



## AN END OF PROJECT REVIEW FOR THE AGRO-DEALER DEVELOPMENT PROJECT FUNDED BY AGRA IN TANZANIA

# FINAL REPORT

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August 2012

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## List of Acronyms and Abbreviations

|         |  |
|---------|--|
| AD      | Agro - dealer  |
| AGRA    | Alliance for a Green Revolution in Africa                |
| BRELA   | Business Registration and Licensing Authority            |
| CV      | Curriculum Vitae   |
| DALDO   | District Agriculture and Livestock Development Officer   |
| DASIP   | District Agriculture Support & Improvement Programme     |
| DC      | District Commissioner                                    |
| DED     | District Executive Director                              |
| FGD     | Focus Group Discussion                                   |
| FISL    | Farm Input Saving and Loan                               |
| FIPS    | Farm Inputs Promotion Africa                             |
| FSDT    | Financial Sector Deepening Trust                         |
| HQ      | Head Quarters  |
| ISFM    | Intergrated Soil Fertility Management                    |
| MAFC    | Ministry of Agriculture, Food Security and Cooperatives  |
| M&E     | Monitoring and Evaluation                                |
| MT      | Metric Tonne   |
| NAIVS   | National Input Voucher System                            |
| NGO     | Non Governmental Organization                            |
| NMB     | National Microfinance Bank                               |
| SMS     | Subject Matter Specialist                                |
| SNAL    | Sokoine National Agricultural Library                    |
| SPSS    | Statistical Package for Social Sciences                  |
| SUA     | Sokoine University of Agriculture                        |
| TAGMARK | Tanzania Agricultural Marketing Trust                    |
| TANADA  | Tanzania Agro-dealers Association                        |
| TASP-E  | Tanzania Agro-dealers Strengthening Programme -Extension |
| TZS     | Tanzanian Shilling                                       |
| USD     | United States Dollars                                    |

## ACKNOWLEDGEMENTS

The Members of the Evaluation Team from KOBE Konsult Ltd wish to express their gratitude for the advice and recommendations provided by the Consultative Group comprised of the Agro-dealers small holder farmers, District councils policy makers DALDOs, DEDs, and DCs of Kahama, Geita Njombe, Kilolo, Iringarural and Mbozi, NMB, and AGRA monitoring and evaluation unit.

The Team Members wish to thank all those persons met in government services in the ministry of Agriculture and cooperatives and at regional and district levels, to CNFA/ TAGMARK and to the smallholder farmers who gave their time to share information.

The Team Members would like to acknowledge the organizational and logistical support, and the invaluable information and insight they received from AGRA staff at the HQs in Nairobi.

The Team Members wish also to recognise and take special cognisance of the AGRA Office of Monitoring and Evaluation unit for overall guidance, advice, coordination, cooperation including the preparatory desk review, provision of information, funding and final selection of survey districts despite initial setbacks. They acknowledge all enumerators who made this assignment achievable.

## Executive Summary

The Alliance for a Green Revolution in Africa (AGRA), a dynamic African-led organization that works in partnerships with farming communities to help raise agricultural productivity and incomes of millions of smallholder farmers, funded the Tanzania Agrodealers Programme Extension phase two (TASP-E). AGRA provided CNFA with a two-year grant (2009-SHP 008) amounting US\$1,498,772 to implement an agro-dealer development project in Tanzania. The Project linked rural small-holder farmers to commercial network of over 1,200 rural certified agro-dealers.

The project's main objective was to strengthen agro-dealer network and to facilitate their access to agricultural inputs (fertilizer and improved seeds), better extension services, soil management practices, financing and linkages to cash markets. The project ended in June 2011. This terminal review commissioned by AGRA has established TASP-E achievements to date and determined the extent to which program activities and processes have led to the achievement of the intended goal. A team of three consultants and twelve enumerators undertook the review

This evaluation was conducted in 6 purposely selected districts namely; Mbozi, Njombe, Iringa, Kilolo, Kahama and Geita. The districts were among 24 districts under TASP-E project. In each district two villages were selected where 57 farmers from Kahama, 48 from Geita, 60 from Iringa rural, 54 from Njombe, 57 from Kilolo and 58 from Mbozi were randomly selected for farm level data collection. In addition data from agro-dealers, and policy makers/functional managers were collected for this evaluation by using FGDs or interviewing key informants. Data collected by structured questionnaire were entered in Excel and analysed according to the requirements. Besides, the above methods, telephone interviews were also used, and this allowed the evaluators to reach more agro-dealers in 11 other districts, that could not be physically covered.

Results presented in this report were obtained by interviewing 334 farmers, 254 Agro-dealers out of which 26 telephone interviews and a cohort of policy makers and key informants in respective sample districts. Of the 228 agrodealers interviewed, 192 were male and 36 were female household heads. This report, therefore presents data collected from 6 out of the 24 districts covered by the project. The data obtained is therefore regarded as significantly representative across all the project implementation districts. The selection of districts for the study was guided by the population of agro-dealers and the intensity of project activities in different districts covered.

Over the project implementation period of 2 years, the TASP-E managed to train 40 commercial trainers in business management; crop life integrated pest management and responsive use of pesticides, business clinic, technical module and output marketing modules. Among the commercial trainers, 42% (17) remained as business management

trainers, 22% (9) Output marketing trainers, 19% (8) business counselors and 17% (6) integrated pest management trainers.

Under the project eight hundred ninety three (893) demonstration plots were established despite uncertain rainfall in some parts of the country especially in the lake zone. The success of these demonstrations was due to the commitment of input supply companies in providing inputs and overall supervision of the demonstrations and increased support from the local governments and increased understanding by ADs. Four hundred and twenty five (425) ADs participated in demonstrations and field days that helped to disseminate good agronomic practices.

Over the life of the project working capital of agro-dealers tripled from TZS 3.0 million to 10.0 million (US\$ 1920 to 6,410) per agro-dealer, reflecting effectiveness of credit guarantee schemes in terms of increasing the availability of inputs to the farmers. Total fertilizers sold increased by 330% from 50,000 MT to 214,867 MT. Agricultural inputs supply base widened as the number and type of inputs sold increased. Agro-dealers are now better placed to serve farmers than before the project with an average of 9,852 farmers per agro-dealer per annum. The distance to agricultural inputs sell points has been reduced from an average of 50 km before TASP E to 9.9 km.

During the evaluation it was difficult to draw a line between CNFA and TAGMARK, as an affiliate. TAGMARK was established to take up responsibilities of CNFA locally, and become purely local with local board members. However, this could not happen as CNFA had its staff sitting in the Board. The formation of TAGMARK that is functional, independent and empowered by CNFA had to a larger extent failed.

Agro-dealer associations were the exit plan incorporated at the onset of the program. TANADA, the national ADs association which is now represented in the Ministry of Agriculture Input committee, has been instrumental in giving voice to ADs and farmers in airing their concerns related to access of inputs. In TASP-E, 45 district associations were formed out of these 23 (51%) are fully registered while 22 are completing the registration process. The associations represent a total of 1,800 ADs (82% male and 18% female) who were trained under the project.

Usage of fertilizers (UREA, DAP, CAN) has increased by more than 200% (except for Minjingu Rock Phosphate (MRP)). Fertilizer use for example increased from 9,000 tonnes to 43,791 tonnes for UREA, 11,000 tonnes to 22,830 tonnes for DAP and from 5,000 to 54,948 tonnes for CAN. Use of fertilizers was more pronounced in the maize crop farming than in other crops such as paddy. Use of improved maize and paddy seeds also tripled from less than 2,000 tonnes before the project to as high as 8,392 tonnes in 2011, mainly because of accessibility and support through the voucher schemes.

Based on farmers' reactions to the input voucher system it was revealed that the potential of the system was not exploited despite its good framework. Generally, the system served the purpose though most recently recruited agro-dealers were not well

trained due to improper recruitment that took place. Some individuals lobbied with district councils to be selected as input suppliers while they were not well trained in agro-business. Basically, the input voucher system has remained sustainable in a way though delays in payment of agro-dealers have demoralized most of them.

TASP-E managed to cut down the distance to the input shops from an average of 50 km to 9.9 km. This is a huge achievement. Overall crop productivity has increased by close to 100%. For example in some areas, maize yield has increased from 7 to 13 bags per acre. However, other external factors such as drought grossly affected realization of the full impact of the project intervention.

TASP-E achieved a great deal of success in the areas of its core components aimed at strengthening the agro-dealer network. Notable among these efforts are: supporting the establishment of new agro-dealerships in remote, underserved areas through matching grants; series of technical training to strengthen agro-dealer capacity; development of agro-dealer associations (i.e. in TASP-E, 45 district associations were formed and out of these 23 are fully registered, while 22 are completing the registration process) and linking agro-dealers to financial institutions (over draft loan of a total of Tshs 704,300,000 (US\$469,533.00 received in the districts visited).

The overall performance of the project was measured on its relevance, effectiveness, efficiency, impact and sustainability based on the predetermined likert scale of between 1 (excellent) and 5 (poor). According to respondents interviewed, the performance was good or more than satisfactory in terms of project relevance, but was considered satisfactory for project effectiveness, efficiency, impact and sustainability. The overall assessment of these parameters by the reviewers was also positive.

From the evaluation the following lessons were learned:

- TASP-E played a vital role in improving national food security by focusing on agro-dealers through training, access to inputs and marketing, link agro-dealers with input suppliers and demonstration plot establishment..
- To succeed, agro-dealers need to be trained in business skills. CNFA has played a good role of training and facilitating the creation of well-connected agro-dealer networks including linking them with super-dealers, hence increases demand for their services.
- A well functioning credit scheme is the key to success on agro-dealers operations. To ensure that rural agro-dealers remain independent and that the model developed by CNFA remains viable and reach higher scale, new partnerships with formal financial institutions like NMB need to be explored.
- Capacity building to create grass-root entrepreneurs brought about change in attitude, knowledge and skills that are beneficial to the community as a whole.
- Rural ADs are more likely to be involved in demand creation activities such as demonstration and field days as they act as a relationship builder with clients

This study was limited by the fact that:

- Many registered agro-dealers were not available for interview as it was the off-cultivation season and most of ADs operate during crop growing season.
- The prevailing confusion between the Government, NMB bank, and agro-dealers on re-imburement of vouchers made most agro-dealers less willing to respond to many issues raised by the consultants and enumerators.
- The Evaluation team felt that period for TASP-E project was too short; its further extension would have brought more positive changes to agro dealers and smallholder farmers.
- With the exception of few districts, it was difficult to get some important data / information from the District Agricultural and Livestock Development Officers (DALDOs)

## 1.0 INTRODUCTION

### 1.1 Background and Rationale

With more than 85% of its population living in rural areas and 80% directly depending on agriculture for living, the development of agricultural sector is seen as a useful contributor to the poverty alleviation and eradication strategies in Tanzania. The Alliance for a Green Revolution in Africa (AGRA) is a dynamic African-led organization that works in partnerships with African Governments, Research Institutions, private sector and International Organizations, to help raise agricultural productivity and incomes of millions of smallholder farmers in Africa. AGRA funded the Tanzania Agro-dealers Strengthening Programme (TASP) and its Extension phase (TASP-E). The project's main objective was to strengthen agro-dealer network and to facilitate their access to agricultural inputs (fertilizer and improved seeds), better extension services, soil management practices, financing and linkages to cash market and it ended in June 2011

The overarching project goal was supported by two main objectives, intermediate market-level and intermediate farm-level objectives which aimed at:

- Linking 325,000 rural households (2,593,000 people) in 24 districts of Tanzania to a commercial network of 1,200 rural, certified agro-dealers
- Facilitating access to improved agricultural inputs,
- Ensuring that better crop production practices are adopted by farmers in project areas, and
- Linking agro-dealers with the government subsidy programs.

The Tanzania Agrodealer Strengthening Project's (TASP-E) overarching objective sought to improve the agricultural production, productivity and incomes of rural households, focusing on those households in isolated underserved rural areas. While agriculture is the mainstay of the rural communities, promotions of agro-dealer programs offers an opportunity to boosting agricultural productivity and improve income for the rural poor. This evaluation was done at the end of the project period.

### 1.2 Evaluation Objectives and Scope

The overall objective of this end of project review was to provide AGRA /Soil Health Program (SHP) and partners with sufficient and accurate information to make an informed judgment about the past performance of the project - its efficiency, effectiveness and impact and to document lessons learnt to improve future projects. It was also sought to establish whether the critical assumptions upon which the project was conceived still hold.

### **1.2.1 Specific objectives**

- (i) To establish the extent to which the project has achieved its stated objectives (i.e. the level of achievement of activities, outputs, outcomes and the overall objectives as stated in the project document), taking into account its target stakeholder needs and how they fit in the national priorities and policies.
- (ii) To evaluate the project implementation strategies and processes/structures, including assessment of the institutional and operational set-up with the view to make recommendations on whether they were the best to achieve the project objectives;
- (iii) To help AGRA/SHP understand the success or not of the agro-dealer model, through identifying what has worked, has not worked well, and why, the likelihood of achieving the expected impacts and the sustainability of the achievements from the investment.
- (iv) To identify key lessons and propose practical recommendations for follow-up actions (i.e. key recommendations for consideration to be taken into account in future similar agro-dealer development projects in Tanzania or other AGRA Countries).
- (v) To assess the progress in developing a functional national agro-dealer network (TAGMARK).

## **2.0 METHODOLOGY AND APPROACH**

In order to accomplish the tasks highlighted above, a number of methodologies were adopted. Detailed explanation of each methodology is presented from 2.1 below

### **2.1 Review of Secondary Data**

A review of background studies including an overview of production, productivity, trade and marketing policies of crops targeted in Tanzania was done. This review was done for implementing phases as per Figure 1 below. Main sources of information included:

- CNFA reports related to the project under review
- AGRA reports related to the project under review
- Ministry of Agriculture Cooperatives and Food Security – respective district offices
- District Development Director offices in respective district
- Sokoine National Agriculture Library (SNAL)
- NGOs reports operating in the region which had working relations with the project.
- National Microfinance Bank (NMB)

- Review of important reports included, but not limited to the following
  - Project Proposal (inclusive of log frame, budget, M&E matrix)
  - Three internal interim project reports
  - Samples of bi-weekly reports (narrative, PMP, matching investments tracker)
  - Project Work Plan
  - CNFA Organizational Chart
  - The distribution and characteristics of agro-dealers in Southern Highlands and Lake Zone regions
  - Agro-dealer survey reports
  - Appraisal of Agro-input availability and
  - Characteristics of agro-dealers in selected districts
  - Business Clinic Concept Report
  - Background information on Market Intelligence Pilot

## **2.2 Primary Data Collection**

### **2.2.1 Questionnaire survey**

This was the main method of data collection where structured (directed to farmers, and agro-dealers) and non-structured questionnaire (directed to input dealers/traders, governmental officials, and other related stakeholders) related to the subject under investigation was administered. Primary data collection was conducted in six pre-determined districts namely; Iringa rural, Kilolo, Mbozi, Njombe (Southern Highlands) and Kahama, and Geita (Lake Zone).

### **2.2.2. Sampling procedure and sample size**

Based on the information already elaborated above, a sampling plan comprised both purposely and random selection of subjects that were studied. Six out of twenty four (24) districts covered by TASP-E were purposely selected. The choice was based on the fact that much of the project activities concentrated in these six districts. In addition, the districts chosen had the prime agricultural land as such have many agro-based activities compared to other under the project. The districts (Kilolo, Iringa rural, Kahama, Geita, Mbozi and Njombe) had more agro-dealer population trained by the project. 61 percent (228) out of 376 trained agro-dealers. A total of 518 agro dealers were trained by TASP-E of which 228 (44%) were sampled for this study. 26 agro-dealers from other 11 project districts were interviewed by telephone as indicated below.

**Table 1: Agrodealers visited and the number of Agrodealers trained per district**

| District     | Agro dealers visited | Total Agro dealers trained |
|--------------|----------------------|----------------------------|
| Geita        | 38                   | 56                         |
| Iringa       | 30                   | 47                         |
| Kahama       | 27                   | 60                         |
| Kilolo       | 23                   | 37                         |
| Mbozi        | 52                   | 73                         |
| Njombe       | 58                   | 103                        |
| <b>Total</b> | <b>228</b>           | <b>376</b>                 |

**Table 2: Agro-dealers interviewed by telephone**

| S/N | District         | Number of Agro-dealers |
|-----|------------------|------------------------|
| 1   | Kigoma           | 3                      |
| 2   | Kigoma Rural     | 1                      |
| 3   | Kasulu           | 1                      |
| 4   | Mbinga           | 1                      |
| 5   | Tunduru          | 2                      |
| 6   | Mpanda           | 2                      |
| 7   | Nkasi            | 3                      |
| 8   | Sikonge          | 4                      |
| 9   | Tarime           | 5                      |
| 10  | Tanga            | 1                      |
| 11  | Sumbawanga Rural | 3                      |
|     | <b>TOTAL</b>     | <b>26</b>              |

In each district, the identification of villages for questionnaire survey and focus group discussions was done strategically based on the distance from the district headquarters. Two wards, one located near (about 20 km radius from the town centre) and another beyond the 20 km radius from the headquarters were selected for the study. This choice was made to establish the degree of spread the inputs can reach as one move from urban to remote rural area where majority of the resource poor farmers live. In this context wards in each district was purposely chosen.

After identifying the wards, one village within 5 km from the ward centres was chosen randomly. The Ward Executive Secretary provided a list of villages within pre-determined radius for the consultants to select the villages randomly. Thereafter, farmers and agro-dealers were sampled based on the criteria elaborated below.

Farmers, agro-dealers, wholesalers of agricultural inputs, extension officers, producers/suppliers of fertilizers (e.g. Minjingu Fertilizer Co., YARA fertilizer Co., etc.) were the main target for this review. For farmers, lack of clear sampling frame limited

us to determine quantitatively the ultimate sample size to be interviewed. Due to diversity nature of the TASP-E districts in terms of distance, technical sampling for random effect was not followed. However, based on intuitive knowledge and available literatures suggests that a sample size of 120 and above can produce good results especially in rural areas studies where variability across the farming households is low. Considering the district as a unit of observation, then based on the rule of the thumb for studies in Southern Africa (See Anandajayasekaram, 2000), that not less than 120 respondents ought to be chosen, and then stratified random sampling was adopted when choosing the respondents. In each village two strata – high income and low income farmers based on consultants definitions and correlated with opinions from key informants was identified from the list of farmers available in the village. Then from each stratum, 30 respondents were targeted to be chosen randomly to form not less than 60 respondents in each village. If female headed households have been excluded in sampling other sampling criteria were established to ensure their inclusion. Ultimately 334 farmers were interviewed (**Table 3**).

All CNFA/TASP-E certified agro-dealers located along the road from District headquarters to the Divisions were interviewed. Table 3 shows the targeted and actual number of ADs interviewed per district.

**Table 3: Proposed division and markets for agrodealers and farmers survey**

| District            | District Hq & markets for study | Targeted AD's | Actual AD'S interviewed | Targeted Farmers | Actual farmers interviewed | Key informants  |
|---------------------|---------------------------------|---------------|-------------------------|------------------|----------------------------|---|
| <b>Iringa Rural</b> | Iringa, Idodi                   | 50            | 30                      | 60               | 60                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E grantees  |
| <b>Kilolo</b>       | Chalinze, Ilula                 | 50            | 23                      | 60               | 57                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E grantees  |
| <b>Mbozi</b>        | Vwawa, Mlowo &Tunduma           | 50            | 52                      | 60               | 58                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E grantees  |
| <b>Njombe</b>       | Makambako, Njombe               | 50            | 58                      | 60               | 54                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E grantees  |
| <b>Kahama</b>       |                                 | 50            | 27                      | 60               | 57                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E grantees  |
| <b>Geita</b>        | Kasamwa, Geita                  | 50            | 38                      | 60               | 48                         | DALDO, SMS, Village chairs, NGO, transporters, CFNA, TASP-E, grantees |
| <b>Total</b>        |                                 | 291           | <b>228</b>              | 360              | 334                        |   |

In each sample district and village, focus group discussions (FGD) were conducted for cross-checking information collected through questionnaires and where applicable obtaining additional information to those collected from primary and secondary sources. In total 18 FGDs, three in each sample district were conducted. FGD was held at districts headquarters and sample villages. At the districts level, FGD drew members from DALDO, SMS, Village chairs, NGO, transporters, and CFNA/TASP/Grantees, whereas at the village level members comprised of Village Chairs, selected farmers, agro-dealers, and ward secretaries. FGDs were organized to ensure that data obtained through survey questionnaires can be triangulated, and also to capture and compare perspectives on the project performance from different stakeholders.

- **Questionnaire tools and procedure**

Survey questionnaires were designed intentionally for collecting relevant data from farmers and agro-dealers. Collected data was cleaned and analysed using Statistical Package for Social Scientists (SPSS) to provide information for an initial draft report. Simple statistical methods such as frequencies cross tabulations, measures of central tendencies, and where necessary t-statistics were employed. Checklist was prepared and used to guide discussion during FGD and while collecting data from district agricultural officials, input suppliers, CNFA staff and NMB staff. The approved data collection tools (i.e. questionnaires for farmers and agro-dealers) were translated into Swahili language for consistence and mutual understanding during data collection exercise in the field.

Selected enumerators were trained for two days to familiarize themselves with data collection tools and practical interviewing before embarking on data collection exercise. The training included classroom instructions on the instrument, mock interviews and field practice at nearby area. The importance of the training was to ensure quality of evaluation findings. The enumerators were sensitized regarding conduct and dress code while on duty, taking into consideration the cultural sensitivities of the areas they will be working in.

- **Survey implementation plan.**

Due to limited time frame and the need to collect as much detailed information as possible, each of the three consultants was responsible for two districts, and assigned enumerators to collect data using the prepared tools. After familiarisation of the data collection tools and imparting the same knowledge to nine (9) enumerators, tools were tested to check their validity before operationalization. Data collection was then conducted concurrently within the six districts of Mbozi, Njombe, Kilolo, Iringa rural, Kahama and Geita. Field work took approximately 21days thus ample time remained for questionnaire data management and draft report writing. Daily data quality review sessions took place, which entailed presentation and discussion of all salient features

observed during the day. These sessions were necessary to ensure quality data is collected and eliminate possibility of accumulating errors.

Throughout the study implementation period, Dodoma was the project implementation centre where all questionnaires were brought for entry into SPSS computer programme on a continuous basis. The programme and capacity to code, enter, clean, and analyse data was available. Where applicable simple frequencies were used to analyse data collected during FGDs otherwise the information gathered were used to ascertain some data collected by structured questionnaires. TASP-E grantees were responsible for establishing necessary protocols, while Kobe Konsult provided introduction letters to each District/village/Ministry/Institutions visited.

