the district albeit with different target groups. Case in point is the Permaculture project that is engaging parents, pupils, and teachers in primary schools to design school land such that it is used more productively to address sustainable land management.

AFIRD capacity to deliver services has improved following establishment of a permanent home located 14 miles at Nkove along Kampala -Hoima road which services as the organisation's office but also as a farmer learning centre through the demonstrations at the premise.



3.2.2 Project management and team competence

Overall, the project management seems to be well established, and the administrative processes are running smoothly. The team members have been with the organization for a good number of years with the last one having joined in 2009. The Executive director, Programs manager/coordinator and the other team members are competent and highly motivated to deliver their tasks, and there has been stability in the composition of the team during the last seven years. Longevity has facilitated development of institutional memory and learning from implementation experiences of previous projects thereby making staff better at what they do.

Diversity of skills, and age mix of staff provide a strong basis for staff members to learn from one another. The organisation has provided an opportunity for staff to improve their skills. Case in point include: the training on marketing, and advocacy through the collaborations with PELUM and ACSA.

3.2.3 Planning, monitoring and evaluation(PME) and organizational learning

The team applies the Action – Reflection - Cycle approach. This involves establishing prevailing situation in the proposed intervention area during the baseline study and taking into consideration lessons from implementation experiences of previous projects. This information is used in development of new proposals. The basic planning documents are by and large well-structured and reasoned. The current project retained the objectives of the previous phase but adjustments were made in some indicator targets.

Operational planning and project implementation are marked by a participatory approach. The team plan together for activities in a given period of time usually four month, they schedule the trainings to be conducted in that period, the person responsible, dates and groups to be reached. This guides the activities for that period. Team meetings are organized for three field staff to harmonise understanding of issues to be covered in the trainings with regards to content and methods. Each staff takes notes on the agreed positions. Then each staff move independently to conduct activities in the groups they are in charge of. The staff will handle all topics for the quarter in the groups they are in-charge of. These trainings are followed by extension visits conducted twice a month during which the team moves together to visits farmers, observe uptake of practices in the homes, and provide on-spot advice to the group members.

AFIRD staff holds weekly review meetings to report on progress on activities in the past week against targets in the workplan, share experiences and challenges encountered as well as deliberate on activities and expectations in the coming week/month. Members of the SAP team get feedback from colleagues including those outside the program. Sometimes the Executive director also participates in the weekly staff meetings. The executive director conducts spot visits and follow-up monitoring of the activities undertaken by project staff.

Beneficiaries are actively involved in the project PME system through Participatory Impact Monitoring. Through the PIM process groups formulate objectives and agree on indicators of success which the committee monitors and informs the leadership and all the group members. Monitoring is done by the PIM committees but alternating training venues also facilitates group members to observe what their colleagues are doing, learn from it and offer on spot advice in case of gaps. The information stays in the hands of farmers, but team members take note of the

most important data and are generally well informed about the situation, even at household levels. This is attributed to alternating the training venues among the households in the group coupled with extension visits to the households which enables staff to reach most of the households. These processes/structures were noted to indirectly influence farmer uptake of the practices as the group members know that staff, PIM committee and all the other group members will visit their homes. However some PIM committees are weak notably in the new groups. Where PIM works and facilitated shared learning among members, the information exchange is by and large restricted within each group and there no strategies implemented at the moment to facilitate inter group sharing and learning from other groups.

At project level the team uses the relatively standardized **Results Monitoring Frames (RMF)** introduced during the consultancy process supported by Misereor periodically monitor expected outcomes and impacts of project work. The data is collected once every year in October. Apparently, the methodology is fairly well understood and applied by the project team. All members participate in collecting the data through monitoring sheets, but data processing is done by the staff in charge of M+E are able to handle the software and enter the data.

3.2.4 Internal and external cooperation and synergies

Permaculture project: AFIRD is also implementing the permaculture project that is engaging parents, pupils and teachers in primary schools to unite in addressing issues of sustainable land management. The project focuses on redesigning school land such that it is used in a more productive way to produce food and support environmental protection. The project that spear headed by an AFIRD staff who has previously engaged with the SAP program has enabled sharing of knowledge with the concepts and practices of permaculture that emphasize judicious use of small land for production being integrated into SAP. The collaboration has also enabled some SAP groups to supply planting materials to schools under the permaculture project thereby providing a market for the group products. For instance members of Najjemba Farmers group were noted to have supplied 300 banana suckers to schools while Banda Farmers who operate a tree nursery supplied tree seedlings to the schools. The collaboration is helping SAP to learn new practices for improving productivity of small land and thinking through how to engage the young people in schools to participate in sustainable land management.

Cooperation with higher institutions of learning:- AFIRD collaborates with institutions of higher learning which post their students to conduct internships with the organization. Cases include Kyambogo University, Baraka Agricultural College in Kenya. It was noted that the interns

come with new knowledge which improves tacit knowledge available to the organization. The lectures who come to supervise the students also discuss and share knowledge with AFIRD staff thereby providing an opportunity for exchanging information on development concerns and shared learning. The relationships were also noted to have been beneficial for AFIRD with regards to scouting and engaging with young and talented professionals to add to its staff establishment.

Cooperation with Kiyita Family Alliance For Development:-KIFAD activities focus on providing HIV/AIDS Voluntary Counseling and Testing (VCT) services in Wakiso district including the AFIRD SAP project area. The organization links those who test positive to nearby health centres to enroll for on-going care and support. This is achieved through follow-ups to ensure that the person has gone to a health facility. During this phase, KIFAD engaged with AFIRD for a session in Gombe Division where over 2,000 people received VCT services. KIFAD applauded the collaboration for helping to reach as many Ugandans as possible in the intervention area and enabling them to know their HIV status, thereby facilitating those who need the care and support to get it. AFIRD does the social mobilization which have enabled KIFAD to serve the hard to reach and socially disadvantaged communities.

Cooperation with other organizations promoting sustainable. AFIRD actively collaborates with other organizations promoting sustainable agriculture including RUCID, Caritas Kampala, Caritas MADDO in Masaka. It participated in the 10 year SAP impact study lead by Dr. Lorenz Bachmann.

NGO networks: The collaboration with Participatory Ecological Land Use and Management (PELUM) has enabled AFIRD to acquired membership in strategic coalitions. This has facilitated sharing of tacit knowledge on best practices for conducting advocacy and enhanced recognition and visibility of the organization. The collaboration enabled AFIRD SAP to participate in PELUM organized events including the Green Action Week, annual Indigenous Food Fair, and Land Rights campaigns. This has enabled the organization, its staff and farmers to widen contacts and establish relations with other actors; show case products and find markets. Participation in these events has facilitated increased recognition of AFIRD and it has won awards of best exhibitor thereby enhancing its reputation and visibility. The collaboration also facilitated training of 4 farmer representatives in lobbying and advocacy such that they can engage their respective sub-county local governments notably during the local government planning and budget formulation process.

The collaboration with Advocacy Coalition for Sustainable Agriculture has facilitated strengthening capacity of AFIRD staff and group members in marketing. ACASA helped to

provide information boards to some groups which they use in advertising their products and communicating events. The collaboration with ACASA has facilitated farmer access to market information through radio, and SMS sent to staff and farmers for subsequent sharing with other group members through the information boards.

Visibility in general: Although the AFIRD is well known and reputed among farmers, local leaders and organizations promoting sustainable development in the district region and elsewhere, it is keeping a rather low profile in regard to fostering its visibility through the internet. AFIRD should improve and proactively use its website www.afirduganda.org to share successes and have links to social media.

3.2.5 Changes in approach following lessons from previous interventions:

Lessons from implementation experiences, evaluations, and consultancies offered by MISEREOR have been incorporated to improve project implementation processes. Examples include:-

- Shift from indirect extension approach through training of trainers to direct staff contact with farmer groups. Frequency of contact is once every one to two weeks in the New groups while its once a month for the Medium groups.
- Taking into consideration market attributes before introducing the animals. Interviews with staff revealed that previously the AFIRD projects would focus on introducing the popular breeds but this time were critical with regards to colour of the skin, and market size of the animal which affect marketability of the animals. The technical team also provided close follow-up and technical backstopping of the recipient households with booster immunization, and other advice including provision of supplementary feeding to the animals to enhance survival. The animals were also introduced early in the program which provided more time for the first recipient households to pass on to others
- Regular participation in trainings and workshops offered by an M+E consultant to various Misereor partners in Uganda has visibly enhanced the capacities, in planning and monitoring.

3.3 Summary assessment of context and governance

To sum up the findings of this chapter we can state the following strengths:

- The national policies offer a conducive policy environment for implementation of the project.

- The new institutional setup has streamlined governance and administration of AFRID programmes and the overall institutional setup and management are supporting the efficiency and effectiveness of project work;
- The Executive director, deputy director/programs manager/coordinator and team are well qualified and motivated.
- Joint planning and joint extension visits coupled with the weekly staff meetings provide opportunities for constructive dialogue and shared learning among the team.
- The M&E system is participatory, well established, and used to improve project implementation processes.
- Collaborations with external partners have helped to exploit synergies and enhance project effectiveness and efficiency

On the other hand, there is still potential for further improvement as regards:

- Team meetings to harmonise content and delivery process for specific training should be followed by development/documentation of the process papers for immediate reference by the team members but also to offer a fallback position for institutional memory. The standardised content/process papers should be centrally kept as part of the organisational repository.
- Strengthening capacity of the PIM committees in some groups where they are weak/ not functional.
- Facilitating inter group information sharing and learning. Project should re-examine the activity budgets with a view to re-introduce the periodic project planning and review meetings which used to bring together representatives from groups in the different phases to share experiences and establish contacts. Deliberately create awareness on contacts of other groups that have excelled in certain practices such that others can visit and learn from them.
- Documentation and sharing of success stories: Improve on documentation and sharing of success stories. Take advantage of opportunities offered by the Information Communication Technologies (ICTs) such as emails and social media to communicate and show case project performance and successes. Make use of the in house capacity on ICT.

