

**INFLUENCE OF MULTI STAKEHOLDER(S) PLATFORMS IN PROMOTING  
AGRIBUSINESS DEVELOPMENT IN KILOMBERO DISTRICT, TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
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## **ABSTRACT**

Multi Stakeholder Platforms (MSPs) form an important initiative in bringing together multiple actors along a community value chain to address challenges and identify opportunities to generate innovations in agriculture. There is limited empirical information on the performance of MSPs in agricultural sector. The specific objectives of the study were to identify the existing stakeholders supporting agribusiness development; to evaluate the roles of stakeholder and to determine the factors influencing willingness of farmers to participate in MSPs. The study involved 150 households and 40 agribusiness stakeholders. Data was collected by using structured questionnaire and supplemented with secondary data collected from various sources. The data collected was summarized by using SPSS and Microsoft Excel. Stakeholder analysis was used to identify stakeholders in agribusiness sector in Kilombero. The results of regression analysis revealed that farmer's participation in MSPs measured the willingness to participate was associated with some of the household characteristics such as gender of the household head, age of the household head, education level, membership in association, who makes farming decisions in the family and accessibility of credits to farmers. The result identified nine distinct roles such as research, extension and training, inputs supply, social mobilization, marketing, credit provisions and platform mobilization. Age, gender, education, household size and accessibility to credits showed significant results as factors influencing farmer's participation in MSPs at 1% and 5% levels of significance. The study recommended the following measures to be taken: increasing awareness and knowledge dissemination about MSPs by using promotional programs among existing and future stakeholders such that the concept of MSP is active and known to the government which would in turn design agricultural policies and programs that would involve and promote various stakeholders.

**DECLARATION**

I, Ajuae H. Mkungura, 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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Date

The above declaration is confirmed:

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Dr. Jeremia R. Makindara  
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Date

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**DEDICATION**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

ACT	Agricultural Council of Tanzania
ASA	Agricultural Seed Agency
BRN	Big Results Now
CARGs	Agricultural and Rural Management Councils
CBOs	Community Based Organization
CFA	Financial Cooperation in Central Africa
CRDB	Cooperative and Rural Development Bank
DAICO	District Agricultural Irrigation and Cooperative Officer
FAO	Food and Agriculture Organization
FARA	Forum for Agricultural Research in Africa
FBO	Farmers Base Organization
FINCA	Foundation for International Community Assistance
GoT	Government of Tanzania
IAC	International Agricultural Centre
IAR4D	Integrated Agriculture Research For Development
ICRA	International Development Research Centre
ICT	Information and Communication Technology
IDRC	International Development Research Center
INSP	International Network on Strategic Philanthropy
IPTA	Innovation Platform for Technology Adoption
JICA	Japan International Cooperation Agency
KATRIN	Kilombero Agricultural Training and Research Institute
KDC	Kilombero District Council

MAFC	Ministry of Agriculture, Food security and Cooperatives
MSEPs	Multi Stakeholder Engagement Processes
MSPs	Multi Stakeholder Platforms
MVIWATA	Mtandao wa vikundi vya wakulima Tanzania ( <i>National Network of farmers Group</i> )
MWI	Ministry of Water and Irrigation
NGOs	Non-Governmental Organizations
NMB	National Microfinance Bank
ORS	Organizational Research Services
OXFARM	Oxford Committee for Famine Relief
PELUM	Participatory Ecological Land Use Management
PRIDE	Promotion of Rural Initiative and Development Enterprises Limited
PROLINNOVA	Promoting Local Innovation
RDP	Rural Development Projects
RIU	Research Into Use
RUDI	Rural Urban Development Initiatives
SACCOS	Saving and Credit Cooperative Society
SAGCOT	Southern Agricultural Growth Corridor of Tanzania
SIMLESA	Sustainable Intensification of Maize Legume Cropping Systems for Food Security in Eastern and Southern Africa
SPSS	Statistical Package for Social Sciences
SUA	Sokoine University of Agriculture
TPAWU	Tanzania Plantation and Agriculture Workers Unions
TAP	Tanzanian Agricultural Partnership
TOC	Theory of Change

TOSCI	Tanzania Official Seed Certification Institute
TUBOCHA	Tuboreshe Chakula
UNDP	United Nations Development Programme
URT	United Republic of Tanzania
USAID	United States Agency for International Development

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

An agribusiness sector comprises of all operations ranging from manufacturing and distribution of farm supplies, production operations on the farm as well as storage, processing and distribution of farm commodities (Mhlanga, 2010). Agribusiness is often used to convey an aggregate view of agriculture and its business-related activities, covering multiple functions and processes involved in modern food production and distribution (Konig *et al.*, 2013). It is an important source of employment and income in rural areas and is the largest economic sector in the emerging markets of Africa, Asia and Latin America (World Bank, 2011).

Globally, agri-businesses and industries helped to reduce rural poverty sharply from 60 percent in the 1960s to 10 percent in recent years (World Bank, 2013). According to the scatter plot of employment, over 30% of jobs in North America are in the agribusiness sector while less than 1% of jobs are directly involved in production (U.S. Department of Labor, 2004).

##### 1.1.1 Agribusiness development in Africa

In Africa, agribusiness is everyone's business and national independence depends on its development (Brethenoux *et al.*, 2011). The agribusiness sector in Africa is faced by a number of challenges such as difficulty in obtaining loans and inadequacy of supporting infrastructures of information and ICT systems such that it needs support and initiative from the public and private sectors (Heemskerk *et al.*, 2012). Agricultural innovation platforms have been designed as one of the solutions of the agricultural constraints where

various actors act together in agribusiness activities. This has prompted a need for a deeper understanding of the elements that form a conducive business environment for the development of agribusinesses, agro-industries and agri-food value chain (Mhlanga *et al.*, 2013).

### **1.1.2 Agribusiness development in Tanzania**

Agriculture is considered the backbone of the economy in Tanzania due to the fact that it accounts for about half of the national income, three quarters of merchandise exports, source of food and it employs about 80% of the population in Tanzania (Gasheka *et al.*, 2011).

Agriculture has been modernized and has become the center of political agenda but so far the agricultural sector is still underdeveloped in Tanzania (Wolter, 2008). This makes agriculture to remain subsistent with small scale holders' producing the majority of the agricultural output. Agricultural output remains predominately based on smallholder production. Cash crops, such as coffee, tea, cotton, cashews, sisal, cloves, and pyrethrum account for the vast majority of export earnings while maize, paddy, wheat, and cassava are produced for domestic consumption (Brethenoux *et al.*, 2011).

Recognizing the pivotal role played by agriculture in economic growth and poverty reduction, the GoT initiated the following:

- i. Making macroeconomic policies that will motivate investment in agriculture by smallholders and large – scale commercial farmers;
- ii. Creating an enabling environment and providing proactive support to private operators, farmers organizations, NGOs and CBOs supplying inputs and credit to small farmers and ensuring a strong regulatory mechanism;

- iii. Increasing budgetary allocations on agriculture research and extension; and
- iv. Provision of special support to investments in agricultural processing particularly in fruits and vegetables (Tiernan and Nelson, 2013).

### **1.1.3 Challenges facing agribusiness development in Tanzania**

Despite its importance, agriculture in Tanzania remains weak and uncompetitive mainly due to non-adoption of improved technologies that are essential to increase productivity and profitability of agricultural systems (IAC, 2004). Forty four million hectares (ha) of arable land in Tanzania is suitable for agriculture, only 23 percent, or some 10 million ha, is utilized (Brethenoux *et al.*, 2011). According to Tanzania's National Irrigation Master Plan, 29.4 million ha (31 percent of the total land area) is in fact suitable for irrigation, but only about 1.0 percent of that land was under irrigation by end of 2008. However, farmers continue using low-input agricultural systems as they are excluded from access to credit, information and technical support and they are remote from infrastructure or markets that would have contributed to the transformation from primitive agriculture to modern agriculture (Altieri, 2002).

### **1.1.4 Efforts in promoting agribusiness development in Africa**

In promoting agribusiness sector, the Forum for Agricultural Research in Africa (FARA) has promoted the Integrated Agriculture Research for Development (IAR4D) approach based on an innovation systems framework (Adekunle *et al.*, 2012). This initiative brings together multiple actors along a commodity value chain to address challenges and identify opportunities to generate innovations in the agriculture sector (Adekunle *et al.*, 2012).