### **2.2.2 Key informant survey**

In all six districts, people identified as key informants were contacted. Here, the lead consultants with assistance from DALDO or village chairperson held interviews with officials listed in **Table 3**.

For the districts where it was not possible to conduct a survey, methods of data collection were reinforced by telephone interviews. This enabled the evaluators to reach more agro-dealers in 11 other districts, which could not be physically covered given their vast geographical distribution. Consultants identified names and contacts of ADs and conducted telephone interviews. By this method, evaluators were able to understand AD activities and achievements in 11 more districts that were not sampled hence could not be physically visited. Districts covered using this method include Sumbawanga, Sumbawanga Rural, Tanga, Tarime, Sikonge, Nkasi, Kigoma, Mpanda, Tunduru, Mbinga, Kasulu and Kigoma Rural. This method further enriched the data collected through direct interviews and questionnaires.

### **2.2.3 Observation**

Spotchecks to observe the functioning of agro-dealers in their respective shops were done by the consultants. Lead consultant and enumerators, with support staff from the district/villages observed and collected enough information including taking photographs of interest to this assignment. Observation was also used to enrich data collection results, particularly for routine activities of agro-dealers. It also enabled the triangulation of some of the data obtained through other data collection methods mentioned above.

## **2.3 Composition of the Evaluation Team**

For implementing this assignment, the team comprising consultants, enumerators and data entry experts was formed. The list comprised the following

- Three (3) Lead consultants namely: Dr A. Nyaki (Southern Highlands - Iringa rural & Kilolo), Prof J.P. Hella (Southern Highlands - Njombe & Mbozi) and Mr Abiud Bongole and Mr George Mziray (Lake Zone )
- Nine(9) enumerators (Graduates of Sokoine University of Agriculture), five in southern highlands and four in lake zones were involved in data collection
- Two (2) data entry experts

The enumerators - who are Graduates of Sokoine University of Agriculture - weretrained for two days to familiarize themselves with thedata collection tools and practical interviewing before embarking on data collectionexercise.

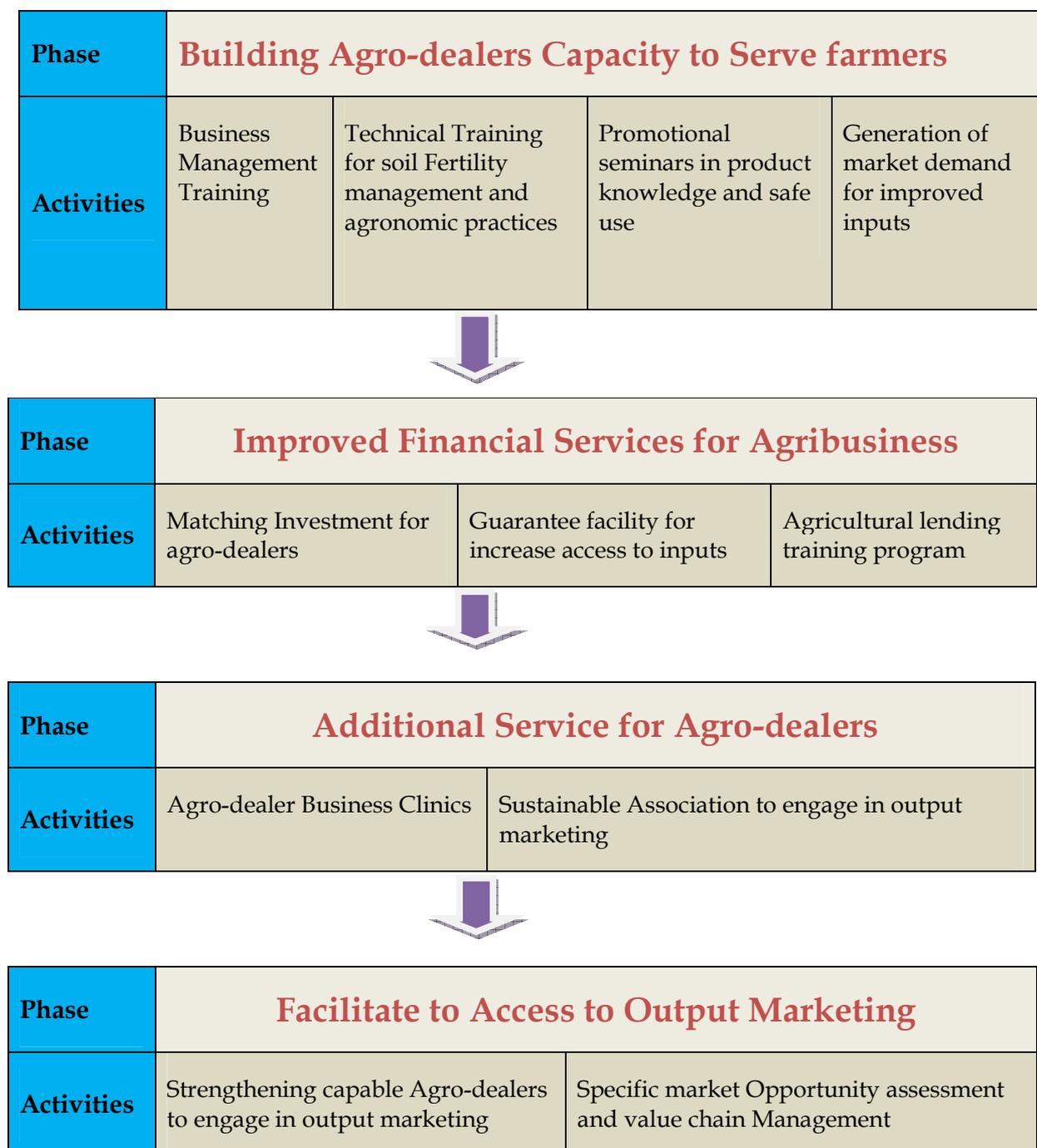
### **3.0 EVALUATION RESULTS**

#### **3.1 Performance of Agro - dealers**

##### **3.1.1 Overview of planned activities**

CNFA, through its local affiliate, the Tanzania Agricultural Market Development Trust(TAGMARK), advanced its goal of building an efficient, commercially viable input supply structure from a variety of angles including: government policy advocacy, business management, technical knowledge, financial services, demand generation and output marketing. From its main office in Dar es Salaam, branches in Mwanza, Mbeya, Morogoro and Arusha and with technical assistance from the Agricultural Marketing Development Trust Fund (AGMARK) of Kenya, CNFA made great strides in influencing government agricultural policy and increasing the availability of agricultural inputs in rural areas through commercial ADs. *Figure 1* below summaries Phases and activities implemented by CNFA under the Tanzania Agro-dealers Strengthening Program -Extension (TASP-E).

Figure 1: TASP- E Phases and activities



### 3.1.2 Building Agro-dealers Capacity to Serve Farmers

CNFA’s main areas of development focus include dedication to increasing and sustaining rural incomes by empowering farmers and rural entrepreneurs to increase

productivity and overall farm output. In Tanzania, CNFA was affiliated with the Tanzania Agricultural Market Development Trust (TAGMARK), a local Non-Profit Organization to ensure that CNFA's developmental interests are effectively implemented.

Establishment of TAGMARK as a local affiliate was one of CNFA Strategies whereby its ultimate goal was to take up responsibilities of CNFA locally. The relationship between CNFA and TAGMARK is one that evolves over time as TAGMARK gained capacity, and CNFA drew on the experience of its more mature programs and affiliates in Kenya and Malawi to better inform decisions on a roadmap, timeline, and action plan for TAGMARK sustainability and independence. Nevertheless, formation of TAGMARK that is functional, independent and empowered by CNFA had to a larger extent failed.

During the project period, TAGMARK implemented the assigned task by TASP-E of building an efficient and commercially viable input supply structure in Tanzania and conducted a World Bank sponsored Agro-dealer trainings in Dodoma, Tanga and Morogoro that were overseen by the Ministry of Agriculture, Food Security and Cooperatives.

CNFA through TAGMARK managed to accomplish five training activities for agro-dealers which include, Business Management Training (BMT), technical training generic model, promotional seminars in product knowledge and safe use, generation of market demand for improved inputs and crop husbandry materials like fertilizer promotional materials or ADs shops.

Among others, TAGMARK activities focused on the design of a voucher program for implementing government subsidies in a sustainable manner and on developing a network of agro-dealers in identified districts to enable smooth implementation of the voucher program.

### **3.1.2.1 Business Management Training (BMT)**

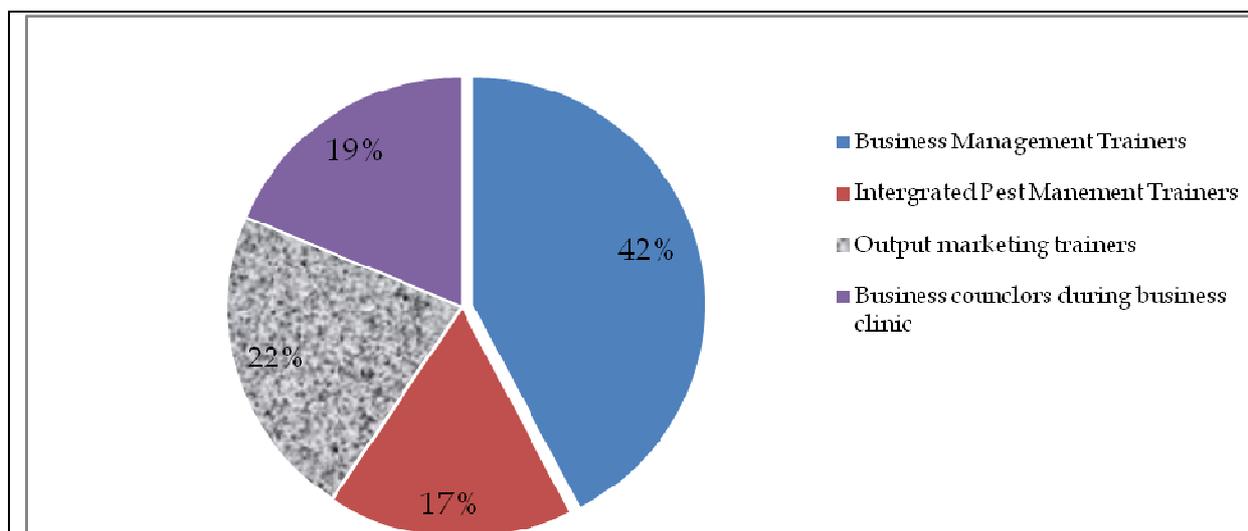
This program comprised of two sub-activities which were Business Management Training and Commercial Training Development. BMT program to a large extent raised agro-dealers' business standards of management and acumen. Noting the improvement brought about by the training to agro-dealers MAFC exclusively decided to offer handling of the subsidy vouchers to agro-dealers successfully completed the BMT program.

- **Business management training:** The CNFA trainings provided agro-dealers an in-depth understanding of their businesses. The trainings were expected to result in a significantly lower risk assessment by banks and input supply companies. This would enable agro-dealers to access working capital credit so that they could increase the inventory offered to farmers. However, these did not happen in Kahama and Geita Districts. 27 agro-dealers in Kahama and 38 in Geita applied for loans but due to bureaucratic loan processing procedures none

accessed it. In Kilolo, Mbozi, Njombe and Iringa Rural districts 91 agro-dealers were able to receive an over-draft loan of Tshs704,300,000 (US\$469,533.00).

- **Commercial trainer development:** Training was administered by business development experts, called Commercial Trainers (CTs) CTs were consultants and trainers with expertise in enterprise development and training. In order to administer the trainings, CTs go through trainer of trainer course for many different capacities. The TASP-E managed to train 40 CTs in business management module; crop life integrated pest management and responsive use of pesticides, business clinic, technical module and output marketing modules. Out of the 40 trained CTs, 42% (17) become business management trainers, 22% (9) Output marketing trainers, 19% (8) business counselors and 17% (6) Integrated Pest Management (IPM) trainers as shown in *Figure 2*;

**Figure 2: Commercial Trainers Development**



### 3.1.2.2 Technical training for soil fertility management and agronomic practices

Technical training was conducted to provide ADs with knowledge to be passed on to farmers at point of sale. Lack of technical knowledge by the farmers on proper use of agricultural inputs has been touted as one of the major causes of low farm productivity. Generic technical training on safe use and handling of seeds, fertilizer and pesticides in combination with input supplier led training on actual products in the market has moved ADs from being just stockists of agricultural inputs to technical advisors to their clients.

In total 1,419 ADs were trained in Integrated Pest Management (IPM), Business Clinic, Output marketing, Business Management Training, Seeds and fertilizers training. In

addition 229 extension officers were trained, which increased collaboration with ADs in demand creation activities, particularly setting up demonstration plots and farmer field days.

The evaluation team noted that most agro-dealers have technical knowledge on seed and fertilizer use. ADs surveyed expressed that they had a good knowledge about fertilizers and improved seeds, which was acquired from CNFA trainings and government extension officers. This is exemplified in the statement below from one AD.

*“We have a good knowledge not only for fertilizer use but also we advise our clients on other agronomic practices like land preparation, planting time, type of seeds suitable for a particular location, types and use of herbicide, pesticides and plant spacing. In fact we are working as extension officers since we have basic knowledge in agriculture which is satisfactory to our customers”.*

Dr. Mgoha from Mgoha Agro-vet shop in Geita District

### **3.1.2.3 Promotional seminars in product knowledge and safe use**

Promotional seminars in product knowledge and safe use were carried out with input supply companies, with the aim of ensuring that ADs understand the products in the market and their brand names. These helped building collaboration, trust and agency between ADs and input supply companies. Based on data collected from agro-dealers in respective districts, a total of 31 input supply companies (seed, fertilizer and agro chemical companies) provided promotional material in form of posters, leaflets, seeds and fertilizers to ADs in a total of 70 seminars held. However, feedback on the effectiveness of the same to the farmers was not easily quantified it was difficult to solicit such information from farmers.

### **3.1.2.4 Generation of market demand for improved inputs**

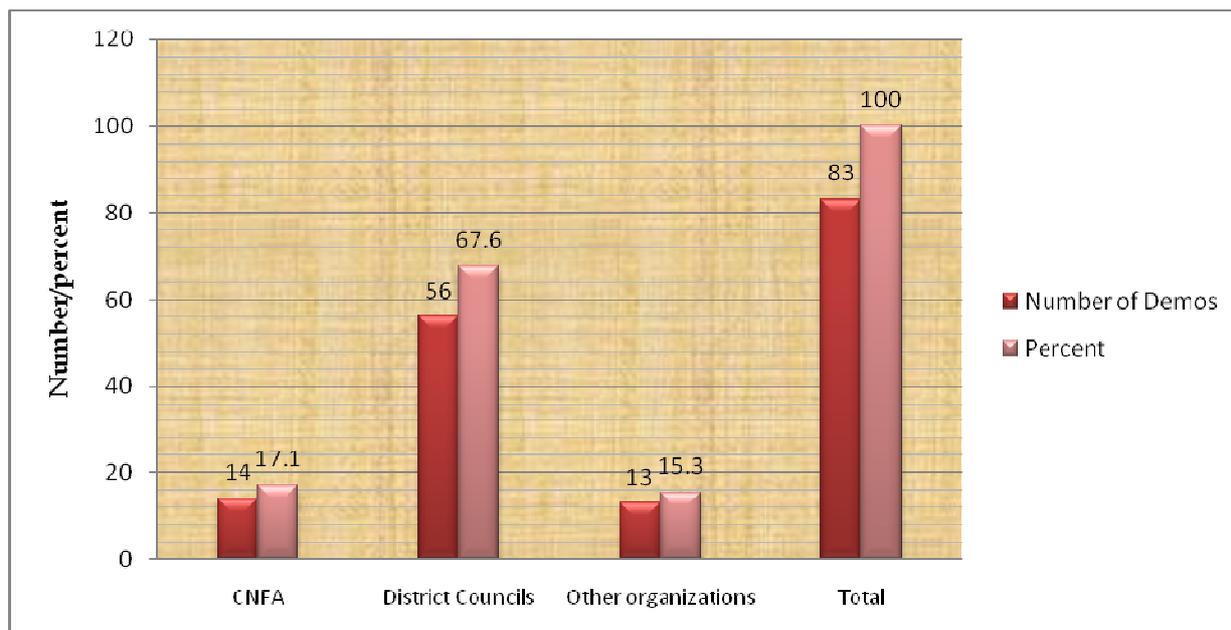
Demand creation activities incorporated establishment of demonstration plots, farmers' field days and exhibitions. These were the primary means of transferring knowledge on good agronomic practices and general crop husbandry to farmers.

### **3.1.2.5 Demonstration plots establishment**

Collaboration with local government at the village and district levels led to successful management of demonstration plots and re-education of extension officers. Demonstration plots were established in TASP-E districts and surveyed district as shown in *Figure 3*. Basically, 14 (17.1%) demonstration plots were established by agro-dealers in collaboration with CNFA and input suppliers; 56 (67.6%) established by Districts Councils under farmer field schools methodology (FFS); while 13 (15.3%) were

established by other organizations/projects like religious organizations, research institutions and DASIP. Demonstration plots enabled farmers to observe benefits of using fertilizers and improved seed, as well as other good agronomic practices. They facilitated partnerships between agro dealers and input suppliers to increase product knowledge, stimulate demand, and accelerate uptake of new technology by small holder farmers.

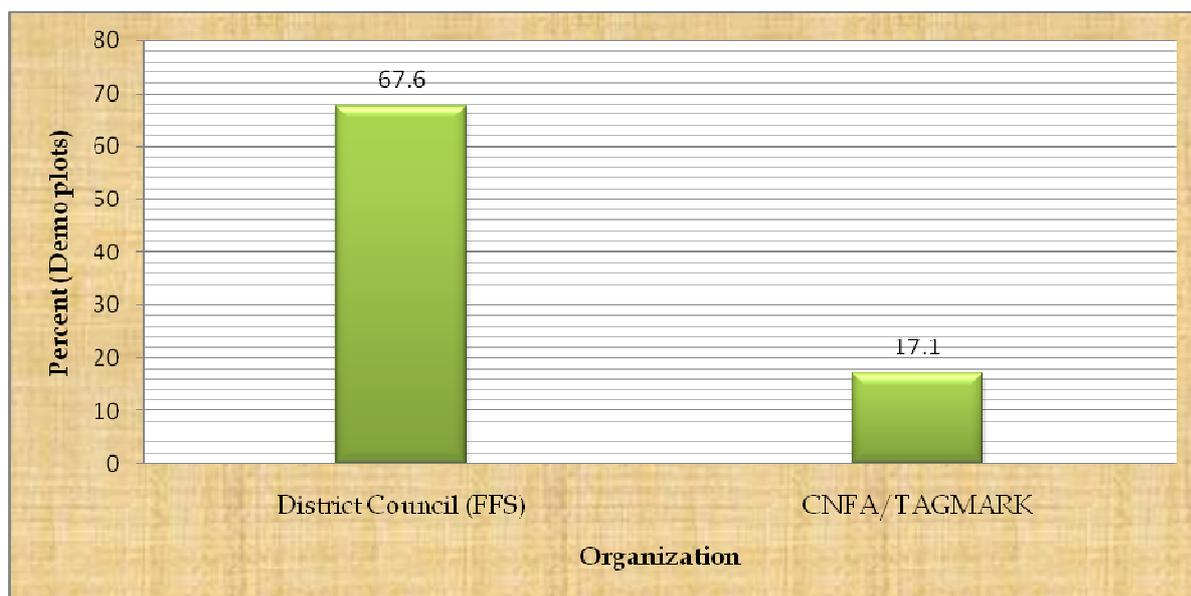
**Figure 3: Demonstration plots established in the surveyed districts**



About 1.21% of TASP-E budget was allocated for training. The trainings were designed to provide small holder farmers and agro-dealers with skills necessary to operate and grow their businesses. The agro-dealers visited confessed to have benefited from the trainings provided as they have assisted them to improve their business.

CNFA (2010) reported that 893 demonstration plots had been established despite the uncertain rainfalls in parts of the country. The success of these demos was due to commitment of input supply companies to provide inputs and overall supervision of the demos, the increased support from the local government authorities at village and district levels, and increased understanding by agro-dealers that without participation in demand creation activities, farmers will not increase use of farm inputs.

**Figure 4: Percentage of demonstration plots established by different organizations**



### **3.1.2.6 ISFM reference materials for agrodealer shops**

CNFA contracted individual/organisation to provide training to farmers and ADs in different zones. Reference materials on Rice and Banana Agronomics, Integrated Soil Fertility Management and Fertilizer Usage for agro-dealers were developed in the form of handbooks and supplied to some agro-dealer shops. Basically, CNFA were supposed to make all of the training materials available, through its local training partners, other local institutions, and on-line. The evaluation revealed that most agro-dealer shops had either run out of stock or never received the reference materials.

### **3.1.3 Improved financial services for agribusiness**

#### **3.1.3.1 Matching investments for agro-dealers**

One objective of the TASP-E project was to ensure that input shops are opened in rural areas to reduce the distance covered by farmers to the input shops. However, there is no evidence of an increase of the number of input shops in rural areas but rather few existing operators opened up temporary input selling points in rural areas. Most of these operators moved farming inputs from their main shops to temporary selling points during planting season and returned them to the main shops after the planting season.

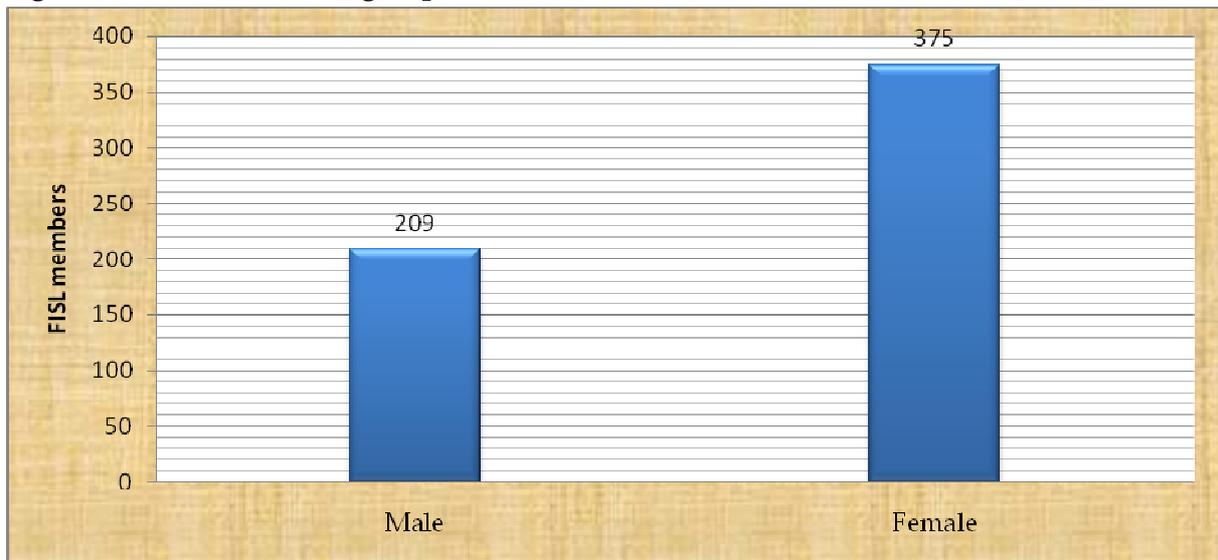
### 3.1.3.2 Guarantee facility for increased access to credit

Newly established ADs faced numerous challenges of accessing credit from financial institutions and input supply companies. The problem is more serious to ADs located in rural areas and the newly established. The reviews noted that only 91 (39.9%) agro-dealers out of 228 agro-dealers visited received over-draft loan amounting to TZS 704,300,000 (US\$ 469,533.00).