4 Relevance

4.1 Summary of the current and preceding project

Geographical coverage: AFIRD has received support from Misereor to implement SAP projects in Wakiso district since 2001. Prior to 2011 projects activities had been implemented in the sub-counties of Namanyunba, Kakiri and Masulita. The 2011-2014 project was implemented in Masulita, Kakiri, and Mende sub-counties. Groups in Masulita sub-county were phased out at the end of the last phase and the current phase extended to cover Kakiri, Mende and Gombe

sub counties. The key feature of the previous and the ongoing project are summarized below details are presented in Annex 2.

- The overall goal and specific objectives have not changed
- The indicator statements for the three objectives have by and large remained the same during the two phases. Except that
 - the phrasing for the first indicator of objective 2 was slightly modified and its target reduced from 70% in the previous project to 50% in the current project.
 - The targets for indicators of objective increased from 70% in the previous phase to 90% in the current phase and a third indicator *“90% of groups are well organized and successfully implement their development projects” added during this phase.*
- The number of groups targeted has reduced from 38 in the previous project (20 of which were supported for the first time during the period 2011 to 2014, and 18 which had been supported from 2008 through end of the last phase in early 2014) to 34 groups in the current phase (including 18 groups in Mende and Kakiri sub-counties supported during the last phase and 16 groups in Gombe supported for the first time during this phase. Average group size appears to have increased given the increase in total number of households targeted from 950 in the previous phase to 966 in the current phase.

In light of the fact that the objectives have basically remained the same, and slight adjustments coming on board in for of how, the term “project” from now on, will be used to refer to both projects which are being evaluated.

4.2 Relevance of objectives and strategies

The overall objective and the 3 main results areas are considered satisfactorily relevant and the strategies and activities are found in general coherent, because:

- They address many pressing needs of poor farmer families in the project area and are in line with national development, agricultural and natural resource management policies of the country (as cited in chapter 2.1).
- They are holistic, by integrating a variety of ecological and productive as well as socioeconomic, and cultural aspects of poor farmers’ livelihoods: Sustainable management of natural resources/ crop and animal husbandry and their integration / water, sanitation and nutrition/ social organisation, HIV/AIDS and gender relations.
- The strategy is addressing critical bottlenecks, in particular the urgent need to raise agricultural productivity through soil conservation, fertility improvement and better crop agronomic practices through judicious use of locally available resources/materials.
- Mobilisation of groups is done in collaboration with local authorities who recommend the new sub-counties and also mobilise the groups/communities to send representatives to the sensitisation and community workshops.

- In the overall strategy capacity strengthening of farmers through training, exposure visits and facilitating establishment of linkages to other value chain actors through participation in national and regional exhibitions/shows takes centre stage. Provision of inputs is done mostly for demonstration purposes and kick starting subsequent multiplication by the farmers. In such cases, the inputs are bound to certain conditions which are monitored by the groups and the SAP team (e.g. recipients of planting materials, animals (goats/poultry) selected by the groups using criteria jointly agree with the AFIRD project team), obligation to pass on a certain number of animals/ quantity of planting materials after receiving one from the project half of the group; groups establishing joint gardens to multiply planting materials and then distribute among their members. The only material benefits received free of charge are vegetable seeds and other planting material (e.g. tree seedlings).

However, **some aspects** in the project concept could improve its relevancy if well addressed:

- The project is focusing – with good reason – on food security and food diversity as a major goal. Therefore the technical training on agriculture and animal husbandry concentrates mostly on production **while supply and marketing aspects** are brought on board relatively later. There is need to strike a balance between the objective of increasing diversify to meet households food security needs and market orientation to produce certain commodities with a well thought out marketing strategy to increase incomes. Intensifying production in a small area of land will become critical in light of increasing land constraints. Promoting a value chain approach will help to spread project benefits to the youth and other households with very limited plot sizes who may not meaningfully engage in production but can participate at other upstream stages in the value chain. It was common for many members of the groups to spend more time in off-farm activities like operating eating joints, road side selling of pan cakes, or buying horticultural products from the villages and taking to markets in urban centres and linking with the group largely for savings.
- Promoting collective action in input marketing coupled with sensitising farmers on sources and attributes of genuine agro-inputs would to some extent help to deal with the problem of fake inputs
- Promotion of value addition and other Income generating activities will increasingly be critical in the face on urbanisation and decreasing farm sizes. The range of options introduced to the farmers should be wider and each option should be accompanied by a participatory analysis of its costs, benefits, potential source of raw materials/ingredients and markets for the outputs such that farmers/groups are given ample information to make informed decisions on which one to take-up in their respective contexts.
- Capacity strengthening on Village **Savings and Loans Scheme (VSLA)** which has been found to enhance group cohesion when it works well and helps farmers to access loans to invest in

farming is introduced rather late, but most groups start early and muddle through the waters. The project should proactively engage such groups which start the VSLA initiatives such that they are properly advised on how to successfully operate such schemes.

- Strengthening capacity of farmer groups in lobbying and advocacy so that to champion their interests notably defending their land rights would also be key for the project if its handled early in the project.
- Promoting crop diversity and animal production for better diet and nutrition should be coupled with strengthening farmer capacity on utilisation of the available foodstuffs. The farmers acknowledged that they were trained on food values of various food stuffs but this knowledge should be supplemented with training on methods of preparation for retaining nutrients and recipes for preparation of nutritive meals.
- Proactively promote household level water harvesting to lessen the burden of water stress on crops notably vegetables, drudgery for household members notably women and girl child who mainly fetch then water and also increase productivity of the animals.

5 Achievement of project result areas

Project interventions fall under three result areas namely:- improving diversified yields from agriculture and sustainable environment management; increasing biological and economic productivity of farm animals; and enabling families to become stable and empowered and farmer groups to manage their socio-economic and health concerns sustainably. Findings present evidence of undertaken activities, extent of achievement of expected results, shortcomings, and challenges.

5.1 Improving diversified yields from agriculture and sustainable environment management.

5.1.1 Achievements from interventions undertaken to improve diversified crop yields and sustainable environment management

Project interventions under this result area focused on: promoting farm planning for crops, livestock and environmental protection, diversity in crop production, agro-forestry, training farmers in soil water conservation, soil fertility management, integrated pest management and food processing.

The project achieved fully achieved 11 out of its 15 milestone targets for this result area, performed above 60% on one while it performed below 50% on 3 milestones (Table 5.1). Key

achievements include training 16 new farmer groups through 16 day seminars (one per group on design and layout of a farm plan; supporting 160 farmers to participate in an exposure visit to three farms⁵; training the 16 new farmer groups on soil and water conservation' and agro-forestry focusing on importance of tree planting and how to establish trees on the farm. The 16 new farmer groups were also trained on soil fertility management and use of animal manure; supported with initial seeds for cover crops (Mucuna seeds) and manure storage tanks. Findings from the literature revealed that 40% of trained farmers had made and started working using farm plans. Achievements suggest that ***the project is on course to achieve its performance measure requiring that 70% of the target groups have adopted improved farm planning practices.***

Table 5.1: Physical delivery of increasing diversified yields and sustainable environment management outputs by 30th October 2015

30th October 2015

Planned			Cumulative physical achievement	Cumulative percentage achievement
Activity		Performance target		
Promoting farm planning for crops, livestock & environmental protection	Conduct day seminars on design and layout of farm plan	16	16	100
	Group trained	16	16	100
	Number of exposure visits conducted	1	1	100
Training farmers on soil water conservation	Conduct day seminars on soil and water conservation	32	32	100
	Number of groups trained	16	16	100
Promote agro-forestry	Conduct day seminars on agro-forestry	16	16	100
Train farmers in soil fertility management	Conduct two day seminars	16	16	100
	Provide manure storage tanks	16	16	100
	Number of new groups provided with seeds for cover crops	16	16	100
Promote diversity in crop production	Conduct two day seminars per group	16	16	100
	Number of groups supported with clean planting materials	16	16	100
	Organizing dialogue meeting between farmers and researchers	3	1	33
Promote Integrated Pest and disease Management	Conduct two day seminars per group on Integrated Pest & disease Management (IPDM) methods	16	16	100
Promote food processing	Number of two day seminars conducted on food processing & value addition	17	8	47
	Number of medium groups trained on food processing	17	8	47

Source: AFIRD SAP progress reports

⁵ Farmers were hosted at three farms; Mr. Sentongo Sekyaya of Manze village, Mr. Kaluna Kalamazi of Nansomba village and Mr. Kagwe Sulaiman of Lugungudde village in Masulita Sub County

To promote crop diversity, the project sensitized and trained members of the new groups on benefits of diversity in crop production; conducted practical training on appropriate agronomy of cassava, banana and beans, and supported the new groups with 80 bags of cassava cuttings; variety NASE 19, 400 banana tissue culture suckers (Kisansa Variety). One dialogue meeting was also organized to link farmers and researchers. Findings reveal that the project trained the 16 new farmer groups on integrated pest and disease management and supported the farmers to grow relevant herbs/pest repellants to multiply, and demonstrated preparation and use of concoctions. In addition eight (8) medium farmer groups were trained on food processing and value addition in a two day seminar per group.

