

**CONTRIBUTION OF DISTRICT AGRICULTURE DEVELOPMENT PLANS TO  
POVERTY REDUCTION AT THE HOUSEHOLD LEVEL: A CASE STUDY OF  
KOROGWE DISTRICT, TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN  
MANAGEMENT OF NATURAL RESOURCES FOR SUSTAINABLE  
AGRICULTURE OF THE SOKOINE UNIVERSITY OF AGRICULTURE.  
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## ABSTRACT

Agriculture is a key element of the Tanzanian economy, it contributes about 46% of the GDP. It is not well mechanized, most of small scale farmers using rudimentary and poor technologies. Following the decentralization policy, the District Agriculture Development Plans (DADPs) established project programme to boost up agriculture to promote economic growth and poverty reduction at household level. This study was conducted in Korogwe District, Tanga Region in order determine the contribution of the DADPs to poverty reduction at the household level. Random sampling was used to select 6 villages and 20 households (DADPs and non DADPs member) in each village. Data collected was edited, coded and analyzed using Statistical Package for Social Science (SPSS) Computer programme version 16.0. The Analysis of Variance (ANOVA) using the Least Significant Difference (LSD) was used to test the difference between the means. The paired t-test was used to assess for existence of significant difference between the means annual incomes between the DADPs and non DADPs households. It was observed that plough and Cart was the most adopted (51%), followed by the powertiller (24%) and lastly the poultry and the improved goats (25%). However households participation in DADPs projects was through monetary contribution (55%) and activity packages that combines materials and money (30%) and monetary and labour (15%). It was also observed that the remarkable important improvement in the programme activities gained by the households were the expansion of cultivation land which ultimately increased the crop yields (62%), means of transportation of goods (33%) and education (20%). Moreover the mean annual income DADPs member was TZS 702000 and while Non DADPs member was TZS 302385. The most limiting factors were shortage of tools (33%) and tools breakdown (23 %). Furthermore, the most important intervention measures suggested were tools (49%) and tractor (24%). The study recommends provision of pair of oxen's as loans to the households and access to credits facilities.

## DECLARATION

I, **Bilali Seif Shemkai**, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work done within the period of registration and that it has neither been submitted nor being concurrently submitted in any other institution.

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Bilali Seif Shemkai

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Date

The above declaration is confirmed

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Prof. L. L. L. Lulandala  
(Supervisor)

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Date

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## **ACKNOWLEDGEMENTS**

During my course of study I was privileged to work with many dedicated personalities of whom I hereby acknowledge for their various roles towards the success of this study.

Foremost, I would like to sincerely recognize my supervisor Prof. L. L. L. Lulandala for his availability, persistent follow up, critical reading my drafts and providing insightful inputs that eventually shaped and improved the quality of this work. He provided encouragement which I greatly needed to carry through this academic pursuit. I also express hearty appreciation to all my 2010-2012 classmates' and lecturers of MNRSA course with whom I shared their experiences, companionship and encouragement.

In a special way, I recognize my parents, whom had been a sure source of inspiration through their inspiring leadership throughout my life.

Above all I thank my God for the good health, the will to forge ahead and stability of mind amidst all the other responsibilities that awaited my attention. Because of his love, I have made it this far.

## **DEDICATION**

I dedicate this dissertation and all its fruits to my Almighty God, my beloved wife Siwema Iddi Mcharo and our blessed daughter Nurath.

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## LIST OF ABBREVIATIONS AND SYMBOLS

%	Percentage
°C	Degrees Celsius
°	East and South degrees
AIDS	Acquired Immune Deficiency Syndrome
ANOVA	Analysis of variance
APR	Agricultural Production Recovery
ASDPs	Agriculture Sector Development Programmes
DADPs	District Agricultural Development Programmes
DEO	District Extension Officer
<i>et al</i>	And others
etc.	<i>Et cetera</i>
FINCA	Foundation for International Community Assistance
GDP	Gross Domestic Product
ha	Hectare
HBS	House Budget Survey
HIV	Human Immunodeficiency Virus
i.e.	That is
kg	Kilogram
km	Kilometer
km <sup>2</sup>	Square kilometer
LSD	Least Significant Difference
mm	Millimetre
MNRSA	Management of Natural Resources for Sustainable Agriculture
MOCEMA	Morogoro Central Market

NGOs	Non-Government Organizations
PADEP	Participatory Agriculture Development Empowerment Project
SACCOS	Saving and Credit Cooperative Society
SPSS	Statistical Package for Social Science
SUA	Sokoine University of Agriculture
TASAF	Tanzania Social Action Fund
TBC	Tanzania Broadcasting Cooperation
Tv	Television
TZS	Tanzanian Shillings
UK	United Kingdom
UNDP	United Nations Development Program
URT	United Republic of Tanzania
US\$	United States Dollar
USA	United State of America
VIFAFI	Victoria Farming and Fishing Project
WEO	Ward Extension Officer

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

Agriculture is a key element of the Tanzanian economy and it contributes about 46% of the Gross Domestic Product of Tanzania (URT, 2008). About 80% of the entire population is engaged in agricultural activities and depend on agriculture for their livelihood (URT, 2003a). Agriculture in Tanzania is mostly dominated by smallholder farmers and few large scale farmers. Out of the 4 901 837 rural agriculture households in Tanzania, 4 858 810 (99%) households were growing crops and their numbers seem to increase by 3.5% per annum (URT, 2008). Both cash and food crops are cultivated on those areas which favour agricultural production. Large scale farmers mostly are involved in cash crops production like sisal, cotton, tea, coffee, pyrethrum, cashew nut and sugarcane, which are supported by mechanization. Small scale farmers cultivate on the average farm sizes of between 1.0 ha and 3.0 ha by applying traditional techniques (URT, 2008) using hand hoes and being dependant on rain fed agriculture. Furthermore, agriculture accounts for about three quarters of merchandize exports (Sanga, 2008). The main traditional agriculture exports include tobacco, tea, sisal, cashew nuts, cloves, and coffee (URT, 2006).

The good performance of the agriculture sector is, therefore vital for the eradication of hunger and poverty, promotion of sustained economic growth and the achievement of sustained development (Rweyemamu, 2009). Despite the efforts done by the government to develop the agriculture sector in the country, still agriculture activities are performed through the use of rudimentary and low level technologies which lead to low yields (URT 2003a). The rural areas which account for about three quarters of the Tanzanian

population, besides using rudimentary technologies are affected by other factors such as poor infrastructure, limited rural financial services, high food insecurity, low farm productivity, lack of creativity and low level of education which result to poor social economic standard which is characterized as poverty. The World Bank (2005), indicated that about 50% of Tanzanians can be defined as poor due to their per capital income per day being less than 1 US dollar, and most of them being in the rural areas.

Due to the importance of agriculture, therefore the government of Tanzania with the assistance from the World Bank, has prepared some programmes to boost up agriculture with the aim of promoting economic growth and poverty reduction (Rweyemamu, 2009). Following the decentralization policy of 1998, there has been a deliberate move to devolve power to the districts whereby the District Agriculture Development Plans (DADPs) are crucial for the development of agriculture which caters for the livelihoods of 80% of the people of Tanzania (URT, 2005). Under the DADPs the farmers are being involved in decision making particularly in agricultural production under the guidance of the Agricultural Extension Officers.

The main objective of DADPs is to raise the spirit of household participation in production through the implementation of small agricultural development subprojects which are implemented by groups of community members (URT, 2005). The United Republic of Tanzania adopted DADPs at the district level to provide the community with needs generated within the villages, such as industrial materials and money in order to reduce poverty. Korogwe District is among the districts in Tanzania which the DADPs implemented their programme activities (sub projects) to support households to reduce poverty. Such programmes include agriculture, livestock and poultry keeping, market

construction, irrigation schemes and dip rehabilitation (DADPs District Officers- personal communication, 2010).

## **1.2 Problem Statement and Justification**

During the period 2005-2010 the government had implemented the 4<sup>th</sup> phase of its key priority activities and programmes inline with the National Development Vision to the year 2025 in its efforts to eradicate poverty (Rweyemamu, 2009). The government has adopted the agriculture development strategies which set the framework for achieving the sector's objectives and targets. At the national level, the Agriculture Sector Development Programmes (ASDPs) provide the overall framework and processes for the implementation of the ASDPs development, while at the district level the activities are to be implemented by the local government authorities based on the DADPs (URT, 2005). Since 2005 DADPs have been working to support agriculture production and poverty reduction at the household level, especially in the rural areas (URT, 2005). Besides the information obtained from the District Agriculture Officers experiences, there is no any study which has been done to establish the contribution of the DADPs on the poverty reduction at the household level in Korogwe District. Therefore the contribution of the DADPs on poverty reduction is unknown.

The present study is, therefore, intended to determine the contribution of DADPs to poverty reduction at the household level in Korogwe District, Tanga Region, Tanzania, identify the constraining factors and come up with strategies on which agricultural projects could be based in the promotion of the agricultural sector and reduce poverty at the household level in the rural areas. This study will be helpful to the government officials who will use the information obtained for making innovations and improvements in the agricultural sector particularly in the DADPs.

## **1.3 Objectives**

### **1.3.1 General objective**

Carrying out an assessment to determine the contribution of the DADPs to poverty alleviation at the household level in Korogwe District, Tanga Region, Tanzania and indicate the way forward.

### **1.3.2 Specific objectives**

- i. To identify activities done under the DADPs that is intended to improve the households income and reduce poverty.
- ii. To determine the extent of participation of the households in the DADPs projects intended for poverty reduction.
- iii. To determine the benefits gained by the households from the DADPs subprojects on poverty reduction
- iv. To identify factors limiting the DADPs performance and measures required for improvement.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 The Activities under the DADPs that are Intended to Improve the Household**

##### **Income and Reduce Poverty**

Kayunze (1998) cited by Komba 2008), reported that poverty is a big enemy of development and thus ought to be fought, reduced to at least relative poverty and if possible eradicated. Globally, poverty is a challenge and a number of strategies to eliminate it by different nations and Non Governmental Organizations (NGOs) have been imposed and implemented. The World Bank (2005), indicated that about 50% of Tanzanians can be defined as poor due to their per capital income per day being less than 1 US dollar, and most of them being in the rural areas. The National Bureau of Statistic (NBS) (2000), showed that between the year 1991/2 and 2000/01, the income poverty gap, between the poor and non poor in Tanzania mainland had increased from 37.6% to 43.1% while the food poverty also increased from 16.4% to 22.7% during the same period (Komba, 2008).

The percentage of the Tanzanian population which is unable to obtain the minimum level of the dietary energy consumption stands at 43%, reflecting the depth of ongoing poverty (Komba, 2008). URT (2005), defined poverty as the percentage of people below the basic needs poverty line. In Tanzania, 35.5 % live below the basic needs poverty line and illiteracy rate is 28.6% (URT, 2002). The basic needs poverty line in the year 2000/01 was set to be TZS 262 per adult equivalent per day.

Anti poverty strategies must seek ways to generate wealth by revising investments, wage structure, terms of trade and other factors (Lupilya, 2007). The government and the actors

of activities should concentrate on growth policies and results of growth will trickle down to the poor through both primary and secondary income and thus alleviating their poverty (Oyen, 1992). In its efforts to overcome the problem of poverty of her people, Tanzania introduced several economic reform policies and strategies in line with the National Development Vision to the year 2025, which includes the National Strategy for Growth and Reduction of Poverty (NSGRP) or Mkukuta (URT, 2008). The government has initiated a number of community development programmes aimed at improving the people's standard of living. These programmes include Participatory Agriculture Development Empowerment Project (PADEP), DADPs and Tanzania Social Action Fund (TASAF) (Efraji 2008).

According to Efraji (2008), TASAF supported different sub projects in Ulanga District which included the construction of the 84 classrooms, dispensaries, roads, water supply systems, small scale irrigation projects and construction of footbridges. In its support TASAF effected its contribution through the needed materials such as cement, iron sheets, nails, wire mesh, wood aggregates, and gravels. In Bukoba District, TASAF supported Mabuye Village maize production projects with a total cash of TZS 7 332 566, in addition to assisting the cultivation of the fields, provision of seeds and fertilizers to the farmers. In the goat keeping project, TASAF contributed TZS 13 777 575 in addition to constructing 42 goats' sheds, and purchasing 89 goats, which were distributed to the beneficiary households (Lupilya, 2007). In Korogwe the PADEP programme supported various subprojects such as the soil conservation and fertility improvement, irrigation schemes, bridge construction, livestock, farming and market building (URT, 2010).