Based on these initiatives, more farmers and agribusinesses have started to embrace the science of more naturally oriented production systems through these innovation platforms which involves new products, processes or changes to existing products (McNeely *et al.*,

2003). It is evident that different investigations have been done on the formation and functioning of innovation platforms in different projects on pro-poor small ruminant value chains. These investigations on value chain provide some key lessons on the conditions and factors that play a role in making innovation platform projects effective (Boogaard *et al.*, 2013). Therefore, National agro-industrial developments policies in developing countries including Tanzania are now encouraged to adopt and strengthen the innovation platforms. Using innovation platforms can lead to identification of local solutions to local problems and this can promote an endogenous development approach which fosters greater sustainability of different activities (Cadilhon, 2013).

### **1.1.5 Efforts of Multi Stakeholder Platforms (MSPs) to promote agribusiness development**

**Assurance of produce market:** Assurance of the market is an important strategy in promoting agribusiness development in different parts of the world. The study done by Temu *et al.* (2011) found that 65% of Tanzanian farmers sell their produce in front of their houses or at the farm gate. They are doing this because of unavailability of formal market mechanisms for their produce. Therefore, MSPs is intended to provide a space for market chain actors to meet, share their knowledge in marketing and experiences, negotiate price, and carry out joint activities. According to the study done by Devaux *et al.* (2007), at market chain level stakeholders have fostered the creation of platforms that brings farmers together transporters, traders, processors, managers of super markets, researchers, extension agents, chefs, and others with a stake in the production and marketing of potatoes in Peru. This could encourage pro-poor market innovation and improved market participation of smallholders and finally improved livelihoods of the farmers.

**Access to key inputs:** Accessibility of key inputs like seeds and fertilizers is one of the important aspects in promoting agribusiness development. One of the problems faced by smaller producers is often access to adequate production inputs. The use of modern inputs such as fertilizers and improved seeds with accompanying technologies are extremely limited in different countries (Gera *et al.*, 2010). The presence of multi stakeholders' platform can disseminate successful trials for new varieties of seeds and fertilizers. The study on innovation platforms by Cadilhon, (2013) in Ghana showed that platforms can assign some of their members to the task of gathering and disseminating local market prices of key inputs for the benefit of all stakeholder members. Platforms are there to set up better information on availability of inputs and passing that information to the members.

**Promotion of technological innovation process:** Technological innovation plays a fundamental role in promoting agribusiness development. It involves improvements in the agricultural commodity productions and transformations of agricultural produce in various forms. The interaction of researchers, development professionals, farmers (producers), and other stakeholders improves the dissemination of technological innovations and helps research organizations to align their research agendas to better contribute to innovation in the region (Devaux *et al.*, 2007). For instance, the study by Rajalahti (2011) showed that the multi stakeholder and innovation platforms, together with a farmer-centered approach in management and decision making, have been successful in bringing about changes and adoption of technological innovation in Senegal.

Generally, in promoting agribusiness development, stakeholder platforms have been proven to be effective in developing commercial innovations in agricultural sector (Martey *et al.*, 2014). To ensure smallholder farmers benefit from multi stakeholder

processes, stakeholder help them get organized and gain access to services they need from public and private providers to exploit new business opportunities and farmers' incomes.

## **1.2 Problem Statement and Justification**

### **1.2.1 Problem statement**

Multi Stakeholders Platform (MSP) have emerged as an important initiative in developing new governance structures that foster participation of multiple stakeholders in the public sector, civil society, and the private sector (Schiffer *et al.*, 2010).

Although there are few studies published on the MSPs issues, however most of them used single case studies to evaluate the impact of a given innovation platform. For example, a discussion paper by Badibanga *et al.* (2013) assessed the impact of how an innovation platform known as Agricultural and rural management councils (CARGs) worked in achieving a decentralized governance of the agricultural policies and strategies. Kilelu *et al.* (2013) did a research on the governance mechanisms of innovation platforms and on monitoring systems that can help platform members and facilitators adapt to changing needs. As well as a discussion paper on innovation platform for the maize in Burkina Faso which focused on technology adoption along the maize value chain (Warner, 2007). All these studied pre-existing relationships and negotiations that may take place on direct stakeholders themselves and between the direct and the indirect stakeholders (Joy and Paranjape, 2002).

Furthermore, few studies on MSP have been done in Tanzania like that of Gasheka *et al.* (2011) who claimed that strengthening multi-stakeholders partnerships facilitates and promotes networking in participatory ecological land use management so as to have sustainable agriculture. None of these studies focused on influential factors of MSPs

which could lead to promoting agribusiness development in Tanzania. Therefore, there was a need to investigate further on the factors influencing MSP in promoting agribusiness development in Tanzania.

This study therefore, tries to identify the potential of MSPs for agribusiness innovation in Kilombero District. This study provides information that will be used to address challenges that hinder development and expansion of MSP in Tanzania from the stakeholders themselves up to the policy dimensions.

### **1.2.2 Justification of the study**

MSPs need to be promoted so as to increase sustainability in agricultural sector in Tanzania. This could be achieved through encourage farmers in adopting new technology and using improved agricultural inputs. In addition, sustainable agricultural production could be achieved if efforts to encourage farmers to participate in MSPs are made. However, identification of variables which may influence the willingness of participation in MSPs need to be clarified. This study therefore aims at identifying actors that influence farmers' participations in MSPs and efforts made by MSPs in promoting agribusiness development in a study area. The findings will be useful to local value chain supporters, governmental and non-governmental organizations, NGOs, farmers themselves and MSP actors who are in a position of promoting agribusiness sector in Tanzania.

## **1.3 Objectives**

### **1.3.1 Overall objective**

To assess the influence of MSPs in promoting agribusiness development in Kilombero District

### **1.3.2 Specific objectives**

- i. To identify the stakeholders that support agribusiness development in Kilombero District;
- ii. To evaluate the roles of existing stakeholders in promoting agribusiness development in the District; and
- iii. To determine the factors influencing willingness of farmers to participate in MSPs.

### **1.3.3 Research questions**

- i. What are the stakeholders that support agribusiness developments in Kilombero District?
- ii. What are the roles of stakeholders in promoting agribusiness development in Kilombero District? and
- iii. What are the factors influencing willingness of farmers to participate in multi stakeholder platform in the study area?

## **1.4 Significance of the Study**

This study would generate useful information in developing a guide for agribusiness sector interventions of various stakeholders that will improve the efficiency of the agribusiness sector in Tanzania. The potential users of this finding would be farmers, government and non-government organizations, financial institutions and village groups. All these have an interest in superseding agribusiness sector in Tanzania. The study finding will also be used to raise awareness among different stakeholders and to serve as background information for others who seek to do further related researches in this area.

### **1.5 Organization of the Dissertation**

This dissertation consists of five major chapters. Chapter one presents the background, statement of the problem, justification of the study, objective and significance of the study. Chapter two provides literature review covering some of the theoretical framework and empirical studies concerning the concept of MSPs and agribusiness development. Chapter three explains the methodologies used for data collection and data analysis. In chapter four the results of the study are presented and discussed, while chapter five presents the key conclusions and recommendations emanating from the study.

## CHAPTER TWO

### **2.0 LITERATURE REVIEW**

#### **2.1 Theoretical Framework**

There are several theoretical frameworks one can draw upon the study of MSPs. These include the stakeholder theory, game theory, theory of change and decision theory.

##### **2.1.1 Stakeholder theory**

An introduction of the stakeholders' theory was developed firstly by Freeman in 1984 (Barros *et al.*, 2009). The theory argues that the organization has relationships with many constituent groups and that it can engender and maintain the support of these groups by considering and balancing their relevant interests (Jones and Wicks, 1999). A central message of stakeholder theory is that organizations should aim at maximizing not only their own profits but also maximizing benefits or minimizing damages to other organizations and/or individuals on their activities (Freeman, 1984).

According to Donaldson and Preston (1995), the stakeholder theory is managerial in the broad sense because it portrays managers as individuals who pay simultaneous attention to the legitimate interests of all appropriate stakeholders. The stakeholder theory provides a comprehensive insight into the role that stakeholders play in the strategic decisions and strategic future of the organization (Eden and Ackermann, 1998).