### 3.1.3.3 Agricultural saving and lending training

A Farm Input Saving and Loan (FISL) pilot was carried out in place of guarantee system to financial institutions to encourage agricultural lending. Under this credit innovation, farmers are encouraged to save through farmers groups of about 30 members. Members of these groups collectively contributed funds in meetings held at regular intervals. The saving were done with an end date in mind, usually the start of the farming season members would redeem all their saving and use the cash to buy inputs. The collected amount is then dished out to members of the group as simple loans with small interest charged. Members of FISL groups also go through improved farming practices training and participate in demonstration plots and farmers field days which provides them with improved knowledge in agronomic practices for applications in their farms. Such trainings are usually offered by their respective Agricultural Extension officers from District Councils. A total of 22 groups with 584 members were supported by TASP-E under the FISL pilot (Figure 5). Through these groups a sum of USD\$ 29,698 worth of savings were mobilized in two seasons.

Figure 5: Members of FISL groups



### 3.1.3.4 Access to credit and capital leveraging ratio

In 2008, AGRA in partnership with the Financial Sector Deepening Trust (FSDT) entered into an agreement with National Microfinance Bank (NMB) to set up a loan scheme primarily to benefit agro-dealers in Tanzania. The main objective of the scheme was to accelerate access to agricultural inputs by farmers in Tanzania. The partnership on the other hand also aimed to develop the NMB credit system for trained Agro dealers in the pilot districts within Tanzania. The initiative intends to link the agro dealers who serve smallholder farmers to commercial banking sector.

The loan scheme was made possible by the provision of risk sharing facilities by AGRA and FSDT amounting to US\$ 2.1 million to enable NMB to lend US\$ 10 million to agro-dealers over a three-year period.



Plate 1: Agricultural input shop in Geita District

NMB started financing the agro dealers in March 2008. The demand for loans and requirements for financing was high forcing NMB to request partners of the scheme to enhance the guarantee facility and financing limit. The partners (i.e. FSDT and AGRA) agreed to enhance the guarantee from US\$ 1.1 to US\$ 2.1 million. The additional amount of US\$ 1.0 million was deposited by FSDT. The guarantee amount and amount of financing was approximately on the leverage ratio of 1:4 which translates to a maximum exposure of US\$ 8.4 million to be approved by NMB to various agro dealers

during the contract period. Following that contract; a deed of variation of Memorandum of Understanding (MoU) was prepared and signed by all parties on 25<sup>th</sup> April, 2009 reflecting the new guarantee fund limit of US\$ 2.1 million.

In the signed MoU, NMB agreed to extend credit facilities to agro-dealers based on the existing lending policies and procedures for overdraft facilities. In view of that, eligible agro dealers were/are required to pledge collateral to cover the overdraft facility up to at least 62.5% of forced sale value. The project so far has been implemented in 38 districts, benefiting a total of 966 agro dealers. Approved loans under the scheme amounted to TZS 13.3 billion (US\$ 8 million). Currently, the number of agro dealers accorded with the facility in the NMB network is 569 with total approved amount of US\$ 5.3 million and outstanding loan amount of US\$ 3.4 million. Among the agro-dealers visited, 40% have been able to access the loan facility. The ADs acknowledged that the loan have helped them to improve their business through buying more inputs and upgrading their shops.

The evaluation noted the loan scheme was set up for and targeted agro-dealers only, while small-holder farmers were not part and parcel of it. It was therefore impossible for farmers to access any kind of credit under this arrangement. Meanwhile, there was a general feeling by farmers that prices of farm inputs charged by agro-dealers was a bit high and need to be reviewed downwards.

### 3.1.3.5 Agro-dealer loan scheme overdraft scheme

This was an overdraft facility that was to be accorded to the eligible agro dealers.

- **Features:-**

Over draft limit: TZS 15.0 million (US\$ 10,000)

Collateral accepted: Chattels mortgage, guarantee secured, debentures, log-books, quoted shares, cash cover, individual guarantee supported by tangible assets

Facility Period: Maximum 1 year

Interest rate: 15% per annum

- **Eligibility:-**

a.) Must have had training with CNFA and be certified

b.) Must be dealing in farm inputs

c.) Loan purpose for purchase of inputs like seeds, fertilizer or chemicals

The evaluation results indicates that only 91 (39.8%) out of 228 agro-dealers visited received overdraft loan worth US\$ 469,533. The agrodealers complained about the bureaucracy of processing loans at the NMB bank, highlighting that the number of AD

who accessed credit was low due to bureaucratic bank procedures. Fear for confiscation of their items registered as collateral with NMB was another deterrent factor. Low up take of loans emanated from the following reasons:

- Lengthy application process
- Cumbersome procedures
- Long waiting time between loan application to disbursement
- Delay in loan approval sometimes after the growing season was well advanced



**Plate 2: The Mwesiga Agro-vet shop in Kahama District**

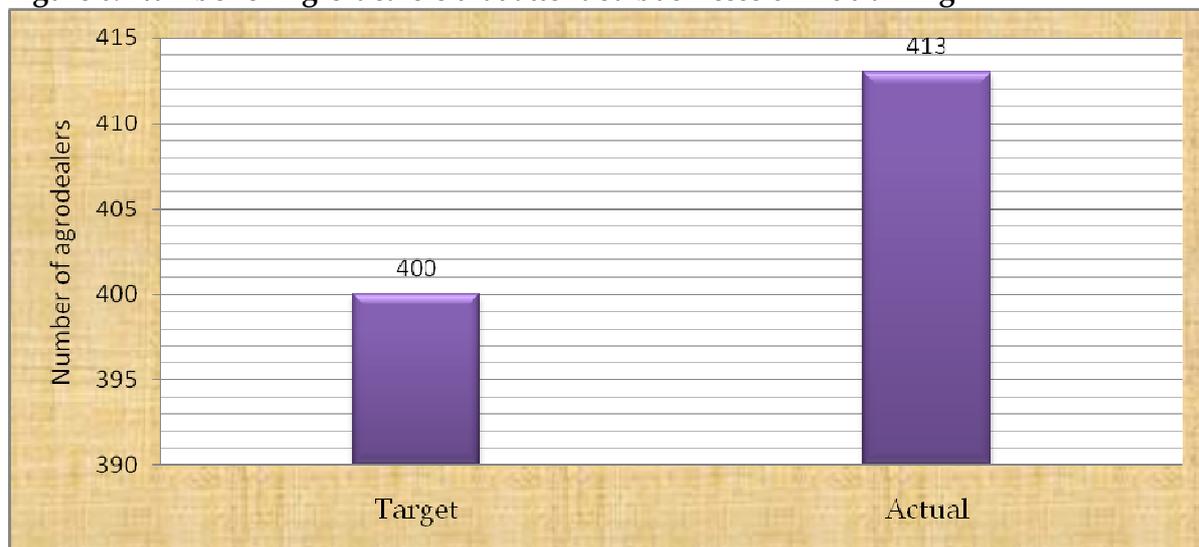
### **3.1.4 Additional services to agro-dealers**

#### **3.1.4.1 Agro-dealer business clinic**

Business Clinics were introduced into the agro-dealership model. Tanzania Business Clinics were aimed at bridging the gap between theoretical and practical concepts of business management training by extending training beyond the training room and into the actual business practices. The concept was to hold sessions whereby commercial trainers advised ADs to utilize the skills and competences acquired from BMT. Furthermore, guidance on the other aspect of business was given. Group sessions brought ADs together to share experiences and best practice solutions to common challenges. Business clinics were conducted by the staff and success stories were

collected and documented. A total of 413 ADs attended business clinics against the targeted of 400 (Figure 6).

**Figure 6: Number of Agro-dealers that attended business clinic training**



The business clinic were well implemented in most of the districts visited expect for Kahama and Geita districts where there was none.

*“We have enjoyed all the training from CNFA and they helped us a lot on how to run the business, how to arrange our products in shops but we are still waiting for another training they had promised and that is business clinic. We are not sure if we will received this training since we hear from DALDO that the project is no longer there. But all in all, they helped us in terms of impacting knowledge in business skills:”* Said one Agrodealer (KADA secretary) in Kahama District.

### **3.1.4.2 Sustainable Association of Agro-dealers under TASP- E**

Agro-dealer associations were the exit plan incorporated at the onset of the program. Associations act as guarantor to members’ credit from bank and input supply companies. In collaboration with the local government, agro-dealer associations also act as self-policing structure in the implementation of the subsidy program. TANADA, the national ADs association is currently represented in the Ministry of Agriculture Input committee, and has been instrumental in giving voice to ADs and farmers in airing their concerns related to access of inputs. In TASP-E, 45 district associations were formed,

and out of these 23 are fully registered while 22 are completing the registration process (**Table 4**). The associations represent a total of 1,804 ADs (81.5% male and 17.5% female).

**Table 4: Agro-dealer associations supported by TASP-E**

| Region       | Number of associations | Association Status |            | Membership in Associations |            |
|--------------|------------------------|--------------------|------------|----------------------------|------------|
|              |                        | Registered         | In process | Male                       | Female     |
| Iringa       | 6                      | 4                  | 2          | 287                        | 46         |
| Morogoro     | 6                      | 5                  | 1          | 156                        | 75         |
| Kilimanjaro  | 5                      | 4                  | 1          | 91                         | 45         |
| Arusha       | 3                      | 1                  | 2          | 54                         | 16         |
| Manyara      | 2                      | 0                  | 2          | 33                         | 9          |
| Mwanza       | 2                      | 1                  | 1          | 110                        | 17         |
| Mara         | 3                      | 2                  | 1          | 133                        | 36         |
| Shinyanga    | 2                      | 0                  | 2          | 55                         | 21         |
| Kagera       | 1                      | 0                  | 1          | 27                         | 5          |
| Mbeya        | 7                      | 4                  | 3          | 197                        | 45         |
| Ruvuma       | 4                      | 2                  | 2          | 107                        | 17         |
| Rukwa        | 4                      | 0                  | 4          | 122                        | 8          |
| <b>Total</b> | <b>45</b>              | <b>23</b>          | <b>22</b>  | <b>1,472</b>               | <b>332</b> |

The evaluation team noted great interest among ADs to the associations formed. But some of them requested more assistance for registration. The chairman of Kahama Agro dealer Association (KADA) Mr. Leonard said;

*“We are happy with our association but we still need assistance from CNFA to accomplish our registration since the registration process stopped for lack of guidance. We are requesting them to assist us on the matter. We have witnessed benefit of having agro-dealer association as through the association we managed to receive payments from the government on our claims which we forwarded through TANADA”*

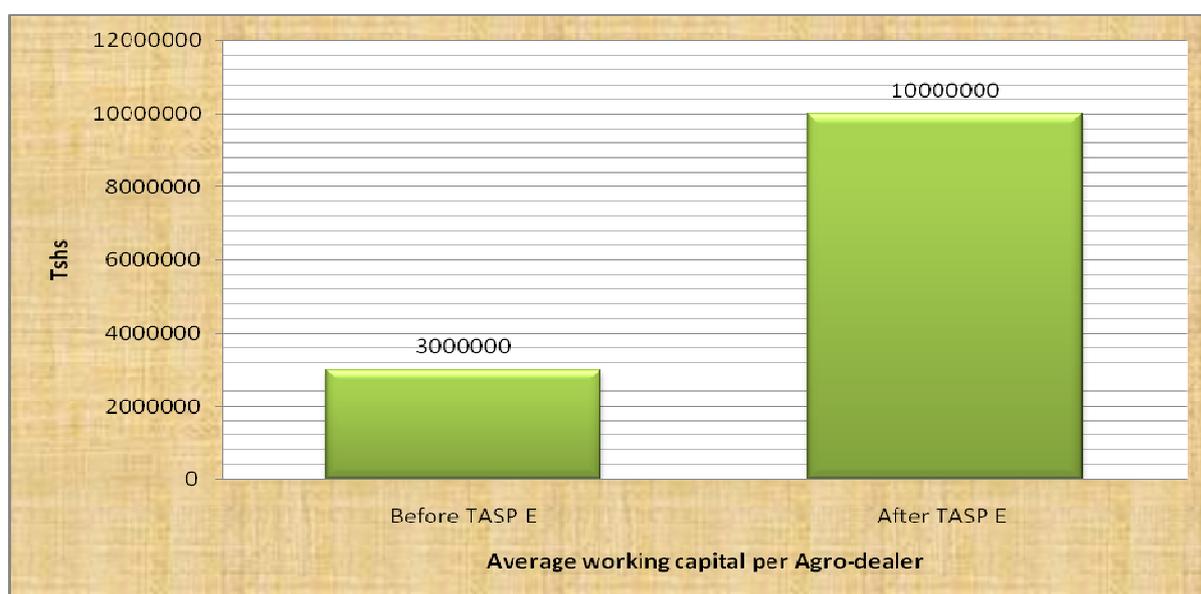
The evaluators advised the unregistered Agro-dealers Associations to register their association under BRELA in Dar es Salaam where they to fill the forms and pay only 6,000Tshs (US\$ 4). This will assist them to be recognized as legal organization and easy for them to loan money from the bank for their agro-dealership business.

### 3.1.5 Programme Outputs and Impacts

#### 3.1.5.1 Increase in working capital

Few early outcomes have been achieved through the agro-dealers development interventions. These include; linking agro-dealers with input suppliers and financial institutions for credit access, employing better record keeping techniques, and conducting input demand creation activities. These have in turn led to an increase in agro-dealers working capital. In TASP- Extension districts the working capital per agro-dealer increased by 200% from TZS 3.0 million (US\$ 1,924) before intervention to TZS 10.0 million (US\$ 6,410) (*Figure 7*).

**Figure 7: Average working capital per Agro-dealer**



#### 3.1.5.2. Demand for agricultural inputs in the target areas

The agricultural inputs made available to farmers through agro-dealers under the TASP-E include seeds (i.e. Kilima, Katumani, and PANNAR varieties of maize) and fertilizers. Usage and demand for inputs depend on availability of the right inputs in adequate quantities, and as near as possible to the farmers at the beginning of the planting seasons. Average distance to agro input shops in all the districts surveyed was 9.9 km, with longest distance of 11.8 km reported in Kahama and shortest distance was in Iringa Rural, 8.7 km (**Table 5**). This is a significant improvement compared to an average of 50 km before implementation of the programme.

**Table 5: Average distance covered by farmers to the nearest Agro-dealers**

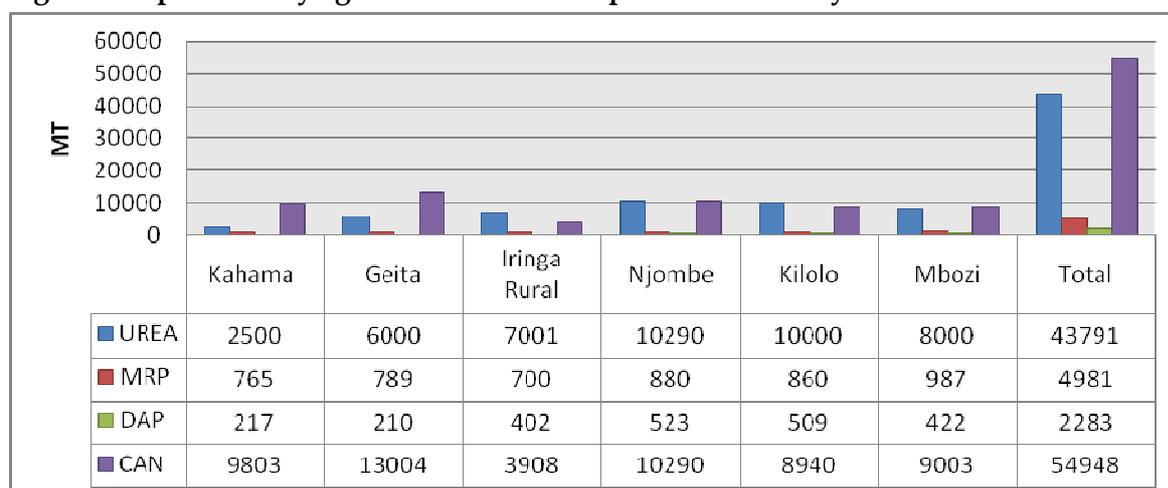
| District       | Distance(km) |
|----------------|--------------|
| Kahama         | 11.8         |
| Geita          | 9.5          |
| Iringa Rural   | 8.7          |
| Kilolo         | 9.9          |
| Njombe         | 10           |
| Mbozi          | 9.9          |
| <b>Average</b> | <b>9.9</b>   |

### 3.1.5.2.1 The growth in the fertilizer sales

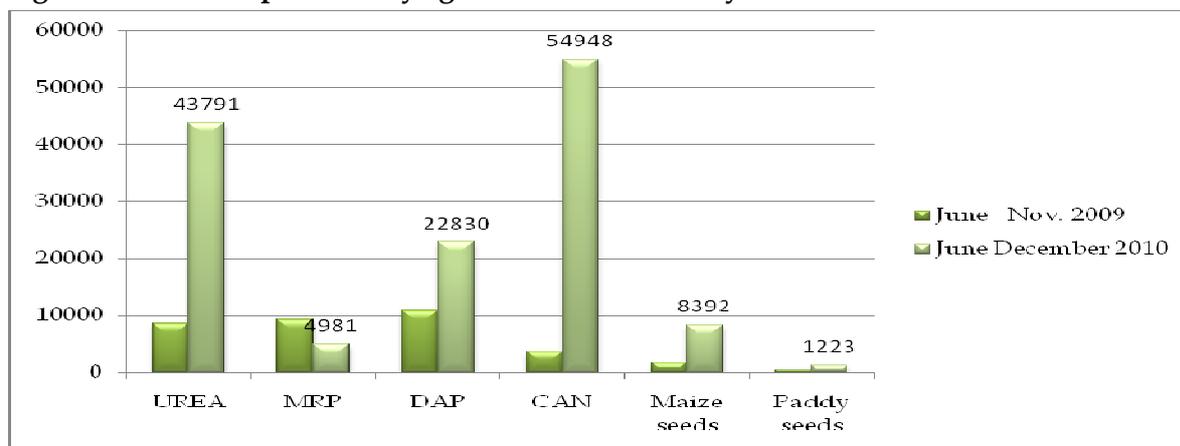
Fertilizer sales have increased significantly following implementation of the project. The increase was attributed to agro-dealers' demand creation activities, farmers' increased knowledge of good agronomic practices on use of inputs, and the government's increased investment in the subsidy program.

*Figures 8, 9, and 10* shows a significant increase in agro-dealers' fertilizer and seed sales for two off- seasons i.e. seasons running from June to November, 2009 and June to December, 2010.

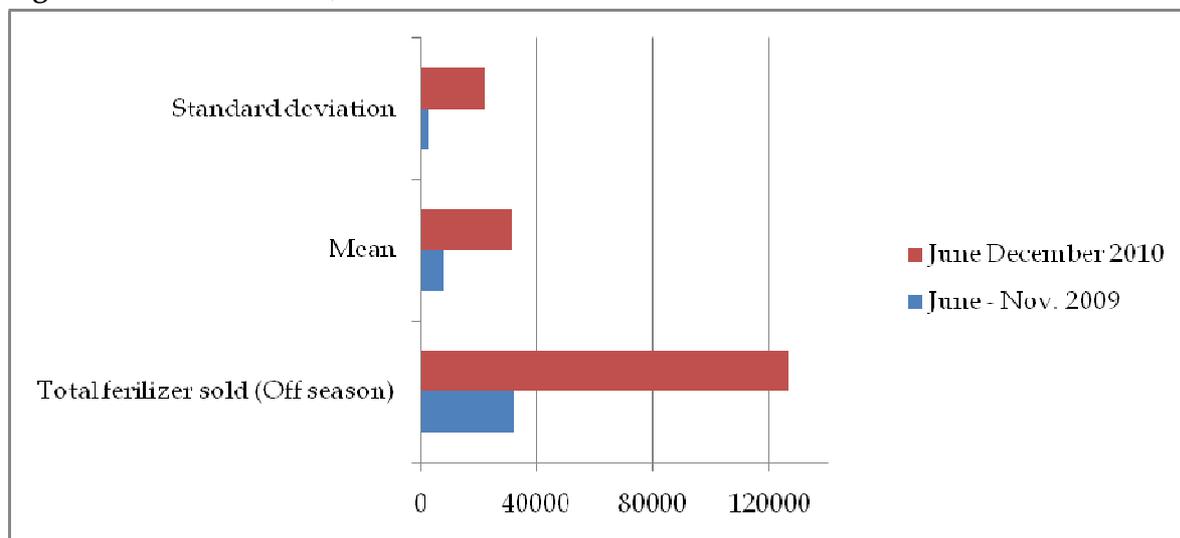
**Figure 8: Inputs sale by agrodealers in tonnes per district surveyed**



**Figure 4: Overall input sales by agrodealer in the surveyed area in Tonnes**

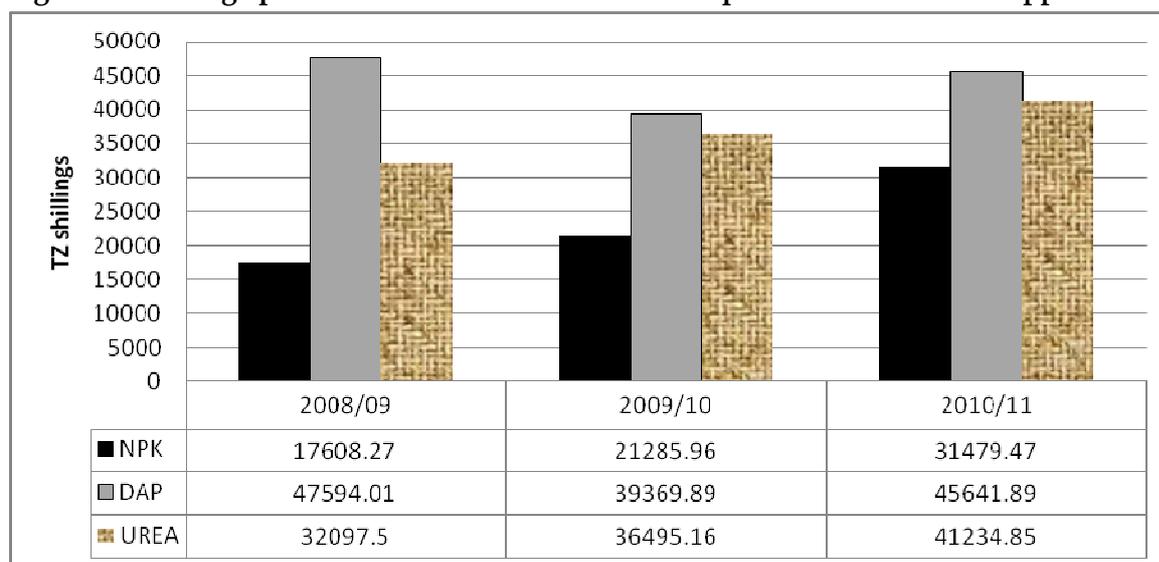


**Figure 50: Total fertilizer, mean and standard deviation sold in off season under TASP E**



The Agro-dealers visited during the review exercise had a wide product mix of agro inputs in their shops including fertilizers, animal feeds, veterinary products, farm equipment, improved seeds, insecticides and other seeds. The fertilizer and improved maize seeds business are the most important aspect of the enterprises. Fertilizer is bought in bulk (50kg bags) from input suppliers (MUCPA, Premium, SUBA AGRO, TFC, TFA, Mwesiga Agrovert, STACO etc.) at the average distance of 65 km for an average transport cost of TZS 596 (equiv. to US\$ 0.4) per bag and sell to farmers at prices shown in *Figure 11*.