A higher level of the accruing income is expected to be associated with a higher expenditure on food, shelter and sanitation projects, which have a positive influence on the

survival of the household members (World Bank, 2000). The Agricultural Production Recovery Project (APRP) in Northern Huila, Angola, supported households with agricultural inputs, animal traction, and renovating small irrigation systems in order to increase their agricultural productivity in which groups of 4 families received cattle and plough (Rodriguez, 2005).

TASAF Korogwe Urban supported the construction of 4 classrooms in secondary schools, construction of health centres and distribution of water for local communities and supported vulnerable groups with 100 local chicken and 20 improved crocks, also provided training and medicines at the early stages of the project (Kiboma, G. personal contact, 2013). The same report revealed that TASAF Korogwe District, constructed classrooms with their facilities and toilet pits, both in secondary schools and primary schools. It also constructed health centres, staff houses and their facilities (Lukinisha, E. personal contact, 2013). In Korogwe District there was 35 savings and credit societies by 2007 used as source of finance to finance their entrepreneurial activities which included SACOS, FAIDICA, PRIDE, SEDA and FINCA (Masalu, 2008).

Training enables local people to be aware, understand and adopt new technologies more easily. Training empowers individuals (Komba, 2008). Training on the related activities enables the participants to have the technical and management skills of operating the programmes offered (Mongi, 2005). The basic training stimulates the community by making them to be aware of what is their role in the implementation process of TASAF activities (Efraji, 2008). These TASAF supported training programmes provide the local community with skills of how to handle milling machines (Lupilya, 2007). Komba (2008) , reported that under the VIFAFI project all group members received the training pertaining to poultry, goats and cow husbandry before the project implementation as it had

been done in the vulnerable group beneficiaries supported by TASAF, both in Korogwe Town Council and Korogwe District (Kiboma, G and Lukinisha, E. personal contact, 2013). The households from different project programme groups were given study tours to Lushoto and Same Districts to see terracing and soil fertility improvement projects while others visited the Nanenane exhibitions in Morogoro (URT, 2010).

## **2.2 Participation of the Households in the Projects Intended for Poverty Reduction**

Community participation is viewed as a process where beneficiaries or client groups influence the direction and execution of development projects (Nanai, 1993). Community participation has been increasing in popularity since the 1970s' when it grew out of the concern for meeting the basic needs and reaching the poorest of the poor. Due to the landed benefits of the participation, it has become one of the most widely used concepts in development (Prety, 1995) as cited by Lipulya, (2007). UNDP (2000) and Banturak (2000) cited by Lupilya (2007) emphasized that, concerted efforts from both the developed nations and the world bodies must go a long way towards promoting self-help group organizations and encouraging people's participation in development programmes particularly in rural areas. Millers (1979), as cited by Lupilya, (2007) suggested that in order for the community to eradicate poverty it must participate from the early stages of decision making of what should be done to them.

Nanai (1993) reported that in rural development, participation includes people's involvement in the decision making processes, in the implementation of the programmes, and in the efforts to evaluate such programmes. Mvella (2000), reported that there were different ways of participation of the stakeholders on water supply projects in Arumeru District, which were through consultation, financial support (ranged between TZS, 1000

and TZS, 2000) and labour contributions, decision making and projects evaluation. Komba (2008) indicated that the contribution could be in monetary terms or materially.

The foundation of poverty eradication is self organization of the poor at the community level. In the milk goat production project, in Korogwe District, for example, the communities participated through the decision making, monetary and labour contributions. A total amount of the TZS 691 980 had been contributed by household members out of the TZS 2 615 572 total cost of the project (URT, 2010). Lupilya (2007) reported that in Mabuye maize project which included 32 beneficiaries, the local community contributed TZS 824 000 out of the TZS 7 332 566 total cost of the project and provided labour for the weeding and other succeeding activities. The households contributed 20 % in terms of mankind to the project programmes offered jointly by TASAF Korogwe Urban and TASAF Korogwe District (Kiboma, G and Lukinisha, E. personal contact, 2013).

### **2.3 Benefits Gained by the Households from the Subprojects on Poverty Alleviation**

Mascarenhas (2000), cited by Komba, (2008) reported that livestock ownership is one of the critical factors of appreciating poverty. Sales of the livestock and livestock products provide the farmers with cash to purchase household necessities and farm inputs (Mphuru, 1991). Chacha (2007) reported that the average total household income after the intervention by the livestock subproject in Bunda District was TZS 1 568 776 of which 70% was contributed from livestock, while 27% was from crops and the rest was from nonfarm activities. Also some households benefited from milk, hides and skins. As a result of the VIFAFI project in Musoma Rural District, the family living standards of the participating communities improved tremendously-building permanent houses roofed with corrugated iron sheets and owning chicken and goats (Komba 2008).

TASAF programmes in Ulanga District increased the purchasing power of different groups of the participating households to an average annual income ranging from TZS 75 000 to TZS 150 000. In addition 84 classrooms for both primary and secondary schools were constructed, thereby increasing the standard seven leavers by 10% (Efraji, 2008).

The improvement in the quality of life in the low income households like housing, clothing, health and sending the children to school, were the benefits obtained from the MOCEMA SACCOS's programme in Morogoro (Kipene, 2007). In VIFAFI farming project the households benefited from the increased maize yields from 0.8 to 1.1 tons/acre through the use of the animals manure in their fields (Komba, 2008). The practice of mechanized tools supported the majority of households in the study areas to cultivate about 1.4 to 3 acre. The observation shows that the households increased the yields from the average 0.6 tone/acre to 1.2 tones/acre of maize and paddy, more than the amount recommended in maize production of 0.8 to 1.1 tone/acre in VIFAFI project (Komba, 2008).

URT (2010) reported that adoption of improved technologies by the farmers, had a positive impact. For example, the exotic goats had been noted to be of benefit by increasing the production of milk from one (1) litre to three (3) litres. On the poultry programme the farmers managed to increase production from 8 to 15 eggs per hen per datch, thereby increasing their income. For instance one household reported to have earned TZS 210 000 after selling 20 chickens. The money obtained were used for school fees and bought food supplements during hunger periods. It was reported that the households where their main income earner was to the agriculture never had problems paying school fees compared to the households where the main income earner was self-employment in non-agricultural (URT, 2007). Education is always valued as means for

developing human skill and knowledge which offer means of escape from poverty (Kahama *et al*, 1986; URT, 2003b; Komba, 2008).

URT (2008) reported that the increasing accesses to technologies by farmers such as improved goats, chicken, oxenization, and the use of powertillers had increased productivity of the households- hence the production of various crops such as maize, paddy and livestock products (milk and beef) had increased. In Kondoa, it was reported that the use of powertillers had enabled farmers to cultivate 5-8 acres per day (URT, 2008). PADEP helped households to reduce poverty at their household levels such that some of them managed to improve their houses while others constructed new ones and, some of them bought livestock and satellite dishes while others established other sources of income like ownership of hotels. For instance one of the households member said that through the improved maize seeds programme, had harvested about 1.6 tones/acre of maize in which he sold 1.1 tones and earned TZS 330 000 (TZS 30 000 @ 0.1 tone) which he used to buy iron sheets, burnt bricks and nowadays is no longer suffering from seepage during the rainy season.

Kamuzora (2001) reported that the possession of asserts reflects income levels of the individuals. Komba (2008), in his study revealed that possessing the asserts like houses either with corrugated iron sheets or thatched with grass, owning animals and other asserts such as TVs, radios and bicycles were considered to be important in measuring the poverties of the households. Kajjage (2009), suggested that, valuable domestic assets such as television, cookers etc could be indicators of wealth and economic status of the households. Physical assets of the households are often important determinants of their wealth status. Radio and TVs are the most important mass media for providing information about agriculture quickly (Mntambo, 2007).

Investment in the transport sector improves access to economic opportunities by reducing transport costs, making market structures competitive, and reduction in prices for both freight and passenger services (Ramadhani *et al.*, 2000). Thus, it is appreciated in poverty reduction programmes (Gannon *et al.*, 1997). Transportation costs of hiring tractors were reduced from TZS 20 000 to TZS 5000 per trip by using carts (URT, 2010). Also transport investment provides income earning opportunities for the poor (Gannon *et al.*, 1997). This suggests poverty reduction.

#### **2.4 Factors Limiting Projects Performance**

According to Efraji, (2008), TASAF programmes in Ulanga District were faced with inadequate working tools, difficulties in transportation of the materials in some areas, uncommitted personnel to supervise the work, lack of labour and inadequate construction materials. Political interferences were also a problem which led to some people not being willing to offer their labour. Mismanagement of project funds, the purchasing of substandard materials and the hiring of unqualified contractors have been identified in the TASAF sub projects implementation (URT 2008). Lack of standard markets in place, shortage of the extension officers motivated to work in rural areas and animal diseases caused by intestinal worms and ticks were among the limiting factors in Bunda District (Chacha, 2007).

Shortage of rainfall and poor participation of household members in the projects were some of the limitations faced by PADEP in Korogwe (URT, 2010). Also frequent breakdowns of the machines which needed regular maintenance were reported on the milling projects supported by TASAF (Lupilya, 2007). Death, drought, inadequate feeds and inadequate funds to construct proper chicken sheds and buy other inputs were among the major problems facing different poultry projects (Lupilya, 2007; Komba, 2008).

Frequent occurrence of diseases, abortions and inadequate production of milk-some yielding below half a litre per day (Chacha, 2007; Lupilya, 2007) also played role. Chacha (2007), in his study pointed out that poor disease control programmes and poor veterinary services which were associated with the shortage of veterinary drugs, vaccines, chemicals and reagents were seriously reducing livestock productivity and made markets insignificant. URT (2010), reported that some of the households lost their goats and chicken due to diseases. Disputes over land cultivation, as the power tiller was not operational at times and being inefficient on the boggy soils as well as on very dry and hard (heavy) soils were other limiting factors in the PADEP programmes (URT, 2010).

In the Mabuye maize project, there was a drop out of the group members due to long duration of sicknesses of some participants, distance to and from the field, presence of couching grasses which require a lot of energy to uproot (Lupilya, 2007). Also Lupilya reported that low production was contributed by untimely field preparation, planting, weeding and inadequate use of inputs. In the milling machinery project some of members had dropped out because of the long time taken, lack or low profits to beneficiaries (Lupilya, 2007). Members would be active in the group if they obtain positive change in their economics. Otherwise they might not be motivated by their respective activities as they do not get the expected benefits (Mvella, 2000). Poor cooperation among the members was the reason of the dropouts of the members and also failure of some VG under TASAFA Korogwe District (Lukinisha, E. personal contact, 2013).

- i. The construction of irrigation water dams supported households to irrigate their crops during the dry seasons (URT, 2010). Lukinisha, (2013), reported that, the construction of a water dam at Madumu Village supported the survival of the varieties of the households crops during the dry season. In some cases VG members were separated to

remove conflicts among them (Kiboma, G. personal contact, 2013). The ox-plow service will provide members measures required for improvement with access to oxen that can plow their fields affordably and efficiently (Lambi fund, 2012). Close follow up of the projects ensure their sustainability (Mongi, 2005; Lupilya, 2007).

## **CHAPTER THREE**

### **3.0 METHODOLOGY**

#### **3.1 Materials**

##### **3.1.1 Location of the of study area**

This study was conducted in Korogwe District, Tanga Region. It is located between latitudes 4° 15' to 5° 15'S and longitudes 38° 0' to 38° 45' E. The district is bordered by Lushoto District in the northeast, Muheza District to the east, Simanjiro District to the west, Same District to the northwest and Handeni District to the south. Korogwe District has an area of 3,756 square kilometers which is 14% of the whole area of Tanga Region. The district has 4 divisions, 20 wards and 135 villages (URT 2008). Korogwe is a road and railway junction, where the routes from Tanga city link those from Dar-es-Salaam to the northern regions of Arusha and Kilimanjaro.