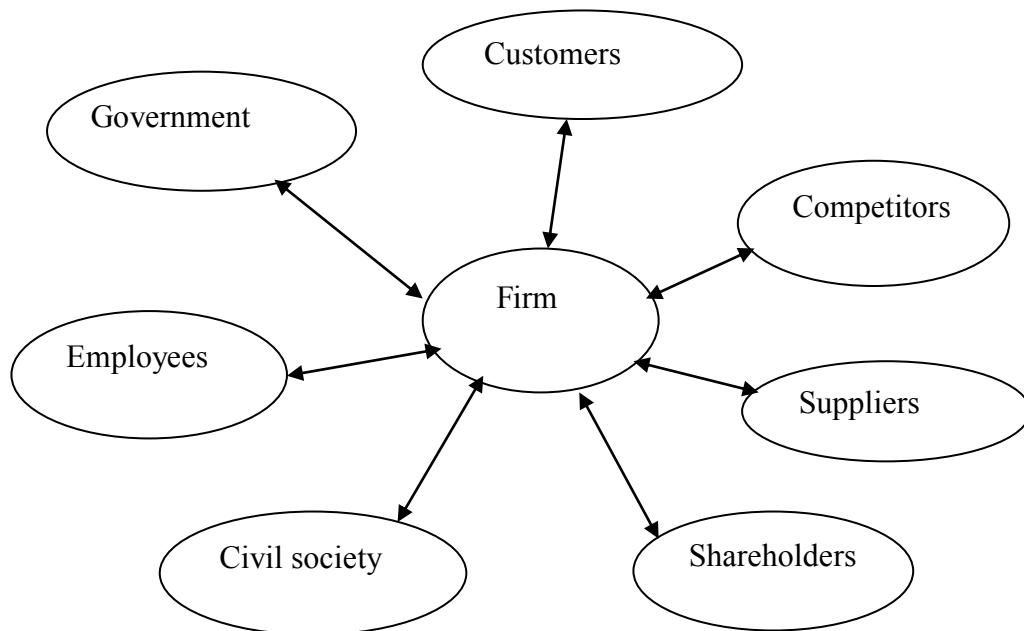
Freeman (1984) divided stakeholder groups into two categories: internal groups (customers, employees, suppliers, owners) and external groups (governments, competitors and special interest groups). The internal groups are classified as key stakeholder and the

external stakeholders become more important and they are a priori and cannot be relegated to a subsidiary position (Donaldson and Preston, 1995).

According to Kipley *et al.* (2009), stakeholders are viewed in three ways,

- i.) Those that have an interest in the success rather than failure of the organization;
- ii.) Those whose stake in the organization is focused on disrupting the strategy if they feel that it threatens their own interests; and
- iii.) Stakeholders whose interests are neither pro nor con with respect to the organizations success but merely regulatory such as governmental agencies.

Freeman (1984) presented the stakeholder model as a map in which the organization is the hub of a wheel and stakeholders are at the ends of spokes around the rim (Freeman, 1999).



**Figure 1: The stakeholder model**

(Source: Freeman, 1984)

The stakeholder theory is basically the extension and was applied in this study to identify the stakeholders in the agribusiness sector, their roles and strategic future in agricultural sector. In this regard, the stakeholder theory helps in building and illustrating clear relationships of various actor groups in the agribusiness sectors.

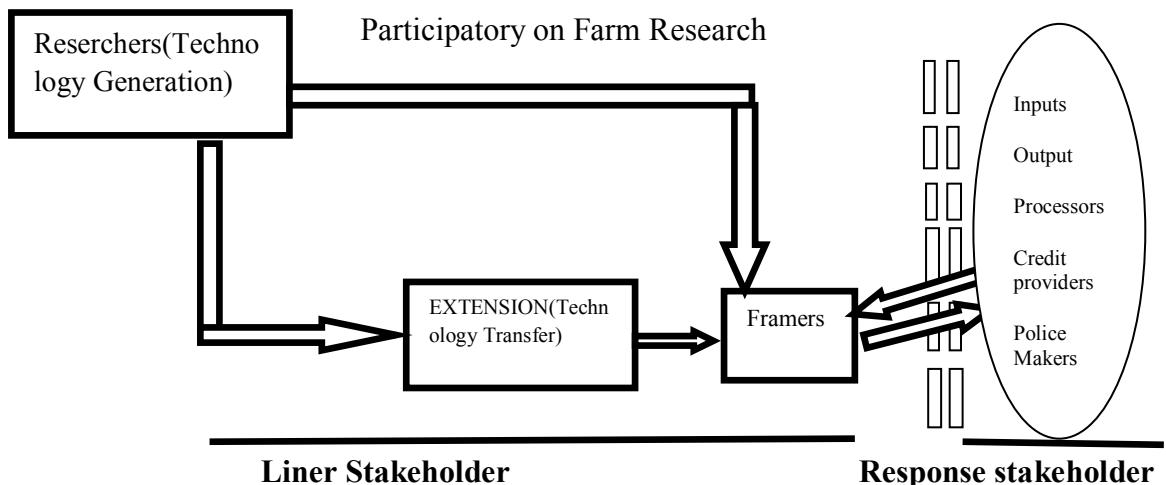
### **2.1.2 Theory of change (ToC)**

The International Network on Strategic Philanthropy insp (2005) defines the Theory of Change or "logic model" as an articulation of the underlying beliefs and assumptions that guide a service delivery strategy and are believed to be critical for producing changes and improvement. This theory established a context for considering the connection between a system's mission, strategies and actual outcomes.

Weiss (1995) defines the theory of change quite simply and elegantly as a theory of how and why an initiative works. On top of that the theory of change describes the set of assumptions that explain both the mini-steps that lead to the long-term goal of interest and the connections between program activities and outcomes that occur at each step of the way (Weiss, 1995),

The ToC describes the process of social change by making explicit the perception of the current situation; its underlying causes, the long term desired and the things that need adjustment for the change to happen. Expression of the ToC for agricultural research and development concepts is important because it reveals the thinking that guides the intervention and action as well as the trajectory of change within the system (Adekunle and Fatumbi, 2014).

The theory of change approach can be used in the evaluation of the programs so as to sharpen the planning and implementation of an initiative. The theory also can be used during the design phase of a program to increase the likelihood of stakeholders. This will clearly specify the initiative's intended outcomes of the activities that need to be implemented (Connell and Kubisch, 1998). The ToC can facilitate the measurement and data collection elements of the evaluation process in any program. For example a theory of change asks that participants to be as clear as possible about not only the ultimate outcomes and impacts they hope to achieve in a program but also the avenues through which they expect to achieve those outcomes (Weiss, 1995). Figure 2 shows the logical model for the theory of change presented by the Organization Research Services (ORS).



**Figure 2: Model for the theory of change**

(Source: INSP, 2005)

It was important to apply the theory of change in this study because it provided a framework for the evaluation of existing MSPs in the study area. The theory was used to track the outcome of stakeholders participation based on their indicators like performance indicators as well as results indicators in various agricultural programs and project in Kilombero district.

### 2.1.3 Game theory

Game theory is a mathematical study of conflict and cooperation between intelligent and rational decision makers (Kaushal *et al.*, 2013). According to Helmans *et al.* (2012), Game theory formalized game metaphor to study the strategic interactions among actors who have either to coordinate their behavior with that of others or to anticipate on the behavior of others to decide on their own strategies.

Basic concepts in game theory include actors (players) who each have a number of possible strategies or actions to follow hereby the strategies chosen by each actor determine the outcome of the game (Helmans *et al.*, 2012). The Game theory approach is clearer and very convenient to use in analyzing strategic behaviors of stakeholders in projects (Wang and Tian, 2012). Basically there are two types of game theory: the non-cooperative games and cooperative games. These are discussed in the following subsections.

**Non cooperative games:** Non-cooperative games are played by players, who choose their strategies independently. According to Chatain (2014), non-cooperative game theory focuses on which moves players should rationally make. Major feature distinguishes non cooperative game theory from other frameworks for studying strategy is that it treats all of the agents' actions as individual actions. In regard to group decision making, non-cooperative models require the theorist to specify the procedure by which decisions are made (Watson, 2013).

**Cooperative games:** Chatain (2014) defines cooperative game theory as a game focusing on how much players can fit a given value of coalition. The goal in cooperative games is to study games in which it is in the player's best interest to come together in a grand coalition of cooperating players (Griffin, 2012).