**Figure 11: Average prices of different fertilizer brands purchase from main supplier**



During FGDs, farmers complained of fertilizer high prices saying that to poor farmers it is not possible to purchase fertilizers even at the subsidized prices. Farmers suggested the government should increase the value of voucher so that poor farmers can contribute little amount of money. Besides, agro-dealers sell subsidy fertilizer in bags of 50 kg where many farmers cannot afford. Farmers suggested that it could be better if agro-dealers can re-pack fertilizers in packages of 10kg, 5kg, etc so that farmers can purchase according to their needs.

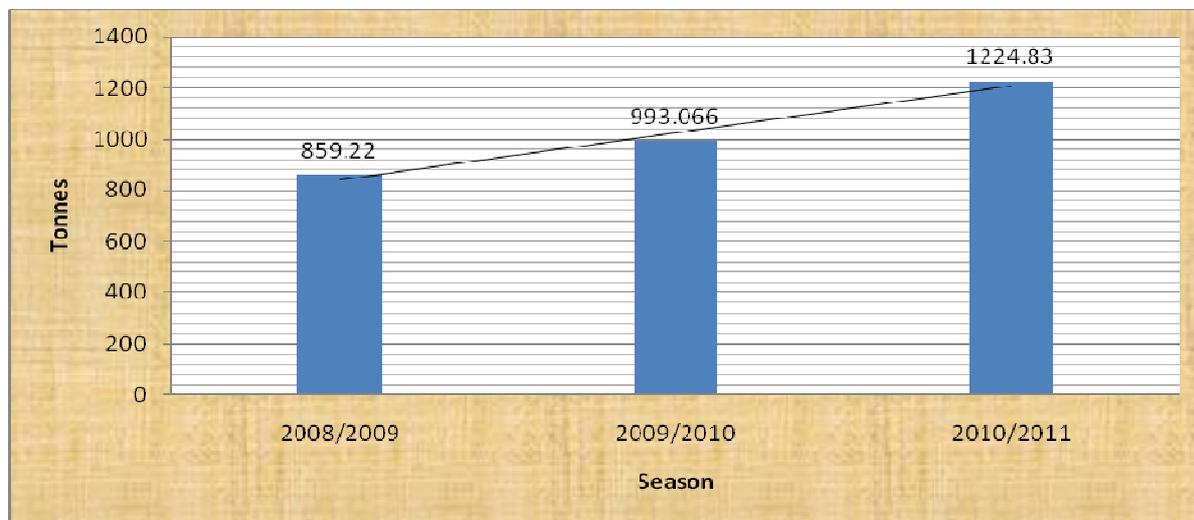
It became evident during the study that some smallholder farmers were not able to purchase subsidized inputs due to high prices, which led some of them selling vouchers to agro-dealers at low prices. The government need to work towards improvement of voucher system model to enable inputs reach smallholder farmers at affordable prices.

### 3.2.1 Improved seeds

Seed sales for both maize and rice increased in the June – November 2010 off season as compared to the 2009 off season, implying that there has been an increase in use of improved seed during the period. This is attributed to increased sensitization to farmers on the use of improved seed by the government through the subsidy program, the intensified establishment of demonstration plots, farmer field days and rural exhibition participation by farmers, and the FIPs’ intensification of demand creation activities.

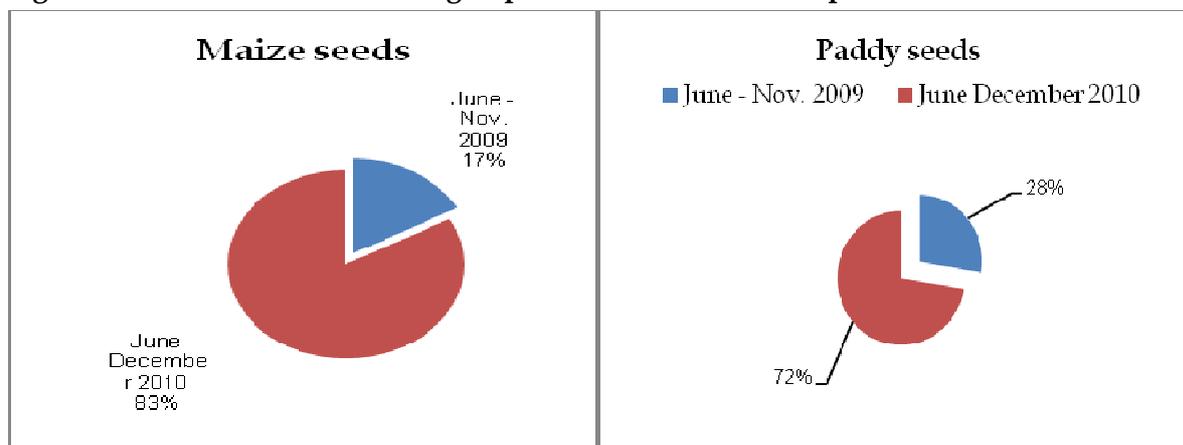
*Figure 12* shows the quantity of improved maize both OPV and Hybrid supplied by agro-dealers in the respective seasons. There is an increase in quantity maize seed from the base year for the same reasons mentioned above.

**Figure 62: Quantity of improved maize seeds supplied by Agro-dealers**



It is interesting to compare the trends of improved maize usage in *Figure 13*. On the onset of the project, use of improved maize seeds was small but as the project matured, the use increased tremendously.

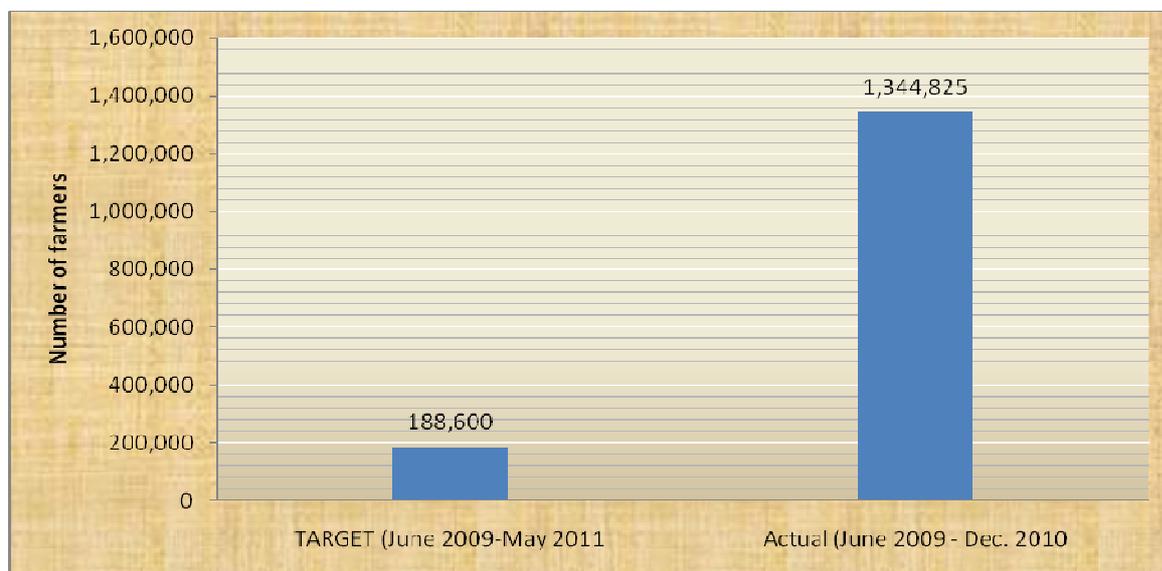
**Figure 73: Percent of farmers using improved seeds of main staples**



The evaluation team found that demand for fertilizers and improved seeds have greatly improved in the targeted areas (*Figure 14*). However, during focus group discussions farmers complained that agricultural inputs were not available on time, particularly the subsidized inputs. They requested the government to release vouchers at the beginning of the farming season. Besides, the fertilizers and the improved seeds provided under the subsidy scheme are not enough (i.e. one bag of NPK and DAP and 2 bags of MRP). The amount is adequate for one acre of land only. Farmers also complained of the small number of vouchers provided by the government under the input subsidy scheme. They urge the Government to increase the quantity of agricultural inputs entitled to

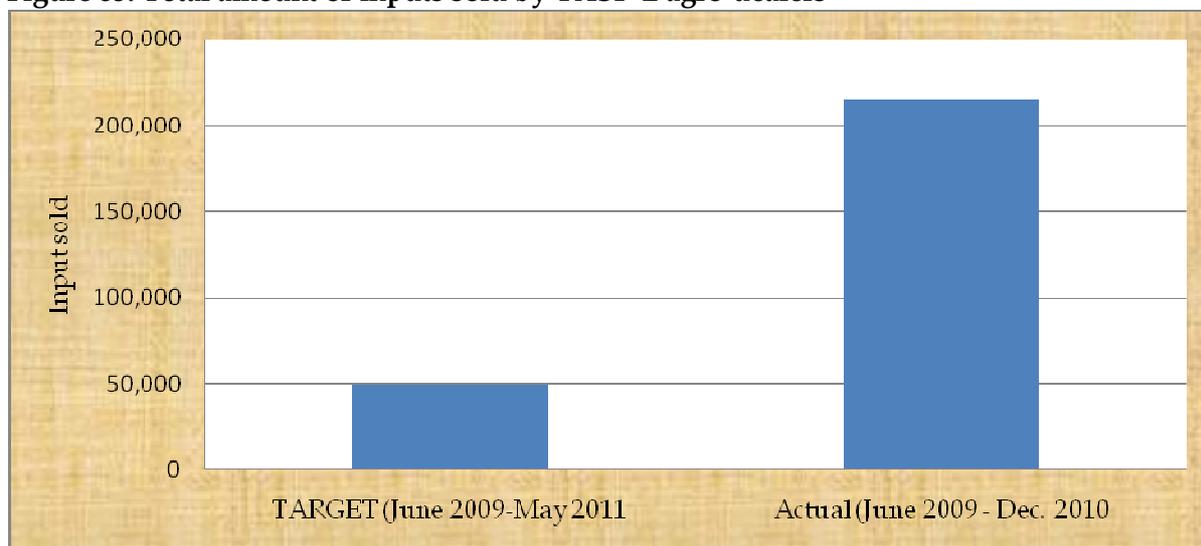
small holder farmers under the voucher system as well as increasing the number of vouchers i.e. increasing the number of beneficiaries of subsidized inputs.

**Figure 14: Number of smallholder farmers who access agricultural inputs through TASP - E agro-dealers**



Generally, total actual inputs sold by TASP-E agro-dealers during the project life were 214,867Tonnes, 430% of the target at the end of project as shown in *Figure 15*.

**Figure 85: Total amount of inputs sold by TASP-E agro-dealers**

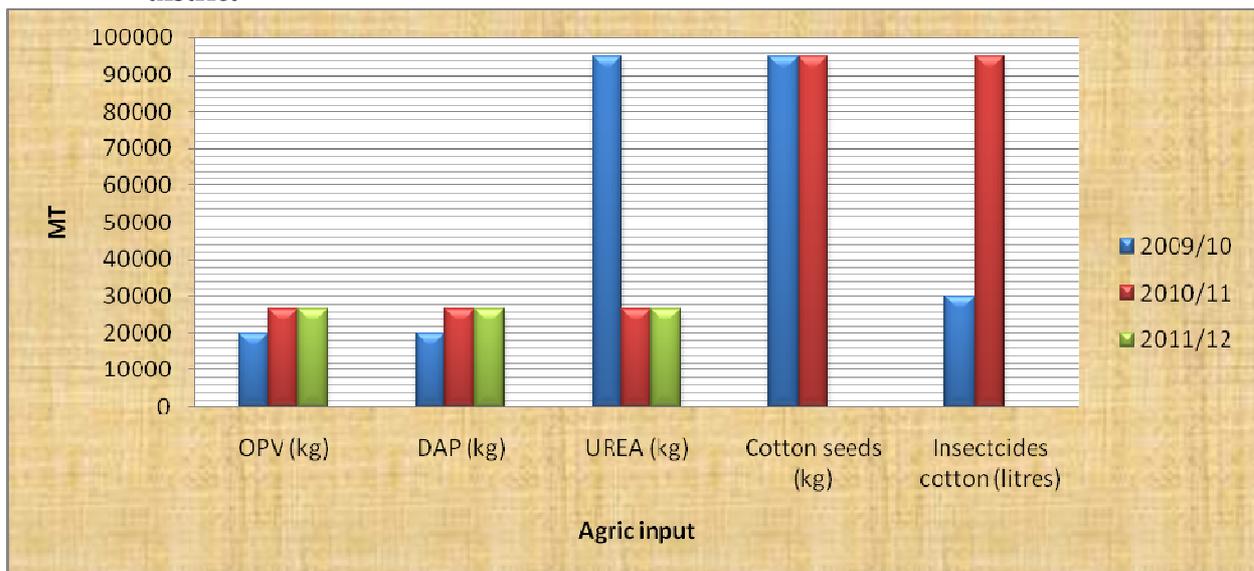


### 3.2.2 Effects of the Subsidy Programme on Input Sales

The review discovered that sales of subsidized inputs supported by the input subsidy voucher scheme are much higher than open market sales. This is particularly the case in

the Southern Highlands due to high concentration of agro-dealers in this relatively high agricultural productive zone. Twenty seven percent (27%) (42,924.06 tonnes) of the total amount of fertilizer sold during the 2009/2010 main season running from November to May was sold in the open market, while 73% was sold through the input subsidy voucher system. Proportions of seed sales were more evenly distributed with 45% of the total sales being through the open market and 55% through the input subsidy voucher.

**Figure 96: The distribution of agricultural inputs sold under the subsidy scheme in Kahama district**



Agro-dealers, farmers and policy makers were asked to identify strengths and weaknesses of the National Input Voucher System. **Table 6** summarises the most mentioned strengths and weaknesses of the system.

**Table 6: Strength and Weakness of the National Input Voucher System (NAIVS)**

| Strength  | Weakness  |
|---|---|
| The private sector was empowered through Private Public Partnership- PPP                              | The tendering process lacked transparency and payments for input voucher from the Government were delayed substantially.                          |
| Poor smallholder farmers were assisted to cut down the costs of production through the subsidy system | Low redemption value for fertilizer and improved seed vouchers  |
| Most agro-dealers had better sales  | Slow processing of the vouchers delayed release of the vouchers to catch up with the season.  |
| Productivity levels increased due to increased use of improved inputs                                 | Poor awareness of farmers regarding the voucher system concept.   |
|   | Limited incentives to the village voucher committee   |
|   | Agro-dealers benefited more from the voucher system than smallholder farmers  |
|   | The Subsidy system did not consider livestock sector and cash crops input like herbicides   |
|   | Lack of consistency in the system, e.g. a household with 3 acres received the same amount of agricultural inputs as the household with 1 hectare. |

Respondents' recommendations in addressing the weaknesses of the NAIVS include:

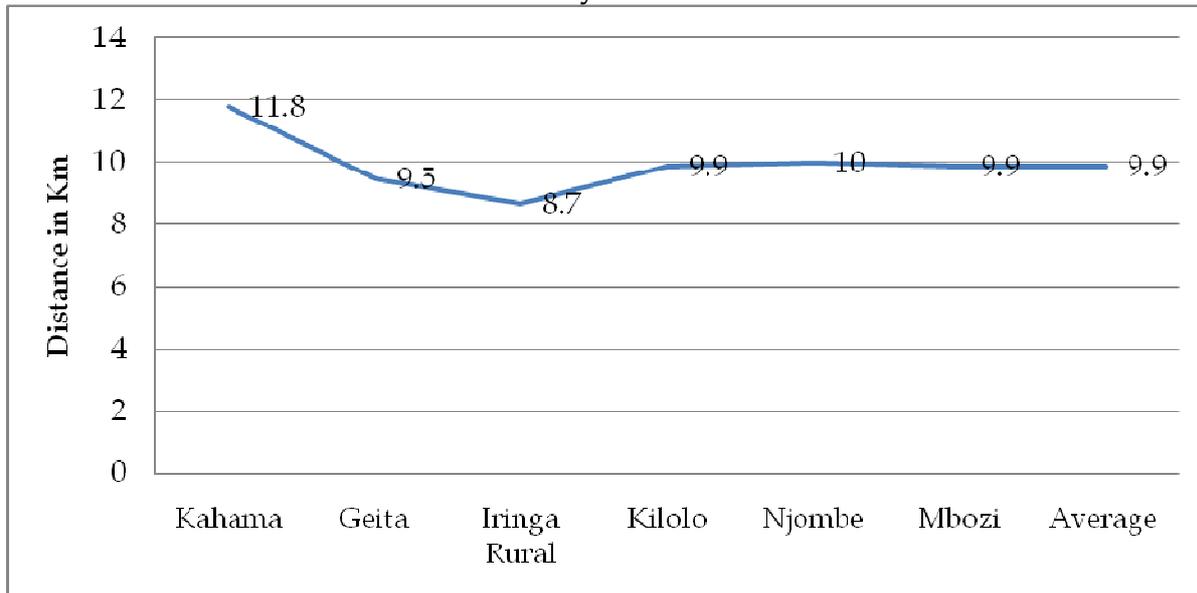
- Adoption of the more flexible seed voucher approach for both seed and fertilizer;
- Improving voucher distribution system so that it is done earlier (July/August) when farmers still have cash from sales of previous season harvests and put its control largely in the hands of agricultural staff and Village Voucher Committees.
- The Village Voucher Committee (VVC) should be given incentives to avoid corruption among them.
- Monitoring of product quality (and increasing sanctions for violations) through joint action by professional organizations and Government (District councils)
- Expanding the agro-dealer network while insisting on full registration to maintain quality

### **3.2.3 Reduction of distance farmers travel to access inputs**

The baseline data for the distance farmers' travel to access inputs was 50 km at the inception of the TASP program in 2007. In the additional 24 districts that have had program intervention over a period of one and a half years, the average distance farmers' travel has been reduced to 16 km, while in districts that the program has been in place for over three and a half years, the average distance has been reduced to 8 km.

In the surveyed districts the evaluation team found that the distance farmers have to travel to buy inputs has been reduced to 9.9 km from 50 km before the project.

**Figure 107: Distance from the smallholder farmer to the nearest agro-dealer from average of 50km before TASP E in the surveyed districts**

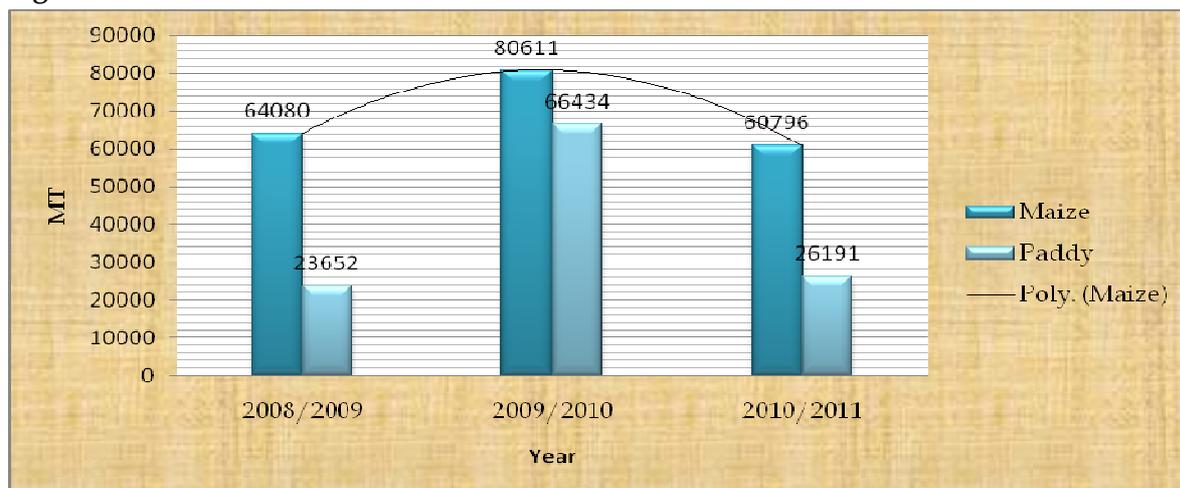


The reduction in distance to the nearest agro-dealer is mainly attributed to opening of temporary inputs sell-points in rural areas and the introduction of subsidy program by the government. Agro-dealers are supposed to supply inputs to villages allocated even though no shops are available in those villages. The major challenge is that most agro-dealers do not have permanent shops in the villages. Agro-input shops in rural areas operate during planting season when demand for seeds and fertilizer is high. During the off-seasons, operations of these shops stop except in urban centres. This forces farmers to travel long distance during off seasons looking for inputs.

### 3.2.4 Improved yields as a result of using improved seed

The review revealed that increase in yields is a factor of interaction of many variables including time of planting, crop geno type plant population, rainfall, fertilization and other cultural practices. Availability of improved seeds by itself will not increase yields unless good husbandry is practiced alongside. Available information and interviews in Geita District show that between 2008/09 and 2010/11 yields at farm-level was of a mixed trend (*Figure 18*).