##### **3.1.2 Description of the study area**

###### **3.1.2.1 Population**

Korogwe District has a population of 260 238 people of which 127 653 are males and 132 585 females with an annual growth rate of 1.2% (National Bureau of Statistics, 2002; URT, 2008). The district has heterogeneous tribes in which the dominant ethnic tribes are Sambaa and Zigua. Other people of different origin and tribes from other regions had moved and settled in the district in search of employment in the sisal estates and other sectors. These tribes now constitute an important section of the population of the district. They include the Pare, Chaga, Hehe, Bena (URT, 2008).

### **3.1.2.2 Topography, geology and soils**

The topography of Korogwe is lowland as well as mountainous areas with altitude ranging between 500 and 600 m above sea level in lowland and 1000 to 2400 m above sea level on the mountainous areas. The district is drained by tributaries of the Pangani River which are Mkomazi, Soni and Lwengera tributaries which flow from the mountains. Korogwe District has 4 small natural lakes which play an important part in the fishing activities these lakes are Kumba, Manga, Kilemele and Kwasunga. The geological formations of Korogwe are mainly dominated by the red clay loam soils in the mountainous zone and brown sandy soils in the dry plain zone (URT, 2008).

### **3.1.2.3 Climate**

The different climate regimes of this area are mainly determined by the interplay of the altitudinal position, temperature and rainfall. Generally, the district experiences two major rainfall seasons, with the long rains between March and May and short rains between October and December. However, the average annual rainfall varies from year to year and between ecological zones. In the lowland areas, rainfall ranges between 800 to 1000 mm annually, with annual average temperature ranging between 24°C to 31°C. In mountainous areas temperature ranges between 21°C to 28°C with the annual rainfall ranging between 800 mm and 2000 mm (URT, 2008).

### **3.1.2.4 Social-economic activities**

Manundu is a town center of Korogwe District which is important for administrative, marketing and other related services. The economy of Korogwe District is based largely on crops production and animal husbandry in which different varieties of crops like maize, paddy, cassava, beans, tea, coffee, oranges are produced and animals like goats, sheep, cattle, pigs and chicken are kept. According to the 2002 Population and Housing Census

(URT, 2008) it was shown that 115 761 people were engaging in farming and 1300 in livestock keeping. Korogwe District has 142 941 ha of suitable land for grazing (URT, 2008).

### **3.1.2.5 Vegetation**

Korogwe District has eight catchment forest reserves, three of them (Kisimagonja, Mahezangulu and Vugiri) are in high rainfall areas in the West Usambara Mountains. Others are Mafili Hill which covers an outlying isolated peak west of the Usambara Mountains, Bumba-Mavumbi and Mweni-Gombelo cover an outlying ridge to the south east. Migombani is a small area of groundwater at the foot of West Usambara in the dry Lwengera Valley and Bombo west also in the Lwengera Valley, with woodlands and thickets (Forest Division, 1988).

## **3.2 Methods**

### **3.2.1 Sampling methods**

Six (6) villages were randomly selected for the sample among the sixty (60) DADPs villages in the district. Then twenty (20) households were selected, ten (10) random household from DADPs members and ten (10) from non DADPs members from each of the six (6) DADPs sample villages to form a total sample of 120 households for the study.

### **3.2.2 Data collection**

Primary data from the selected sample households was collected through questionnaires, personal observation and checklist of probe questions. The data which had been collected from the households included the mode of participation, project performance, income, types of production and asserts obtained.

### **3.2.2.1 Reconnaissance**

Prior to the actual data collection, a reconnaissance survey was conducted. This was considered important because it enabled the researcher to getting a general picture and familiarity with the study area, introduce himself to the respective district, division, ward and village leaders and pre-testing of data collection instruments. During reconnaissance, information about the various villages under the DADPs programmes in the district was established. Also the researcher obtained the specific programmes offered in each village such as accommodation, water availability, communication services, population and economic activities of each village. During the reconnaissance the researcher was enabled to select six sample villages and the 20 households(10 DADPs member and 10 Non DADPs member) in each village as well as setting the dates for the data collection process. Also key informants and NGOs were identified during this process.

### **3.2.2.2 Social survey**

Household questionnaires, field observations and checklists of probe questions for key informants were used in order to allow cross-checking of the collected information (Olsen, 2004). Data collected included; the programmes offered by DADPs, mechanisms of the household's participation, materials and monetary benefits gained, annual income of the households, assets bought, factors facilitating and limiting the programmes performance and measures required for improvement. Secondary data was also collected from DADPs annual reports in which the programmes with their total costs had been revealed.

### **3.2.2.3 Field survey**

The researcher visited the respective households projects and observed the programmes sustainability, the inputs offered by DADPs, counted the pairs of animals used to run the ploughs and carts, observed how powertiller operate in the field. The field survey, also,

involved the observation of the poultry and goats sheds and visited crops in the household farms.

### **3.2.3 Data analysis**

Data collected was edited, coded and analyzed using Statistical Package for Social Science (SPSS) Computer programme version 16.0 using the CRDB statistical modal. The average values result were subjected to Analysis of Variance (ANOVA) where mean difference were identified using the Least Significant Difference (LSD). In the process, the DADPs interventions (activities) were used as treatments while the villages were used as blocks. The paired t-test was used to determine the existence of significant differences between the DADP and non DADP households mean annual incomes. Also paired t-test was used to determine the existence of significant differences on means of transport, increase in land size and increase in yields both before and after the programme.

## CHAPTER FOUR

### 4.0 RESULTS

#### 4.1 Activities done Under the DADPs that are Intended to Improve the Household

##### Income to Reduce Poverty of the Local Communities in Korogwe District

The results on the various activities done under the DADPs that are intended to improve the households income and reduce poverty of the local communities in Korogwe District are presented in Table 1 with the details and ANOVA table in Appendices 1a and 1b respectively. Results showed that a package of plough and cart was the most adopted project activity by the local community under the DADPs to support households to reduce poverty, followed by the powertiller package. The poultry and the goat keeping package were least adopted by the people. Although statistically not significant it was also noted that among the six sample villages, Gombalamu (Table 2) was the most responsive to project innovations.

**Table 1: Activities done under the DADPs that are intended to improve the household income to reduce poverty of the local communities in Korogwe District**

Activities	Frequency	Percentage
Plough and cart	36a	51
Power tiller	24b	34
Poultry	6bc	9
Goat project	4c	6
Total	70	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05 = 5.14793973003

NB This type of question has multiple responses

**Table 2: Activities done under DADPs in the various villages that are intended to improve household income to reduce poverty**

Village	Frequency	Percentage
Gombalamu	20a	29
Kwamndolwa	10a	14
Chepete	10a	14
Kwamsisi	10a	14
Mnyuzi	10a	14
Kwagunda	10a	14
Total	70	100

NB this type of question has multiple responses

LSD 0.05=

#### **4.2 The Mechanisms of Participation of the Households in the DADPs Activities**

##### **Intended for Poverty Reduction**

The results on the mechanisms of participation of the local communities' households in the DADPs that are intended to improve the household income and reduce poverty in Korogwe District are presented in Table 3 with the details and ANOVA table in Appendices 2a and 2b respectively. It is clearly indicated that the households preferred the participation in DADPs projects through monetary contribution, followed by the activity package that combines the materials and monetary provisions. Direct participation through a package that combines monetary and labour contribution was least preferred. It will also be noted that all Villages (Table 4) have the same level of participation in the DADPs activities.

**Table 3: The mechanisms of participation of the household in the DADPs activities intended for poverty reduction**

Mechanism of participation	Frequency	Percentage
Monetary contribution	33a	55
Material/monetary	18ab	30
Monetary/labour	9bc	15
Total	60	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

NB this type of question has multiple responses

LSD 0.05= 2.8476044578

**Table 4: The extent of participation by the households in the DADPs activities by the various villages in Korogwe District that are intended to improve household incomes and reduce poverty**

. Village	Frequency	Percentage
Kwamsisi	10a	16.7
Kwamndolwa	10a	16.7
Chepete	10a	16.7
Gombalamu	10a	16.7
Mnyuzi	10a	16.7
Kwagunda	10a	16.7
Total	60	100

LSD 0.05=5.67825477

### **4.3 The Benefits Gained by Households from the DADPs Activities on Poverty**

#### **Reduction and Income Improvement in Korogwe District**

##### **4.3.1 Programme activities improvement**

The results on the improvement in the conditions of programmes activities of the households are presented in Table 5 while the raw data and ANOVA table are given in

Appendices 3a, 3b, 3c, 3d, 3e, 3f, 3g, 3h, 3i, 3j, and 3k respectively. The results indicate that the most important improvement in the programme activities obtained by the participating households was the facilitation to expand the land under cultivation which enabled them to increase their crop yields. This was followed by the means of transportation of goods and education. It will also be noted that although not statistically significant Gombalamu Village was the highest beneficiary (Table 6), followed by Chepete and Kwamndolwa. It will further be noted that Mnyuzi Village had the highest increases in the yields due to the improvement in the conditions of programme activities (Table 7), followed by the Kwagunda and Chepete villages while Kwamsisi village was the least.

It will also be noted that Mnyuzi and Gombalamu Villages had the highest improvements in the land sizes (Table 8), followed by Chepete. It will also be noted that the use of oxen cart was the highest means of transport benefited (Table 9), followed by powertiller, with the rest being less preferred. It will be noted that Gombalamu Village was the highest beneficiary on means of transport (Table 10) followed by Mnyuzi and Chepete Villages. It will also be noted that support in education was the overall highest valued benefit by the community in Korogwe District (Table 11), followed by modern ways of keeping animals and skill on operating oxen/powertiller powered farming. It will be noted that Gombalamu Village was the highest beneficiary of the education programmes (Table 12) followed by Mnyuzi Village with Chepete Village being the least.

**Table 5: The results on the improvement in the conditions of the programme activities of the households**

Benefits gained	Frequency	Percentage
Big land and increased yield production	62a	51
Transportation	33ab	27
Education	20bc	17
Manure	6c	5
Total	121	100

NB This type of question has multiple responses

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05= 2.71397755736

**Table 6: The results on the improvement in the conditions of programmes activities of the households in various villages in Korogwe District**

Village	Frequency	Percentage
Gombalamu	26a	21
Chepete	22a	18
Kwamndolwa	20a	17
Kwamsisi	19a	16
Mnyuzi	18a	15
Kwagunda	16a	13
Total	121	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05=5.71397755736

**Table 7: The results on the increases in the yields due to the improvement in the conditions of programme activities of the households**

Village	Increase of the yield	
	Before programme Average tone/acre	After programme Average tone/acre
Mnyuzi	1.08	1.370
Kwagunda	0.477	1.283
Chepete	0.442.	1.235
Kwamndolwa	0.657	1.224
Gombalamu	0.607	1.058
Kwamsisi	0.6	0.892
Total	0.645	1.177

NB Kg/acre for maize and paddy

**Table 8: The results on the increases in the land size as part of the improvement in the conditions of programmes activities of the households**

Villages	Before programme	After programme
	Average size in acres	Average size in acres
Mnyuzi	1.7	3.3
Gombalamu	1.3	3.3
Chepete	1.4	2.9
Kwamndolwa	1.4	2.7
Kwamsisi	1.3	2.4
Kwagunda	1.1	1.3
Average Total	1.4	2.7

**Table 9: The results on the means of transport benefited by the households as part of the improvements in the programmes activities of the households**

Transport means	Before the programme	After the programme
On foot	51a	0c
Car-hire	4b	0c
Cart	3c	10c
Powertiller	0	30b
Bicycle	2c	35a
Motorcycle	0c	8c
Total	60	83

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).  
LSD 0.05 = 1.29150171362 (before the programme)

LSD0.05= 5.31003995231 (after the programme)

**Table 10: The results on the means of transport benefited by the households due to improvement in the programmes activities of the households in various Villages**

Village	Before the programme		After the programme	
	Frequency	Percentage	Frequency	Percentage
Gombalamu	10a	16.7	20a	24
Mnyuzi	10a	16.7	16b	19
Kwagunda	10a	16.7	14bc	17
Chepete	10a	16.7	13bc	16
Kwamndolwa	10a	16.7	10c	12
Kwamsisi	10a	16.7	10c	12
Total	60	100	83	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

**Table 11: Results on various education benefits acquired by households**

Benefit in education	Frequency	Percentage
Support in education	34a	43
Skills on animal husbandry	17b	22
Skills of operating oxen/powertiller	17b	22
Train local oxen	11b	13
Total	79	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05= 1.82871801544

**Table 12: Results on various education benefits acquired by households in various village**

Village	Frequency	Percentage
Gombalamu	17a	21
Mnyuzi	15ab	19
Kwamsisi	14ab	18
Kwamndolwa	14ab	18
Kwagunda	11ab	14
Chepete	8b	10
Total	79	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

#### **4.3.2 Materials benefited by the households through participation in the DADPs activities**

The materials acquired by the households through their participation in the DADPs activities in Korogwe District are presented in Table 13 and the raw data and ANOVA tables in Appendices 4a, 4b, 4c, 4d, 4e, and 4f respectively. The study indicates that there are significant differences between types of properties acquired by households. The home asserts (bed, table, radio, mattresses and Tvs) are the most acquired through the programme

than other items like livestock (cattle, goats, pigs,), building materials (bricks, sheets), motorcycles/bicycles and built houses. It will also be noted that households from DADPs participants acquired more physical properties than Non DADPs participants (Table 14). It will be noted that Mnyuzi Village was the highest material beneficiary (Table 15), followed by Kwagunda and Gombalamu Villages.