In a cooperative game, when the stakeholders cooperate to form some coalitions, it is certain that different stakeholders will obtain different profits in their coalitions. Though one stakeholder can obtain the maximum profit in a coalition and it doesn't mean that other ones can obtain their maximum profits in the same coalition. Every participant in a cooperative game wants to obtain the maximum profit in the coalition. Therefore, the satisfactory and reasonable scheme of allocation of profits in the coalition for each one becomes very important (Kaushal and Nema, 2013).

The game theory is all about players' decision making. Agribusiness sectors involve many stakeholders like government institutions, non-governmental institutions, farmers groups, financial institutions, processors, private investors and farmers. All these have different interests in the sector which makes it more difficult for who to find the equilibrium for stakeholder analysis. Therefore, in this study both cooperative game and non-cooperative game were applied in making effective decision of MSPs.

## **2.2 Concepts and Empirical Studies**

### **2.2.1 Platform**

A platform is a group of individuals who often represent organizations with different backgrounds and interests such as farmers, traders, processors, researchers, and government officials in a value chain (Homann *et al.*, 2013). Members of these platforms do come together to diagnose problems, identify opportunities and find ways to achieve their goals.

According to Martey *et al.* (2014), a platform can perform three different but interlinked functions in a value chain:

- i.) Creation of a space for learning and joint innovation, as an innovation intermediary or broker;
- ii.) Performance of a governance function within the value chain to improve coordination of business activities by actors and reduce transaction costs; and
- iii.) Performance of advocacy functions to secure policy change or influence.

### **2.2.2 Stakeholder analysis**

According to Golder *et al.* (2005), a stakeholder is any individual, group, or institution that has a vested interest in the natural resources of the project area and/or who potentially will be affected by project activities and has something to gain or lose if conditions change or stay the same.

Stakeholder analysis is the technique used to identify the key people who have to be winning over the project, whereby one can use stakeholder planning to build the support that helps the organization to succeed (Golder *et al.*, 2005). Stakeholder analysis identifies all primary and secondary stakeholders who have a vested interest in the issues with the project or policy is concerned. Bryson *et al.* (2004), offers a quick and useful way of identifying stakeholders and their interests. He clarifies stakeholders' views on local organization and identifying some key strategic issues. The process began by identifying coalition of support and opposition of the organizational strategies (Brayson *et al.*, 2004).

MOVEK Development Solutions (2008) used the stakeholder analysis in mapping stakeholders in Morogoro region, identifying and categorized stakeholders who are likely

to be affected positively or negatively by the draught power interventions into four main domains, namely: demand, enterprise, intermediary and research. The key stakeholders were Central and Local Government Authority. Draught power users (comprising farmers and livestock keepers); draught power providers such tractor owners and operators, spare parts providers, fuel suppliers, local fund, rural innovators and development facilitators such as NGOs, CBOs, funding agencies (such as Banks and SACCOS), donors and political parties (MOVEK Dev. Soln., 2005).

URT (2003), used stakeholder analysis in identifying stakeholders in the catchment forests reserves. Come up with stakeholders in different levels, such as: global, national wise, local off-site and local on-site. As pointed out in URT (2003), the local on-site level comprises of forest dwellers, farmers, livestock keepers, cottage industry, rich, poor, old, young and ethnic groups. Local off-site levels include downstream communities, logging companies and local officials. According to URT (2003) classification of stakeholders is also related to the interests of various actors on the resources. For example, for some groups, their main interest is the protection of water supply, control of access to timber supply and conflict avoidance. Other groups' interests are on land cultivation, forests products and cultural sites.

According to Golder *et al.* (2005) a stakeholder analysis helps a project or program to identify the following;

- i) The interests of all stakeholders who may affect or be affected by the program/project;
- ii) Potential conflicts or risks that could jeopardize the initiative;
- iii) Opportunities and relationships that can be built on during implementation;
- iv) Groups that should be encouraged to participate in different stages of the project;

- v) Appropriate strategies and approaches for stakeholder engagement; and
- vi) Ways to reduce negative impacts on vulnerable and disadvantaged groups.

### **2.2.3 Multi Stakeholder Platform (MSPs) and agribusiness development**

MSP is defined as the process of sharing knowledge and decision making whereby people and institutions work together and maintain equal personal/institutional power (Gera *et al.*, 2010). The principle behind MSP is that actors in a certain discipline/intervention who have a perceived common purpose come together, interact and innovate together to solve a common problem and/or advance their common cause/interest (Gera *et al.*, 2010).

Multi stakeholder influence has been proven to be a critical factor in the ability of an organization to achieve its strategic goals and objectives in agribusiness involvement in many African countries (Kipley *et al.*, 2009). To work with diverse actors in stakeholder platforms turn to the wealth of knowledge surrounding improved agriculture technologies and practices into action and creates immediate income benefits to small scale farmers and bolstering food security (Ergano *et al.*, 2010).

In Ethiopia, several stakeholder organization considerations in the platforms increased from time to time and platforms continue playing their own important role in bridging the gap between research, extension and in popularizing agricultural technologies (Gera *et al.*, 2010). Ergano *et al.* (2010) in their study on fodder use in Ethiopia note a success to members of the stakeholder platform, comparing to previous experiences whereby farmers planted only small stands of forages. Platforms in Ethiopia were designed to strengthen the ability of smallholders to innovate in a way that improves the returns to fodder use.

The study by Drost *et al.* (2011) shows the impact on institutional change processes in the honey, dairy, pineapple and oilseeds sectors in Ethiopia. They found that the honey MSP was most successful because it managed to provide chain actors with access to relevant technological and market information, it established a new and widely supported professional organization, and opened up foreign markets for the Ethiopian honey.

According to Martey *et al.* (2014) the Innovation Platform for Technology Adoption (IPTA) in Burkina Faso indicated that maize producers and processors are making profits on their investments and processors are making a difference of only CFA 1.00 over and above the profit margin of producers. In addition, farmers are also increasing the area under maize cultivation due to a guaranteed market as provided by the platform. In Northern Ghana, the MSP for the rice sector which consists of researchers, producers, processors, traders, financial institutions, input dealers, tractor operators and policy makers brings together necessary stakeholders of the rice sector to dialogue on ways of increasing rice production to enhance food security with the Savanna Agricultural Research Institute providing the backstopping (Martey *et al.*, 2014).

#### **2.2.4 Multi stakeholder engagement and participation**

Stakeholder engagement can be described as an organization's efforts to understand and involve stakeholders and their concerns in its activities and decision-making processes. The Multi-Stakeholder Engagement Processes (MSEPs) are structured processes that are used to ensure participation on a specific issue. Based on a set of principles, sometimes inspired by the rights-based approach to development, they aim to ensure participatory equity, accountability and transparency, and the creation of partnerships and networks amongst different stakeholders for improved dialogue and decision-making in all stages of planning and implementation (Wignaraja, 2006).

### **2.3 Factors Influencing Participation in Multi Stakeholder Platform**

Participation refers to involvement of marginalized groups in development process which intends to build peoples abilities to access and control of resources, benefits and opportunities towards self-reliance and to better standard of living (Nxumalo and Oladele, 2013). The participation is very crucial to come up with successful and accepted programs. Without participation there would be no progress of any program or project and no development ibid.

Martey *et al.* (2013) classify factors influencing participation of smallholder farmers in the innovation platforms into three groups such as farmer's socio-demographic characteristics, socioeconomic and institutional factors. These are discussed in the following sub-sections.

#### **2.3.1 Farmer's social demographic factors**

According to Martey *et al.* (2014), farmer's social- demographic factors include marital status, gender, age, education and household size. Different researches have been conducted and explained the influence of these socio-demographic factors on influencing participation of actor's modernization platforms.

**Education of the household head:** Education is found to have a positive effect on participation since it enables an individual to make independent choices and to act on the basis of the decision as well as increasing the tendency to co-operate with other people and participate in group activities (Enete and Igbokwe, 2009). The study by Abunga *et al.* (2012) in Ghana shows a positive influence of education in adoption of new technologies in the agricultural sector. Using a logistic regression model they found that the maximum level of education within the farm household has a positive relationship with the probability of adoption and significant at 1% level. The implication of this is that

farm households who are well educated are more likely to adopt modern agricultural technologies than those with no education. Other studies have however reported negative relationship, (Martey *et al.*, 2013), which showed that education was negatively associated with the probability of participation in Rural Development Projects (RDP) in Northern Ghana.