Participants in focus group discussions testified that they had received training on soil water conservation notably making trenches, use of A-frame, planting across the slope, and mulching; soil fertility management-composite making, liquid manure, application of animal manure, planting of nitrogen fixing crops/trees like Mucuna, calliandra, and albizia. They also acknowledged having received the drums for liquid manure storage, planting materials for cassava, banana, passion fruits seedlings, and tree seeds.

5.1.2 Farmer use of sustainable crop production practices

Respondents to the household survey were asked to indicate the practices they were using in production and management of crops in their own gardens. Findings reveal that:

- Overall majority of respondents reported use of at least one soil fertility management practice (88%) and soil conservation practice (83%). Application of animal manure (68%) was the most common soil fertility improvement practices farmers reported having adopted while one in every three households reported using crop rotation, not burning bushes/trash. Composite, leguminous cover crops and recycling of crop residues were cited by 32%, 31% and 28% of the target households. One in every ten sampled households acknowledged using liquid manure while use of inorganic fertiliser was reported by 7% of the respondents (Table 5.2). The findings on proportion of households acknowledging use of at least on soil fertility practice ***suggest that the project has achieved its performance measure requiring that 70% of the target group has adapted methods to improve soil fertility.***
- With respect to soil water conservation, trenches (67%) and mulching (46%) were the most common practices used by farmers. Mulching is mainly practiced in specific crops like bananas, vegetable gardens and tomatoes. Trenches coupled with planting of grass along the bands and mulching were noted to have enhanced water retention in the gardens.



Picture 1 Babirye Prossy of Mirembe Development group in Gombe sub-county with fodder grass planted along the trench.

- One (33%) in every three sampled households acknowledged that they planted grass or crops along contour lines or across the slope so as to check soil water run-off and soil erosion.
- Seven (71%) in every ten sampled households acknowledged that they were using at least one crop protection practice. Monitoring condition of the crops in the field to identify presence of pests/symptoms of disease, and use of organic plant teas/ concoctions cited by 46% and 43% respectively were the most common plant protection practices used by the sampled households. One (21%) in every five sampled households reported use of agro-chemicals in control of crop pests and diseases but only 11% acknowledged proper timing of chemical application. Group phase disaggregated data reveal that across crop protection practices, relatively higher proportions of households in medium groups cited use of the various practices compared to those in the new groups. Participants in FGD in the new groups noted that they would need refresher training on IPDM notably making organic plant teas for control of crop pests and diseases.
- Overall, 53% of the respondents acknowledged having used improved varieties for at least one crop in 2015.
- Irrigation/watering crops. Four (40%) in every ten respondents acknowledged practicing roof top water harvesting into small containers notably drums while 11% cited using tanks. The water is mainly used for domestic purposes. Close to a half (49%) of the respondents claimed watering some of their crops notably vegetables in the kitchen gardens while 23% reported that they also watered main crop fields especially those close to swamps/water sources. Limited quantities of water harvested coupled with erratic rains and prolonged dry spells were cited as key factors causing water stress for the crops, hampering increased production and year round availability of vegetables in the homes.

Table 5.2: Distribution of households reporting use of various crop production practices

Practices		Percent reporting by group phase of respondent		
		New	Medium	Overall
Soil fertility management	Any practice	89.2	85.7	87.5
	Animal manuring	75.7	60.0	68.1
	Crop rotation	32.4	34.3	33.3
	No bush burning	32.4	34.3	33.3
	Composting	27.0	37.1	31.9
	Leguminous cover crop/green manure	35.1	25.7	30.6
	Crop residue recycling	29.7	25.7	27.8
	Use of chemical fertilizer	8.1	5.7	6.9
	Liquid manure	5.4	17.1	11.1
Soil water conservation	Any practice	91.9	74.3	83.3
	Trenches	73.0	60.0	66.7
	Mulching	59.5	31.4	45.8
	Planting along the contour lines	29.7	37.1	33.3
	Hedge rows	10.8	14.3	12.5
	Trash lines	2.7	0	1.4
Crop protection	Any practice	68.6	73.0	70.8
	Monitoring crops in the field	40.5	51.4	45.8
	Organic plant tees	43.2	42.9	43.1
	Chemical application	18.9	22.9	20.8
	Timing of chemical application	2.7	20.0	11.1
Improved variety		51.4	54.3	52.8
Watering crops	Watering kitchen garden	51.4	45.7	48.6
	Watering other garden	21.6	25.7	23.6
Water harvesting on roof	Drum	37.8	42.9	40.3
	Water tank	8.1	14.3	11.1

Source: AFIRD SAP evaluation survey 2016

5.1.3 Farmer awareness and use of alternative energy sources

The Climate change policy in Uganda focuses on reducing emissions into the environment. Use of alternative renewable energy sources and energy efficient technologies are key interventions for reducing use of fossil fuels and the associated carbon dioxide emissions in the environment. These technologies are also vital in ensuring sustainable use of trees by reducing consumption of charcoal and firewood. The project trained farmers in construction of energy saving stoves with a view to ensure sustainable management of the environment. In light of this, respondents to the households survey were asked to indicate the alternative energy sources they were aware of and or using in their homes. Findings reveal that:

- Overall, majority (92%) of the respondents acknowledged being aware of solar power, while 76% and 69% reported awareness of fuel saving stoves and biogas respectively.
- The high awareness levels on solar energy have not translated into use, as only one (35%) in every three households acknowledge using solar power (Table 5.3). This notwithstanding,

the proportion of households that acknowledged using solar power has increased to 35% compared to 18% before the project.

Table 5.3 Distribution of respondents reporting awareness and use of alternative source of energy for cooking and lighting after and prior to start of the project

Alternative energy source	Proportion of the responses by group phase					
	Awareness of practices			Used in 2015		
	New	Medium	Total	New	Medium	Total
Fuel saving stove	70.3	82.9	76.4	42.3	65.5	54.5
Biogas	78.4	60	69.4	6.9	9.5	8.0
Solar power	91.9	91.4	91.7	32.4	37.5	34.8

Source: AFIRD SAP evaluation survey 2016

Overall, 55%) of the target households reported use of fuel energy saving stoves in their homes. This was more pronounced in the medium groups (66%) compared to the new groups (42%). Participants in the FGDs acknowledged that they had learnt the skills and some now serve as resource persons who are engaged by other community members to construct the stoves for them. Training enabled members to acquire skills to make their own energy saving stoves and also provide services to other community members thereby earning incomes from the vocation. Save firewood and hence environmental conservation. Farmers reported that a bundle of firewood which used to last for only 2 days is now used for 7 days when cooking with the energy saving stove. This has not only reduced firewood but also drudgery for women and girl child who had to look for firewood and also do the cooking. The new model reduces smoke and minimizes risk of being burnt since it is raised and the burning firewood as well as hot ash do not scatter around, thus children who wander in the kitchen do not get burnt. Also stray animals do not sniff in what you are cooking or run risk of them pouring your food. It cooks faster as you use multiple places.



Mukangweje constantino, of Busawuli farmers group in Mende sub-county constructed new fuel saving stove

Delivery of some planting materials towards the tail end of the rain season coupled with erratic rains which caused drying of some of the seedlings/suckers; small number of groups supported

to advertise through radio, small number of groups trained on value addition were cited as drawbacks under this result area. Others include limited range of options on value addition farmers were exposed to, groups encountering non tariff barriers (packaging materials, labels, lack of certification by health inspectors) to market entry for the value added products.

5.2 Increasing biological and economic productivity of farm animals

Project interventions under this result area focused strengthening farmer capacity on improving animal housing, continued selection and upgrading of animals, planting of fodder and formulation of feeds for improved feeding, and integrated pest and disease control for better animal health.

The project fully achieved 12 of its 13 milestone targets in this result area (Table 5.4). Key achievements include:- training the 16 new farmer groups on construction of appropriate animal houses; construction of demonstration goat pen in each of the 16 new groups; training the new groups on identification of good breeds of animals, and supporting each of the new groups with two improved breeds of goats and drugs for multiplication and learning. Other achievements include:- training the 16 new farmer groups on the benefits of intensive animal management practices; zero grazing and home grown animal's feeds; growing of fodder plants , germination and planting of calliandra seeds; provision of starter seeds/planting materials of improved fodder (*Setaria Spp* and *Calliandria Sp*) for multiplication. The project also trained the new farmer groups on diseases and parasite management and control.