**Figure 18: Production trend in Geita District Council**



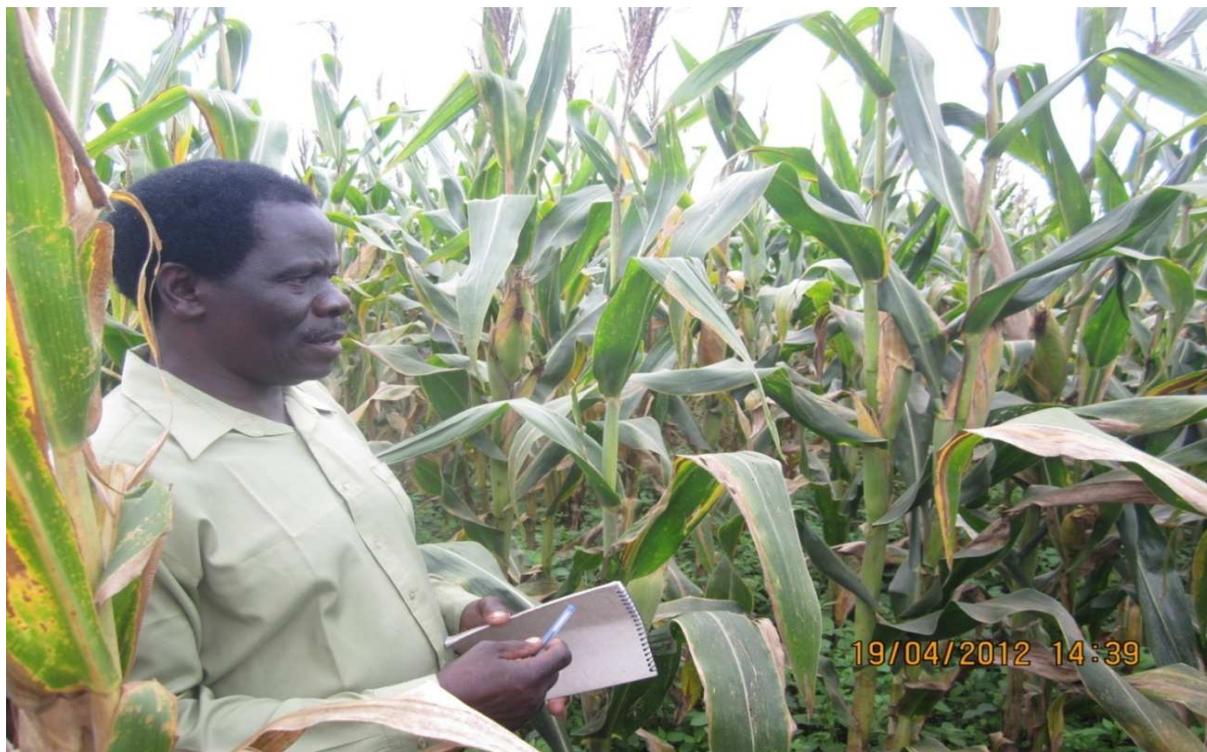
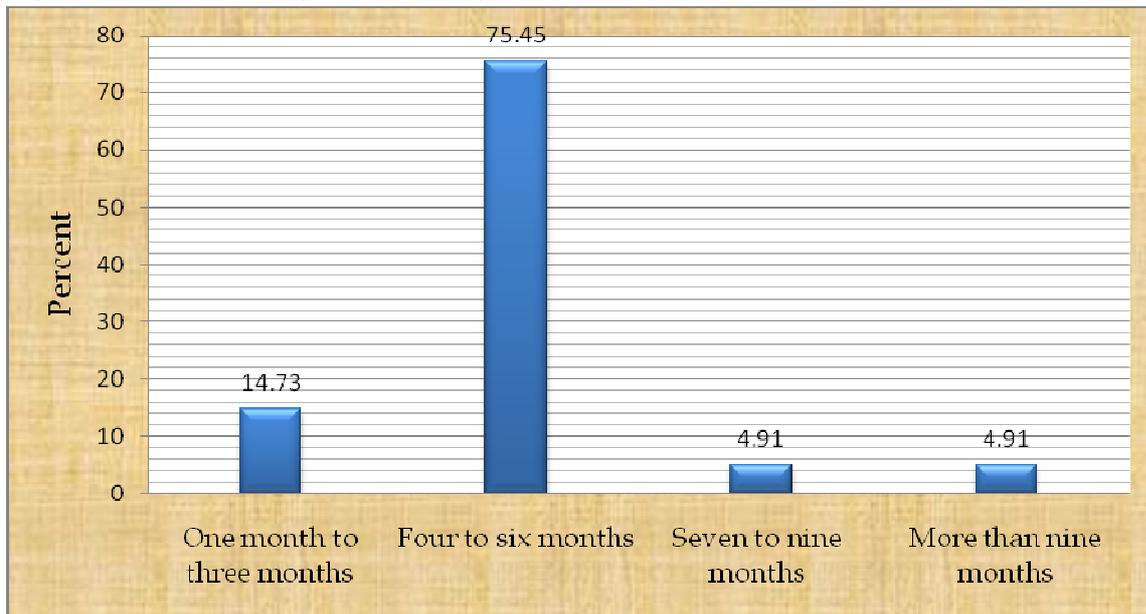
Source DALDO Office, Geita 2012

Introduction of improved seed varieties, good husbandry, availability and use of fertilizers and other agrochemicals through agro-dealer development and agricultural input subsidy scheme has improved yield in 2009/10. However, in 2010/11 yeild dropped largely due to drought.

### 3.2.5 Extent to which TASP-E has impacted household welfare

Among the objectives of TASP-E was to address the problem of poverty and food insecurity in the target areas. TASP-E has, to some extent, increased food security (75.5 percent of the smallholder farmers interviewed depend on farm food produces for a period of four to six months, 14.75 percent one to three months, 4.91 percent seven to nine months and 4.91 percent more than nine months (*Figure 19*). The program had considerable food security impact. Nevertheless, problem of erratic rains mitigates realization of program's full benefits. During discussions, farmers confessed to experience improvements in household welfare due increase in productivity following the use of improved seeds and fertilizer. Smallholder farmers hence requested the Government to continue subsidizing agricultural inputs and increase the redemption/subsidy value so that every farmer can afford to pay the balance. They believe this action is will definitely improve the welfare of the rural people particularly smallholder farmers.

**Figure 19: Food security in the surveyed Districts**



**Plate 2: One of the farmers in Kahama District who has benefited from the use of improved seeds and fertilizers**

### 3.2.6 Livelihood and rural economy impacts

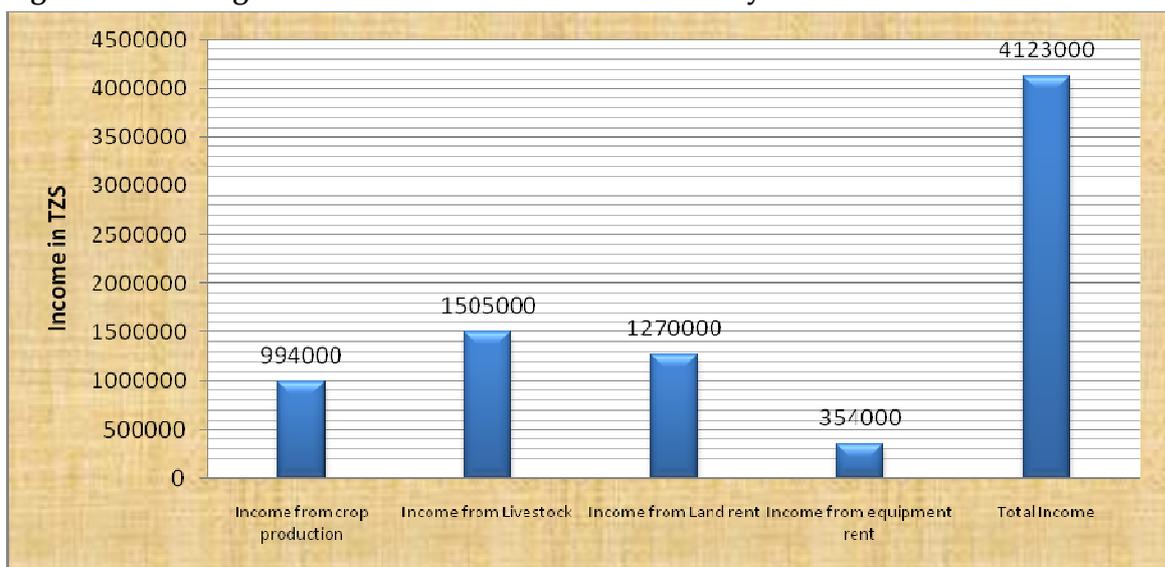
This part considers the effects of the TASP-E on rural livelihoods and economy. Two types of impacts are considered, direct and indirect effects. Direct impact is experienced by recipients of the subsidy as a result of subsidized inputs, while indirect impact resulted from changes brought about by effects of direct impacts to a large numbers of people in the society, affecting their assets and behaviour and hence behavior of markets (principally maize and labour markets) and the resources available to the community.

### 3.2.7 Direct impact of the use of agricultural inputs on rural households

No attempt was made to use household survey data to estimate direct impacts of using fertilizers and improved seed since the yield and production data collected during the survey does not appear to be reliable enough for usage. However, the evaluation relied on other sources of information, discussions and interviews to gain valuable information on house-holds access to agricultural inputs and of reported effects of receiving subsidies.

The evaluation revealed that in most districts, food production has increased following increased use of fertilizers and improved seeds. In areas with good rains like southern highlands the impact was noticeably high. The average production of maize in the districts surveyed improved by 6 bags of 100 kg per acre to 11.67 bags per acre compared to 7 bags before the project. The increase in food production is reported to have had a number of positive effects on rural livelihood and economy. Income and access to cash has increased as more households have been able to produce surplus or sell (*Figure 20*).

**Figure 110: Average and source of income from the surveyed smallholder farmers**



The programme has also increased small-holder farmers' access to cash from other types of investment. Households now have money to buy school uniform from sales made or indirectly from cash that would otherwise had been spent on fertilizer. There are also investments in productive assets in the immediate term – *“some of us bought pigs and chickens, right now they are reproducing and multiplying because of the same maize we sold. This is an improvement because in future we can sell some of these pigs to handle household problems more easily”*

Increased utilization of improved technologies including fertilizer has been recorded following implementation of the TASP-E programme. For instance in the surveyed areas, fertilizer use per acre increased from an average of 19.55 kg per acre in 2008/2009 to 30.32kg/acre in 2009/2010 for maize; and from 24.67kg/acre in 2008/2009 to 44.54kg/acre for paddy. Households are increasingly exposed to exhibitions on how technology can work and are taking it up with increasing enthusiasm. Districts are adopting new cropping systems, including FFS methodology provided by the department of agriculture and livestock development under District Agricultural Development Plans (ASDP).

Consequently, 87.8 percent (293) of interviewed farmers confessed on continued use of fertilizers and improved seeds in coming seasons due to increased productivity. Meanwhile, 12.2 percent (41) refrained due to high costs in buying inputs, unless government continues providing subsidies and increase redemption value for fertilizer and improved seed vouchers.

#### **4.0 Reviewers assessment on Relevance, Effectiveness, Efficiency, Impact and Sustainability of TASP-E**

Based on the different stakeholders interviewed (agro dealers in TASP-E districts, policy makers, and financial institutions (NMB) the general performance of the program in terms of its relevance, efficiency, effectiveness, Impact and sustainability was assessed by the reviewers. Based on the information collected through the interviews, overall the relevance, efficiency, impact and sustainability of the project can be summarized as satisfactory.

##### **4.1 Overall Project Relevance**

With its priority interventions aimed at improving national food security by focusing on strengthening of agro-dealers through training, access to inputs and marketing, linking agro-dealers with input suppliers, demonstration plots establishment, the relevance TASP-E can be considered was high. According to the reviewers TASP-E was very well aligned to and coherent with most agricultural policies of the Government of Tanzania which recognizes agriculture as one of the priority sectors, especially because of its lead role in food security and nutrition and consequently the need to improve productivity through increased use of improved inputs, through projects such as TASP-E.

##### **4.2 Overall Effectiveness**

The effectiveness of the project was considered as satisfactory. The evaluators were convinced that most of the objectives of the TASP-E project had generally been achieved. One of the main focus areas of TASP-E was to train ADs to become skilled on business management. The program expanded and trained ADs in an additional 25 districts giving the total number of districts covered by AGRA funding to 42. CNFA provided training to a total of 1,200 ADs against the target of 1,800 (600 in TASP and 1200 in TASP E). The training covered important subject matter areas such as crop production, harvesting and post harvest handling, seed quality, and business skills were adequately covered.

A total of eight hundred ninety three (893) demonstration plots were established despite uncertain rainfall in some parts of the country especially in the lake zone. The success was largely attributed to high level of commitment of input supply companies in providing inputs and overall supervision of the demonstrations as well as increased support from the local governments. Four hundred and twenty five (425) ADs

participated in demonstration and field days that helped in disseminating good agronomic practices.

NMB was also found to be effective in providing overdraft loans to agrodealers to improve their business and through accessing of working capital. Over the life of the project working capital of Agro-dealers tripled from TZS 3,000,000 to 10,000,000, due to increased effectiveness of the credit guarantee schemes.

In TASP-E, 45 district associations were formed out of which 23 are fully registered while 22 are completing the registration process. The associations represent a total of 1,800 ADs (82% male and 18% female).

During the evaluation the reviewers found it difficult to draw a line between CNFA & TAGMARK, as an affiliate, because almost the same people were involved in both institutions. The formation of TAGMARK and its empowerment by CNFA had to a large extent failed to make the formation of strong regional and national agro dealers' apex a reality.

#### **4.3 Overall Efficiency**

Overall, the programme was rated by the reviewers as satisfactory with respect to efficiency. Based on the financial reports provided to the reviewers the use of project funds and other resources was rated as satisfactory. However, it was noted that high staff turn-over experienced by CNFA may have resulted into weak internal monitoring systems making it difficult to come out with a more realistic assessment of utilization of project funds. In addition, the team was informed that the CNFA financial management issues were handled at the head office in USA, while country office used the imprest system. The evaluation team was informed that most of the important financial information was stolen in a laptop from the CNFA office before closure of the office which made it more difficult for the reviewers to come up with a full analysis of funds utilization. The CNFA Office in Tanzania was closed on 30/5/2011 with only one staff remaining behind and was not able to provide required information and financial documents for exhaustive financial evaluation of the project.

#### **4.4 Overall Impact**

Based on information obtained from stakeholder's interviewed the overall impact of the TASP-E on livelihood improvement was rated as satisfactory largely as a result of increased use of improved seed and fertilizers. The evaluation also revealed that most districts covered in the project, including those which experienced drought like Kahama and Geita, food production has increased as a result of the increased use of fertilizers

and improved seeds. In areas that received good rains like southern highlands, the bread basket districts, food production reported high increases in food production. The average production of maize for the districts surveyed was 11.67 bags of 100kg per acre compared to 5 to 7 bags that were reported prior to the use of improved agricultural inputs. The increase in food production was reported to have had number of positive effects on household welfare including food security, increased access to cash and greater adoption of improved technologies particularly improved seed and fertilizers.

#### **4.4 Overall Sustainability**

Sustainability of interventions is one of the major concerns in development projects. Sustainability should always be discussed at different levels –notably at the institutional level and separately at the level of project results. According to the reviewers the overall assessment of sustainability of the TASP-E program remains quite positive and rated as satisfactory. The reviewers were convinced that farmers will continue to use of improved agricultural inputs as a result of the good services delivered through the agrodealers. Agro dealers have acquired more knowledge in business management and some agronomic practices to advice farmers. The likelihood of sustainability of TASP- is also based on the fact that farmer’s awareness on importance of using improved inputs such as seed and fertilizers.

The positive score on sustainability will to some extent be masked by current problems in financial sustainability due to the fact that some agrodealers may not be able to readily qualify for bank loans due to unfavourable conditions such as high interest rates, lengthy and cumbersome application procedures, etc. Loan approvals are sometimes delayed until the growing season was well advanced.

Some of the agro-dealer associations visited by the evaluators were certified during the project but not yet registered with Business Registration and Licensing Agency (BRELA) and others have not yet started the registration process, which also poses a considerable threat to sustainability of project activities.

The evaluation indicates that there is continued business relationship between agro-dealers and supply companies; increased initiatives of the agro-dealers to extend knowledge on best farming practices to farmers by giving information on best agronomic practices is a signal of sustainability of TASP E.

Evaluation disclosed among the factors that may hamper sustainability of the ended TASP- E project in some areas is non-collaboration with extension officers in coordinating field days in areas that could not be reached easily, inadequate

mobilization of agro-dealers, discouragement in engagement in demand creation activities to impart knowledge to farmers and non-collaboration with organizations with similar objectives.

### **Key Lessons Learnt**

- To succeed in agro-dealer business, training in business skills is vital. CNFA played a good role on training and facilitating the creation of well-connected agro-dealer shops to promote the demand for their products and services. Training and capacity development of entrepreneurs brought about change in attitude, knowledge and skills that are beneficial to the community as a whole
- Rural ADs are more likely to be involved in demand creation activities such as demonstration and field days since these events act as a relationship building strategies with their clients.
- If farmers are taught agronomic best practices, use of improved inputs and linked to an output market, they are able to increase productivity and incomes, thus improving their own food security.
- Training and capacity development of entrepreneurs brings about changes in attitude, knowledge and skills that are beneficial to the community.
- Rural agro-dealers are more likely to be involved in demand creation activities like demonstration and field days because they help build relationships with the clients.
- Input suppliers give agro-dealers trade credit when trust has been established. CNFA/TAGMARK certification, through promotion of the credit guarantee, increased awareness, expectation and demand for credit.
- CNFA and NMB collaboration has opened a door for more people who are demanding training in order to join the agro-inputs business and subsidy program. The training enhances the capacity of agrodealers to professionally administrate, thus reducing risk in the eyes of financial institutions.
- When links related to products and service markets are weak, farmers have limited access to inputs and those who can afford indicate that inputs are unaffordable compared to farm earnings. Without effective use of inputs, especially the improved seeds, expectations for improved productivity and overall output are reduced.

## 5.0 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusion

This evaluation report highlights activities undertaken for the TASP-E from 2008 to June 2011. The TASP-E strategy was built on the recently ended PASS funded TASP and sought to create market linkages to agrodealers (ADs) to access credit, build agrodealer capacity to run demand responsive, service oriented businesses and avail inputs and technical know how to farmers. The outcomes of these activities all channelled into an ultimate goal, to increase farmers productivity and income in a market environment that offered attractive margins for their produce.

Eight hundred ninety three (893) demonstration plots were established despite uncertain rainfall conditions especially in the lake zone. The success of these demonstrations was due to the commitment of input supply companies in providing inputs, overall supervision and increased support from the local governments through extension staff and Agrodealers. Four hundred and twenty five (425) ADs participated in demonstration and field days mainly set by seed and input companies.

Over the life of the project working capital tripled from TZS 3,000,000 (US\$ 1,924) to 10,000,000 (US\$6,410), indicating that the effectiveness of the credit guarantee schemes partly from NMB and input companies in terms of increasing the availability of inputs to the farmers was enhanced by the project intervention. Use of improved seeds and fertilizers such as (UREA, DAP, CAN) has increased. Use of fertilizers was more pronounced in maize than other crops such as paddy. For instance, fertilizer use per ha increased from an average of 19.55kg/ha in 2008/2009 to 30.32kg/ha in 2009/2010 for maize; and from 24.67kg/ha in 2008/2009 to 44.54kg/ha for paddy.

Results of government initiated input voucher scheme were mixed and revealed that the system had limited effect on changing the welfare of the farmers especially those engaged in food crops production, mainly due to poor set-up of the voucher system. Most officials assigned the mandate to coordinate the programme were either not knowledgeable or reliable. However, program trained agro-dealers played a key role in the voucher system and TAGMARK was selected to train additional agro-dealers countrywide to participate in the government initiated voucher system.

TASP-E has managed to cut down the distance to input shops from an average of 50 km to 9.9 km. As a result overall, productivity has increased by close to 100% (from 5 to 11.67 bags per acre) of maize in some districts like Mbozi, Kilolo, Njombe and Iringa Rural. However other external factors such as drought grossly affected realization of the full impact of the project intervention in some districts like Kahama and Geita.

CNFA/TAGMARK has registered substantial achievements in the creation and strengthening of a network of rural agro-dealers. This approach removed the Ministry of Agriculture Food Security and Cooperatives (MAFC) from a direct role in inputs purchase and distribution, and fostered the growth of a commercially based rural distribution network of private agro-dealers, facilitates agro-dealers' access to commercial credit and stimulates smallholder demand for improved agricultural inputs.

**Specifically**, the evaluators observed the following in general project intervention:

- The program concept was good and it received a good recognition from the government and other stakeholders whereby more coordination of activities was evident that resulted into increase in productivity. Evaluators' felt that TASP-E was few years short of achieving its intended objectives and that its further extension would have brought more positive changes to Agro dealers and smallholder farmers.
- During the evaluation it was difficult to draw a line between CNFA & TAGMARK, as an affiliate. TAGMARK was established to take up responsibilities of CNFA locally, and become purely local with local board members. This could not happen as CNFA had its staff sitting in the Board. The formation of TAGMARK that is functional, independent and empowered by CNFA had to a larger extent failed. Offices for TAGMARK could not be located during the review, and some key informants and former staffs revealed to the evaluators that TAGMARK was no longer operational. This defeated the purpose of its establishment and empowerment. CNFA has remained with only one caretaker staff stationed in Dar es Salaam.
- TAGMARK worked closely with NMB Bank and AGRA to design an overdraft facility to benefit registered agro-dealers, and continued to work with agro-dealers by teaching them how responsibly to manage credit in TASP E. This working relationship with NMB pointed out the need for additional collaboration in developing new financial products targeting the agricultural sector especially in lending and risk assessment.
- TASP-E was successful in agro-dealers and farmers' capacity building strengthening activities; when the government introduced voucher system they initially used CNFA trained and certified agro dealers to implement the program which was considered as a success. Currently redeeming of payments to AD's by government remains a serious problem and makes agro dealers shy away from the business.

- TASP-E intervention timeframe was very short considering the very large geographical coverage with limited budget as the project moved from planned 17 districts(TASP) to 42 districts, which was an additional of 25 districts (TASP-E). Project funds were also released late while contract dates remained the same.
- Most of TASP-E beneficiaries' especially farmers were not adequately sensitized about the TASP-E Project.Intensive awareness creation to farmers and government extension officers was important to keep the project on track - this slowed down the level of their participation during the implementation stage and appears to reflect a top down approach during the implementation process.