**Table 13: The physical properties acquired by the households in the DADPs participants**

Properties acquired	DADPs Participants
Home asserts	46a
Livestock	12b
Building materials	11b
Transport means	9b
Build house	7b
Total	85

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).  
LSD 0.05 = 2.47499169891

**Table 14: The physical properties acquired by the households of both DADPs participants and Non DADPs participants**

Properties acquired	DADPs Participants	Non DADPs Participants
Home asserts	46a	30a
Livestock	12b	6bc
Building materials	11b	9b
Transport means	9b	5bc
Build house	7b	5bc
Total	85	55

LSD 0.05 = 2.47499169891 (DADPs Participants)

LSD 0.05 = 1.33204369536 (Non DADPs Participants)

**Table 15: Properties acquired by the household from various villages both DADPs participants**

Village	DADPs Participants	
	Frequency	Percentage
Mnyuzi	27 <sup>a</sup>	31.8
Kwagunda	20 <sup>ab</sup>	23.5
Gombalamu	13 <sup>bc</sup>	15.3
Chepete	12 <sup>bc</sup>	14.1
Kwamndolwa	10 <sup>bc</sup>	11.8
Kwamsisi	3 <sup>c</sup>	3.5
Total	85	100

<sup>a</sup> <sup>b</sup> <sup>ab</sup> <sup>bc</sup> and <sup>c</sup> indicate significant difference (P<0.05)

#### **4.3.3 Annual income earned by households of both DADPs members and non DADPs members**

The results on Annual income gained by households from the DADPs activities on poverty reduction in Korogwe District are presented in Table 16 while the raw data and paired t-test value table in Appendix 5a, 5b, and 5c respectively. The results indicate that the total mean annual income of the households with the DADPs intervention was TZS 702 000 and for the non DADPs members was TZS 302 385. The households in Mnyuzi Village had the highest mean annual income, followed by the Gombalamu, Kwagunda and Chepete Villages, all which had their separate incomes above the total mean annual income. Kwamndolwa and Kwamsisi Villages households had incomes less than the total mean annual income.

**Table 16: Average annual income earned by households both DADPs members and non DADPs members**

Villages	Membership	Minimum annual income(TZS)	Maximum annual income(TZS)	Average annual income (TZS)
Kwamsisi	DADPs member	60 000	700 000	406 000 <sup>a</sup>
	Non DADPs member	80 000	700 000	306 000 <sup>a</sup>
Kwamndolwa	DADPs member	50 000	1 150 000	685 000 <sup>a</sup>
	Non DADPs member	75 000	1 000 000	363 500 <sup>b</sup>
Chepete	DADPs member	250 000	1 020 000	705 000 <sup>a</sup>
	Non DADPs member	80 000	500 000	250 000 <sup>b</sup>
Gombalamu	DADPs member	270 000	1 200 000	817 000 <sup>a</sup>
	Non DADPs member	100 000	700 000	272 000 <sup>b</sup>
Mnyuzi	DADPS member	480 000	1 100 000	844 000 <sup>a</sup>
	Non DADPs member	90 000	1 200 000	302 000 <sup>b</sup>
Kwagunda	DADPs member	420 000	1 200 000	755 000 <sup>a</sup>
	Non DADPs member	50 000	1 000 000	322 000 <sup>b</sup>
Total	DADPs member			<b>702 000<sup>a</sup></b>
	Non DADPs member			<b>302 385<sup>b</sup></b>

<sup>a</sup> and <sup>b</sup> indicate significant difference ( $P < 0.05$ ) in total mean annual income between DADPs members and non-members.

#### **4.4 The Factors Influencing the DADPs Performance and Measures Required for Improvement**

##### **4.4.1 Factors limiting the DADPs performance**

The results on the factors limiting the DADPs performance in Korogwe District are presented in Table 17 with the details and the raw data and ANOVA table in Appendices 6a, 6b, 6c and 6d respectively. The results showed that the shortage of tools, followed by tools breakdown and drought, had been the most limiting factors in the DADPs performance with the diseases being the least influencing factors. It will, also, be noted that Gombalamu Village was the most affected by such factors (Table18), followed by

Kwamsisi and Kwamndolwa. It will further be noted that many households which had earlier registered with the DADPs are now opting out of the programme (Table 18) and Table (19) the DADPs members opting out from the programmes in the various villages in the district.

**Table 17: Factors limiting the DADPs performance toward poverty reduction to house hold**

Factors limiting DADPs	Frequency	Percentage
Shortage of tools	33a	38
Tools breakdown	20b	23
Drought	18bc	21
Diseases	10cd	11
Poor cooperation	6d	07
Total	87	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05 = 1.754911239171

**Table 18: Factors limiting the performance of DADPs activities in the various villages that are intended to improve households income and reduce poverty**

Village	Frequency	Percentage
Gombalamu	19a	22
Kwamndolwa	17a	19
Kwamsisi	17a	19
Kwagunda	12a	14
Chepete	11a	13
Mnyuzi	11a	13
Total	87	100

Values in the same column that are followed by a different letter differ significantly ( $P < 0.05$ ).

LSD 0.05 = 5.14732689

**Table 19: Results on drop out of members in the DADPs programmes**

Programme offered	No. of registered in programme		No. of drop out in the programme	
	Frequency	Percentage	Frequency	Percentage
Oxen/cart	100	53	20a	39
Powertiller	54	29	16a	31
Poultry	20	10	10ba	20
Goats	15	8	5a	10
Total	189	100	51	100

LSD 0.05 = 4.20277477

**4.4.2 Measures required for improvement**

The results on the measures required for improvement in DADPs performance in Korogwe District are presented in Table 20 and the raw data and ANOVA table in Appendices 7a and 7b respectively. The results indicate that the support with tools was the most suggested measure, followed by tractor support and construction of water dams while the close monitoring by the DADPs officers was least preferred. It will, also, be noted that Kwamsisi Village was the most eager village for the support (Table 21).

**Table 20: Measures required for improving DADPs performance in Korogwe District**

Measures required	Significance	
	Frequency	Percentage
Support with tools	44a	49
Tractors Support	22b	24
Water dams construction	16bc	18
Close monitoring	8c	9
Total	90	100

Values in the same column that are followed by the different letters differ significantly ( $P < 0.05$ )  
LSD 0.05 = 1.3970828751

**Table 20: The measures required to improve the performance of DADPs activities in the various villages that are intended to improve households income and reduce poverty**

Village	Frequency	Percentage
Kwamsisi	22a	24
Gombalamu	17ab	19
Kwamndolwa	15bc	17
Chepete	14bc	16
Kwagunda	12bc	13
Mnyuzi	10c	11
Total	90	100

Values in the same column that are followed by the different letters differ significantly ( $P < 0.05$ )  
 LSD 0.05 = 1.71107008619

## CHAPTER FIVE

### 5.0 DISCUSSION

#### 5.1 Activities done Under the DADPs that are Intended to Improve the Household

##### **Income to Reduce Poverty**

The results on the various activities done under the DADPs that are intended to improve the households income and reduce poverty of the local communities in Korogwe District are presented in Table 1 and the raw data with the details and ANOVA table in Appendices 1 and 2 respectively.

The observation that the local community in the study area is being supported with various sets of programmes inputs such as plough, oxen carts, power tiller, poultry and improved goats and that the project programmes were distributed to the local community villages on the basis of preference and ability of cost sharing of the project programme offered, are in conformity with the earlier findings for the same district (URT, 2010) and elsewhere in Tanzania (URT, 2008; Lupilya, 2007). Other programmes supported by the Korogwe PADEP include rehabilitation of irrigation infrastructure, construction of cattle dips (URT, 2010), construction of school classrooms and health centres, staff houses and support of vulnerable groups was done by TASAF Korogwe District (Lukinisha, E. -personal contact, 2013), promotion of credit societies and various entrepreneurial activities such as SACCOS, FAIDICA, PRIDE, SEDA and FINCA (Masalu, 2008) and training of the local community in the various programme activities (Komba, 2008)

The findings revealed that DADPs had provided training to the local community in the project programme offered before project implementation. The most of the trainings of the project programme to local communities were conducted for one (1) to four (4) weeks.

Training to the related activities enable the participants to have technical skills and managements of operating the programme offered (Mongi, 2005). In plough with carts and powertiller project programmes training was conducted to the few local communities among the group members so as to promote self-help group organization and encourage people in developing programmes particularly to other group members .The study findings revealed that the aim of training few group member households was to get competent people who would train others once the DADPs handle over the projects as it is supported by other studies (Lupilya, 2007; Komba, 2008; Kiboma, G and Lukinisha, E. -personal contact, 2013).

The study findings revealed that during the programme implementation, DADPs used District extension officers (DEO) to support households for important trainings and other services. However The Ward extension officers (WEO) were responsible to work closely with the households after the project programme implementation was over. Therefore some household members failed to receive professional services as the WEOs were not experts like DEOs.

Also the study revealed that DADPs supported local communities with study tours to the neighboring regions and districts where the group member representatives could learn and observe the progress of their neighbors' projects programmes, as it was reported in PADEP Korogwe (URT, 2010). This creates a sense of motivation to the local communities toward the project programme as one of the households said that *nimepata hamasa kubwa ya kufuga kuku kama wenzetu wa Kijiji cha Mwenga. (I have been motivated keeping poultry like our fellow from Mwenga Village)*. The study findings showed that one of the households under poultry project programme at Kwamsisi village

was appointed to represent the district in the 2012 Nanenane exhibitions before his house and poultry shed were destroyed by fire and lost 80 chicken.

## **5.2 The Mechanisms of Participation of the Households in the DADPs Activities**

### **Intended for Poverty Reduction**

The results on the mechanisms of participation of the local communities' households in the DADPs that were intended to improve the household income and reduce poverty in Korogwe District are presented in Table 3 with the details and ANOVA table in Appendices 2a and 2b respectively.

The study revealed that the majority of the households, participated in the project from the beginning when they made decisions on the project packages relevant to their preference as supported by the various findings (Millers, 1979; Banturak, 2000; UNDP, 2000) as cited by (Lupilya, 2007).

The households were supposed to support the project through different ways. The study revealed that some of the households participated in the activities through monetary contribution, which were for the opening bank account for groups and some of the households contributed their money as a part of the sharing cost of the project programme offered (Lipulya, 2007); Komba 2008; URT, 2010). The contributions ranging from TZS 2000 to 150 000 in the present study were higher than the amount recommended for water supply project in Arumeru District (Mvella, 2000). However the contribution range of TZS 1000 to TZS 2000 were made for the plough with Cart project programme as entrance fee as well as money for opening the group bank account.

It was also observed that the majority of the households supported were from the poultry and improved goats projects where they contributed the money for savings accounts and for sharing costs of the project. They also constructed poultry and goat sheds, which the study considered as materials, the study contrast with the findings of TASAF for the same district (Efraji, 2008; Lukinisha, E. personal contact, 2013). The study revealed that the households from Kwamsisi with the poultry shed constructed under the plans provided by the DADPs in which each household contributed TZS 20 000 and the project programme contributed TZS 10 000 000 their sheds were built using mud walls and thatched with grass while the households in Kwamndolwa Village with improved goats package, each household contributed TZS 10 000 and the programme was TZS 3 575 000, the constructed sheds were of timber walls. However some of households provided materials contributions of their oxen to form pairs for driving ploughs and carts in which the study considered as material contribution.