Participants in focus group discussions acknowledged having received training on construction of animal houses, identification and selection of good breeds, planting of fodder plants, feed formulation, symptoms of common animal diseases and parasites and how to control them through preventive measures such as vaccination, and spraying or control using local herbs and drugs. They reported acquisition of knowledge on symptoms of unhealthy animals and appreciated the importance of monitoring of animal health. They also acknowledged having received training on the food values of various pastures and feed materials used in feeding animals. FGD participants noted that all the households that received goats for pass on within the group had constructed the improved animal houses. Achievements suggest that the ***project achieved its performance measure requiring that 50% of all target group members who received two animals to be passed on within the group, have built the recommended animal housing for improved animal breeds.***

Table 5.4: Physical delivery of outputs on increasing biological and economic productivity of animals by 30th October 2015

Planned			Cumulative physical achievement	Cumulative percentage achievement
Activity		Performance target		
Promote animal housing and management	Conduct one day seminars on construction of animal house	16	16	100
	Number of new groups trained	16	16	100
	Number of groups supported to establish demonstration goat pen	16	16	100
Promote continued selection and upgrading of animals	Number of sensitization meetings on identifying good breeds of animals conducted	16	16	100
	Number of sensitization meetings focusing on identifying good breeds of goats	16	16	100
	Number of new groups trained on identifying good breeds of animals	16	16	100
	Number of groups supported with 2 improved goats	16	16	100
Planting improved animal fodder	Number of new groups trained on the benefits of intensive animal management practices; zero grazing and home grown animal's feeds	16	16	100
	Number of groups supported with starter seeds/planting materials of improved fodder	16	16	100
Promote feed preparation, formulation, supplementation and feeding	Number of two day seminars conducted on feed preparation, formulation, and supplementation and feeding	16	6	38
	Number of new groups trained on feed preparation, formulation, and supplementation and feeding	16	16	100
Promote animal disease and parasite management	Number of one day seminars on diseases and parasite management and control	16	16	100
	Number of new groups trained on diseases and parasite management and control	16	16	100

Source: AFIRD SAP progress report

Respondents in the household survey were asked to indicate the various practices they were using in production and management of livestock in their homes. Findings suggest that project interventions in this result area have triggered a number of outcomes.

- The introduced breeds have enabled farmers to access breeding animals with high genetic potential in their community. Overall, close to a half (49%) of the sampled respondents claimed having at least one improved animal breed in their homes, 31% citing poultry while

29% reported having improved breed of goat. Group phase disaggregated data reveal that higher proportions (40%) of households in medium groups acknowledged having improved breed of goat compared to 19% for the new groups (Table 5.5). This seems to stem from the longer duration the introduced animals have stayed in the medium groups compared to the new groups. The 7 sampled new groups acknowledged having received the improved goats and they were all surviving except in the case of Jagala Farmers group where the he-goat had died.

Participants in the FGDs noted that the He goats have helped to serve members as well as non members thereby increasing animals with better genetic potential in the communities. For instance the he goat received by Magezi Muliro group in Namusera parish Mende sub-county had fathered 18 off springs spread in 11 households 4 of which were non members. Likewise the he goat received by Tusubira Rice growers group was noted to have fathered 12 off springs spread in six households two of which are non members. Findings from the literature revealed that 235 cross bred goats and 23 pure lines produced among farmers in medium groups. Participants in FGDs in medium groups noted that the off-springs grow faster and are bigger attaining market size in a short period of time-12 month compared to 30 month for the local goats. The improved breeds also fetch a higher price on average 250,000 compared to at most 100,000 for the local goats. This was attributed to many others organizations come searching for the off springs of improved goats. Findings suggest that the project has made ***significant strides towards meeting its performance measure requiring that “recipients of the improved animal breeds were able to increase productivity of livestock farming”***. This is true for medium households but not new groups.

- Majority (86%) of farmers have adopted improved animal housing practices. The improved animal houses have enabled farmers to harvest manure for crop fertilization and also improve on sanitation the homes. Three (75%) in every four sampled households reported that they collect the animal droppings for manure; while the roof of animal houses in 57% of the households was intact and not leaking. Relatively smaller proportions 28% and 21% of the households cited having animal houses with beddings on the floor and urine tanks respectively.

Eight (83%) in every ten households cited using at least one improved livestock feeding practice. Supplementary feeding was by far the most common livestock feeding practice farmers (68%) acknowledged to have adopted. This was more pronounced in the medium group households (77%) compared to households in the new groups whose corresponding figures stand at 59%. Roughly one in every three households acknowledged growing fodder crops, watering and provision of salt to the animals while less than 10% cited use of materials like silage, hay or dry crop residues for dry season feeding. Findings on proportion of

households reporting fodder production and dry season feeding point to the need for the project to further encourage increased planting of fodder and strengthening farmer capacity on preparation of feed materials for dry season feeding. Participants in the FGDs also cited the need to train them on use of other locally available materials (banana peelings, sweet potatoes) to make animal feeds.

Table 5.5: Distribution of households reporting use of various practices in production and management of livestock in their homes.

Practices		Percent reporting by group phase of respondent		
		New	Medium	Overall
Improved livestock breeds	<i>Any improved breed</i>	43.2	54.3	48.6
	Poultry	32.4	28.6	30.6
	Goats	18.9	40.0	29.2
Livestock housing	<i>Any improved housing practice</i>	86.5	85.7	86.1
	Collect droppings/waste for manure	81.1	68.6	75.0
	Roof intact not leaking	43.2	71.4	56.9
	Floor with bedding	24.3	31.4	27.8
	Urine tank	16.2	25.7	20.8
Livestock feeding	<i>Any improved feeding practice</i>	75.7	91.4	83.3
	Supplementary feeding done	59.3	77.1	68.1
	Water for drinking all the time	35.1	31.4	33.3
	Forage crop production	29.7	34.3	31.9
	Provision of salt	27.0	37.1	31.9
	Dry season feeding	10.8	5.7	8.3
Livestock disease management	<i>Any practice</i>	75.7	82.9	79.2
	Vaccinations	59.5	62.9	61.1
	De-worming	59.5	71.4	65.3
	Identification of pests/diseases	37.8	40.0	38.9
	Use herbs to treat diseases/ pests	37.8	31.4	34.7
	Spraying regimes	32.4	37.1	34.7

Source: AFIRD SAP evaluation survey 2016

- Farmers are managing and controlling disease causing parasites and animal diseases. Majority (79%) of sampled farmers acknowledged using practices for better animal health management. Deworming and vaccination were the most common livestock health management practices used by 65% and 61% of the sampled households respectively. Monitoring of the animal to identify symptoms of ill health, spraying to control parasites and use of local herbs were the other practices cited by 39%, 35% and 35% of the farmers respectively.

Small number of groups trained on feed formulation, limiting the training on feed formulation on maize based rations, varied internalization of knowledge on how to use local herbs in management of animal health, loss of goats due to theft or diseases, increased prevalence of

diseases such as African Swine fever in pigs, Foot and Mouth Disease were cited as factors that have impaired achievements in this result area.

5.3 Empowering families and farmer groups to manage their socio economic and health concerns sustainably.

Project interventions focused on group development, agri-business creation, nutrition, and domestic hygiene and sanitation for better health. Group registration at sub-county level, and well organized groups successfully implementing development projects were identified as yardsticks for measuring project performance on this result area.

Achievements include:

- i. Conducting a 3 day residential sensitization seminar for stakeholders including local leaders, and representatives of communities/potential groups. The sensitization workshop helped to create awareness on project objectives and clarifying roles and responsibilities of key stakeholders in project implementation.
- ii. Conducting three community workshops three days each through which community members were further sensitized about the project and imparted with sustainable agriculture skills.
- iii. Training of all the new farmer groups in group dynamics, setting group objectives and development of constitution. Findings from FGDs with sampled groups reveal that all groups set group objectives, developed and implement their constitutions. They hold regular meetings, leadership committees are in place, and record minutes of group meetings. The constitutions establish the leadership committee and sub-committees but sub-committees in some of the new groups were not active which call for more capacity strengthening.

Twelve groups accounting for (86%) out of the fourteen sampled groups had duly registered at sub-county levels in case of 5 new groups while all sampled medium groups had registered at the district level. Achievements ***suggest that the project has made significant strides towards achieving its performance measure requiring that “90% of farmer groups are registered officially at sub county level”.***

Registration was noted to have increased recognition and visibility of the groups among local government leadership and this has enabled groups to access services from other service providers. FGD participants noted that since they are registered, whenever other development agencies contact the sub-county leadership/staff, they recommend them to these groups. For instance Mirembe Development farmers group reported having received services from UNACO-that provided training on crop and animal production IPM since 2014 and Voluntary Action for Development (VAD) which provided training on crop and animal

production, energy saving stoves, supported construction of toilets and water tanks for the elderly. VAD also provides capital injection in the VSLA groups and after working with a group for 2 years it links the group to its credit providing wing. Busikiri farmers group reported having received services from Uganda Cooperative, Savings and Trade Union which trained representatives on savings and insurance for agricultural enterprises; and Africa 2000 Network (A2N) that also trained representatives on crop production.

Table 6.6: Physical delivery of outputs on empowering families and groups to enable them manage their social economic and health concerns sustainably as at 30th October 2015

Planned			Cumulative physical achievement	Cumulative percentage achievement
Activity		Performance target		
Mobilization of community members form groups	Number of residential workshops conduct one day seminars on construction of animal house	1	1	100
	Number of community workshops held	3	3	100
	Number of meetings held to verify formed and existing groups	16	16	100
Training Farmer groups in group dynamics	Number of day seminars conducted on group dynamics	16	16	100
	Number of groups trained on group dynamics	16	16	100
	Number of day seminars conducted on setting up group objectives and constitution	16	16	100
	Number of groups trained on setting up group objectives and constitution	16	16	100
	Number of new groups supported to acquire legal certificates	16		
Promote participatory impact monitoring	Number of new farmer groups trained on participatory impact monitoring (PIM)	16	16	100
	Number of groups provided with PIM books	16	16	100
Promote agri-business creation	Farmers towards advertisement through Agricultural trade shows	Not specified	6	
	Number of medium groups supported towards advertisement through radio	17	2	12
	Number of groups supported with information boards	17	15	88
Promote nutrition for better diet and health	Number of new farmer groups trained on major categories of food and balanced diet.	16	16	100
	Number of groups supported to establish demonstration sites of vegetable gardens	16	16	100

Source: AFIRD SAP progress report

- iv. Training all the new groups in Participatory Impact Monitoring (PIM). Findings from FGDs with sampled groups reveal that all groups established PIM committees and these were active in five (71%) out of the seven new groups. The PIM committees monitor adoption of practices, managements of items received by member households to pass on within the group, and success indicators agreed upon by the group. FGD participants noted that existence of functional PIM committees encourage members to adopt practices notably trenches, vegetable gardens, and sanitation facilities. Findings reveal that the project mobilized and strengthened capacity of the new farmer groups.