**Gender of the household head:** This is expected to make the difference in farmers' willingness to participate in multi stakeholder development between males and females whereby males are expected to be more willing to participate than females (Martey *et al.*, 2013). Therefore females are claimed to be occupied with domestic activities such that they do not have enough time to participate in MSPs activities.

Some studies observed higher rates of participations among male-headed households as compared to female-headed households; this stems from discrimination against women such that they have less access to external inputs, services and information. This is instigated by socio-cultural values (Lopes, 2010). The study by Badibanga *et al.* (2013) in the Democratic Republic of Congo examined the impact of gender on participation in Agricultural and Rural Management Councils (CARGs) using the probit regression analysis. They reported a weak technical capacity to women's participation in the CARG process. This was because of the women's domestic duties.

**Age of household:** The relationship between age of head of household and participation in MSPs is explained differently by researchers. According to Martey *et al.* (2014), the age of the household head was negatively associated with the willingness to participate in MSPs with the probability of willingness to participate decreasing by 7.6 percent for every additional year added to the age of the household head. This concluded from the result that younger household heads were more willing to participate on the platforms

than older household heads. This is because younger households have more accumulated capital and access to credit than older household heads.

The result of Martey *et al.* (2014) is inconsistent with that of Ayamga (2006) who claim that as age of household head increases the probability of the farmer to participate in microcredit program in northern Ghana decreases. The finding is also contrary to Asante *et al.* (2011) findings who established a positive relationship between age and farmers' decision to join farmer based platforms in Ghana.

**Marital status of household:** Nnadi and Akwiwu (2008) noted that marriage increases a farmer's concern for household welfare and food security which is therefore likely to have a positive effect on their decision to participate in agricultural innovation platforms. The study done by Martey *et al.* (2014) revealed that married household was negatively associated with lower probability of participation; whereby a married household heads were less likely to participate in MSP. The probability of participating in MSP amongst married household heads was 0.31 lower than that of a single household heads (Martey *et al.*, 2014).

**Household size:** Household size represents the supply of family labor for production activities. A study that carried out in Ethiopia to identify the determinants of innovation platform using Probit and Tobit models showed that family labour was an important factor in the adoption or the use of fertilizer in maize production because the technology is labour intensive (Fufa, 2006). A household head with large household size will be more willing to participate because of having excess or additional labour to work on farm (Martey *et al.*, 2014). This is to say household size influences social level of participation in MSPs.

### **2.3.2 Socio-economic factors**

Examples of socio economic factors include, farm size, income of the household head, ownership of assets and livestock. Most researchers have found a positive relationship between farm size and decision to join in MSPs (Langyintuo and Mekuria, 2005). A Study by Gockowski and Ndoumbe (2004) found a negative relationship between farm size and decision to join an innovation practice whereby the coefficient of the variables can be either positive or negative. According to Martey *et al.* (2014) a farmer who earns higher income from sale of rice will be more willing to participate in MSPs because he/she will be able to meet the financial demands of any group he/she belongs relative to his/her counterpart lower income farmers.

Another study by Amaza *et al.* (2007) claim that livestock keeping, ownership of assets and income positively influence the adoption of technology. The reason behind this is that livestock provides cash as well as manure, assets provide income and the income provides cash which can be used in buying inputs as well as for hiring labor. The likelihood of farmers being willing to participate in the platform increased by 0.04 percent for every additional increase in household income. Household heads with higher income are able to overcome a cost and also make financial contributions in the form of fees and levies as demanded by the platform to ensure their sustainability (Martey *et al.*, 2014).

Asante *et al.* (2011) also established a positive relationship between farmers' income and willingness to join Farmer Based Organizations (FBO). According to their findings, increasing farmers' income by one Ghana cedi would increase the likelihood of farmers to join in FBOs by 0.026%.

### **2.3.3 Institutional factors**

Institutional factors play a great role in promoting innovation platforms especially on provision of credits, input and extension services. All these affect the innovation of new ideas positively (Mignouna *et al.*, 2011; Akpan *et al.*, 2012). If farmers will have an access to credits will make him/her to have access to other important inputs. Also extension services play a great role in the implementation of innovation.

## **2.4 Agricultural Innovation Platforms in Tanzania**

Innovation Platforms (IP) seek to strap up innovations related to technology processes, institutional and social-organizational arrangements (Adekunle *et al.*, 2012). In Tanzania the Ministry of Agriculture Food Security and Cooperatives (MAFC) has initiated activities that improve the participation of various stakeholders/ actors on development of the commodity at local government levels. To promote these innovations platforms, partnerships along and beyond agricultural value chains must be fostered to bring on board actors with special mix of skills (World Bank, 2011). According to Adekunle *et al.* (2010), stakeholders interact to jointly identify problems and opportunities, seek and apply solutions, learn, reflect and find more solutions for the innovation process to continue.

Therefore, in promoting agricultural innovations in Tanzania several platforms have been formed at the district level, gradually after undertaking achievement research (FAO, 2009). In 2005 under the coordination of Participatory Ecological Land Use Management (PELUM) Tanzania as the host organization established an Innovation Platform known as PROLINNOVA Tanzania (Gasheka *et al.*, 2011). This is involved in sharing of experiences on local innovations and improvement of food security as well as safeguarding environment. In addition another poultry innovation platform operating

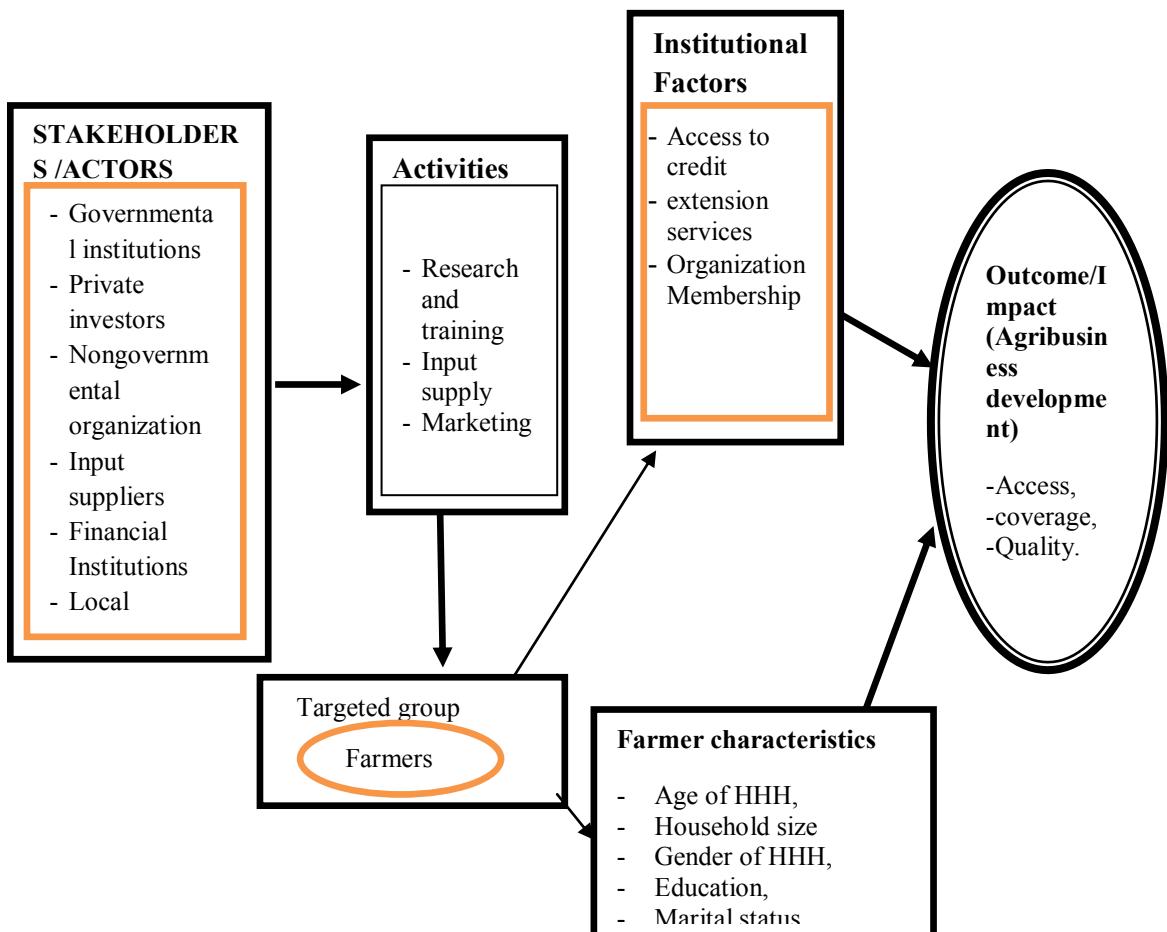
under Research into Use (RIU) was established in order to improve the poultry sector (Mwesige, 2009). Other platforms established were the Tanzania Agricultural Platform (TAP), Agriculture Council of Tanzania (ACT) and Southern Agricultural Growth Corridor of Tanzania (SAGCOT), SIMLESA-Innovation platform in Karatu, which makes the headline in Innovation Platforms in Arusha in recently years (Bitegeko, 2012). One of the latest example of a national MSP is the Tanzanian Dairy Development Forum which was launched in early 2013 to assist dairy development policy making and address the bottlenecks faced by the industry players.