Those with money and labour power were households that contributed money and also were engaged on operating plough and power tillers during the work in the field. The findings that the households had positive attitudes towards the DADPs programmes and that the participation in the project increased participants motivation and made them feel that the programme was theirs. This situation increased the value of the programmes offered and effectively reciprocated by the associated community commitment sense of ownership (URT, 2005). Local community participation in the development programmes helps the government to minimize costs and support more other programmes intended for poverty reduction. The information on the households contribution toward the total cost of the programmes development is supported by the findings of other studies elsewhere (Lipulya, 2007; URT, 2010; Kiboma, G and Lukinisha, E. personal contact, 2013). Thus

community participation has become useful idea which influence the direction and execution of the development project (Miller, 1979; Nanai, 1993 and Pretty, 1995)

### **5.3 Benefits Gained by Household from the DADPs Activities on Poverty Reduction and Income Improvement in Korogwe District**

#### **5.3.1 Programme activities improvements**

The results on the improvement in the conditions of programmes activities of the households are presented in Table 5 while the raw data and ANOVA table are given in Appendices 3a, 3b, 3c, 3d, 3e, 3f , 3g, 3h, 3i, 3j, and 3k respectively.

The households based on crop cultivation benefitted more from the project hence most of the households responded that using plough and power tiller have enabled them to develop large farms for cultivating their crops and higher crop yield harvested during the season, compared to hand hoe which made them to cultivate small pieces of land. The result of increased production of various crops such as maize, paddy and livestock products (milk and beef) as a result of farmers adoption of improved technologies are in conformity with the earlier reported findings (Komba 2008; URT, 2010). Mechanization enabled the majority of households in the study areas to increase the accrage from 1.4 to 3 per household and increased the crop yields from the average of 0.6 tone/acre to 1.2 tone/acre (maize and paddy) which are more than the recommended rates in maize production of 0.8 to 1.1 tone/acre by VIFAFI project (Komba 2008). The study also witnessed increases in paddy production from 5-15 bags to 30-40 bags per acre and mutching the production rates reported for the irrigation schemes with animal traction and increase in land size with the production rate of 15 to 40 per acre (Rodriguez, 2005; URT, 2010).

The result of significant improvement in the various animals and the associated animal productions programmes favourably contrast with the PADEP findings for the same district (URT, 2010). Due to this programme some of the households managed to possess more than 80 to 120 chicken mire goats, milk and eggs at once, a numbers much higher than before the DADPs project programme.

Investment in the transport sector improves access to economic opportunities by reducing transport costs, makes market structures competitive, and reduction in prices for both freight and passenger services, thus it is appreciated in poverty reduction (Gannon *et al.*, 1997). Carts and powertiller used as the means of transportation by the households, were used to carry goods from the farm field to the households respective houses. The study observed that powertiller and cart have solved the problem of transportation of various goods in the most of the study areas. One of the household noted saying that “this days we are free from transport problem within village” *kwasasa hatunatatizo la usafiri tena kijijini hapa*”. They use them for carrying bricks, fetching water, and other related activities that need transportation. In this regard more time could be saved for other economic and social activities which help to reduce poverty to households (Gannon *et al.*, 1997; Ramadhani *et al.*, 2000).

The study observed that carts and powertiller were beneficial to households in DADPs as the same reported by PADEP (URT, 2010). Also the findings revealed that bicycle and motorcycle were used as means of transport by households although were least significant compared with powertiller and carts. Motorcycle bought was also used as means of transport (Bodaboda) to generate some household income. The findings revealed that the means of the transport acquired by the household had created employment opportunities to

the low income people as it was reported that Transport investment provides income earning opportunities for the poor (Gannon *et al.*, 1997).

The study revealed that households showed how they had used project programme benefits to establish other means of income generation, as it was reported by the households at Mnyuzi village sold crops and bought motorcycle (Bodaboda) and at Kwamsisi village the household sold chickens and established tea rooms (Kipene, 2007). The study revealed that this was a positive way of improving project sustainability and reducing poverty, hence the income generated from other means used to buy important inputs for the project programmes supported by DADPs. The findings revealed that DADPs increased the purchasing power of the household members, as the majority of them had power to hire tractor but they did not do so because had their own means of transport.

The study findings revealed that ability to pay for education were another benefit acquired by the households in the project programme. Education is always valued as means of liberation from ignorance, it is the only principal mechanism for developing human skill and knowledge (Kahama *et al*, 1986; URT, 2003b). The findings revealed that the income earned supported households to pay school fees for their children, buy the important learning materials, uniforms and other important services. The households sent their children to private schools as reported by one household at Gombalamu village who sent his son to a private secondary school in. One household under TASAF project programme also supported his child in a private secondary school (URT, 2010; Lukinisha, E. Personal contact, 2013). The majority of the households were able to pay the school contributions for their children in primary schools compared to before the project programme, as it was reported that the households whose their main income source was agriculture activities

never had problems paying school fees, compared to the households whose the main income source was self-employment in non-agricultural activities (URT, 2007; URT, 2010). The study findings revealed that this situation motivate the households toward project sustainability as it was reported by one household at Kwamsisi village after all of his chicken were stolen, he established again his poultry project because the project enabled him to support his relatives.

Modern knowledge in agriculture practice was another benefit observed by households, the training provided by the DADPs officers made people to use modern techniques in goat breeding and poultry in general. The observation showed that some of the households have trained their local cattle to work as oxen and they possess carts, the practice which was not there before the DADPs intervention in some villages, although TRIDEP had established the same programme in Mnyuzi village since 1980s before it was phased out in the 1990s. Other households appreciated the intervention as they keep their local livestock in modern facilities since the establishment of the project. As one household responded that she used to leave her local chickens to fetch feeds, without providing any vaccination but since the intervention she was using in modern practice which help them to control chick's death and increase their numbers per household. Training of the households is an important input which may enable local people to be aware, understand and adopt new technologies more easily hence creating necessary strategies for avoiding and fighting against poverty in their localities (Lupilya, 2007).

Manure from goats and chickens were used in the farm to improve soil fertility which later influences productivities of the crops. (Komba, 2008) reported that manure from improved animals have benefited households from the crop yields. However, some of the households increased their income after selling manure to other people.

Milk and beef together with eggs were products also obtained by households. Households involved in goat keeping were obtaining milk from the goats. Averages of 1 to 3 litres were obtained from improved goat which was the same average amount of 1 to 3 litres reported from households supported by PADEP (URT, 2010). The study also observed that there was increase the number of goats per household within short period of time since the improved goats were able to reproduce two to three goats at once, this suggest that the households were possessing many livestock within short period of time as Mascharenhas (2000) as cited by Komba (2008) supported that livestock ownership is one of the critical factors of reducing poverty.

Furthermore the study revealed that improved chicken increased the production of eggs and the number of chicken per household as one household reported that he sold 120 chickens for a total of TZS 720 000, which was above the amount recommended by household in other studies (URT, 2010). Under a normal circumstance if the household says that he/she is benefiting from the project is more likely that he/she will ensure the project keeps on progressing well.

### **5.3.2 Material Benefited by the Household Through Participation in the DADPs**

#### **Activities**

The material acquired by the households through their participation in the DADPs activities in Korogwe District are presented in Table 13 and the raw data and ANOVA table in Appendices 4a, 4b,4c, 4d, 4e, and 4f respectively.

The results indicated that the income acquired by the households could satisfy the basic needs and reduce the poverty to their families (Mphuru, 1991; World Bank, 2000). The study revealed that home asserts like Tv sets, mattress, tables, radio, and wooden bed etc

were bought; the study observed that the households were able to get different information from various places about poverty reduction. Kaijage (2009) noted that valuable domestic assets such as television could be an indicator of wealth and economic status of the household. Radio is the most important mass media for farmers hence provide information about agriculture quickly and accurately to a large number of farmers and create awareness of extension's recommendation (Mntambo, 2007). The study revealed that for this case some of the farmers were able to listen to programmes conducted by DADPs through TBC Radio and Tv, however not all households were spending their time to listen the Radio or watch the Tv purposely for DADPs programmes.

The study also revealed that the households from Mnyuzi, and Kwagunda villages were the majority bought the home assets particularly those with wood in nature and Tvs, it has been noted that these two villages are found nearby the natural forest, with easy availability of wood materials and many carpentry activities compared to the other villages like Chipete and Gombalamu which are surrounded by large sisal plantations and shrubs, hence make the assets with wood material more expensive. Also the presence of electricity power to these villages had much influenced some of the households to buy Tvs sets and music systems compared to Chepete and Kwamsisi. Some of the households bought goats, and cattle which support them to get more income which managed them to reduce poverty in their families level to some extent. Thus poverty has being fought, reduced and possibly eradicated to the household (Kayunze, 1998).

Mascharenhas (2000) as cited by Komba (2008) supported that livestock ownership is one of the critical factors for reducing poverty. Likewise in the study the possession of animals was regarded as a sign of wealth and security. Kamuzora (2001) supported that possession of assets reflect income levels. Collected materials such as iron sheets, burnt bricks were

the assets possessed by the households after they have been in the intervention, also houses and bicycles were the assets possessed by the households after they have been in the intervention too. The study findings revealed that its projects helped households to reduce poverty at their house level in which some of them managed to improve their houses while others had constructed modern houses (Kipene, 2007 ; URT, 2010).

The study revealed that the purchasing of materials like iron sheets was easier to households from Mnyuzi and Kwagunda due to the presence of shops within the village particularly Mnyuzi and also both are nearby the Korogwe Town centre and thus easy to visit. The study showed that among the seven (7) houses constructed by household's members of the DADPs, four (4) were roofed by iron sheets in which three (3) were from Mnyuzi village while one was from Gombalamu, while the rest built in Gombalamu were thatched with grass. Komba (2008) in his study revealed that possessing assets like house either with corrugated iron sheets or thatched with grass were considered to be important in measuring poverty of the households. Through the literature review the study observed that DADPs has a significant positive impact on poverty reduction to the households intervened. Also the study observed that some of the households in the DADPs projects from Mnyuzi and Kwagunda villages were experts in making and burning bricks due to the availability of firewood for burning bricks as well as is the one of the centre of supplying the burnt bricks to the people of Korogwe Town, hence the study observed that some of the households were living in their houses built by burnt bricks and were there even before the DADPs intervention.

### **5.3.3 Annual income earned by households from the DADPs activities implemented**

The results on annual income gained by households from the DADPs activities on poverty reduction in Korogwe District are presented in Table 15 while the raw data and independent sample Test table in Appendix 5a, 5b, and 5c respectively.

The findings revealed that there was significant difference between the annual mean incomes gained by DADPs members and Non DADPs members. The annual mean income of household from DADPs members was TZS 702 000 while non DADPs members was TZS 302 385. The average daily income of the household from DADPs members is estimated to be TZS 1950 which is more than one 1 US dollar. Therefore the study suggests that due to this the household cannot be considered as poor per capital income per day is more than 1 US dollar, as it has been defined that per capital income less than 1 US dollar indicates a poor households (World Bank 2005). This finding reveals that the programme supported by DADPs to households was assisting them toward poverty reduction (Oyen, 1992). The annual mean income gained by households from DADPs members was above the average income gained by household from livestock in Bunda district (Chacha, 2007). For this case the income poverty gap and food poverty among the households is likely to be reduced as it was reported that the gap is increasing (NBS, 2000; URT, 2002 and Komba, 2008)

The study findings revealed that there is significant difference between the annual mean income gained by the households under DADPs programme and the non DADPs households within the village except one village where there was no significant difference between annual mean incomes. The annual mean income of the DADPs households from Kwamsisi village was not significantly different with annual mean incomes from non DADPs members. The study revealed that the DADPs programme under powertiller

project failed to work as it was required as a result very little income contributed by this programme to households of the Kwamsisi village as supported with other studies (Lupilya, 2007, URT, 2010). The highest mean annual incomes of the household come from Mnyuzi village with TZS 844 000. The study revealed that most of the households in Mnyuzi own animals used to run plough and cart. Therefore it becomes easy for the households to prepare their fields within the time with reasonable size of the land compared to other villages under the same programme (Rodriguez, 2005). The study revealed that the effective performance of the households in the programme was facilitated by TRIDEP project which had established the same programme around 1980s before it was phased out in the 1990s. In the study area, one of the non household member was reported saying that has had been facilitating training on the use of oxen to DADPs households and he owns oxen. This situation made adaptation of this programme to be more effective because majority of the households were able to run the plough to prepare fields and some of the individual household members own oxen and carts this increased crop yields (Komba, 2008). The situation contrasts from other village with the same programme like Kwagunda, Gombalamu and Kwamndolwa. In these villages, the households with oxen were limited and were only dependent from the household members trained by DADPs during the establishment of the programme.