Through PIM all groups identified their development projects. Nine (4 new and 5 medium) accounting for 64% of the fourteen sampled groups were engaged in implementing various income generating projects including tents and chairs for hiring(2), catering services (2), value addition notably wine making and bakery (2), mushroom production (1), nursery for supplying planting materials(1), poultry(2), bananas(1), vegetables (1). This is line with findings from the project progress reports which indicated that 10 (63%) new farmer groups had started implementing various income generating activities. Achievements suggest that the ***project has made significant strides towards its performance measure requiring that “90% of groups are well organized and successfully implement their development projects”.***

Banda Farmers in Bulabakulu village started the Nursery in December 2012 to serve as an income generating activity for the members many of whom were youth. However some did not understand the need for patience, expecting quick returns hence they dropped out. New members were allowed to join and the group now has 20 members (8 male and 12 female). A community member offered the group land to establish the nursery. Now the group formalized their relationship with the land lord from whom they rent the land at UGX 100,000 per year and also give him a share of the profits every year. AFIRD provided the training on Nursery establishment as well as equipment and materials including mesh, poles, polythene for bagging, manure and start-up seeds. Spot advice provided during the follow-up visits by AFIRD staff were noted to have enabled the group members to learn on the job and correct mistakes as they went along.

Banda Farmers started making wine in 2015 and had 40 litres by the time of the evaluation. Chose wine making as it is easy to get raw materials and market compared to juice and Jam. The group has undertaken measures to increase visibility and enhance market for their products. These include:-

- Establishment of an outlet in Wakiso town near an agro-input dealer shop from where they show case the various seedlings available in the nursery
- Participation in agricultural shows and exhibitions
- Maintaining links with farmers who buy from them to serve as a reference for prospective buyers on performance of their seedlings.

Benefits

- Acquisition of vocation skills like grafting, and managing nurseries
- Every year, the group passes out a member who is given money to invest in a physical asset of their choice. Through this process 1 member acquired a tailoring machine, another solar equipment, one invested in commercial layers while another used the funds for completing the permanent house.
- Every year each member is given one type of seedlings while they can buy others at a subsidized price. Members have used this opportunity to establish own woodlots.

Nine (64%) out of the fourteen sampled groups reported that they are engaged in Village Savings and Loan (VSLA) schemes. The schemes are noted to have greatly helped members to access credit for meeting family emergencies, sending children to school and investing in

farming as well as trade. Three groups reported that they leave some money in the box at the end of each cycle to start the process again while other share everything and start from zero in the next cycle. The VSLA schemes in some groups notably new ones are still weak and need more strengthening.

- v. Supporting farmers to access markets. The project provided information boards to 15 medium groups, supported 2 medium groups to advertise through radio, and 9 farmers from seven medium farmer groups supported to participate in two exhibitions organized by PELUM (participatory ecological land use and management) at National and Regional levels; the World Food Day celebrations held at Namulonge Crop Resources Research Institute. The information boards were noted to have helped groups to advertise member's produce, and sharing information on events. Participation in exhibitions was noted to have enhanced visibility of farmers who increase their networks and maintain contacts with buyers.
- vi. Training the new farmer groups on nutrition for better diet and health and supporting them to establish vegetable demonstration gardens. Findings reveal that the project achieved its milestone targets on training new farmer groups on major categories of food stuffs, and how to get a balanced diet; and support farmers to establish demonstration sites of vegetable gardens. Participants in FGDs noted that the project also provided groups with vegetable seeds including nakati, spinach, sukuma wiki) and passion fruit seedlings.

The project also trained the new farmer groups on poultry for egg production and supported each groups with 22 Kroiler hens, 2 Kroiler cocks, drugs and startup feeds. The recipient groups received 24 birds and the group members decided on the first recipient households as well as the terms to pass on to other members. Recipients of the birds in the new groups have multiplied, took the eggs to hatcheries and some have passed to other members. For instance one member of KIKI farmers group in Gombe sub-county who received 11 birds was able to hatch 96 chicks, 38 of which survived and was ready to pass on to other members. Likewise a member of Nkoma twekembe farmers group had taken 70 eggs to a hatchery.

- vii. Training all the 16 new farmer groups on basic domestic hygiene and sanitation practices. Findings from key informants, and FGDs alluded to the fact that target farmers had adopted sanitation practices and these coupled with vegetable gardens were cited as trademarks of member households and visible impacts of the project in the communities. Findings from the household survey reveal that majority of the households acknowledged using improved hygiene practices. Toilets (96%), kitchen (90%), drying racks (74%), bathroom (72%) washing hands with soap after toilet use(69%), boiling water for drinking (67%) and tippy taps (60%) in that descending order of predominance were the most common sanitation and hygiene practices used by the target households. Relative higher proportions of households in medium groups acknowledged use of the various sanitation practices compared to those in

the new groups who reported the same (Table 5.7).

Table 5.7: Distribution of households reporting use of various sanitation and hygiene practices

Sanitation Practice	Percent of households reporting by group phase		
	New	Medium	Overall
Toilet	91.9	100.0	95.8
Kitchen	86.5	94.3	90.3
Utensils drying rack	70.3	77.1	73.6
Bathroom	70.3	74.3	72.2
Washing hands after toilet use	59.5	80.0	69.4
Boiling drinking water	59.5	74.3	66.7
Covered container for drinking water	56.8	68.6	62.5
Facility for washing hands at the latrine	56.8	62.9	59.7
Presence of rubbish pit	62.2	51.4	56.9

Source: AFIRD SAP project evaluation survey 2016

- viii. Sensitizing members of the new farmer groups on HIV/AIDs. Members of the new groups were also linked to KIFAD a local NGO that provide HIV/AIDS Voluntary Counselling, Testing (VCT), plus referral services. This collaboration enabled over 2000 people in Gombe sub-county including farmers from 16 new groups and non group members from the farming communities to access VCT services. The collaboration is noted to have enabled many people to know their HIV status, and linking those who test positive to health facilities from where they get care and support. The project also developed IEC materials on HIV/AIDS for subsequent use in training farmers.

Some groups having not officially registered at sub-county level, some groups having inactive sub-committees including PIM committees, and Village Saving and Loan Schemes in some groups not following best practice, small number of groups supported to advertise through the radio program are drawbacks that impaired achievements under this result area.

5.4 Project outcomes and impacts on livelihoods of farmers

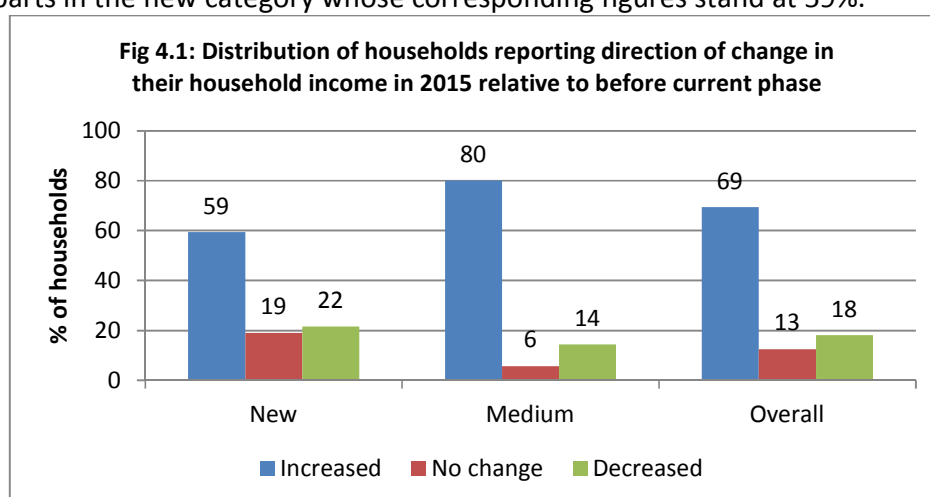
5.4.1 Changes in incomes

Increasing family income of small holder farmer household in the intervention area is the overall goal of this project. Farmer rating of change in their household incomes and position on a self assessment ladder were used as proxy measures for assessing impact of the project on incomes.

Trends in farmer incomes and wellbeing: Respondents were asked to rate extent to which their household incomes had changed in the last two years depending on whether they regarded it

to have increased, stayed the same or decreased in 2015 relative to the situation in 2013 before the current phase. Findings reveal that :

- Overall 69% of the households reported that their income had increased in 2015 relative to the situation in 2013, 13% noted that it had remained at the same levels as before the current phase while 18% rate it to have declined (Figure 4.1).
- Relatively higher proportion of households (80%) in the medium category acknowledged that their incomes had increased relative to the situation in 2013 compared to their counterparts in the new category whose corresponding figures stand at 59%.