## 5.2 Recommendations

- Agro-dealers, input supplies and District councils as well as central government under the ministry of Agriculture Food Security and cooperatives as well as Non Governmental institutions such as Techoserve Inc, World Vision should continue to explore ways to improve access to fertilizer and improved seed to smallholder farmers after the end of AGRA funding.
- Agro-dealers should feature prominently in all future efforts to improve technology transfer in Tanzania by providing them with additional skills, information services and links with extension service providers.
- Inputs should not be distributed free under any circumstances, as this reduces farmer choices and undermines the private input supply system, particularly at the local retail level. Farmers should be provided with choices and vouchers or funds to purchase seed where it is deemed important to render such assistance.
- Appropriate timing of farmers' acquisition and use of inputs such as seeds and fertilizers is a critical determinant of the success of the project in terms of livelihood and food security impacts. Most inputs such as Seeds and fertilizers should be in the possession of farmers by the start of the rains, to allow for timely planting and other operations. Delays in almost all aspects of the NAIVS were a major concern expressed by many key informants and in focus group discussions groups during evaluation.
- CNFA should be encouraged to advise farmers to form clusters for the purposes of pooling their resources together in order to access funds from credit institutions to enable them modernize their activities. This should include bulking of their produce

to obtain premium prices as another credit line in addition to the support they are getting from Agrodealers and the government;

- CNFA is having a close working relationship with MAFC at head office in Dar-es-Salaam; at the district level, it's recommended they should work in collaboration with DALDO and Ward and Village extension officers to ensure that selection of beneficiaries and program management is effectively implemented. It is also recommended that CNFA Team- Leaders in the regions participate in district agricultural planning and food security monthly meetings to ensure that program interventions are harmonized.
- While subsidy voucher allocations were a government policy, and not in control by the CNFA under TASP-E, it did impact on the smooth operation of the agro-dealer network created and trained by the project. The government should establish working partnerships with other private institution in the country to emulate the approach used by AGRA to ensure that Vouchers systems succeed as it did with AGRA funded CNFA support.
- Any agricultural related project/program implemented in a district should be known to all beneficiaries particularly District Executive Director and District Agricultural and Livestock Development officers and farmers. Program budgets are to be submitted to district council for incorporation in the District Agricultural Development Plans and finally to overall District plan to avoid duplication of activities.
- Input support projects such as ADP should be complemented with other programmes such as soil and water conservation, irrigation and rain water harvesting to accommodate possible impacts caused by poor weather conditions thus undermine project objectives.

## ANNEXES

### Annex 1: TOR for the assignment

#### TERMS OF REFERENCE TO CONDUCT AN END OF PROJECT REVIEW FOR THE AGRO-DEALER DEVELOPMENT PROJECT FUNDED BY AGRA IN TANZANIA - MOROGORO

##### 1.0 Background and context:

The Alliance for a Green Revolution in Africa (AGRA) is a dynamic African-led organization that works in partnerships to help raise agricultural productivity and incomes of millions of smallholder farmers. Through the Soil Health Program (SHP), CNFA was provided with a two-year grant (2009-SHP 008) amounting to US\$1,498,772 to implement an agro-dealer development project in Tanzania by linking rural smallholder farmers to a commercial network of over 1,200 rural, certified agro-dealers. The project's main objective was to strengthen agro-dealer network and to facilitate their access to agricultural inputs (fertilizer and improved seeds), better extension services, soil management practices, financing and linkages to cash markets. The project ended in June 2011. AGRA, would therefore like to recruit a consultant/team of consultants to undertake an end-of-project review for this project in Tanzania.

##### 2.0 Objectives of the assignment

The overall objective of this end of project review is to provide AGRA /Soil Health Program and partners with sufficient and accurate information to make an informed judgment about the past performance of the project – its efficiency, effectiveness and impact and to document lessons learnt. It will also seek to establish whether the critical assumptions upon which the project was conceived still hold.

##### 2.1 *The specific objectives of the assignment are:*

- (vi) Establish the extent to which the project has achieved its stated objectives (i.e. the level of achievement of activities, outputs, outcomes and the overall objectives as stated in the project document), taking into account its target stakeholder needs and how they fit in the national priorities and policies.
- (vii) Evaluate the project implementation strategies and processes/structures, including assessment of the institutional and operational set-up with the view to make recommendations on whether they were the best to achieve the project objectives;
- (viii) Help AGRA/SHP understand the success or not of the agro-dealer model, through identifying what has worked, has not worked well, and why, the likelihood of achieving the expected impacts and the sustainability of the achievements from the investment.
- (ix) Identify key lessons and propose practical recommendations for follow-up actions (i.e. key recommendations for consideration to be taken into account in future similar agro-dealer development projects in Tanzania or other AGRA Countries.

- (x) Assess the progress in developing a functional national agro-dealer network (TAGMARK).

### **3.0 Scope of the review and proposed methodology:**

The assignment will cover all aspects of the project as set in the project proposal to establish whether the planned activities and anticipated outputs have been attained, and whether there are outcomes to document emanating from the project's interventions. While maintaining independence/neutrality, the review shall adopt a participatory approach. Therefore, the proposed methodology will entail consultations and Focus group discussions with key stakeholders, in addition to both desk review and field visits to the project implementation areas. Both qualitative and quantitative methods of data collection may be adopted to obtain primary data from the project beneficiaries, implementers and stakeholders in the project zones.

The consultant will be expected to provide a detailed evaluation design that includes key evaluation/research questions, key indicators, sources of data/information, and data collection methods and instruments, and a detailed evaluation implementation plan, including key tasks, activities and timelines.

Furthermore, the review shall be structured in respect to the five evaluation criteria relevance, efficiency, effectiveness, impact and sustainability against original project objectives, taking into account of the realities on the ground; and the extent to which the project addressed the needs of its stakeholders.

### **4.0 Expected deliverables:**

- (i) Inception Report - This shall be prepared and submitted within 7 days after signing the contract. The Inception report shall include the proposed evaluation design, implementation plan and timelines.
- (ii) Draft Report - This shall be submitted three weeks after commencing the assignment. Consultants may be requested to come and present the Draft Report to AGRA management and staff to obtain their comments and suggestions to improve the quality of the work.
- (iii) Final Report - This shall be submitted to AGRA in two weeks' time after presenting the draft report. The Final Report shall have incorporated comments and suggestions from AGRA and CNFA, as well as any other data not fully captured at the time of writing the draft report. The report should be precise and should have a maximum of 25 pages, excluding annexes. The format shall be agreed with AGRA after signing the contract.

### **5.0 Time Frame**

The Project Review assignment shall take a maximum of 30 calendar days effective from the date a contract is signed.

### **6.0 Budget and Proposed Payment Schedule:**

Consultant will submit a budget breakdown. The budget presented should include fees, travel and subsistence, reproduction charges, courier costs (if applicable) and unit costs should be calculated as a per day tariff (e.g. fees).

Payments will be made as per the following schedule:

1. 40% of total payment upon signing the contract
2. 20% of total payment upon 2<sup>nd</sup> draft report
3. 40% of total payment upon submission of the final report (as specified in this TOR)

### **7.0 Specifications of the Consultant:**

The consultant (s) will be selected on the basis of their proven experience, qualifications and ability to deliver a quality product in a timely and efficient manner. Minimum qualifications and experience of the team members will include:

- Experience of at least 10 years in conducting project/program evaluations, particularly in the area of agricultural programming, project cycle management, value-chain and development, Agro-dealer development, farmer cooperatives and produce marketing.
- PhD or Masters in Agricultural Sciences, Social Sciences, or related field and at least 10 years of relevant experience (leader);
- 10 years' experience in survey fieldwork (data collection, validation, entry and analysis)
- Proven track record in conducting agriculture related studies;
- Excellent analytical and writing skills.
- Past related experience in sub-Saharan Africa; and

### **8.0 Management Arrangements**

The consultant will report directly to the Director, Monitoring and Evaluation Unit. The focal point Monitoring and Evaluation Program Officer for SHP will facilitate the assignment. An application to undertake the assignment and a detailed budget should be submitted to AGRA on or before the 30<sup>th</sup> November 2011.

### **9.0 To apply:**

**Refer to the Annex A and submit to the following address:**

To: The Director,  
Monitoring and Evaluation Unit,

Attention to:

Susan Ndung'u-Mugo,

Executive Assistant, M&E Unit,

Alliance for a Green Revolution in Africa,

Email: [sndungu@agra-alliance.org](mailto:sndungu@agra-alliance.org)

**Annex A:**

**1. GUIDELINES FOR PROPOSAL DEVELOPMENT**

The proposal should be in two parts: Part A – Technical; Part B – Financial, on A-4 sized pages (Font – Times New Roman; Font Size 11 with margins set at least 2.5cm all round) should include the following:

**Part A: Technical:**

1. Background information that includes an interpretation and understanding of the terms of reference;
2. Methodology and approach outlining a clear conceptual and analytical framework for the study;
3. Proposed work plan outlining clear timeframe and logical steps in conducting the assignment;
4. Profile of the consultant (s) and detailed CV;
5. Expectations from AGRA in terms of logistical, technical, and other forms of support for the proposed assignment;
6. Name and brief background of the consultants, including existing experience and expertise that will be of benefit to the proposed study;
7. Names and contact information of referees for the three most recent and relevant projects.

## **Part B: Financial**

8. An itemized budget divided into professional fees and direct cost of activities in United States Dollars;

### **2. EVALUATION CRITERIA FOR REVIEW OF PROPOSAL**

The technical proposal will be assessed based on the following criteria:

#### **a) Assessment Technical Proposals**

| <b>Criteria of Assessment</b>   | <b>Sub Total Score</b> |
|---|------------------------|
| 1. Background information that includes deep interpretation and proper understanding of the ToR   | 5                      |
| 2. Proposed methodology and approach outlining a clear presentation and strong conceptual and analytical skills   | 10                     |
| 3. Experience in qualitative and quantitative research in agriculture in sub Saharan Africa   | 10                     |
| 4. Relevant background of the consultant/firm, including existing expertise and experiences in conducting agriculture analysis that will be of benefit to the proposed study; | 15                     |
| 5. Relevant Profile of the consultant(s) and detailed CV;   | 10                     |
| 6. Familiarity with the assignment specific setting, including partners and operating environment   | 10                     |
| 7. Proposed work plan outlining clear timeframe and logical/feasible steps in conducting the assignment   | 10                     |
| 8. Proposed scope of work and valuable additions to the TOR   | 5                      |
| 9. Clear expectations from AGRA in terms of logistical, technical, and  | 5                      |

|  |           |
|--|-----------|
| other forms of support for the proposed assignment |           |
| <b>Total Technical Proposal Score</b>              | <b>80</b> |

**b) Assessment of Financial Proposals**

| <b>Criteria of Assessment</b>                   | <b>Sub Total Score</b> |
|---|------------------------|
| 1. Clarity of costing items                     | 5                      |
| 2. Reasonable estimations of costing items      | 5                      |
| 3. Logic (necessity/rationale) of costing items | 5                      |
| 4. Feasibility (affordability) of costing items | 5                      |
| <b>Total Financial Proposal Score</b>           | <b>20</b>              |

Proposals submitted in the bid will be evaluated according to the following rating:

|                                |          |            |
|--------------------------------|----------|------------|
| <b>TOTAL EVALUATION POINTS</b> | <b>=</b> | <b>100</b> |
| <b>Technical proposal</b>      | <b>=</b> | <b>80</b>  |
| <b>Financial proposal</b>      | <b>=</b> | <b>20</b>  |

## Annex 2 List of AD contacts

### LIST OF AGRODEALER ASSOCIATION LEADERS AS PER SELECTED TASP(E) DISTRICT

| S/No | Name of Agrodealer | District     | Position Held | Phone Number               |
|------|--------------------|--------------|---------------|----------------------------|
| 1    | Edward Sanga       | Iringa Rural | Chairman      | 0784 700205                |
| 2    | Sontus Luhwago     | Kilolo       | Secretary     | 0786 392460                |
| 3    | Leonard Masunga    | Kahama       | Chairman      | 0755 528070                |
| 4    | Dr, Mgoho Peter    | Geita        | Chairman      | 0786 822435                |
| 5    | Samson Simkoko     | Mbozi        | Chairman      | 0757 203809                |
| 6    | Andrea J. Sanga    | Njombe       | Chairman      | 0755 052799<br>0772 096442 |

## Annex 3. List of farmers visited

| #  | Name              | District | Division | Ward       | Village    |
|----|-------------------|----------|----------|------------|------------|
| 1  | Amos Malunde      | Kahama   | Dakama   | Igunda     | Bunasani   |
| 2  | Fabiano Malunde   | Kahama   | Dakama   | Igunda     | Bunasani   |
| 3  | Shija Kayanda     | Kahama   | Dakama   | Igunda     | Bunasani   |
| 4  | Michael Charles   | Kahama   | Dakama   | Igunda     | Bunasani   |
| 5  | Jose Shija        | Kahama   | Dakama   | Igunda     | Bunasani   |
| 6  | Patric Petro      | Kahama   | Dakama   | Igunda     | Bunasani   |
| 7  | Samora Mrisho     | Kahama   | Dakama   | Kinamapula | Kinamapula |
| 8  | Paulo juma        | Kahama   | Dakama   | Kinamapula | Kinamapula |
| 9  | Hungwi Kayagila   | Kahama   | Dakama   | Kinamapula | Kinamapula |
| 10 | Richard Kamuli    | Kahama   | Dakama   | Kinamapula | Kinamapula |
| 11 | Atanasi Antony    | Kahama   | Dakama   | Kinamapula | kinamapula |
| 12 | Clement B Manyama | Kahama   | Dakama   | Kinamapula | Kinamapula |
| 13 | Kashinye Shija    | Kahama   | Dakama   | Igunda     | Bunasani   |

|    |                      |        |         |             |             |
|----|----------------------|--------|---------|-------------|-------------|
| 14 | John Seni            | Kahama | Dakama  | Igunda      | Bunasani    |
| 15 | Nicholous Kulwa      | Kahama | Dakama  | Igunda      | Bunasani    |
| 16 | Pius Bundala         | Kahama | Dakama  | Igunda      | Bunasani    |
| 17 | Mkwabi Malimao       | Kahama | Dakama  | Igunda      | Bunasani    |
| 18 | Kulwa John           | Kahama | Dakama  | Igunda      | Bunasani    |
| 19 | John Ntobisha        | Kahama | Dakama  | Igunda      | Bunasani    |
| 20 | George Masele        | Kahama | Dakama  | Igunda      | Bunasani    |
| 21 | Jilala Mwanzilwa     | Kahama | Dakama  | Igunda      | Bunasani    |
| 22 | Mabala Kasanzo       | Kahama | Dakama  | Igunda      | Bunasani    |
| 23 | Mashaka D. Mwarabu   | Kahama | Dakama  | Igunda      | Bunasani    |
| 24 | Antony Peter         | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 25 | Ramadhani Mpemba     | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 26 | Makoye Mpemba        | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 27 | Julius Maigenyanda   | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 28 | Msafir Mwahemwa      | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 29 | James Mazuri         | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 30 | Mashaka Mziba        | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 31 | Jumanne Makoye       | Kahama | Dakama  | Kinamapula  | Kinamapula  |
| 32 | Juma Manyirizu       | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 33 | William Biunuma      | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 34 | Joseph Shibirit      | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 35 | Mabula Masala        | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 36 | Renatus A. Bukerebe  | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 37 | Leonard M Ndabavunye | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 38 | Wilson Oloo          | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 39 | Gabriel D Kamoyo     | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 40 | Nganda Nicholous     | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 41 | Susana Maleme        | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 42 | Sitta Kadashi        | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 43 | Monica Lazaro        | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 44 | Samwel M Mpuya       | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 45 | Sylvester Ngunet     | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |
| 46 | Hery Maduhu          | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 47 | Mathias Bulambe      | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 48 | Hamisi Kulwa         | Geita  | Kasamwa | Kasamwa     | Kasamwa     |
| 49 | Ngulujose Kashindy   | Kahama | Dakama  | Kinamapala  | Kinamapala  |
| 50 | Renatus A. Bukelege  | Geita  | Kasamwa | Bun'gwanoko | Bun'gwanoko |

|    |                   |        |         |              |              |
|----|-------------------|--------|---------|--------------|--------------|
| 51 | Juma Msuka        | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 52 | Yombo Mathias     | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 53 | Robert Mungo      | Geita  | Kasamwa | Bun'gwangoko | Bun'gwangoko |
| 54 | Amos Malunda      | Kahama | Dakama  | Igunda       | Bunasani     |
| 55 | William Simon     | Geita  | Kasamwa | Bun'gwangoko | Bun'gwangoko |
| 56 | Editha Luzunya    | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 57 | Mathias Kazimili  | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 58 | Josehat Ngoso     | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 59 | Joseph Luguga     | Geita  | Kasamwa | Bun'gwangoko | Bun'gwangoko |
| 60 | Daudi malale      | Kahama | Dakama  | Igunda       | Bunasani     |
| 61 | Hamisi Dotto      | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 62 | Yohana Kulwa      | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 63 | Charles Kipolo    | Kahama | Dakama  | Igunda       | Bunasani     |
| 64 | Salehe John       | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 65 | Peter Charles     | Kahama | Dakama  | Igunda       | Bunasani     |
| 66 | Omari simbi       | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 67 | Felician Galibu   | Geita  | Kasamwa | Bun'gwangoko | Bun'gwangoko |
| 68 | Clement Mashimba  | Geita  | Kasamwa | Bun'gwangoko | Bun'gwangoko |
| 69 | Malomi Katwale    | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 70 | Simon Isekelo     | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 71 | Atanasi Antony    | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 72 | Joyce Marwa       | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 73 | Husen Shabani     | Kahama | Dakama  | Igunda       | Bunasani     |
| 74 | Lucas K. Charles  | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 75 | Nzube J. Kazungu  | Geita  | Kasamwa | Kasamwa      | Kasamwa      |
| 76 | Misayo Daniel     | Kahama | Dakama  | Igunda       | Bunasani     |
| 77 | John K. Duda      | Kahama | Dakama  | Igunda       | Bunasani     |
| 78 | Mary Ndeka        | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 79 | Seboa Mganya      | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 80 | Denis Clement     | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 81 | Patric Petro      | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 82 | Petro Migisa      | Kahama | Dakama  | Igunda       | Bunasani     |
| 83 | Antony Atanas     | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 84 | Nonga Mzuzu       | Kahama | Dakama  | Igunda       | Bunasani     |
| 85 | John Kulwa        | Geita  | Dakama  | Igunda       | Bunasani     |
| 86 | Martine Mwazilina | Kahama | Dakama  | Kinamapula   | Kinamapula   |
| 87 | Magret France     | Kahama | Dakama  | Kinamapula   | Kinamapula   |

|     |                        |              |           |              |              |
|-----|------------------------|--------------|-----------|--------------|--------------|
| 88  | Kulwa Jonus            | Kahama       | Dakama    | Kinamapula   | Kinamapula   |
| 89  | Gabriel Daniel         | Geita        | Kasamwa   | Kasamwa      | Kasamwa      |
| 90  | Pascal Washa           | Kahama       | Dakama    | Kinamapula   | Kinamapula   |
| 91  | Omary Mzingula         | Kahama       | Dakama    | Igunda       | Bunasani     |
| 92  | Maige Mabala           | Kahama       | Dakama    | Kinamapula   | Kinamapula   |
| 93  | Henga Mganya           | Kahama       | Dakama    | Kinamapula   | Kinamapula   |
| 94  | John Buluma            | Geita        | Kasamwa   | Kasamwa      | Kasamwa      |
| 95  | Daudi M. Makungu       | Geita        | Kasamwa   | Kasamwa      | Kasamwa      |
| 96  | Cosmus Mashimba        | Kahama       | Dakama    | Kinamapula   | Kinamapula   |
| 97  | Shija Simbi            | Geita        | Kasamwa   | Bun'gwangoko | Bun'gwangoko |
| 98  | Joseph Kakuluwa        | Geita        | Kasamwa   | Kasamwa      | Kasamwa      |
| 99  | Angelina Sambala       | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 100 | Agnes Mugimwa          | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 101 | Jackson Msemwa         | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 102 | Julius Msilu           | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 103 | Victorina Kasike       | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 104 | Malicho Raphael        | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 105 | Lucas Kihongo          | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 106 | Frank Mfilinge         | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 107 | Jordan Theodos         | Iringa Rural | Kiponzelo | Maboga       | Kiponzelo    |
| 108 | Costa Ndaicha Payowela | Njombe       | Makambako | Ninga        | Ninga        |
| 109 | Anifa Mangula          | Njombe       | Makambako | Ninga        | Ninga        |
| 110 | Charles Mponzi         | Njombe       | Makambako | Ninga        | Ninga        |
| 111 | Evaristo Mangula       | Njombe       | Makambako | Ninga        | Ninga        |
| 112 | Peter Kibiki           | Njombe       | Makambako | Ninga        | Ninga        |
| 113 | Bahati Kiyembe         | Njombe       | Makambako | Ninga        | Ninga        |
| 114 | Lukas Payovela         | Njombe       | Makambako | Ninga        | Ninga        |
| 115 | Jane Mponse            | Njombe       | Makambako | Ninga        | Ninga        |
| 116 | Melana Mpawa           | Njombe       | Makambako | Ninga        | Ninga        |
| 117 | Yona Kigae             | Njombe       | Makambako | Ninga        | Ninga        |
| 118 | Petro Ngimbuchi        | Njombe       | Makambako | Ninga        | Ninga        |
| 119 | Joshua Udumbe          | Njombe       | Makambako | Ninga        | Ninga        |
| 120 | Yona Rutuma            | Njombe       | Makambako | Ninga        | Ninga        |
| 121 | Ramadhani Juma         | Njombe       | Makambako | Ninga        | Ninga        |
| 122 | Lukengelo Kigunga      | Njombe       | Makambako | Ninga        | Ninga        |
| 123 | Fredrick Miyale        | Njombe       | Makambako | Ninga        | Ninga        |
| 124 | Festo Matuga           | Njombe       | Makambako | Ninga        | Ninga        |