The study revealed that in all villages, Mnyuzi village was more active and developed hence it was accessible through the car at any time therefore the study shows that majority of the household members were able to reach at the market centre and sell their crops at a reasonable price which influence them to have more income. Maximum annual income gained by the households both members from DADPs and non members look to be the same. The study shows that in Mnyuzi village the maximum annual income from non member households was higher than from DADPs members. The study findings justify

that some of the non household DADP members own big assets which enable them to earn higher income as one among them owns power tiller.

## **5.4 The Factors Influencing the DADPs Performance and Measures Required for Improvement**

### **5.4.1 Factors limiting the DADPs performance**

The results on the factors limiting the DADPs performance in Korogwe District are presented in Table 16 with the details and the raw data and ANOVA table in Appendices 6a, 6b, 6c and 6d respectively.

The results revealed that lack of enough inputs was a big problem, majority of households complained of shortage of oxen, spears and medicine, as DADPs provided only hips of plough with cart, power tiller, improved goats, and chickens, where as the households were supposed to find the rest of inputs. Therefore the study found that the majority of the households were not able to purchase the other items required, for instance the households supported with plough were supposed to contribute a pair of oxen to run the programme in the farm, unfortunately there were few number of oxen available which did not satisfy their demand. The study findings show that some of the cattle contributed by the households to work in the field were not pure oxen, were only trained for few days with low performance in the field. The study revealed that in Mnyuzi village households were using pure oxen due to the fact that TRIDEP had implemented a programme to support the plough cultivation before it was phased out in the 1990s. Therefore it was easier for DADPs to support the households the same programme as some of the households already owned oxen.

Those with powertiller revealed that the spears were not available nearby the village, one has to travel to the next Region to collect the them which are expensive. The study findings revealed that, one of the household from Chipete village had travelled to Kilimanjoro Region to find the spears for the powertiller due to the fact that, that spears are not available in the town center nearby the village (Lupilya,2007, URT,2010)

. The study revealed that the majority of the households from those villages established with plough and cart responded to have shortage of cattle compared to those with powertiller.

The study revealed that powertiller were frequently break-down which needs repairing as a result increase the cost of maintenance as reported from other studies (Lupilya, (2007) . The machine is not operational and is inefficient on the boggy soils; as well as on very dry, hard (heavy) soils (Ramadhan *et al.*, 2000) which the study observed that was the main problem facing households in Kwamsisi village. The study found that the households from this village complained that the machine had frequent breakdowns to the extent that they were not used effectively. The study observed that the type of the land has hard soil, thus powertiller fails to operate on it which causes breakdowns of the machinery. Some of the households revealed that the driver for the powertiller is not competent enough to operate it thus the machine fails to work properly. Others responded that sometimes the driver was not willing to work in the household fields. Also the findings show that the driver was not the DADPs household member but during the establishment of the programme the household members appointed him because of his experience on operating that type of machines.

In Chepete and Gombalamu the findings show that powertiller was effectively used and very potential although in Chepete the same problem was reported as the researcher

observed that the powertiller broke down when it was operating in a paddy field. The study revealed that in most cases the powertiller breaks down in new areas are hard having tree roots and stumps. The same problem was also reported by the households from those programmes with plough and cart where some of them reported on the breakdown on plough hoe and those with goat responded that their goats sheds had broken down.

The study observed some of the improved goats shed from Kwamndolwa village were of low standards because they were built by the households themselves at cheap cost, the study contrasts the report from Igayaza goat keeping project where the TASAF constructed goats sheds to the beneficiaries (Lipilya, 2007). The poultry shed of the households from Kwamsisi were of moderate standard. Therefore the findings indicated that the building of goats shed was more expensive than poultry sheds because they differ in building materials, as the study found that goat sheds built by timber material which was expensive in nature compared with poultry sheds most of which were built using mud house and thatched with grass. Thus some of the goat sheds were below normal standard that required frequent repairs. Under a normal situation it is simpler and cheaper to build the livestock sheds using mud and thatched with grass, than livestock sheds that required timber materials.

The households in Gombalamu village when asked to compare the performance of powertiller and plough, they said that in general powertiller works fast than plough but it is costful to operate, it needs fuel which is also not available near their village. On plough and cart the households responded that performance of plough is less than powertiller, plough depends on power from animals and at times become tired, and the plough is only working during the morning and late afternoon to evening time. But it is easy to care it

and do not get damaged frequently. Those with goats and chickens found it difficult to get appropriate medicine to treat their livestock as result some of their livestock died.

Shortage of rainfall during the growing seasons reduce crop outputs, as it was supported by horticulture sub project that due to unfavourable weather conditions, it is possible their production would be affected (URT, 2008). The study revealed that the households sometimes are being discouraged by weather condition which sometimes causes poor crop survival. The study revealed that some of the households were hesitating to prepare large land for cultivation due to unpredictable climate. The study area characterized with rainfall ranges between 800 to 1000 mm annually but the situation seems to be unpredictable which become very terrible to the household farms (URT, 2008). Some of the households reported that some time the rainfall was high and other time the rainfall was low. The study found that those households with their farms near the low land where the soil moisture is high were the ones with high crop yields due to low rains.

Generally the study revealed information that the two years back the rain was not enough hence caused the households crops being affected which reduced their crop yields compared with the previous years. The study found that the all study areas villages were located nearby rivers, but few households practice crop irrigation especially those who cultivate paddy. The study revealed that the households from Chipete were most engaged on paddy cultivation through local irrigation scheme situated nearby their farms. Little is done by the households from Kwamndolwa village through Rwengera tributary, the study found that, the river is more affected by floods during the rainy season. Thus it becomes difficult to cultivate maize, and other associated crops nearby the river, the same as reported by the households from Chipete village, the field cultivate paddy do not fever maize and other crops at once because once the rain is high the plots become covered with

water which do not favor other crops. The study findings revealed that those other villages irrigation activities was difficult due to tributaries banks are large with limited plain land on them.

The study revealed that many of livestock were affected with diseases which caused death and abortions to the livestock, the most reported diseases that affect them in a study area were Brucellosis and diarrhea for goats and fowl pox for chickens. During the study the researcher observed one of the household remained with the empty goat shed after her goats died, the same as reported by the households under plough and cart programme some of their animals had being affected by the diseases; hence some of the households lost their animals, similar this findings have been reported in other studies (Lupilya 2007; URT, 2010). The study finding was supported by reviewed literature that there was shortage of veterinary drugs, vaccines, chemicals, ineffective disease control programme (Chacha, 2007). The study also revealed that efforts were taken to fight against these diseases under the supervision of Ward extension officer as it contrasts with the study reported that there was shortage of the extension officers who were motivated enough to work in rural areas (Chacha, 2007).

The delay of veterinary officers to provide treatment to the infected goats caused the households to lose their livestock. Some of the households lost their animals due to unknown diseases as if have been poisoned. The households from Kwamndolwa village reported that improved goats project showed positive progress only for two (2) years after implementation which enabled the household DADPs members accumulation of fifty four goats, there after the project progress declined. The findings revealed that the positive progress of the same project programme have been reported from the neighbour village (Kwameta), as a result some of the households believe that their animals might be

poisoned by other villagers. The study revealed that the households from Kwagunda village their cattle were safe due to the dipping programme established by PADEP project.

It was reported that some of the households were not contributing to the group project which was a challenge to the group progress. Some of the households complained that their leaders were not looking at the welfare of the group, do not conduct the meetings; they use the group property for their own benefit as it was reported from other studies that some of group leaders had been suspected of misusing group funds (URT, 2010). The study observed that households were limited to prepare their farm at a time because some of the households possessed local oxen among of them were hesitating sending their animals to work to their fellows farms as it was agreed during the intervention, this was an indication of poor cooperation among the members.

Poor cooperation among the members was the reason of the dropout of the members and also failure of some VG under TASAF (Lupilya, 2007; Lukinisha, E. Personal contact, 2013). The study revealed that there was drop out of the household members of the project programme; the observation showed that shortage of tools and poor cooperation among the project members was the main factor for drop out. Poor performance of oxen and powertiller in the field caused some of the households use other means to prepare their farms and loose hope with project facilities, as result do not participate in the project programme. Members will be active in the group if they obtain positive change of their economic viability, otherwise they will not be motivated with their respective groups as they do not get the intended benefits (Mvella, 2000). Failure of solving down the powertiller's challenges in Kwamsisi village caused some members to drop out from the project programme.

However the death of some household members were reported and in this study was not considered as drop out because family member have taken over the project as it was noted in Kwamndolwa village with improved goats, this shows a sense of adaptation of the project programme at family level.

#### **5.4.2 Measures required for improvement**

The results on the measures required for improvement of DADPs performance in Korogwe District are presented in Table 20 and the raw data and ANOVA table in Appendices 7a and 7b respectively. The results indicate that the support with tools was the most suggested measure, followed by tractor support and construction of water dams while the close monitoring by the DADPs officers was least preferred.

The result shows that support of tools to the households were the major required to improve performance of DADPs. Households suggested to be also supported with inputs such as oxen, medicines, spears which were expensive to the households to get them so as to avoid depending on few local oxen available which do not satisfy their demand. The ox-plow service will provide members measures required for improvement with access to oxen that can plow their fields affordably and efficiently (Lambi fund, 2012), support of tractor will enable them to cultivate even on complicated hard land where by using plough and power tiller were inefficient, tractors cultivate the large land within short time than plough and power tiller.

Construction of dams was another suggestion, due to undetermined weather condition, the households suggested to be supported with dams which will enable them to irrigate their crops during dry season, one of the household reported that having dams to keep the water for irrigating crops during dry season there was a possibility of increasing output.

However the study observed that DADPs supported irrigation scheme to other villages which were not in the area of this study which was mainly based on paddy production the similar findings from other studies TASAF Korogwe district (Lukinisha, E. personal contact, 2013). The rainfall reliability cannot be known, it might or not fall.

Closely monitoring from DADPs officers was another suggestion given by the households (Mongi, 2005; Lupilya, 2007). Visiting the project areas will help to activate some group leaders who were not leading the group according to their constitution; DADPs leaders will be informed of the challenges facing the households directly and provide solutions, as a result the challenges will be solved and enable household harvest high yields which will ensure enough food and earn high income as a solution to reduce poverty at their household levels.

## CHAPTER SIX

### 6.0 CONCLUSION AND RECOMMENDATIONS

The objective of the study was to provide information on the contribution of DADPs to poverty reduction at the household level in Korogwe District. On the basis of the result and preceding discussions several conclusions and recommendations are drawn.

#### 6.1 Conclusions

On the basis of the study, the following conclusions are made

- i. DADPs assisted the households by providing equipment (oxen ploughs and power tillers) and livestock (poultry and improved goats) which supported means of poverty reduction
- ii. The households participated in the project through monetary, material and labour power which is ineffective participation toward poverty reduction.
- iii. The project benefited the households in terms of increased acreage in cultivated land, yields, means of transport, adoption of good agricultural practices, mechanization and acquisition of assets which facilitated in poverty eradication
- iv. The households had limited number of oxen, frequent equipment breakdown, livestock disease outbreak and poor cooperation among the group members which lead to drop out of some programme members as a result hinder poverty eradication to the households.
- v. The households recommended to be supported by provision of agricultural inputs including oxen, livestock drugs, and tractor and spear, and close follow up of the project by DADPs officers.

## **6.2 Recommendation**

On the basis of the study, the following recommendations are made On the basis of the study, the following recommendations are made

- ii. The district councils should ensure that the agricultural and livestock inputs, together with other working tools are readily available to the vicinity of the project site at the right time and also at affordable price. Lack of inputs affects the productivity of the project.
- iii. DADPs officers should make a close follow up of the project to ensure their sustainability. The district authority should ensure that the extension officers at the Ward level are performing their work effectively. Whenever the problems arise the households should report immediately to them for assistance.
- iv. Households should be accessed to credits facilities to enable them for getting financial loans which will facilitate running of the project. The credits will enable the participants to invest into projects and scale up their existing once. Thus decreases dependency on government support.
- v. Group member may support households which lost their livestock (by disease or theft) at low price to make the project programme sustainable.