The general perception that target households are earning more income in 2015 than they were in 2013 before this phase was confirmed by analysis of self assessed changes in wellbeing. The respondents were asked to rate themselves on a ladder from 1 to 10, with step 1 being for the poorest people in their community and 10 being the richest. On average target households rated themselves at level 3 in 2013 while they regarded their position on the ladder to have changed to level 5. Overall the target households registered a 50% increase in their average step on the ladder. This suggests that on average most participating households perceive their wealth status position to be better in 2015 than it was in 2013 before the current phase. Households in the medium groups with 55% registered a relatively higher increment in their average step on the ladder was compared to an increment of 47% for the new households (Table 5.8).

Table 5.8: Average position on self assessment ladder at end of 2013 and 2015 by group phase

Group phase	Average position on ladder by year		
	2013	2015	%age change
New	3.4	5.0	47.1
Medium	3.0	4.7	55.3
Overall	3.2	4.8	50.0

Source: AFIRD SAP evaluation survey 2016

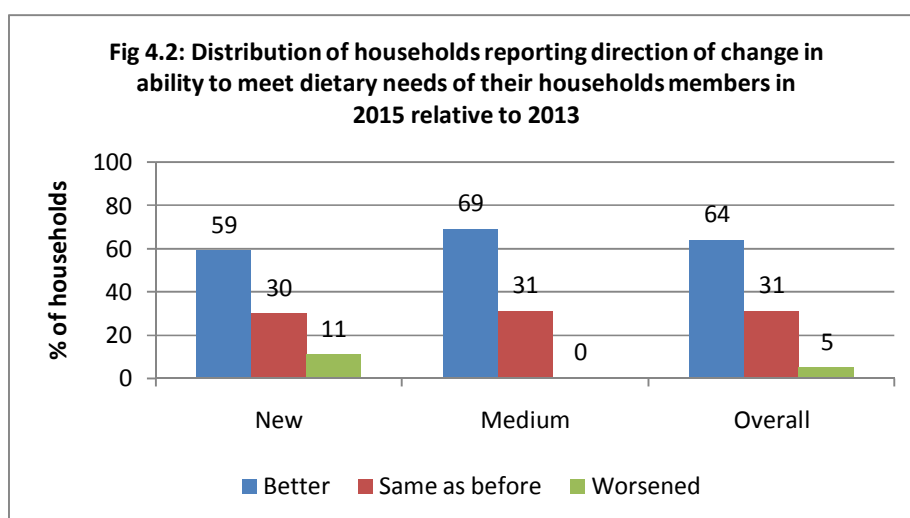
Findings on the two proxy measures (rating that income has increased 69% and percentage increase in average position on self assessment ladder 50%), average at 59.5% which suggests that household incomes have increased. The increase in incomes was attributed to:

- Increased production which has enabled marketable surplus in case of food crops notably maize, beans and bananas. The increase in marketable surplus was attributed to increase volumes harvested due use of better varieties (maize, and beans) and agronomic practices notably application of manure, trenches for soil water retention, and control of weevils in bananas.
- Increased sources of income due to growing a number of crops notably vegetables, livestock, and non-farm activities. Findings indicate that overall there was a 9% increment in number of livelihood strategies engaged in by the target households in 2015 relative to the situation in 2013. The increment was higher in medium phase households (14%) compared to the new households whose corresponding figures stand at 4%.
- Diversification of sources of income thereby reducing overwhelming reliance on tradition cash crops like coffee which had also been affected by disease outbreaks like coffee wilt disease and Coffee Twig borer. Farmers have ventured into high value commodities/enterprise in an effort to take advantage of market opportunities in the neighbouring Kampala and up-coming urban centres in Wakiso district. Such enterprises include Rosemary, leafy onions, and other vegetables which can provide a constant stream of income.
- Improving the genetic potential of farm animals notably goats. Increased in number of cross bred goats in the project area notably in the medium groups. Improved animal shelters notably for goats where farmers are able to collect the manure for on ward application in the crop fields. Faster growth of the offsprings of crossed goats which reduce the time lag to get to the market from 2-3 years to 8-12month. The bigger goats in a short period of time enable farmers to get income.
- Groups establishing savings and credit schemes which have enabled them to internally access credit to invest in farming, other income generating activities as well as smoothening consumption expenditure like paying for school fees, scholastic materials and health dues as and when they fall due without having to resort to distress sale of crop produce or farm animals. The VSLAs have also been applauded for having enhanced cohesiveness and sustainability of the groups.
- Proper farm planning and realization that they had the ability to work hard to create change in their homes other than indulging in self pity that they were poor people who had to depend on others.

5.4.2 Changes in household food security

Three proxy measures have been used to assess food security situation of the households: rating of change in ability to meet dietary needs of the household members in 2015 relative to 2012; duration of the hungry period and number of meals eaten during the hungry season in 2013 as well as in 2015 and whether the food reserves they had were adequate to last to the next harvest. Findings reveal that:

On a scale of 1-3, where 1 is worse compared to before, 2=no change/same as before, 3=better now than before; majority (64%) of the households noted that they are more able to meet dietary needs of their household members in 2015 compared to the situation in 2013 prior to the current phase; 31% noted that their ability was at same level as in 2013 while 5% regarded their ability to have declined (Figure 4.2). The proportion of households in medium category (69%) reporting that they are more able to meet their dietary needs is relatively higher than that of (59%) households in the new groups acknowledging the same.



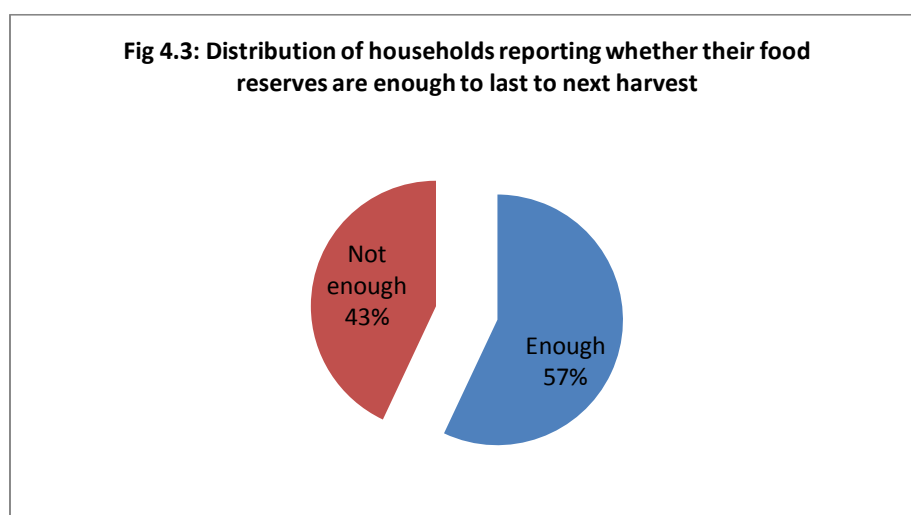
The second measure that was employed was self-reporting of the number of days of food shortage in the previous "hungry season." When this is compared with the recall for the 2013 period it provided us with a quantitative measure of the respondent's perception of change in food security over time. The comparison of results on the number of days in the hungry season is presented below. Findings reveal that overall there was a 36% reduction in the average number of days in the hungry period experience by target households in 2015 compared to the situation in 2013. New households registered a higher reduction during this period compared to the households in medium groups. The average number of meals eaten per day during the hungry period increased in 2015 compared to those consumed in 2013. (Table 5.9).

Table 5.9: Average number of hungry days and number of meals eaten during that period

Group phase	Average number of days		% change	Average number of meals in the hungry		% change
	2013	2015		2013	2015	
New	13.8	5.7	-59	2.6	3.0	15
Medium	12.9	11.3	-12	2.4	3.1	29
Overall	13.4	8.4	-36	2.5	3.1	24

Source : AFIRD SAP project evaluation survey

Majority (57%) of the households reported that they had enough food reserves to last to the next harvest (Figure 4.3). They claimed that they still had maize, and beans from the second season harvest in their houses. Cassava and other local types of yams were also available in addition to the bananas and potatoes.



The findings suggest that majority of the target households are food secure. Improvement in the food security situation of the households was attributed to:

- Adoption of the following sustainable agriculture production practices which have contributed to increased production.
 - Soil fertility improvement practices notably application of animal manure and composite manure in the vegetable and banana gardens.
 - Use of trenches/terraces, cover crops and mulching is noted to have enhanced water retention in the fields and helped to check soil erosion. Trenches were commonly applied in the banana, vegetable, and to some extent coffee gardens.
 - Use of herbal concoctions to control pests on the vegetables and bananas

- Use of improved varieties notably for cassava, maize and beans which are higher yielding, disease tolerant, quick maturing, and drought tolerant. Provision of planting materials contributed to the increase farmer use of improved varieties notably in the medium groups.
- Access to a variety of food stuffs and increased range of vegetables. Diversity of crops grown to include vegetables hence availability of these items on the household menu. Growing the vegetables is noted to have also enabled households to reduce expenses on buying such items and eat vegetables that are not contaminated with agro-chemicals. Availability of vegetables has improved nutrition in the homes.
- Re-emergence of bananas in the beneficiary homes with majority of them now having enough to eat while some sale. The project provided disease and pest free tissue cultured banana suckers which the group members planted. Increased banana production is attributed to adoption soil fertility measures notably use of composite and animal manure, and soil conservation practices notably trenches and mulching which have enhance retention of water in the banana fields.