The role of these entire platforms is to encourage networks, organize complementary services to their member actors as well as contribute to the so called support functions within the agricultural innovation system (e.g. input supply, credit and savings schemes, and marketing of products) (Heemskerk *et al.*, 2006).

## **2.5 The Conceptual Framework**

Agribusiness development requires actors/stakeholders acting in different activities concerning agriculture like research, training, extension service, credit provisions, facilitating market and input supply. By acting together, actors can provide accessible, good quality and coverage output to farmers who are a targeted group in agribusiness activities.

Based on extensive literature reviews on stakeholder theory, theory of change and game theory, Figure 2 provides the conceptual view of the Multi Stakeholder Platform in agribusiness development.



**Figure 3: Conceptual framework for the study**

The conceptual framework shows the relationship between stakeholders of agribusiness development and factors which may affect farmer's participation in MSPs like access to extension service, access to credits and being a member of association.

Actors or players such as governmental institutions, private investors, non-governmental organizations, financial institutions and local communities each one have a duty to take like doing research, trainings, supplying inputs, facilitating market of the produce and mobilizing farmer groups. From each duty a player or actor has to determine the outcomes or the impacts in agribusiness development. Stakeholder approach in the agribusiness integrates stakeholder relationship within agricultural sector base on farmers' characteristics and institutional factors into a single analytical framework.

## CHAPTER THREE

### **3.0 METHODOLOGY**

#### **3.1 Description of the Study Area**

The present study covers the district of Kilombero in Morogoro region. Kilombero is one of the six districts of Morogoro region, covering the area of 13 545.82 square kilometers. According to the National Census of 2012, Kilombero District had 407 880 people, of which 202 789 are men and 205 091 women, and 94 258 households, with an average household size of 4.3 persons (URT, 2013).

The district is bordered with Morogoro Rural to the East and Kilosa to North-East. The North and West borders are shared by Mufindi district and Njombe Region while at its South and South-East it shares the border with Songea - Rural (Ruvuma Region) and Ulanga District respectively. The major economic activities in the district are agriculture and livestock keeping. Apart from agricultural activities which employ a large number of the population, fishing and livestock keeping are other socio-economic activities in the area (Musamba *et al.*, 2011). Kilombero District has 400 000 hectares of a plain land suitable for agriculture activities such as crop farming, fishing, and animal husbandry (MOVEK Devp. Soln, 2008).

#### **3.2 Justification for Selection of the Study Area**

The Kilombero District has been earmarked for agricultural development within the SAGCOT and also has been identified under the Big Results Now (BRN) policy as a suitable location for large-scale rice and sugarcane farming and smallholder irrigation schemes (Smalley *et al.*, 2014). The Kilombero valley is one of Tanzania's most productive agricultural areas (Benard *et al.*, 2014). The tributaries from the Udzungwa

Mountains drain into the Kilombero River in the Kilombero Valley, the North-Western of which forming a most fertile farming area. The area is predominantly rural with the semi-urban district headquarters at Ifakara constituting a major settlement (Adah, 2007). A variety of food crops (such as maize, rice and beans) and cash crops (such as sugar) are grown. Most of the district area is dominated by paddy cultivation except for the areas where various sugar companies have their plantations like the Tanzanian Igloo Sugar Company and the Transnational Illovo Kilombero Sugar Company.

The area has been chosen for the study because it is one of the districts whereby there are many of private's investors, NGOs and institutional investments involved in agribusiness activities. This is due to the conduciveness of the district for agricultural activities. In Kilombero, modern farming is already underway, public irrigation schemes are in place, agricultural infrastructures are in good position for farmers benefit.

### **3.3 Research Design**

This study used a prevalence study, whereby data were collected at a single point in time. According to IDRC (2003), this type of research design is used in descriptive research and in determination of relationship between variables. The research design was adopted because of the limited time in field work.

### **3.4 Sample Size and Sampling Techniques**

The sample size was 150 farmers. According to Saunders *et al.* (2007) it is argued that a sample size of 100 is enough for these kinds of studies.

### **3.4.1 Sampling distribution of farmers**

Purposive sampling technique was used to select four wards and six villages to represent the entire population in Kilombero District. A total of 150 smallholder farmers were systematically and randomly selected and interviewed. This selection of smallholder farmers in Kilombero District followed a multi stage systematic random sampling technique.

**Table 1: Sampling distribution of farmers from the study villages**

<b>District</b>	<b>Ward</b>	<b>Village</b>	<b>Household sample</b>
Kilombero	Mlimba	Miembeni	25
Kilombero	Idete	Namawala	20
Kilombero	Mngeta	Taweta	23
Kilombero	Idete	Mofu	15
Kilombero	Mlimba	Mbingu	10
Kilombero	Mlimba	Mlimba A	20
Kilombero	Mlimba	Ngalimila	18
Kilombero	Mbingu	Vigaeni	19

### **3.4.2 Sampling of other actors**

In addition a purposive sampling was done for key actors in agribusiness development in Kilombero District. The list of these agribusiness stakeholders was obtained from the District Agricultural, Irrigation and Cooperative Officer (DAICO) of Kilombero District. These included: agricultural research and training institutes, local communities, financial institutions, farm machinery traders, exporters, NGOs, processors and Governmental institutions. The sampling frame of this category of respondents was formed by a total of 40 actors.

## **3.5 Types of Data Collected**

In order to get the overall picture of influence of MSP in promoting agribusiness development in the Tanzania, the study collected both primary and secondary data. Data collection was done through direct interviews and structured questionnaires as the main tools. Primary data were collected directly from sampled respondents.

### **3.5.1 Data collection procedure**

Primary data were collected from sampled farmers through direct interviewing. A structured questionnaire was designed to collect data from smallholder farmers, farmer in groups (local communities), private investors and representatives of the governmental and non-governmental institutions. The data collected through direct interview includes; demographic characteristics of the household head such as gender, age, education level and family size. Others were the institutional information regarding farmers support in terms of extension service and financial assistance.

### **3.5.2 Key Informant Interviews**

Key informant (KI) interviews were designed to allow comprehensive and in-depth understanding of information of key stakeholders involved in promoting agribusiness development in the district. Semi-structured interviews were conducted with key informants selected from private investors, farmer groups, governmental and Non-Governmental Organizations (NGOs) which were working at the district level. Interviews were also conducted with representatives from local communities, governmental institutions, NGOs, traders, banks or financial institutions, agro processors and factories.

## **3.6 Data Processing and Analysis**

In this study employ both descriptive and econometric methods of data analysis. Descriptive statistics like sum, mean and standard deviation were used to explain basic characteristics of the channel actors. In this study data entry was done using the Statistical Package for Social Science (SPSS) computer program version 16.

### **3.6.1 Descriptive analysis**

Descriptive analysis and inferential statistics such as frequencies, average, percentages and cross tabulations were computed. Stakeholders analysis aided in identification of stakeholder and performing roles in promoting agribusiness development in a study area.

The results are presented in tabular and descriptive formats.