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## APENDENCIES

### Appendix 1a: Activities done under the DADPs that are intended to improve the household income to reduce poverty of the local communities in Korogwe District

Activities	Villages						Total
	Kwamsisi	Kwamnd	Chepete	Gombalam	Mnyuzi	Kwagunda	
plough and cart	0	6	0	10	10	10	36
Power tiller	4	0	10	10	0	0	24
Poultry	6	0	0	0	0	0	6
Goat project	0	4	0	0	0	0	4
Total	10	10	10	20	10	10	70

NB this type of question has multiple respond

### Appendix 1b: The ANOVA table for the activities done under the DADPs that are intended to improve the household income and reduce poverty

Source	df	typIII SS	MS	F	P
-----					
Main Effects					
Activities	3	116.5	38.833333	2.2190476	.1281 ns
Village	5	20.83333	4.1666667	0.2380952	.9395 ns
Error	15	262.5	17.5<-		
-----					
Total	23	399.8333333			
LSD 0.05 = 5.14793973003					

**Appendix 2a: Mechanisms of participation of the households in the DADPs activities intended for poverty reduction.**

Participation	Villages						Total	%
	Kwamsisi	Kwamndolwa	Chepete	Gombalamu	Mnyuzi	Kwagunda		
Monetary contribution	5	2	8	6	5	7	33	55
Material/monetary	5	6	0	2	3	2	18	30
Monetary/labour	0	2	2	2	2	1	9	15
Total	10	10	10	10	10	10	60	100

**Appendix 2b. ANOVA table for mechanisms of Participation of the households in the DADPs activities that intended for poverty reduction.**

Source	df	Type III SS	MS	F	P
-----					
Main Effects					
Mechanism	2	49	24.5	5	.0312 *
Village	5	1.3147e-30	2.63e-31	5.366e-32	1 ns
Error	10	49	4.9<-		
-----					
Total	17	98			

LSD 0.05 = 2.8476044578

**Appendix 3a: The results on the improvement in the conditions of programmes activities of the households**

Benefits obtained	Villages						Total
	Kwamsisi	Kwamndolwa	Chepete	Gombalamu	Mnyuzi	Kwagund	
Big land and Yield production	7	10	12	14	11	8	62
transportation	3	3	8	9	5	5	33
education	5	5	2	3	2	3	20
Manure	4	2	0	0	0	0	6
Total	19	20	22	26	18	16	121

**Appendix 3b: ANOVA table for the improvement in the conditions of programmes activities of the households**

Source	df	SS	MS	F	P
Main effect					
Benefits	3	284.79167	94.93056	19.51742	.0000***
Village	5	15.20833	3.04167	0.62536	.6831 ns
Error	15	72.95833	4.86389<-		
Total	23	372.95833			

LSD 0.05 = 2.71397755736

**Appendix 3c The results on the increase of the land size and yield due to the improvement in the conditions of programmes activities of the households**

Village	Average of the land size before programe(acre)	Average of the land size after programe (acre)	Average tones before programme tone/acre	Average tones after programme tone/acre
Mnyuzi	1.7	3.3	1.088	1.370
Kwagunda	1.3	2.4	0.477	1.283
Chepete	1.4	2.9	0.442	1.235
Kwamndolwa	1.4	2.7	0.657	1.224
Gombalam	1.3	3.3	0.607	1.058
Kwamsisi	1.1	1.3	0.600	0.892
Average total	1.4	2.7	0.645	1.177

**Appendix 3d. Paired Samples Test for the land and yield improvement in the conditions of programmes activities of the households.**

Paired Samples Test							
Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Sig. (2-tailed)
				Lower	Upper		
Pair 1 Kilogramme before - Kilogramme after programme	2.44804E3	876.29680	122.70610	2694.50166	2201.57677	19.950	.000
Pair 2 average of the land size beforeprograme - average of the land size after programme	-1.38039	1.18979	.16660	-1.71503	-1.04576	-8.285	.000

**Appendix 3e Raw data for means of transport before the programme**

Means	Villages						Total
	Kwamsisi	Kwamndolwa	Chepete	Gombalamu	Mnyuzi	Kwagunda	
On foot	8	8	9	9	7	10	51
Hire car	0	2	0	1	1	0	4
Bicycle	2	0	1	0	0	0	3
Cart	0	0	0	0	2	0	2
Motorcycle	0	0	0	0	0	0	0
Total	10	10	10	10	10	10	60

**Appendix 3f: Anova table for means of transport before programme**

Source	df	SS	MS	F	P
Main Effect					
Measure	4	163	40.75	35.434783	.0000
					***
Village	5	0	0	0	1 ns
Error	20	23	1.15<		
Total	29	186			

LSD 0.05 = 1.29150171362

**Appendix 3g: The results on the means of transported benefited by the households due to improvement in the programmes activities of the households.**

Means	Villages						Total
	Kwamsisi	Kwamndolwa	Chepete	Gombalamu	Mnyuzi	Kwagunda	
Cart	0	10	0	10	8	7	35
Powertiller	10	0	10	10	0	0	30
Bicycle	0	0	3	0	4	3	10
Motorcycle	0	0	0	0	4	4	8
Total	10	10	13	20	16	14	83

**Appendix 3h the Anova table for means of transport after programme**

Source	df	SS	MS	F	P
Main Effect					
Measure	3	94.45833333	31.486111	1.6910339	.2116 ns
Village	5	18.20833333	3.6416667	0.19558	.9594 ns
Error	15	279.2916667	18.619444<		
Total	23	391.9583333			

LSD 0.05 = 5.31003995231

**Appendix 3i: T-test for means of transport before and after programme.**

		<b>Paired Samples Test</b>							
		Paired Differences					Sig. (2-tailed)		
		95% Confidence Interval							
		of the Difference							
		Std. Error							
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	
Pair 1	means of transports before the DADPs programme - means of transports after the DADPs programme	-2.51667	1.21421	.15675	-2.83033	-2.20300	-16.055	59	.000

**Appendix 3j: The results on benefited gained by the households in education**

Benefit	Village						Total
	Kwamsisi	Kwamndolwa	Chepete	Gombalamu	Mnyuzi	Kwagunda	
Support in education	7	5	5	6	6	5	34
Skill on operate oxen/power tiller	2	2	3	5	3	2	17
Skills on animal	5	5	0	2	2	3	17
Train local oxen	0	2	0	4	4	1	11
Total	14	14	8	17	15	11	79

**Appendix 3k: The Anova table for benefited gained by the households in education**

Source	df	SS	MS	F	P
Main Effect					
education	3	49.125	16.375	7.4150943	.0028 **
Village	5	2.70833333	2.5416667	1.1509434	.3772 ns
Error	15	33.125	2.20833333		
Total	23	94.95833333			

LSD 0.05 = 1.82871801544

**Appendix 4a. The households acquired properties through the income earned from****DADPs activities**

Respondents	Frequency	Percentage
Home asset	38	54
Livestock	11	15
Collected material	8	11
Transport means	7	10
Housing	7	10
Total	71	100

**Appendix 4b: The Anova table for the households acquired properties through the  
income earned from DADPs activities**

Source	df	SS	MS	F	P
Main Effect					
Measure	4	119.8	29.95	15.846561	.0000 ***
Village	5	35.36666667	7.0733333	3.7425044	.0149 *
Error	20	37.8	1.89<		
Total	29 1	192.9666667			

LSD 0.05 = 1.65568215763

**Appendix 4c. The properties acquired by the household through the income earned from DADPs activities.**

Village	Home asserts				Collected materials		livestock		Build house	Motor/bicycle		Total
	Wood asserts	Matres	Tvs	Radio	Iron sheets	Bricks	Goats	Cattle		Motorc bicycle		
Mnyuzi	8	3	2	1	3	0	0	3	3	3	1	27 <sup>a</sup>
Kwagunda	8	1	1	3	3	0	0	1	0	1	2	20 <sup>ab</sup>
Gombalamu	3	1	0	1	0	3	0	2	3	0	0	13 <sup>bc</sup>
Chepete	4	0	0	1	0	2	3	0	0	0	2	12 <sup>bc</sup>
Kwamndolwa	4	1	0	1	0	0	2	1	1	0	0	10 <sup>bc</sup>
Kwamsisi	2	0	0	1	0	0	0	0	0	0	0	3 <sup>c</sup>
Sub total	29	6	3	8	6	5	5	7	7	4	5	85
Total		46 <sup>a</sup>			11 <sup>b</sup>		12 <sup>b</sup>		7 <sup>b</sup>	9 <sup>b</sup>		85

wood products refers to wood bed, table, office chair,

<sup>a</sup> <sup>b</sup> <sup>ab</sup> <sup>bc</sup> and <sup>c</sup> indicate significant difference (P<0.05)

**Appendix 4d: ANOVA table for the properties acquired by households participants  
in DADPs activities.**

Source	df	Type III SS	MS	F	P
-----					
Main Effects					
Properties	4	176.3333333	44.083333	10.438043	.0001 ***
Village	5	69.36666667	13.873333	3.284925	.0251 *
Error	20	84.46666667	4.2233333<-		
-----					
Total	29	330.1666667			
-----					
LSD 0.05 = 2.47499169891					

**Appendix 4e: The properties acquired by household non participants in DADPs programme.**

Villages	Home asserts				Collected materials		livestock		Build house	Motor/ bicycle Motor/ bicycle	Total	
	wood asserts (bed,table)	matres	Tvs	radio	iron sheets	bricks	goats	cattle				
Mnyuzi	4	2	2	1	2	0	1	2	1	1	1	17
Kwagunda	3	2	0	1	2	0	1	1	0	0	1	11
Gombalamu	2	2	0	1	1	1	0	1	2	0	0	10
Chepete	2	0	0	1	0	0	1	1	2	0	1	8
Kwamndolwa	2	0	0	1	0	0	1	0	0	0	1	5
Kwamsisi	2	1	0	1	0	0	0	0	0	0	0	4
Sub total	15	7	2	6	5	1	4	5	5	1	4	55
Total		30				6		9	5		5	55

Wood products refers to wood bed, table, office chair,  
<sup>a</sup> <sup>b</sup> <sup>ab</sup> <sup>bc</sup> and <sup>c</sup> indicate significant difference (P<0.05)

**Appendix 4f: The ANOVA table for items acquired by household non participants in DADPs programme.**

Source	df	MM	MS	F	P
Main effect					
Item	4	79.13333333	19.783333	16.171662	.0000 ***
Village	5	19.2	3.84	3.1389646	.0298 *
Error	20	24.46666667	1.2233333<		
Total	29	122.8			

LSD 0.05 = 1.33204369536

**Appendix 5a: Mean Annual income earned by households both DADPs members and non DADPs members.**

Villages	Membership	Minimum annual income(TZS)	Maximum annual income(TZS)	Average annual income (TZS)
Mnyuzi	DADPS member	480,000	1,100,000	844,000 <sup>a</sup>
	Non DADPs member	90,000	1200,000	302,000 <sup>b</sup>
Gombalam	DADPS member	270,000	1,200,000	817,000 <sup>a</sup>
	Non DADPs member	100,000	700,000	272,000 <sup>b</sup>
Kwagunda	DADPS member	420,000	1200,000	755,000 <sup>a</sup>
	Non DADPs member	50,000	1,000,000	322,000 <sup>b</sup>
Chepete	DADPS member	250,000	1,020,000	705,000 <sup>a</sup>
	Non DADPs member	80,000	500,000	250,000 <sup>b</sup>
Kwamndolwa	DADPS member	50,000	1,150,000	685,000 <sup>a</sup>
	Non DADPs member	75,000	1,000,000	363,500 <sup>b</sup>
,Kwamsisi	DADPS member	60,000	700,000	406,000 <sup>a</sup>
	Non DADPs member	80,000	700,000	306,000 <sup>a</sup>
Total	DADPS member			<b>702,000<sup>a</sup></b>
	Non DADPs member			<b>302,385<sup>b</sup></b>

<sup>a</sup> and <sup>b</sup> indicate significant difference (P<0.05) in total mean annual income between DADPs members and non-members.