Other impacts of the project include

- The improved nutrition coupled with improved sanitation practices were noted to have contributed to better health of household members. Participants in FGD had this to say ***“Now may take up to 6 months without having children falling sick before it was one month” Children are strong, jolly and playfull unlike before.***
- Positively impacted on political capital of farmers notably women. Farmers notably women have been empowered to talk in various fora. This was attributed to participation in groups which has given the farmers confidence to express their views and to demand for answers from those in positions of authority. It was also notated that groups have encourage farmer participation in the development processes in their localities as opposed to being passive recipients. They now actively contribute to finding solutions in to their farming problems. The increased confidence was also noted to have resulted in women group members assuming positions of leadership in their groups as well as at the local government level. For instance two members of Tusubira Rices Farmers group in Mende were elected to positions of women councilors one at the district level and the other at sub-county level. Likewise one member of Najemba farmers group was elected as a councilor at sub-county level.
- Continued existence of groups that have remained stable is noted as a strong foundation for institutional sustainability.

- Planting of trees, cover crops, use of trenches to conserve the soil, application of soil fertility practices that replenish the soil, energy saving stoves that save fire wood and reduce smoke, rubbish pits/containers separating degradable and non-degradable materials in difference places will continue to positively impact on the environment for many years. Use of the energy saving stoves has reduced pollution due to smoke and firewood consumption thereby positively impacting on the health and productive time for women and girl child.

6 Assessment of project performance

6.1 Relevancy

Relevance has been assessed using a binary rating 1=satisfactory and 0 not satisfactory. The project address needs of the farming community and its objectives and interventions are consistent with national development objectives and policy agenda which recognize importance of agriculture and emphasize the need to increase agricultural production and productivity in sustainable manner. Its relevant to the sector hence a rating of 1, satisfactory is given.

6.2 Assessment of project effectiveness

Effectiveness is defined as the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance⁶ The above definition calls for assessing the extent to which project implementation contributed to realization of the goal of increasing incomes of smallholder families in the intervention area. Results indicate that the project made significant strides in strengthening farmer capacity to use sustainable crop production technologies notably soil and water conservation, soil fertility improvement, crop protection, animal production through upgrading of breeds with higher genetic potential, animal feeding through planting of fodder, and health management; production of a diversity of crops for household nutrition and adoption of sanitation and hygiene practices.

Overall the project fully attained its design targets on 2 out of the 5 output indicators, achieved above 50% on the 3 indicators. It has contributed to increased and improved food security in the target households. These findings would suggest that the project performed quiet well on all its output indicators and its on course to achieve its objectives. On a six rating scale, we conclude that project effectiveness was satisfactory, rating 5.

⁶ Development Assessment Committee-DAC at the Organization for Economic Cooperation and Development-OECD.

Factors that enhanced effectiveness include:

- Team meetings to harmonize understanding on content and delivery process and the weekly meetings to share progress which have enable joint learning from one another.
- High survival rate of introduced animals due to accessing the animals from areas with more-less similar environmental conditions to the project intervention area; careful selection of the first recipient household by the groups following guidance criteria provided by the project team from a technical point of view. as well good management by the receipt households.
- Functional PIM committees which monitor group members and encourage adoption of practices
- Alternating training venues to various households which also encourage members to adopt practices, and get advise from peers and staff
- Joint extension visits that enable staff to reach households provide on spot advice and support further internalization of messages
- VSLA schemes which have cultivated saving culture among members and helped them to access loans to invest in farming, other income generating activities and family emergencies.
- Groups starting income generating projects which has enhanced cohesiveness
- Forging partnerships with other actors to extend reach of the project and access expertise not resident in the project team.

Factors that have impaired effectiveness include:

- Loss of land to land lords which has reduced size of plots available to most farmers
- Late delivery of planting materials hence some drying
- Limiting training on animal feed formulation on maize based rations
- Small range of options on value addition farmers are trained on.
- Lack of clear strategies for facilitating inter group knowledge sharing and learning
- Climate change effects notably prolonged dry spells that has affected crop production.

6.3 Assessment of project efficiency

Project implementation involved strategies that enhance efficient use of resources.

- Project activities were well budgeted for and management ensured smooth flow and timely disbursement of funds for implementation of activities.
- Development of an integrated work plan for field activities offered a strong foundation for implementation of activities in an effective way.
- Moving in the same vehicle when going to conduct extension visits

- Collaborations with other partners have enabled the team take exploit synergies, improve its competences in some areas like marketing and advocacy.

6.4 Assessment of project outcomes and impacts

The project has positively impacted on yields, incomes, food security, nutrition, and health of the participating households. It has also positively impacted on the environment notably soil water retention, checking run-off, management waste, and planting of trees. A rating of 5, satisfactory is given.

6.4 Assessment of sustainability project outcomes and impacts

The potential for the continuation of the impact achieved and of the delivery mechanisms has been asked using a four level scale depending on extent of existence of risks/threats to continued utilization of project outputs where.

1=Likely. There are no risks affecting that criterion of sustainability.

2=Moderately likely. There are moderate risks that affect that criterion of sustainability.

3=Moderately unlikely. There are significant risks that affect that criterion of sustainability.

4=Unlikely. There are severe risks affecting that criterion of sustainability.

Its likely that institutions will continue to exist to support utilization of project outputs. This is based on the following:

- The groups have continued to exist with majority initiating and operating income generating activities. Likewise they have registered and started accessing other service providers without support of AFIRD. The group structures such as PIM and VSLA committee continue to work in the interests of their members and groups change leadership.
- Groups own the processes for multiplication of animals and planting materials. They decided on how to pass on the animals/planting materials. The first recipient household is selected by the group using criteria jointly agreed upon with the AFIRD team and they monitor the performance of these animals/materials as well as pass on.
- The he goats have been a very resource is spreading the genetic potential to other households in the community. Farmers are proud for having the improved goats and have put in place measures to charge user fees for getting money to treat the he goats.

However weak/non-functional PIM committees, poorly run VSLA schemes are threats to institutional sustainability.

- Planting of trees, cover crops, use of trenches to conserve the soil, application of soil fertility practices that replenish the soil, energy saving stoves that save fire wood and reduce smoke, rubbish pits/containers separating degradable and non-degradable materials in different places will continue to positively impact on the environment for many years.
- Adoption of the practices has hinged on use of locally available materials and farmers have witnessed the change in production, as well as sanitation and the resultant benefits hence it is likely that they will continue to use the acquired knowledge. However limited volumes of manure is a threat to expanding coverage while water stress will continue to hamper year round availability of vegetables.
- Packaging materials, and other non-tariff barriers pose serious threats to continued realization of benefits from value addition.