### **3.6.2 Regression analysis**

The Heckman's model was used to test the willingness of farmer to participate in MSP. According to James Heckman, the first stage attempts to capture factors affecting participation decision which is a participation equation. Then the probability of participation was modeled by Maximum Likelihood Probit, from which the inverse Mill's ratios were estimated.

## **3.7 Factors Influencing Willingness of Farmers to Participate in a Platform**

This study aimed to determine the factors influencing willingness of farmers to participate in the MSPs so to promote agribusiness development in Tanzania. Probit model is the most appropriate method in this study, because probability of participation modeled by Maximum Likelihood Probit, from which the inverse Mill's ratio was, estimated (Takele, 2010). The justification for the use of the probit model over the Legit model is a result of its ability to constrain the utility value of the decision to join variable to lie within 0 and 1, and its ability to resolve the problem of heteroscedasticity (Asante, 2011).

To assess the willingness of farmers' to participate in MSPs the following probit model was specified:

$$Y_i = X_i \beta_i + \varepsilon_i, \quad i = 1, 2, \dots, n. \quad (1)$$

$$Y^* = \begin{cases} 1 & \text{if } Y^* > Y \\ 0 & \text{if } Y^* \leq 0 \end{cases} \quad (2)$$

The probit model is given by:

$$P[Y = 1] = P[Y^* > 0] \quad (3)$$

$$= P[X'\beta + \varepsilon_i] \quad (4)$$

$$P[\varepsilon_i > -X'\beta] \quad (5)$$

$$P\left(Y = \frac{1}{x}\right) = F(XB) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{XB} e^{(-XB)^2/2} dx \quad (6)$$

Whereby:

$$X = (1, X_{1i}, X_{2i}, \dots, K_{ki})$$

$$\beta = (\beta_0, \beta_1, \dots, \beta_k)$$

Specifically, the empirical model for determining the willingness of farmers to participate in MSP is specified in the following equation:

$$Y_i = \beta_0 + \beta_1 Age + \beta_2 Gend + \beta_3 Married + \beta_4 Hsize + \beta_5 Edu + \beta_6 Assoc + \beta_7 Lab + \beta_8 FarmDec + \beta_9 Credit + \beta_{10} Inc + \mu_i \quad (7)$$

Whereby,

$Y_i$  represents willingness to participate in MSPs

$\mu_i$  represent the error term.

$$\text{Marginal effects} = \beta_i \phi(Z) \quad (8)$$

$\beta_i$  is the coefficient of the variables.

Explanatory variables, definitions and their prior expectations are presented in Table 2.

**Table 2: List of Explanatory variable, definitions and their expected sign**

Variable	Variable label	Expected sign
X <sub>1</sub> =Age	Age of the household head	-
X <sub>2</sub> =Gend	Sex of the household head,(1=male, 0=Female)	+/-
X <sub>3</sub> =Edu	Education (Number of years of formal education)	+
X <sub>4</sub> = Mar	Marital status (1 if married and 0 otherwise)	+
X <sub>5</sub> = Hsize	Number of household members that assist with farming	+
X <sub>6</sub> =Assoc	Membership of association (1 if farmer belongs to FBO and 0 otherwise)	+
X <sub>7</sub> =Lab	Land availability (Total land size cultivated in a study year)	+
X <sub>8</sub> =FarmDec	Major farming decision (1 if household head makes decision alone and 0 otherwise)	+/-
X <sub>9</sub> =CRD	Access to credit	+
X <sub>10</sub> =Inc	Total income earned from agribusiness activities in a year.	+

### 3.8 Limitations of the Study

The major limitation of the study is lack of details of investigations especially past studies on MSP related to area of interest. Time and budget constraints are the factors that made it impossible to include other neighboring districts which could provide more information for the study.

## **CHAPTER FOUR**

### **4.0 RESULTS AND DISCUSSION**

#### **4.1 Socio-economic Characteristics of Farmers**

Social economic characteristics of respondents have important implications on the willingness of farmers to participate in activities addressed by stakeholders of agribusiness sector. For example demographic characteristics of households are essential because they influence the decision making of the households (Randela, 2005).

The following describe the characteristics of the sampled households in the study area:

##### **4.1.1 Gender of household head**

Table 3 shows that about 59 percent of the surveyed households in Kilombero district were male headed and 41 percent were female headed. The findings showed that the majority of households were headed by males. Being male or female has impact in accessing resources in a society as well as in agricultural activities. Martey *et al.* (2014) discussed the factors influencing willingness to participate in MSP by smallholder farmers in Northern Ghana. They found that the male headed households tended to be more adaptive to new innovations and technology than their counterpart to female-headed households.

**Table 3: Socio economic characteristics of the household head in Kilombero District**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
Age of household head		
<30Years	48	32.0
30-50 Years	89	59.3
>50 Years	13	8.7
<b>Total</b>	<b>150</b>	<b>100.0</b>
Gender of household		
Male	91	60.6
Female	59	39.4
<b>Total</b>	<b>150</b>	<b>100.0</b>
Family labour size		
1-5	89	59.3
6-10	57	38.0
>10	4	2.7
<b>Total</b>	<b>150</b>	<b>100.0</b>
Literacy level		
Illiterate	24	16.0
Primary education	84	56.0
Secondary and above	42	28.0
<b>Total</b>	<b>150</b>	<b>100.0</b>
Membership in association		
Yes	55	36.7
No	95	63.3
<b>Total</b>	<b>150</b>	<b>100.0</b>
Access to credits		
Yes	66	44.0
No	84	56.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

#### **4.1.2 Age of the household head**

Ayamga, (2006), in his study of factors influencing the decision to participate in microcredit programmes in Northern Ghana showed that age of the household head can affect the experience and decision making which in turn affects how one involves in social activities and hence can influence participation.

About 32 percent of the farmers in this study were in age group of 18-30 years and 59.3 percent of the sample households were in the age group of 31-50 years. About 8.7 percent of the household head interviewed were in the age group of 51 and above. This finding shows that a significant age of the farmers were between 30 to 50 years which is the middle and active age in agricultural production. Adeogun *et al.* (2010) had claimed that, the younger farmers would most likely be willing to spend more time to obtain information on improved technologies as compared to the old farmers.

#### **4.1.3 Household size**

The findings in the Table 3 shows that households with adult labor of 1 to 5 members were about 59.3% , households with adult labor equivalent range of 6 to 10 members were 38% while only 2.7 percent of the household size has adult labour equivalent greater than 10 members. Household Size of households has a greater implication in agriculture production. According to Martey *et al.* (2013) family size increases the land for agricultural production such that it adds additional demand for the credit and inputs. This can increase farmer's participation on MSP by expecting to receive credits and being accessed to inputs.

#### **4.1.4 Education level of the household head**

Out of all heads of households 16 percent of the household head were illiterate which means that they did not attain any formal education. About 84 percent of the household heads attained primary education while those with secondary education and above are about 42 percent of all head of households. This result shows that the majority of household heads in Kilombero district had attained a primary school education. Education have a positive effect on willingness of farmers to participate on the MSPs. Education enables an individual to make independent choices and to act on the basis of the decision and participate in group activities (Enete and Igbokwe, 2009).

#### **4.1.5 Membership in association**

The results in Table 3 show that 36.7 percent of the surveyed households were a member of at least one association/ group in the village, while 63.3 percent were not a member of any group. Farmer groups/associations engage in group marketing, bulk purchasing of inputs and credit accessibility hence enable members to accessible of basic agro-inputs (Martey *et al.*, 2014). Being a member of group/associations can easily makes accessibility of information, extensions services, credits and even inputs at low price which can promote agribusiness development in Kilombero district.

#### **4.1.6 Access to credit**

Forty four percent of the household heads have access to credits while a 56 percent had no access to credit services (Table 3). This means that many farmers are unable to buy inputs. Limited access to credits is mainly a result of lack of collaterals to enable farmers to secure loans from financial institutions. Other factors limiting farmers to have access to credit are: short credit duration and small credit given while a major source of credits in a district are family, friends and relatives. According to Chuwa (2012) credits accessed to

farmers from family members/relatives account for about 45.5% of all credit facilities while from NGO/Development projects account for 36.4% and financial institutions give about 9.1% of the credits.

#### **4.2 Stakeholders Supporting Agribusiness Development in Kilombero**

Stakeholder identification is an important part of any participatory planning process because it is a precondition of inclusion in agribusiness project or program.