|     |                     |        |           |       |         |
|-----|---------------------|--------|-----------|-------|---------|
| 125 | Titus Mbogolo       | Njombe | Makambako | Ninga | Ninga   |
| 126 | Ezekiel Paul        | Njombe | Makambako | Ninga | Ninga   |
| 127 | Joseph Daudi        | Njombe | Makambako | Ninga | Ninga   |
| 128 | Mang'iso Ngoda      | Njombe | Makambako | Ninga | Ninga   |
| 129 | Maiko Ngoda         | Njombe | Makambako | Ninga | Ninga   |
| 130 | Benedicto Havanga   | Njombe | Makambako | Ninga | Ninga   |
| 131 | Evalina Gadau       | Njombe | Makambako | Ninga | Ninga   |
| 132 | Marcus Ngoda        | Njombe | Makambako | Ninga | Ninga   |
| 133 | Jeremia Ngimbudzi   | Njombe | Makambako | Ninga | Ninga   |
| 134 | Kristina Ngoda      | Njombe | Makambako | Ninga | Ninga   |
| 135 | Jonas Mfilinge      | Njombe | Makambako | Ninga | Ninga   |
| 136 | Meriki Manyita      | Njombe | Makambako | Ninga | Ninga   |
| 137 | Abedi Kiweli        | Kilolo | Kilolo    | Mtitu | Luganga |
| 138 | Fredrick Chuhila    | Kilolo | Kilolo    | Mtitu | Luganga |
| 139 | Asheri Kalolo       | Kilolo | Kilolo    | Mtitu | Luganga |
| 140 | Ediman Msungu       | Kilolo | kilolo    | Mtitu | Luganga |
| 141 | Habakuki Muhanga    | Kilolo | Kilolo    | Mtitu | Luganga |
| 142 | Bosco Mkakafu       | Kilolo | Kilolo    | Mtitu | Luganga |
| 143 | Bright Thomas       | Kilolo | Kilolo    | Mtitu | Luganga |
| 144 | Marko Kasiki        | Kilolo | Kilolo    | Mtitu | Luganga |
| 145 | Angelo Kiwele       | Kilolo | Kilolo    | Mtitu | Luganga |
| 146 | Alex Miho           | Kilolo | Kilolo    | Mtitu | Luganga |
| 147 | Nico Ludas          | Kilolo | Kilolo    | Mtitu | Kilolo  |
| 148 | Agustino Kianza     | Kilolo | Kilolo    | Mtitu | Luganga |
| 149 | Costantino Mlomo    | Kilolo | Kilolo    | Mtitu | Kilolo  |
| 150 | Daudi Mfano         | Kilolo | Kilolo    | Mtitu | Luganga |
| 151 | Tegemea Chalale     | Kilolo | Kilolo    | Mtitu | Luganga |
| 152 | Festo Mhombe        | Kilolo | Kilolo    | Mtitu | Luganga |
| 153 | Imelda Kiwamba      | Kilolo | Kilolo    | Mtitu | Luganga |
| 154 | Benedict Mgata      | Kilolo | Kilolo    | Mtitu | Kilolo  |
| 155 | Elieza M. Kikoti    | Kilolo | Kilolo    | Mtitu | Luganga |
| 156 | Philipo B. Makongwa | Kilolo | Kilolo    | Mtitu | Kilolo  |
| 157 | Thomas Lubida       | Kilolo | Kilolo    | Mtitu | Luganga |
| 158 | julius luwago       | kilolo | kilolo    | mtitu | luganga |
| 159 | Aneth kidibule      | kilolo | kilolo    | mtitu | kilolo  |
| 160 | Georgina msungu     | kilolo | kilolo    | mtitu | kilolo  |
| 161 | Yosia mpulule       | kilolo | kilolo    | mtitu | luganga |

|     |                        |        |        |          |          |
|-----|------------------------|--------|--------|----------|----------|
| 162 | Betwel Isack           | kilolo | kilolo | mtitu    | luganga  |
| 163 | UPENDO KIKOTI          | Kilolo | Kilolo | Mtittu   | Luganga  |
| 164 | EJIDI MKINI            | KILOLO | Kilolo | Mtittu   | Luganga  |
| 165 | ITILO MTATI            | Kilolo | Kilolo | Mtittu   | Luganga  |
| 166 | DAMIAN MBILINYI        | Kilolo | Kilolo | Mtittu   | Luganga  |
| 167 | Erika Mwakashilinde    | Mbozi  | Mlowo  | Mlowo    | Ivwanga  |
| 168 | Zacharia Sapamba       | mbozi  | vwawa  | mlowo    | vwanga   |
| 169 | Bernard Mamabise       | mbozi  | vwawa  | mlowo    | luyanga  |
| 170 | Angalile               | mbozi  | mlowo  | mloo     | vuanga   |
| 171 | Mawazo Mtenga          | mbozi  | vwawa  | mlowo    | vwanga   |
| 172 | Andison Twinzi         | mbozi  | vwawa  | mlowo    | Mbimba   |
| 173 | Sakson K. Kibona       | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 174 | Edwin Msyani           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 175 | Josephat Gideon        | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 176 | Leuben Sigwa           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 177 | Emanuel Mlawa          | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 178 | Happy Msyeta           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 179 | Aron Mshani            | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 180 | Joshua mwambene        | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 181 | Martha Chomo           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 182 | Christopher Mponda     | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 183 | Mwashirind Sangalusile | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 184 | Elisoni Mwaluwemba     | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 185 | Enesia Kayuni          | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 186 | Elia Shibanda          | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 187 | Yeri Halinga           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 188 | Limbuka Mwakyoma       | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 189 | Ebby Kayange           | Mbozi  | Vwawa  | Mlowo    | Ivwanga  |
| 190 | veronica membe         | mbozi  | Vwawa  | Mloo     | luyanga  |
| 191 | julius senka           | mbozi  | Vwawa  | Mloo     | Vwanga   |
| 192 | jonas tweve            | mbozi  | Vwawa  | Mloo     | Vwanga   |
| 193 | Oscar Nzunda           | mbozi  | Vwawa  | Mloo     | Vwanga   |
| 194 | Graison chuimla        | Kiloo  | kilolo | ng'uruhe | ng'uruhe |
| 195 | Consolata Tosi         | Kilolo | Kilolo | Ng'uruhe | Ng'uruhe |
| 196 | Brown Kaberega         | Kilolo | Kilolo | Ng'uruhe | Ng'uruhe |
| 197 | Gibson Mbwilo          | Kilolo | Kilolo | Ng'uruhe | Ng'uruhe |
| 198 | Benedict Mwinyi        | Kilolo | Kilolo | Ng'uruhe | Ng'uruhe |

|     |                            |                 |           |          |          |
|-----|----------------------------|-----------------|-----------|----------|----------|
| 199 | Juhudi Longo               | Kilolo          | Kilolo    | Ng'uruhe | Ng'uruhe |
| 200 | Chesko Kalolo              | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 201 | Happy Mtosa                | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 202 | Delfina Mbata              | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 203 | Steven Mwinyi              | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 204 | Zephania Tengalakwi        | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 205 | Gelard Kalolo              | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 206 | Amani Mwini                | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 207 | Ada Kihaka                 | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 208 | Chesco Kalolo              | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 209 | Seth Tengalakwi            | Kilolo          | Kilolo    | Ng'uluhe | Ng'ulule |
| 210 | Medy Ngoha                 | Kilolo          | Kilolo    | Pomalini | Ng'uruhe |
| 211 | Kiberi Ulanga              | Kilolo          | Kilolo    | Umerini  | Umerini  |
| 212 | Damias Kihanza             | Kilolo          | Kilolo    | Ng'uruhe | Pomerini |
| 213 | Ephraim Mazengo            | Kilolo          | Kilolo    | Pomalini | Pomerini |
| 214 | William                    | Kilolo          | Kilolo    | Pomalini | Pomerini |
| 215 | Boaz Chang'a               | Kilolo          | Kilolo    | Pomalini | Pomerini |
| 216 | Edward Mgata               | Kilolo          | Kilolo    | Pomerini | Pomerini |
| 217 | Samwel Daudi<br>Mang'ulisa | Kilolo          | Kilolo    | Ng'uruhe | Ng'uruhe |
| 218 | Elia Chang'a               | Kilolo          | Kilolo    | Ng'uruhe | Ng'uruhe |
| 219 | Adam Kihaka                | Kilolo          | Kilolo    | Ng'uruhe | Ng'uruhe |
| 220 | Peter Mtati                | Kilolo          | Ng'uruhe  | Kilolo   | Ng'uruhe |
| 221 | Bryson Nyarusi             | Kilolo          | Ng'uruhe  | Kilolo   | Ng'uruhe |
| 222 | Jobu Kalolo                | Kilolo          | Kilolo    | Nguruwe  | Nguruwe  |
| 223 | Yohanes Msaga              | Kilolo          | Kilolo    | Nguruwe  | Nguruwe  |
| 224 | Egdi Mkini                 | Kilolo          | Kilolo    | Nguruwe  | Nguruwe  |
| 225 | Juma Makombe               | Iringa (V)      | Kiponzelo | Wasa     | Wasa     |
| 226 | Lambati Lyelu              | Iringa (V)      | Kiponzelo | Wasa     | Wasa     |
| 227 | George Kuwoko              | Iringa vijijini | Kiponzelo | Wasa     | Wasa     |
| 228 | Dismas Mfilinge            | Iringa vijijini | Kiponzelo | Wasa     | Wasa     |
| 229 | Isaya Lunyungu             | Iringa          | Kiponziro | wasa     | wasa     |
| 230 | Juma Makombe               | Iringa          | Kiponziro | wasa     | wasa     |
| 231 | Pambano Kabogo             | Iringa          | Kiponziro | Wasa     | wasa     |
| 232 | Onesmo Kisindo             | Iringa          | Kiponziro | Wasa     | wasa     |
| 233 | Michilalos Bangi           | Iringa          | Kiponziro | Wasa     | wasa     |
| 234 | Melinas Abel               | Iringa Vijiini  | Kiponzelo | Uwasi    | Uwasi    |

|     |                     |                 |           |           |          |
|-----|---------------------|-----------------|-----------|-----------|----------|
| 235 | Nelia Juma          | Iringa Vijiini  | Kiponzelo | Uwasi     | Uwasi    |
| 236 | Meda Elinasi        | Iringa Vijiini  | Kiponzelo | Uwasi     | Uwasi    |
| 237 | Augustino           | Iringa          | Uwasi     | Uwasi     | Uwasi    |
| 238 | Hapiness Ng'owo     | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 239 | Silvesta Lunyungu   | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 240 | Nkota mapembe       | Iringa          | Kiponzelo | Wasa      | Wasa     |
| 241 | Mcas lugus          | Iringa          | Kiponzelo | Wasa      | Wasa     |
| 242 | Mchatusi bange      | Iringa          | kiponzelo | Wasa      | Wasa     |
| 243 | Joakhim mnange      | Iringa          | kiponzelo | Wasa      | Wasa     |
| 244 | Fedinand mkwele     | Iringa          | kiponzelo | Wasa      | Wasa     |
| 245 | Garlus Kihonza      | Iringa rural    | Wasa      | Kiponzelo | Wasa     |
| 246 | Onesmo Mnyela       | Iringa rural    | Wasa      | Kipenzelo | Wasa     |
| 247 | Renatus Dielo       | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 248 | Agustino Mavike     | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 249 | Emilio Myamya       | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 250 | Alfeo Chenye        | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 251 | Titus Mwenes        | Iringa vijijini | Kiponzelo | Wasa      | Wasa     |
| 252 | Ernesto Mgao        | Iringa(v)       | Kiponzelo | Wasa      | Wasa     |
| 253 | Sheli Mabika        | Iringa(v)       | kiponzelo | Wasa      | Wasa     |
| 254 | Julias Kisinda      | Iringa(v)       | Kiponzelo | Wasa      | Wasa     |
| 255 | George Mbago        | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 256 | Godwin Mgya         | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 257 | Steven Kidenya      | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 258 | Briton mzena        | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 259 | NICO KIPERA         | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 260 | ALBERTO MPIKA       | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 261 | JUMA S MPIKA        | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 262 | MICHAEL NGOWO       | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 263 | MASHAKA M. BOHELA   | Njombe          | Makambako | lyamkena  | lyamkena |
| 264 | BENEDIKTI K. MBINGI | Njombe          | Makambako | lyamkena  | lyamkena |
| 265 | Riziki Kidenya      | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 266 | Herasto Mnyota      | Njombe          | Makambako | Lyamkena  | Lyamkena |
| 267 | DYNASE FUTE         | Njombe          | Makambako | lyamkena  | lyamkena |
| 268 | PETER GADAU         | Njombe          | Makambako | lyamkena  | lyamkena |
| 269 | RICHARD KIWALE      | Njombe          | Makambako | lyamkena  | lyamkena |
| 270 | Roda Mwigune        | Njombe          | Makambako | lyamkana  | lyamkana |
| 271 | Charles Muhapa      | Njombe          | Makambako | lyamkana  | lyamkana |

|     |                   |              |           |          |           |
|-----|-------------------|--------------|-----------|----------|-----------|
| 272 | Stella Sanga      | Njombe       | Makambako | lyamkana | lyamkana  |
| 273 | Philipo Mpika     | Njombe       | Makambako | lyamkana | lyamkana  |
| 274 | Nehemea lamso     | Njombe       | Makambako | lyamkana | lyamkana  |
| 275 | OBADIA LUSILILE   | Njombe       | Makambako | lyamkena | lyamkena  |
| 276 | STIVIN KINAM      | Njombe       | Makambako | lyamkana | lyamkana  |
| 277 | RODRIC MCHAPU     | Njombe       | Makambako | lyamkana | lyamkana  |
| 278 | AGUSTINO.P.GADAU  | Njombe       | Makambako | lyamkana | lyamkana  |
| 279 | Joseph kibiki     | njombe       | makambako | lyamkena | lyamkena  |
| 280 | Adam kasimu       | njombe       | makambako | lyamkena | lyamkena  |
| 281 | ALFRED MFUGALE    | Njombe       | Makambako | lymkena  | lymkena   |
| 282 | ELINA KADAGA      | NJOMBE       | Makambako | lymkena  | lymkena   |
| 283 | ASHERY LISULILE   | NJOMBE       | Makambako | lymkena  | lymkena   |
| 284 | Onesmo Nyangenda  | Njombe       | Makambako | Lyamkena | Lyamkena  |
| 285 | RODRICK MPIKA     | Njombe       | Makambako | lyamkena | lyamkena  |
| 286 | Olesti Kikwara    | Iringa rural | Kipanzelo | Maboga   | Kipanzelo |
| 287 | Jonisia Kadeha    | Iringa rural | Iponzela  | Maboga   | Imponzela |
| 288 | Jane Muhingo      | Iringa rural | Ifunda    | Maboga   | Kipanzelo |
| 289 | Valencia Pamagila | Iringa rural | Luponzela | Maboga   | Luponzela |
| 290 | Lucas Kasike      | Iringa rural | Kiponzilo | Maboga   | Kipanzelo |
| 291 | Emmanuel Mbilinyi | Iringa rural | Kiponzilo | Maboga   | Kipanzelo |
| 292 | Juma Kasike       | Iringa rural | Kiponzilo | Maboga   | Kipanzelo |
| 293 | Anjelita Nyenza   | Iringa rural | Kiponzilo | Maboga   | Kipanzelo |
| 294 | Buerino Ernest    | Iringa rural | Kipanzelo | Maboga   | Kipanzelo |
| 295 | Kasano Kadea      | Iringa rural | Kipanzelo | Maboga   | Kipanzelo |
| 296 | Oward Mwampashi   | Mbozi        | Igamba    | Isanga   | Isanga    |
| 297 | Zachana Muhimba   | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 298 | Jamila Chatila    | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 299 | Lusina Nyenza     | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 300 | Julius Mgya       | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 301 | Kisinda Ayonze    | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 302 | Biata Kihanga     | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 303 | Haji Malenga      | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 304 | Ausebio Mgya      | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 305 | Christina Myinga  | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 306 | Rajabu Msenga     | Iringa rural | Kiponzelo | Maboga   | Kiponzelo |
| 307 | Ambokile Raphaeli | Mbozi        | Igamba    | Isansa   | Isansa    |
| 308 | Lurent Mkondya    | Mbozi        | Igamba    | Isansa   | Isansa    |

|     |                   |       |        |        |          |
|-----|-------------------|-------|--------|--------|----------|
| 309 | Philemo Nzunge    | Mbozi | Igamba | Isansa | Isansa   |
| 310 | Wilius S Shipela  | Mbozi | Igamba | Isansa | Isansa   |
| 311 | Lamson Mgala      | Mbozi | Igamba | Isansa | Isansa   |
| 312 | Samongi gasper    | Mbozi | Igamba | Isansa | Isansa   |
| 313 | mary mwampashi    | Mbozi | Igamba | Isansa | Isansa   |
| 314 | stanley Sipelele  | Mbozi | Igamba | Isansa | Isansa   |
| 315 | Mbishe Mwampashi  | Mbozi | Igamba | Isansa | Isansa   |
| 316 | Shabani Mhala     | Mbozi | Igamba | Isansa | Isansa   |
| 317 | Edward Agrey      | Mbozi | Igamba | Isansa | Isansa   |
| 318 | Joseph Mbago      | Mbozi | Igamba | Isansa | Isansa   |
| 319 | Emila Mwampash    | Mbozi | Igamba | Isansa | Isansa   |
| 320 | Emanuali Nzowa    | Mbozi | Igamba | Isansa | Isansa   |
| 321 | Japhet Haonga     | Mbozi | Igamba | Isansa | Isansa   |
| 322 | Tabu Hyela        | Mbozi | Igamba | Isansa | Isansa   |
| 323 | Elimia A mzumbwe  | Mbozi | Igamba | Isansa | Isansa   |
| 324 | Exson Nzoa        | Mbozi | Igamba | Isansa | Isansa   |
| 325 | Partman maweza    | Mbozi | Igamba | Isansa | Isansa   |
| 326 | Janet Mwashambwa  | Mbozi | Igamba | Isansa | Isansa   |
| 327 | Richard Shombe    | Mbozi | Igamba | Isansa | Isansa   |
| 328 | Paulo Nzuwa       | Mbozi | Igamba | Isansa | Isansa   |
| 329 | Samora Mwashitete | Mbozi | Igamba | Isansa | Isansa   |
| 330 | Mawazo Kibona     | Mbozi | Igamba | Isansa | Isansa   |
| 331 | Michael Wilium    | Mbozi | Igamba | Isansa | Isansa   |
| 332 | Asha Silungwe     | Mbozi | Igamba | Isansa | Isansa   |
| 333 | Adriano Edward    | Mbozi | Igamba | Isansa | Iwalanje |
| 334 | Japhet Mwampashi  | Mbozi | Igamba | Isansa | Iwalanje |

#### Annex4. List of Agro-dealers visited

| #  | Name of the Business     | District | Ward        | Village     | Year started the business |
|----|--------------------------|----------|-------------|-------------|---------------------------|
| 1  | Mwesiga Agrovert         | Kahama   | Igalilimi   | Igalilimi   | 2001                      |
| 2  | Hidamu Agrovert          | Geita    | Kalangalala | Kalangalala | 2003                      |
| 3  | Magla Agrovert           | Geita    | Nzera       | Nzera       | 2004                      |
| 4  | Evord Agrovert supply    | Geita    | Kalangalala | Iyagabuyaga | 2005                      |
| 5  | Makunja Agrovert         | Geita    | Kalangalala | Kalangalala | 2002                      |
| 6  | Mjema Agrovert           | Geita    | Kasamwa     | Kasamwa     | 2007                      |
| 7  | Obed Agrovert            | Geita    | Isurwa      | Ibisabagen  | 2009                      |
| 8  | Malunga Agrovert         | Kahama   | Kahama town | Kahama town | 2008                      |
| 9  | Mwanaibbengwe Agrovert   | Kahama   | Igalilimi   | Igalilimi   | 2010                      |
| 10 | Zaina Agrovert           | Geita    | Mwatulole   | Mwatulole   | 2011                      |
| 11 | Lupande General supplies | Geita    | Shabaka     | Nyamgogwa   | 2010                      |
| 12 | Mkumbwa Agrovert         | Geita    | Kalangalala | Kalangalala | 1991                      |
| 13 | Katoro Agrovet           | Geita    | Katoro      | Katoro      | 2001                      |
| 14 | Mwezarubu Agrovert       | Kahama   | Kinamapula  | Kinamapula  | 2009                      |
| 15 | BIC Agrochemicals        | Geita    | Kasamwa     | Kasamwa     | 2010                      |
| 16 | Zama Trading centre      | Geita    | Kalangalala | Kalangalala | 2010                      |
| 17 | Kajala Agrovert          | Geita    | Kalangalala | Kalangalala | 2010                      |
| 18 | Kibubya Agrovert         | Geita    | Kasamwa     | Kasamwa     | 1992                      |
| 19 | Hadija Agrovert          | Geita    | Katoro      | Katoro      | 2008                      |
| 20 | Dr. Mgoha Agrovert       | Geita    | Kalangalala | Kalangalala | 2008                      |
| 21 | Leonard Agrovert         | Geita    | Busolwa     | Busolwa     | 2004                      |
| 22 | Ihumbingu supply         | geita    | Shabaka     | Nyamgogwa   | 2009                      |
| 23 | Kameya Agrovert          | Geita    | Kamena      | Kamena      | 2006                      |
| 24 | GS madida General supply | Geita    | Kalangalala | Shelabela   | 2010                      |
| 25 | Maria Agrovert           | Kahama   | Majengo     | Majengo     | 2008                      |
| 26 | Imalaseko Agrovet        | Kahama   | Majengo     | Majengo     | 2009                      |
| 27 | Nijungo Agrovert         | Geita    | Nijundu     | Nijundu     | 2005                      |
| 28 | Geitazebu                | Geita    | Kalangalala | Kalangalala | 2008                      |
| 29 | Mohamed Agrovert         | Geita    | Kalangalala | Nyamkumbo   | 1996                      |
| 30 | Phil Agrovert            | Kahama   | Majengo     | Majengo     | 2008                      |
| 31 | Kingo Agrovert           | Kahama   | Kinamapula  | Kinamapula  | 2009                      |