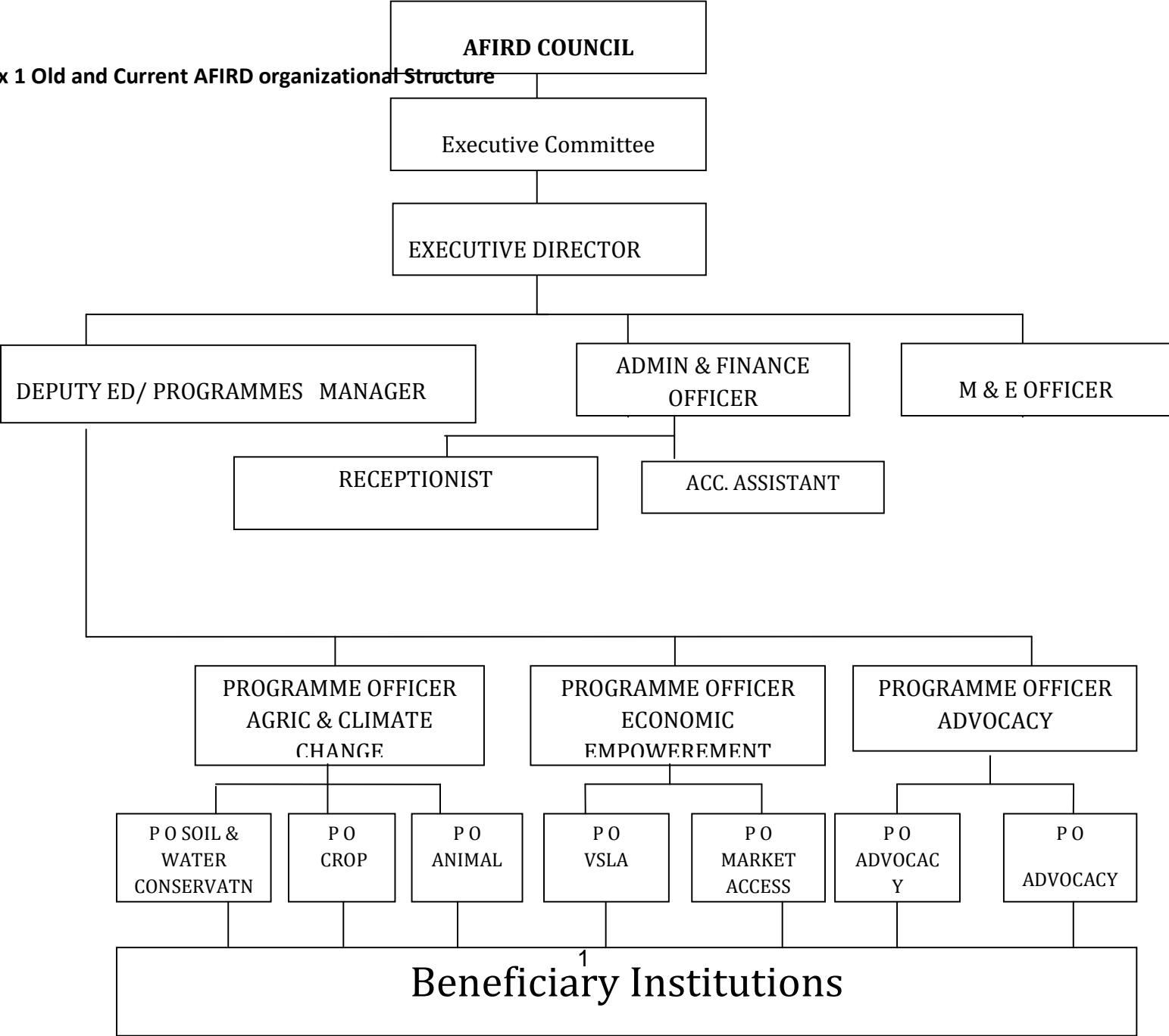
6.5 Recommendations

- k) Augment the advocacy efforts with building capacity of farmers to defend their land rights.
 - Support the farmers to develop a clear advocacy plan with regards to land rights stipulate the primary targets, secondary targets as well as how and when to approach them
 - Create awareness among farmers on the land policy, land Act, their responsibility on the land, where they can go to get redress in case of violating their rights, as well as processes they have to follow to acquire authentic land titles
 - Facilitate farmer linkages to relevant offices that can support them in defending their land rights. For instance the project could consider linking farmers to legal service providers
- l) Intensify promotion of intensive use of the available land for enterprise production and income generation
 - Gradually shift from promoting enterprises whose production requires relatively more land sizes to enterprises that utilize a small piece of land but increase its productivity and give high returns. Options include small animal and birds like rabbits, poultry, goats, pigs, Quails; mushroom production, and high value horticultural crops like leafy onions and spices like rosemary among others.
 - Promote value addition through supplementary income generating activities. Widen the range options promoted by the project by providing a shopping list of the value addition enterprises complete with information on cost components; unit costs of production and associated estimates of revenue returns/benefits; and implications for finding market of products from each enterprise to facilitate farmer decision making on the most appropriate enterprise in light of their context. Consider establishing links with the Food and Bio-Technology Incubation Centre at Makerere University. Target to engage

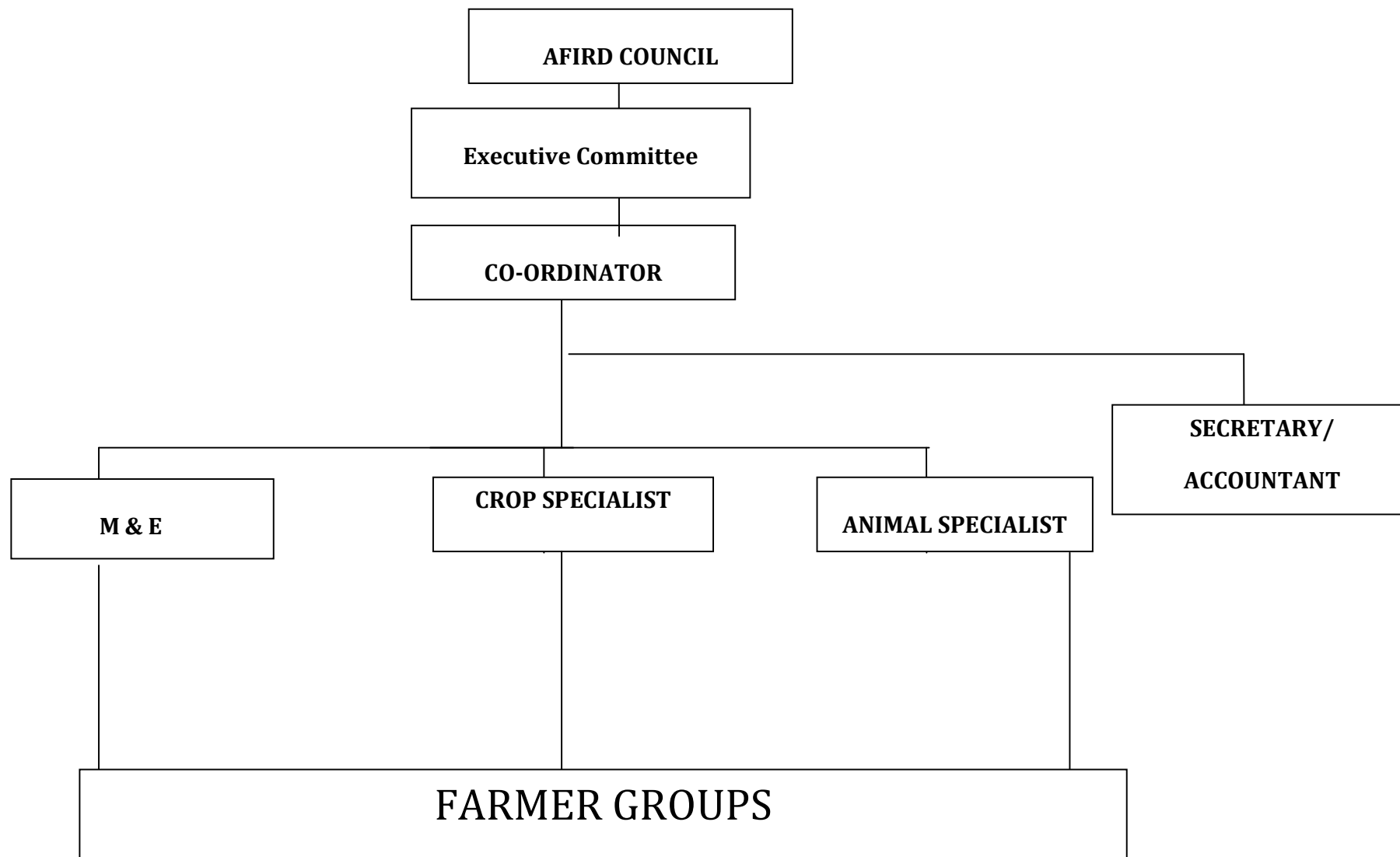
more youth in project activities through using the value chain approach where they can participate in other stages along the value chain.

- In promoting these enterprises do not only pay attention to the technical aspects of production. Rather also strength farmer capacity to deal with non-tariff barriers to market entry and penetration through training, awareness creation and facilitating linkages as well as opening doors to relevant offices/actors. Enhance the processes for quality and standards control/assurance among the agro-processing groups.
- m) Facilitate intergroup information and cross learning. Options include creating awareness among target groups on other groups that have been supported by the program.
- n) Increase efforts to promote measures climate change mitigation and adaption. Facilitate access to climate/weather information; impart farmers with knowledge and skills required for climate adaptation, and promote quick maturing, disease and drought tolerant and varieties.
- o) Commission a study on youth involvement in agricultural value chains to establish factors limiting their participation and identifying opportunities/strategies for enhancing youth participation in project activities.
- p) Introduce the focus on market orientation early in project implementation so as to allow farmer groups to gradually evolve into marketing groups/associations.
- q) Increase the collaboration and synergy with the permaculture programme that works with the schools to tap the pupils early and impart skills on sustainable agriculture and issues of environment conservation so as to facilitate and influence mindset change of their parents/guardians
- r) Promote access to agricultural information through use of ICTs.
- s) Promote water harvesting at household level Investment should be done to harvest water to use for some irrigation at the farm especially during dry seasons.
- t) Improve on documentation and sharing of results. Document and showcase results from success stories.

Annex 1 Old and Current AFIRD organizational Structure



ORIGINAL STRUCTURE



Annex 2: Differences between feature of previous and current project

Feature	Previous	Current
Geographical coverage	Masulita, Kakiri and Mende	Kakiri, Mende and Gombe sub-counties
Overall goal	The family income of small holder farmer household in Kakiri, Mende and Masuliita has increased	Remained same as in previous
Specific Objectives and indicators	<ol style="list-style-type: none"> To improve diversified yields from Agriculture and sustainable environment management; Indicators included: <ul style="list-style-type: none"> 70% of targeted groups have adopted improved farm planning practices 70% of targeted groups have adopted methods to improve soil fertility To increase biological and economic productivity of farm animals; Indicators <ul style="list-style-type: none"> 70% of the targeted groups have built the recommended animal housing for improved animal breeds and each group has received two farm animals to be passed on to all members Recipients of the improved animal breeds have increased productivity of livestock farming To enable families to become stable and empowered and farmer groups to manage their socio-economic and health concerns sustainably Indicators <ul style="list-style-type: none"> 50% of targeted groups are registered on sub-county level 70% of targeted groups have adopted the new hygiene practices 	<ol style="list-style-type: none"> Yields from agriculture have improved and are diversified; sustainable environmental management has improved. Indicators <ul style="list-style-type: none"> 70% of the target groups have adopted improved farm planning practices. 70% of the target group has adapted methods to improve soil fertility. Biological and economic productivity of farm animals have increased. Indicators <ul style="list-style-type: none"> 50% of all target group members who received two animals to be passed on within the group, have built the recommended animal housing for improved animal breeds. Recipients of the improved animal breeds were able to increase productivity of livestock farming. Families and farmer groups are stable and empowered and able to manage their socio economic and health concerns sustainably. Indicators <ul style="list-style-type: none"> 90% of farmer groups are registered officially at sub county level. 90% of groups are well organized and successfully implement their

		development projects. <ul style="list-style-type: none"> • 90% of target groups have adopted the new hygiene practices.
Number of groups	38groups (18 Medium groups supported during project cycles from 2008-2011 and 2011-2014 and 20 groups supported for the first time in 2011-2014	34
Number of target beneficiaries	6,650 direct beneficiaries from 950 households	966 households