**Appendix 5b: Statistical analysis for Mean Annual income earned by households  
both DADPs members and non DADPs members within the village.**

Village	Membership	N	Mean	Std. Deviation	Std. Error Mean
Kwamsisi	DADPs	10	4.0600E5	2.38570E5	75442.39892
	Non DADPs	10	3.0600E5	1.74432E5	55160.37225
Kwamndolwa	DADPs	10	6.8500E5	3.45648E5	1.09303E5
	Non DADPs	10	3.6350E5	2.91377E5	92141.34673
Chepete	DADPs	10	7.0500E5	2.29165E5	72468.38391
	Non DADPs	10	2.5000E5	1.50776E5	47679.48546
Gombalamu	DADPs	10	8.1700E5	2.64157E5	83533.75898
	Non DADPs	10	2.7200E5	1.89842E5	60033.32408
Mnyuzi	DADPs	10	8.4400E5	1.96593E5	62168.23054
	Non DADPs	10	3.0200E5	3.45648E5	1.09303E5
Kwagunda	DADPs	10	7.0500E5	2.91377E5	92141.34673
	Non DADPs	10	2.5000E5	2.29165E5	72468.38391

**Appendix 5c: The T–test for significance difference for Mean Annual income earned by households both DADPs members and non DADPs members**

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Confidence Interval of the Difference			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
kwamsisi	Equal variances assumed	2.259	.150	1.070	18	.299	1.00000E5	93457.06085	-96345.99895	2.96346E5
	Equal variances not assumed			1.070	16.484	.300	1.00000E5	93457.06085	-97648.51965	2.97649E5
Kwamndolwa	Equal variances assumed	.259	.617	2.249	18	.037	3.21500E5	1.42959E5	21154.47475	6.21846E5
	Equal variances not assumed			2.249	17.499	.038	3.21500E5	1.42959E5	20537.23423	6.22463E5
Chipete	Equal variances assumed	.921	.350	5.245	18	.000	4.55000E5	86746.75786	2.72752E5	6.37248E5
	Equal variances not assumed			5.245	15.562	.000	4.55000E5	86746.75786	2.70684E5	6.39316E5
Gombalamu	Equal variances assumed	1.117	.305	5.298	18	.000	5.45000E5	1.02868E5	3.28882E5	7.61118E5
	Equal variances not assumed			5.298	16.339	.000	5.45000E5	1.02868E5	3.27296E5	7.62704E5
Mnyuzi	Equal variances assumed	.002	.965	5.224	18	.000	5.42000E5	1.03752E5	3.24025E5	7.59975E5
	Equal variances not assumed			5.224	16.675	.000	5.42000E5	1.03752E5	3.22777E5	7.61223E5
Kwagunda	Equal variances assumed	.007	.936	3.713	18	.002	4.33000E5	1.16629E5	1.87971E5	6.78029E5
	Equal variances not assumed			3.713	17.473	.002	4.33000E5	1.16629E5	1.87441E5	6.78559E5

**Appendix 6a: The factors limited the DADPs performance towards poverty reduction to the households in Korogwe District.**

Limit factors	Villages and programme offered									Total
	Kwamsisi		Kwamndolwa		Chepete		Gombalam		Mnyuzi	
	Powertiller	Poultry	Plough	Goats	Powertiller	Plough	Powertiller	Plough	plough	
Shortage of tools	1	3	6	0	5	8	1	3	6	33
Tools breakdown	6	0	2	1	4	3	0	2	2	20
drought	2	0	3	0	2	4	0	4	3	18
Disease	0	4	0	4	0	2	0	0	0	10
Poor cooperation	1	0	0	1	0	1	0	2	1	6
Sub total	10	7	11	6	11	16	1	11	12	
Total		17		17	11		19	11	12	87

This type of question had multiple responses.

**Appendix 6b: The ANOVA table for the factors limited the DADPs performance toward poverty reduction to the household levels in Korogwe District.**

Source	df	Type III SS	MS	F	P
Main Effects					
Factors	4	75.13333333	18.783333	8.8461538	.0003 ***
Village	5	11.86666667	2.3733333	1.1177394	.3826 ns
Error	20	42.46666667	2.1233333<		
Total	29	129.4666667			

LSD 0.05 = 1.754911239171

**Appendix 6c: Drop out of members in the DADPs programme caused by shortage of tools and poor cooperation among the members.**

Village	No. of registered in programme				No. of drop out in the programme			
	Oxen/cart	powertiller	poultry	Goats	Oxen/cart	powertiller	poultry	Goats
Kwamsisi	0	26	20	0	0	16	10	0
Kwamndolwa	16	0	0	15	5	0	0	5
Chepete	0	28	0	0	0	0	0	0
Gombalamu	28	0	0	0	4	0	0	0
Mnyuzi	28	0	0	0	5	0	0	0
Kwagunda	28	0	0	0	6	0	0	0
Total	100	54	20	15	20	16	10	5

**Appendix 6d: The ANOVA Table for drop out of members in the DADPs programme**

Source	df	SS	MS	F	P
Main Effect					
activities	3	21.79167	7.26389	0.62277	.6112 ns
Village	5	45.875	9.175	0.78662	.5752 ns
Error	15	174.9583	11.66389		
Total	23	242.625			

LSD 0.05 = 4.20277477

**Appendix 7a: Measures required improving performance of DADPs activities in the various villages that are intended to improve household incomes and reduce poverty.**

Measures	Village						Total
	Kwamsisi	Kwamndolwa	Chepete	Gombalam	Mnyuzi	Kwagunda	
Supported with tools	10	7	8	7	5	7	44
Given tractors	5	3	3	5	3	3	22
Construction water dams	3	3	3	5	1	1	16
DADPs leaders	4	2	0	0	1	1	8
Total	22	15	14	17	10	12	90

**Appendix 7b: The ANOVA table for the measures required to improve performance of DADPs programme that are intended to improve the household incomes and reduce poverty**

Source	df	SS	MS	F	P
Main effect					
Measures	3	119.1666667	39.722222	30.818966	.0000 ***
Village	5	22	4.4	3.4137931	.0294 *
Error	15	19.33333333	1.2888889<		
Total	23	160.5			

LSD 0.05 = 1.3970828751

## **Appendix 8: Research questionnaire**

### **RESEACH TOPICS**

#### **INTRODUCTION**

The purpose of this study is to assess the contribution of the DADPs on the poverty reduction at the household level in Korogwe District: specifically the study will focus on identifying activities done under the DADPs that are intended to improve the household income to reduce poverty. To determine the participation of the households in the DADPs projects intended for poverty reduction. The study will determine the benefits gained by the households from the DADPs subprojects on poverty reduction. Also the study will identify factors limiting the DADPs performance and measures required for improvement. This study will be helpful for government officials who will use information obtained for making improvements and innovations in the agricultural sector particularly in the DADPs

I kindly request your cooperation with regard to this exercise: The information obtained from you will be strictly confidential.

#### **PART ONE**

##### **SECTION A. QUESTIONNAIRE FOR HOUSEHOLD**

Respondent's name..... Date.....

Respondent number.....

Division.....

Ward name.....

Village name.....

A: General information, tick (√) the right answers where necessary

1. How old are you?

I'm.....years old

2 Sex of respondent

i.Male

ii.Female

3 What is your marital status?

i. Married

ii Not married

iii Divorced

iv Widow

4. Have you attended any formal education

i Yes

ii. No (if the answer is no go to question no. 6 )

5. What is your highest level of education?

i. Adult education

ii. Primary education

iii. Secondary education

iv. Post secondary education

v. Others (specify).....

6. What is your main occupation?

i. Farming (peasant/cattle keep

ii. Salary/wages employee

iii. Business

v. Others (specify).....

**SECTION B: Participation of the households in the DADPs sub project**

7. Do you participate in the DADPs sub project?

- i. Yes, (if yes continue question no. 8
- ii. No I, don't participate.

8. How do you participate?

- i. monetary contribution
- ii. monetary and material.
- iii. monetary and labour
- iv. Contribution of material (specify).....

9. Under this subproject exist how much did you contributed?

- i. Less than Tzs 1000/=
- ii. 1000-2000 Tzs
- iii. More than 2000/=
- iv. I didn't contribute any thing

10 How many times a person contribute within the subproject?

- i. One
- ii. More than one

11 Are planed subproject implemented and completed as scheduled?

- i. Yes
- ii. No (if the answer is no go to the next question)

12 What the factor(s) contributed for not completing village development projects as scheduled?

- i. Poor accountability and responsibility of villager and DADPs leaders
- ii. Poor community labour and finance contribution
- iii. Lack of transparency in development projects
- iv. All of the above
- v. Others explain

13. Do you think the participation of the household in the DADPs subproject implementation is necessary?

- 1. Yes, (why explain)
- 2. No

14 What do you think are the main problems facing participatory of the house holds in DADPs subproject.

- i. In adequate participation of community and other development stakeholders
- ii. Poor accountability and responsibility of village leaders
- iii. Inadequacy transparency in planning and implementation of village development projects
- iv. No legal action is taken for those who do not participate in the process
- v .All of the above
- vi .Others (explain.....)

15 Do you have any suggestion to improve the household participation on the DADPs sub project

- i. Yes I suggest.....
- ii. No

16 Do the DADPs extension officers visit the project regularly?

i Yes

ii No

17 If yes, how often

i. Once per month

ii. Once per three months

iii. Once per six months

iv. Others (specify)

18. Do you have other extra resources which provide you income out of DADPs intervention?

i. Yes (if yes do qn no 19.)

ii. No (if no continue to qn no 20 )

19. Mention them

i.....

ii.....

iii.....

20. What is you average income per annual due to extra source?

Tzs.....

21. How do you spend this money?

Explain.....

22. What is you average income per annual due to DADPs?Tzs.....

23. How do you spend this money?

Explain.....

24. Is that money sufficient to meet your daily needs?

- i Enough
- ii Not enough
- iii. More than enough
- iv. Others (specify.....)

25. Do you get any practical orientation or basic training before starting this project?

- i. Yes
- ii. No

If yes continue next qn

26. Is the basic training satisfactory to you?

- i. Yes
- ii. No

27. Mention the number of the asserts you have in your house

**SECTION C: NON DADPs PARTICIPANTS**

29. What are the income generating activities do you do?

- i.....
- ii.....
- iii.....

30. What the reason of starting income generating activities?

- i. Source of employment
- ii. To supplement family income
- iii. Others (specify).....

- 32. How much do you earn in your income generating activity? TZS.....
- 33. How do you spend the income obtained?
- 34. How do you benefit.....
- 35. What's constrain (s) do you get in your income generating activities?
- 36. What the average amount of the products do you produce?
- 37. Have you ever received any training on how to operate your income?

- 1. Yes
- 2. No

If yes how long was the training?

- 38. Where do you sell your products?
- 39. What is the annual income of your household?
  - 1. 0-50000
  - 2. 51000- 100,000
  - 3. 101,000-500,000
  - 4. Above

40. Mention number of the asserts you have in your house?

**PART TWO; CHECKLIST FOR KEY INFORMAT**

- 41. When DADPs project started in your area?
- 42. How was the DADPs initiated .....
- 43. Please do you know the total number of DADPs sub projects in your area?
- 44. How do DADPs sub projects operated within the Area?
- 45. Can you give the success reached by the DADPs toward the household?
- 46. To what extent has the DADPs community projects succeeded in this District?

- i .Excellent >75%
- ii. Very good 70-75%
- iii. Good 60-69%
- iii. Fair 50-59%
- iv. Failure<50%
- v. Others (specify).....

(47) How many installments of funds the communities receive from DADPs grants?

Amount.....

48. How long does it take to get the first grant installment and other installment after fulfilling the DADPs conditions?

49. Are there any other services provided by DADPs to community out of the funds?

iYes

iiNo

I f yes what are they

i.....

ii.....

50. The time of implementation was good for the community to participate?

i.Yes

ii.No

If yes go to the next question

51. Did you face any problem(s) during the implementation of DADPs

i.Yes

ii.No

If yes what are they .....

52. Do you think that the DADPs subproject has reduced that poverty in your area?

i. Yes

ii. No

If yes how.....

53. What extra resources are provided by the DADPs?

54. Do you get all the DADPs funds in your Area?

If not why?

55. Does community participation is good? .....

56. What do you say about the progress of your project?

i. The project is positively progressing

ii. Not well progressing,

If not well progressing, what are the contributing factors?

i.....

ii.....

57. What measures have been taken to removal the limiting factors for the DADPs

Progressive?.....