|    |                           |        |               |              |      |
|----|---------------------------|--------|---------------|--------------|------|
| 32 | Monge Agrovert            | Kahama | Kagogwa       | Kagogwa      | 1999 |
| 33 | Bernard Asegelile         | Geita  | Kalangalala   | Kalangalala  | 2009 |
| 34 | Sambala Agrovert          | Geita  | Nyidundu      | Nyidundu     | 2008 |
| 35 | Nake Agrovert             | Kahama | Kahama town   | Kahama town  | 2008 |
| 36 | Nyasage Agrovert          | Geita  | Burela        | Nyeseke      | 2009 |
| 37 | Kapongo Agrovert          | Kahama | Majengo       | Majengo      | 2001 |
| 38 | Jitegemee Agrovert        | Kahama | Nyihogo       | Nyabubi      | 2008 |
| 39 | Magreth agrovert          | Geita  | Katoro        | Katoro       | 2001 |
| 40 | Rehema Agro               | Geita  | Kalangalala   | Kalangalala  | 2009 |
| 41 | Juma Agrovert             | Geita  | Nyidundu      | Nyidundu     | 2008 |
| 42 | NM agrovert               | Geita  | Nyakamwanga   | Nyakamwanga  | 2009 |
| 43 | Northen Agrovert          | Geita  | Kalangalala   | Kalangalala  | 1997 |
| 44 | Mbale kilimo              | Geita  | Kalangalala   | Kalangalala  | 2008 |
| 45 | Sanja Agrovert            | Geita  | Shabaka       | Nyamgogwa    | 2007 |
| 46 | Geita Farmers association | Geita  | Kalangalala   | Nyakaduha    | 2006 |
| 47 | Duka la wauzaji Pembejeo  | Kahama | Kagogwa       | Kagogwa      | 1999 |
| 48 | Maiko Agrovert            | Geita  | Kalumwa       | Kalumwa      | 2000 |
| 49 | Nick Agrovert             | Kahama | Chela         | Chela        | 2008 |
| 50 | Mkulima service Agrovert  | Kahama | Malunga       | Malunga      | 2005 |
| 51 | Dick Agrovert             | Kahama | Kahama town   | Kahama town  | 2002 |
| 52 | Makoye Agrovert           | Geita  | Shabaka       | Shabaka      | 2008 |
| 53 | Luchunga Agrovert         | Geita  | Karumwa       | Karumwa      | 2005 |
| 54 | Faith Sanga               | Kahama | Chela         | Chela        | 2005 |
| 55 | Gerod Mdeka               | Kilolo | Uhambingeto   | Ikuka        | 2009 |
| 56 | Ndembo trading            | Kilolo | Image         | Lyasa        | 2005 |
| 57 | David Msegea              | Kilolo | Lugalo        | Mbigiri      | 2008 |
| 58 | Shirika la mawaki         | Kilolo | Mtitu         | Ruganga      | 2012 |
| 59 | Aloice Agrovert           | Kilolo | Mbuu          | Masege       | 1990 |
| 60 | Mtwa Inv                  | Kilolo | ukumbi        | Winome       | 2009 |
| 61 | Kitowo Ushirika           | Kilolo | Ukumbi        | Kitowo       | 1987 |
| 62 | MAWAKI                    | Kilolo | Ng'uruhe      | Ng'uruhe     | 2004 |
| 63 | Lukani Shop               | Kilolo | ukumbi        | Lukanyi      | 2006 |
| 64 | Mradi wa jamii Ukumbi     | Kilolo | Ukumbi        | Ukumbi       | 2008 |
| 65 | Maumbich                  | Kilolo | Mtitu         | Kilolo       | 1997 |
| 66 | Mohamed Lugalala          | Kilolo | Ilula         | Ilula sokoni | 2008 |
| 67 | Jitegemee group           | Kilolo | Ruaha Mbuyuni | Utandika     | 2007 |
| 68 | Charles Agrovert          | Kilolo | Nyalumbo      | Ilula mwaya  | 2007 |
| 69 | Nyaimu SACCOs LTD         | Kilolo | Mahenge       | Nyanzina     | 2002 |
| 70 | Ntuga Shop                | Kilolo | Lugalo        | Mazombe      | 2008 |

|     |                            |        |              |              |      |
|-----|----------------------------|--------|--------------|--------------|------|
| 71  | Henrod Kikoti              | Kilolo | Nyalumbo     | Ilulu Mwaya  | 2000 |
| 72  | retail Shop                | Kilolo | Ukwega       | Ukwega       | 2008 |
| 73  | Farmers store              | Njombe | Ulembwe      | Igagala      | 2000 |
| 74  | Kivomali Agrovert          | Njombe | Njombe Mjini | Njombe mjini | 1989 |
| 75  | Erasto agrovert            | Njombe | Uwemba       | Utalingola   | 2004 |
| 76  | Mtewele General Trading    | Njombe | Njombe Mjini | Njombe mjini | 1995 |
| 77  | Kisambala Shop             | Njombe | Iwungilo     | Uliwa        | 2007 |
| 78  | HE Mdeke                   | Njombe | Ikula        | Nyombo       | 2005 |
| 79  | Babtista Grocery           | Njombe | Ninga        | Ninga        | 2009 |
| 80  | Mwenda Agrovert            | Njombe | Ikunda       | Nyombo       | 2007 |
| 81  | Mligo Agrovert             | Njombe | Luponde      | Luponde      | 1997 |
| 82  | Hela General supply        | Njombe | Mtwango      | Ilunda       | 2006 |
| 83  | Moshy Agrovert             | Njombe | Njombe Mjini | Njombe mjini | 2008 |
| 89  | Lumuliko Agrovert          | Njombe | Ramadhani    | Ramadhani    | 2007 |
| 90  | Mwala Agrovert             | Njombe | Njombe Mjini | Njombe mjini | 2008 |
| 91  | Channel Agrovert           | Njombe | Saja         | Itambula     | 2008 |
| 92  | Ulembule                   | Njombe | Ulembule     | Ulembule     | 2007 |
| 93  | Ngole Agrovert             | Njombe | Wangingombe  | Wangingombe  | 2008 |
| 94  | AS Agrochemical            | Njombe | Njombe       | Njombe       | 1995 |
| 95  | Ndambo Agrovert            | Njombe | Njombe       | Njombe       | 2011 |
| 96  | Miyonga Agrovert           | Njombe | Matora       | Boimanda     | 2006 |
| 97  | Maliasambo Supplies        | Njombe | Ikuna        | Mateganjola  | 2010 |
| 98  | Mauldi S                   | Njombe | Magoga       | Magoga       | 2006 |
| 99  | Kindamba Trading           | Njombe | Ramadhani    | Kibena       | 2003 |
| 100 | GS Agrochemical            | Njombe | Ramadhani    | Ramadhani    | 1996 |
| 101 | Deo agrovert shop          | Njombe | Nyaminoge    | Mtira        | 2002 |
| 102 | Emmy Agrovert              | Njombe | Njombe       | Dumilanga    | 2009 |
| 103 | Set Agrovert               | Njombe | Ramadhani    | Whikch       | 2003 |
| 104 | J. Nyashoka                | Njombe | Mapuga       | Uhekule      | 2009 |
| 105 | Rajabu Agrovert            | Njombe | Matawale     | Sido         | 1998 |
| 106 | Iska Agrovert              | Njombe | Matembwe     | Isoliwaya    | 2008 |
| 107 | Dastan Agrovert            | Njombe | Ubena        | Makambako    | 2009 |
| 108 | Malambako Agrochemical     | Njombe | Mwembetogwa  | Makambako    | 1998 |
| 109 | Kifanga shop               | Njombe | Ludoga       | Tyai         | 2008 |
| 110 | Lutego Agrovert            | Njombe | Makambako    | Makambako    | 2008 |
| 111 | Makambako General supplies | Njombe | Ubena        | Ubena        | 1972 |
| 112 | Magoma Agibusiness         | Njombe | Mjimwema     | Mjimwema     | 2003 |
| 113 | Rbuye Agrochemical         | Njombe | Mwembetogwa  | Mwembetogwa  | 2000 |

|     |                           |        |              |                 |      |
|-----|---------------------------|--------|--------------|-----------------|------|
| 114 | Mbembat farm camp         | Njombe | Makambako    | Mwembetogwa     | 1998 |
| 115 | B. kilasi Agrovert        | Njombe | Ilembula     | Ujange          | 2010 |
| 116 | Sisa Agrovert             | Njombe | Mjimwema     | Mjimwema B      | 2007 |
| 117 | Gaston Agrovert           | Njombe | Mtwango      | Mtwango Lunguta | 2008 |
| 118 | Mlowe Agrovert Supply     | Njombe | Njombe mjini | Idundilaga      | 1998 |
| 119 | Amos Shop                 | Njombe | Ulembwe      | Igagala         | 2007 |
| 120 | Kihata Agrovert           | Njombe | Mjimwema     | Mji mwema       | 2008 |
| 121 | Mgaya Agrovert            | Njombe | Mjimwema     | Jushoni         | 2009 |
| 122 | Mtarekod Agrovert         | Njombe | Mjimwema     | Chaugingi       | 2010 |
| 123 | Pozi                      | Njombe | Ilembula     | Kanamalenga     | 2007 |
| 124 | Kipene Agrovert           | Njombe | Makoga       | Makoga          | 2006 |
| 125 | Hoyuki                    | Njombe | Makoga       | Nganda          | 2009 |
| 126 | Chausiku Trading          | Njombe | Mlelela      | Nyumbanitu      | 2007 |
| 127 | Pili Agrovert             | Njombe | Njombe Mjini | Njombe mjini    | 1998 |
| 128 | Alex Mwangamanya<br>Konzo | Iringa | Ndoli        | Ndoli           | 2002 |
| 129 | Abas Tweve                | Iringa | Mahuninga    | Mahuninga       | 2010 |
| 130 | Patrick makweta           | Iringa | malowa       | malowa          | 2008 |
| 131 | Aloyce mponzi             | Iringa | mseke        | mseke           | 2009 |
| 132 | Kilatu francic            | Iringa | kiwere       | mfyome          | 2007 |
| 133 | Edward sanga              | Iringa | mzihi        | kidamali        | 2008 |
| 134 | Edmin nyondo              | Iringa | kidamali     | kidamali        | 2009 |
| 135 | Albert gwivaha            | Iringa | mlowa        | mlowa           | 2005 |
| 136 | Aram p tumbako            | Iringa | kihorogota   | kihorogota      | 2003 |
| 137 | Maulillyo mbinda          | Iringa | nzihi        | nzihi           | 2000 |
| 138 | Fedinandi mahavile        | Iringa | kipozelo     | kipozelo        | 2005 |
| 139 | Rahm makweta              | Iringa | mgama        | lopembelwasenga | 2009 |
| 140 | Aulelia kaundama          | Iringa | kalenga      | kalenga         | 2008 |
| 141 | Kandinda kihangwi         | Iringa | kiwele       | mlyome          | 2008 |
| 142 | Francis kilatu            | Iringa | kiwele       | mshome          | 2009 |
| 143 | Mmmoculata edward         | Iringa | mseke        | kaningombe      | 2008 |
| 144 | Jotam kyiano              | Iringa | mseke        | makota          | 2006 |
| 145 | Mathew kaundama           | Iringa | karenga      | karenga         | 1999 |
| 146 | Jumanne luhambati         | Iringa | Ndoli        | Ndoli           | 1999 |
| 147 | Husen raphael nyata       | Iringa | maboga       | kilanga         | 2007 |
| 148 | Erasto nyato              | Iringa | mlowa        | mafluto         | 2008 |
| 149 | Sulutani myanza           | Iringa | Mwembetogwa  | secondary steet | 2001 |
| 150 | Eveline ningo             | Iringa | mseke        | tanangozi       | 1999 |
| 151 | Christopher g kihwele     | Iringa | wasas        | usengilindeti   | 2003 |

|     |                        |        |                |                |      |
|-----|------------------------|--------|----------------|----------------|------|
| 152 | Karisto mbembaiti      | Iringa | ifunda         | mfukulembe     | 2008 |
| 153 | Alpha mgimba           | Iringa | kitanzini      | iringa manispa | 2004 |
| 154 | Mencho andrew magoyo   | Iringa | manda          | mangalali      | 2000 |
| 155 | Lenata mbilinyi        | Iringa | nzihi          | magubike       | 1995 |
| 156 | Salvina kapona         | Iringa | wasas          | usengilindeti  | 1998 |
| 157 | Issa chota             | Iringa | wasas          | wasas          | 2008 |
| 158 | Emmanuel Suma          | Geita  | Karumwa        | Karumwa        | 2005 |
| 159 | Juma Aden Kasembe      | Mbozi  | Nambinzo       | laenzanya      | 2006 |
| 160 | Maison T. Njunda       | Mbozi  | Halungu        | Halungu        | 2010 |
| 161 | Makali Asa Sanga       | Mbozi  | Mlowo          | Mlowo          | 2004 |
| 162 | Moston Mkondya         | Mbozi  | Nyimbili vwawa | Heze vwawa     | 2007 |
| 163 | Aliko Malambugi        | Mbozi  | Mlowo          | Mlowo          | 1997 |
| 164 | Meshaki M Mwasaka      | Mbozi  | Nambinzo       | Nambinzo       | 2008 |
| 165 | Mussa Msiyete          | Mbozi  | Ruanda         | Rumbila        | 2007 |
| 166 | Kandona R. Chislonga   | Mbozi  | Uvawa          | Uvawa          | 2002 |
| 167 | Joel H. Nkota          | Mbozi  | Halungu        | Halungu        | 2007 |
| 168 | Japhali Masebo         | Mbozi  | Nambinzo       | Nkanza         | 2006 |
| 169 | Wistoni M. Kibona      | Mbozi  | Havungu        | Havungu        | 1990 |
| 170 | Roida Eliya Mweshitete | Mbozi  | Vwawa          | Mwenge         | 2000 |
| 171 | Fudis F. Mwandongolo   | Mbozi  | Mlowo          | Mlowo          | 2008 |
| 172 | Chenes Mwambugi        | Mbozi  | Mlowo          | Mlowo          | 2001 |
| 173 | Elizabeth Nducha       | Mbozi  | Vwawa          | Vwawa          | 2006 |
| 174 | Jiva S.Mwasenga        | Mbozi  | Vwawa          | Vwawa          | 2007 |
| 175 | Ally N. Msalege        | Mbozi  | Mlowo          | Mlowo          | 2008 |
| 176 | Sylivestrer Mbwaga     | Mbozi  | Mlowo          | Mlowo          | 2002 |
| 177 | Waziri Shitindi        | Mbozi  | Muyovizi       | Mayenje        | 2005 |
| 178 | Hamisi Nyelenga        | Mbozi  | Mlowo          | Mlowo          | 2006 |
| 179 | William T. Lema        | Mbozi  | Mlowo          | Mlowo          | 2008 |
| 180 | Nickson M. Gumza       | Mbozi  | Nanyara        | Senjere        | 2005 |
| 181 | Sister Y. Mwasire      | Mbozi  | Gamba          | Haterere       | 2007 |
| 182 | Jofrey Mwampashe       | Mbozi  | Iyula          | Idiwili        | 2004 |
| 183 | Uhuru Y.Mwashuya       | Mbozi  | Harungu        | Kalombo        | 2005 |
| 184 | Kefas A. Mwashitete    | Mbozi  | Isansa         | Itumpi         | 2010 |
| 185 | Richard Kalonge        | Mbozi  | Mlowo          | Mlowo          | 1997 |
| 189 | Frank G. Mswima        | Mbozi  | Iyula          | Iyula          | 2005 |
| 190 | Kasisi P. Mtafya       | Mbozi  | Igaamba        | Materere       | 2004 |
| 191 | Raisi P. Mwashambwa    | Mbozi  | Nambianzo      | Nkanga         | 2007 |
| 192 | Frank Kayande          | Mbozi  | Mlangali       | Mlangali       | 2000 |
| 193 | Makali Asa Sanga       | Mbozi  | Mlowo          | mlowo          | 2004 |

|     |                          |         |                   |               |      |
|-----|--------------------------|---------|-------------------|---------------|------|
| 194 | Leonard Jengera          | Mbozi   | Iyula             | Iyula         | 2007 |
| 195 | Colline Mahenge          | Mbozi   | Mlowo             | mlowo         | 2007 |
| 196 | Manet Yasiwa Tulianje    | Mbozi   | Halungu           | Halungu       | 2004 |
| 197 | Joshua Kivanga           | mbozi   | Mloo              | Mloo          | 2008 |
| 198 | Aron J Sinka             | Mbozi   | Isansa            | Isansa        | 1997 |
| 199 | Charles Mwashivya        | Mbozi   | Nalongo           | Hampangala    | 2000 |
| 200 | Jumamosi T Baraka        | Mbozi   | Iyula             | Iyula         | 2000 |
| 201 | Jacob Nyimbo Kashililika | Mbozi   | Igamba            | Haterere      | 2004 |
| 202 | Iddi Halinotipulumba     | Mbozi   | Msiya             | Msiya         | 1989 |
| 203 | Trasila Kipesha          | Mbozi   | mlowo             | mlowo         | 2006 |
| 204 | Amani peter Joshua       | Mbozi   | Mlowo             | mlowo         | 2010 |
| 205 | Jedriki mdolo            | Mbozi   | Msiya             | Msiya         | 2007 |
| 206 | Peter J Mrema            | Mbozi   | Vwawa             | Vwawa         | 2006 |
| 207 | Frank I Shitindi         |         |                   |               |      |
| 208 | Agusta Sambala           | Njombe  | Iwingilo          | Iwingilo      | 1995 |
| 209 | Heri Maiko Mwamahonje    | Mbozi   | Tunduma           | Tunduma       | 2011 |
| 210 | Steven Leon Msumwa       | Mbozi   | Tunduma           | Tunduma       | 2006 |
| 211 | Amani Saidia Punte       | Mbozi   | Mpemba, Ileje rd. | Ileje         | 2010 |
| 212 | Anyisile Lagijimo Kayuni | Mbozi   | Mpemba Ileje rd.  | Mpemba        | 2006 |
| 213 | George A. Mwalindu       | Mbozi   | Mlowo             | Mlowo         | 2003 |
| 214 | Rahabu L. Makola         | Mbozi   | Vwawa             | Vwawa         | 1996 |
| 215 | Allan Kaduma             | Njombe  |                   |               | 2002 |
| 216 | Agnes Mwanyika           | Njombe  | Njombe mjini      | Songea road   | 2009 |
| 217 | Alfred M Iyaumi          | Njombe  | Ngelele           | Mhadzi        | 2003 |
| 218 | Damian Sanga             | Kilolo  | Ilula Mwaya       | Ilula Mwaya   | 2009 |
| 219 | Yohanesi Mhanga          | Kilolo  | Ilula Mwaya       | Ilula Mwaya   | 1998 |
| 220 | Stivin J.Kasuga          | Kilolo  | Kidabaga          | Kidabaga      | 2008 |
| 221 | Sanctus Luhwago          | Kilolo  | Ukumbi            | Ukumbi        | 2009 |
| 222 | Spinola Matamwa          | Kilolo  | Bomalang'ombe     | Bomalang'ombe | 1998 |
| 223 | Sostenes Njunwa          | Tarime  | Tarime            |               | 2008 |
| 224 | Edina S, Msigwa          | Mufindi | Soko kuu mafinga  |               | 2008 |
| 225 | Manfred Mlelwa           | Njombe  | Njombe            | Njombe Mjini  | 1972 |
| 226 | Patson Mwambasa Mbilinyi | Njombe  | Njombe            | Njombe Mjini  | 2003 |
| 227 | Asifiwe A. Sanga         | Njombe  | Stendi mpya       | Makambako     | 2000 |
| 228 | Yusuph Suleman Nassor    | Sikonge | Sikonge Madukani  | Sikonge       | 1998 |

#### **Annex5: List of Policy makers interviewed**

| No. | Designation & location | Name                      |
|-----|------------------------|---------------------------|
| 1   | DALDO Mbozi            | Mr Richard Silili         |
| 2   | DALDO Kilolo           | Mr Matamwa                |
| 3   | DALDO Kahama           |                           |
| 4   | DALDO Njombe           | Mr Vahaye & Mrs Celestine |
| 5   | DALDO Geita            |                           |
| 6   | DALDO Iringa Rural     | Mr Mpwewe                 |
| 7   | DC Kahama              |                           |
| 8   | DVO Geita              |                           |

#### **Annex 6: List of Officials Interviewed**

| No. | Designation & location         | Name                   |
|-----|--------------------------------|------------------------|
| 1   | CNFA - Former Country Director | Mr. Valerian Fernandos |
| 2   | CNFA - Former Country Director | Mrs Josefynne Kiiza    |
| 3   | AGRA Country Representative    | Mr. Fred Muhuuku       |
| 4   | AGRA- Staff Mozambique         | Mr. Argent Chuula      |
| 5   | MAFC                           | Dr. M. Msolla          |
| 6   | MAFC                           | Mr. Geoffrey Kirenga   |
| 7   | TAGMARK                        |                        |

### Annex 7: List of agrodealers interviewed (Telephone Interview)

| No | Name                            | Business name                             | District                |
|----|---------------------------------|---|-------------------------|
| 1  | Yothamu Kibabi                  | Kibabi trading                            | Kigoma                  |
| 2  | Eustace Mbunda                  | Kilimo Shop                               | Kigoma                  |
| 3  | Emmanuel Ndimuchaga<br>Lutebuka | Ndakalumbo Entre & General Supplies       | Kigoma Vijijini         |
| 4  | Geofrey Bukene                  | Tugeze SACCOS - Bugaga                    | Kasulu                  |
| 5  | Yasini Faraji Amanzi            | Duka la Pembejeo za Kilimo                | Mbinga                  |
| 6  | Omari A. Kawanga                | Kawanga traders                           | Tunduru                 |
| 7  | Ibrahim M. Ibrahim              | Pembejeo za kilimo                        | Tunduru                 |
| 8  | Jason Chiha                     | Chiha Shop Mpanda                         | Mpanda                  |
| 9  | George John Magile              | Agro Vet Center                           | Mpanda                  |
| 10 | Ruth Hankungwe                  | J. Sengelema Veterinary Center            | Nkasi                   |
| 11 | Charles U. Makundi              | Ndetarimo Agro-Vet                        | Nkasi                   |
| 12 | Anna S. Towela                  | Inyonga Farmers Inputs                    | Nkasi                   |
| 13 | Sikutu Y. Kasembo               | Rumako AMCOS                              | Kigoma                  |
| 14 | Said Amiri                      | A.S Shop                                  | Sikonge                 |
| 15 | Peter Ignas Peter               | Peter Spare Shop                          | Sikonge                 |
| 16 | Emediel Joshua Mayega           | Amedy G.M                                 | Sikonge                 |
| 17 | Ezekiery Henery                 | Ezekiery Shopping                         | Sikonge                 |
| 18 | Paul Rioba Mossama              | Pembejeo Borega                           | Tarime                  |
| 19 | Modesta J. Peter                | Lawa Agrovert                             | Tarime                  |
| 20 | Julius Benedictor Magige        | Mori Agricultural Marketing Coop. Society | Tarime                  |
| 21 | Sostenes Njunwa                 | S.K. Agroveter                            | Tarime                  |
| 22 | Peragia J. Barozi               | Shalom Agrovert                           | Tarime                  |
| 23 | Gerald Shangali                 | T.F.A LTD                                 | Tanga                   |
| 24 | Digna Songoro                   | Diso                                      | Sumbawanga Vijijini     |
| 25 | Felician Sikazwe                | Sikazwe                                   | Sumbawanga-<br>Vijijini |
| 26 | Idd S. Baruti                   | Mico Human T. relief                      | Sumbawanga-<br>Vijijini |