Seventeen governmental and non-governmental organizations were identified in the study as key stakeholders in which includes private institutions, five farmers' associations and five financial institutions. The key agribusiness stakeholders identified during the study are given in Table 4.

**Table 4: Stakeholders identified in Kilombero District**

<b>Government Institutions</b>	<b>NGO's</b>	<b>Private Institutions</b>	<b>Farmers Association</b>	<b>Financial Institutions</b>
MAFC	MVIWATA	Bongo Food	UTULIVU-Woman SACCOSS	FINCA-Ifakara
MWI*	NAFAKA	Agro processor	Lumemo Cooperative	PRIDE
SAGCOT	JICA	INTERMECH ENGINEERING Factory	MWAPU-SACCOS	NMB-Ifakara
TAP	AGHAKAN	Ifakara -Stockies	TPAWU-SACCOSS	CRDB-Ifakara
ACT	ASA			Kilombero SACCOSS
KATRIN	RUDI			
MKINDO	RiceAfrica			
TOSCI	OXFARM			
	TUBOCHA			

\*The Ministry of Water and Irrigation although it is no longer existing.

Stakeholder identification should be continuous so as to count stakeholders that are entering and disappearing from the system. Experience in the Carribbeans shows that if some stakeholders are excluded during the planning processes then programs will have unexpected and undesirable outcomes (Renard, 2004).

#### **4.3 The Roles of Existing MSP in Promoting Agribusiness Development**

About 9 distinct roles of the MSPs were identified: research, training, marketing, supply of inputs, credits provision, agro processing, facilitating MSP, social mobilization and funding activities (Table 5). Most of stakeholder organizations were involved in research, technology innovations, training and marketing at different levels. Others like NMB-Ifakara, CRDB Ifakara, FINCA and PRIDE were involved in funding. Stakeholder organizations involved in value addition (agro-processing) were very few, followed by those involved in inputs supply and financial services.

**Table 5: Roles of agribusiness stakeholders in Kilombero District**

Stakeholders	Research	Extension/Traini ng	Markerting	Input supply	Roles Credit provisions	Agroprocessor	Facilitating MSP	Social mobilization	Funding
KDC	√	√	√				√	√	
TAP		√		√			√		√
ASA				√					
OXFARM	√	√	√					√	
MVIWATA			√		√				
INTERMECH Engineering LTD				√		√			
ACT		√		√					√
SAGCOT	√	√	√				√	√	
UTULIVU SACCOS					√			√	
TANRICE	√	√	√						
CRDB-Ifakara			√		√				
KATRIN	√	√							
Bongo Food				√			√		
Ifakara Stockies							√		
PRIDE					√				
Shungu Cooperative				√	√				√
AGHAKAN	√	√	√					√	√
NMB-Ifakara					√				
FINCA-Ifakara					√				
SUA	√	√							
USAID-NAFAKA	√	√		√			√		√

### **4.3.1 Research**

Research claimed to be an important source of information for seeking new technologies and adapting to more complex and different environments in a society. The findings showed that SUA, KATRIN, SAGCOT, USAID, AGHAKAN, TANRICE are involved in research activities. All aimed at generating evidence –based and approved scientific information about different cause and effects of the adopted innovations as well as designing experiments that lead to clear results in agricultural activities. These helped in analyzing innovations in agriculture technically, economically, environmentally and socially for attaining sustainable agriculture. Stakeholders' analysis showed that NGOs in Kilombero have more experience in research activities than the governmental institutions.

### **4.3.2 Extension/agricultural training**

According to Yuko *et al.* (2011) knowledge given by training is sufficient for enhancing the adoption of modern varieties. The study suggested that training provided to stakeholders' is inevitable because it provides knowledge on general agricultural practices. In Kilombero district training was given to farmers and agricultural experts. From the study, the following were the stakeholders' involved in disseminating knowledge to farmers: KATRIN, SUA, USAID, KDC, TAP and AGHAKAN. Stakeholder organizations fully involved in training are SUA, KATRIN, SAGCOT and KDC, while AGHAKAN and TAP partially involved in provision of training.

### **4.3.3 Input supply**

According to the information from the District agricultural office, there were about three main suppliers of inputs in the district such as ASA, TOSCI and ACT. However, USAID under NAFAKA PROJECT also involves in provision of maize seeds and rices. ASA, TOSCI and ACT are the main suppliers of agricultural inputs especially seeds mentioned

by the interviewed respondents. But ASA and TOSCI are governmental agents involved in seed production and sales to companies and individual farmers. ACT is mainly involved in supplying fertilizers. These stakeholders also aim at establishing a network to facilitate more effective and relevant information's flow related to agricultural input markets.

#### **4.3.4 Information diffusion**

Information diffusion is an important roles performed by stakeholders in the study area which is very crucial for increasing agricultural production, improving marketing and distribution strategies. Information opens windows of giving out experiences, best practices, sources of financial aids and new markets (Bernard *et al.*, 2014). In this study only five actors are involved in information diffusion such as KDC, USAID, MVIWATA, Shungu Cooperative and SAGCOT. They often use journals of agriculture, bulletins, workshops, community leaders, and radios in dissemination of new agricultural information.

#### **4.3.5 Agricultural marketing**

Farmers who have an access to markets regardless of input/output marketing would have the probability of demanding production as compared to farmers who do not have access in marketing. In Kilombero district marketing is mostly done by Farmer Cooperative Unions and NGOs while TANRICE, KATRIN and USAID also involved in finding marketing information by linking producers and buyers. Financial institutions such as NMB and CRDB provide credits to cooperatives to buy agricultural produce. In a collaborative effort with stakeholders, producers could obtain timely information on market prices of certain commodities hence upgrading the incomes of smallholder farmers.

#### **4.3.6 Funding**

Fund in agriculture enhances agricultural innovations through the competitive funding of projects submitted and approved by stakeholders in the innovation system for generating, disseminating and applying new technologies in agriculture. Finding of this study shows that both private and public institutions are playing this role. USAID is a development partner funding agricultural activities in Kilombero district especially in irrigation scheme in rice. GoT also provides fund for adequate training, research and periodic workshops to the farmers and extension officers.

### **4.4 Factors Affecting Willingness of Farmers to Participate in MSPs**

Table 6-12 presents the relationships of the mean(s) of the selected variables which consider the willingness of farmers to participate in MSPs. These characteristics are the explanatory variables of the estimated model. The dataset contains 150 farmers and about 55% were willing to participate in the MSPs.

#### **4.4.1 Gender participation**

Table 6 shows disaggregation of farmer's willingness to participate in MSPs. Willingness to participate in MSPs based on Gender revealed that 59% of male headed-household were willing to participate in the platform activities. Female headed household were less willing to participate in the platform as represented by 41% of sampled farmers. The finding implies that gender must be considered in the selection of the participants in any project.

**Table 6: Willingness to participate in MSP by gender**

<b>MSP Participation</b>	<b>Gender of Household head</b>		
	Male	Female	Total
Yes	68(59)	47(41)	115
No	23	12	35
Total	91	59	150

**4.4.2 Age of the household head**

The willingness of participation on MSP response is higher among the economically active age group <60 years. The mean age of household heads for participants were higher for economically category with an average of 91.3% while elder participants had an average of 8.7% only. This means that younger age group participates more than older age category. This is because younger farmers are more risk takers than older farmers' who have a tendency of believing on their primitive production techniques and they are unwilling to change them. The result implies that there is opportunity to reach out to other smallholder farmers irrespective of their age.

**Table 7: Willingness of participation based on age**

<b>MSP participation</b>	<b>Age Categories</b>				<b>Total</b>
	<30	30-49	41-59	>60	
Yes	20	25	9	3	57
No	28	31	24	10	93
Total	48	56	33	13(8.7%)	150

**4.4.3 Education level of the household head**

Results show that education has positive effects on willingness to participate in MSPs. Table 8 shows that about 27 household heads out are participating in MSPs and had secondary education and above but only 40 out of 107 household's head have willingness to participate and had primary school. This implies that Education enables an individual

to make independent choices and to act on the basis of its decision and also increases the tendency to co-operate with other people and participate in different group activities.

**Table 8: Willingness of participation based on Education**

MSP Participation	Education Level		Total
	Primary and below	Secondary and above	
Yes	40	29	69
No	68	13	81
Total	108	42	150

#### **4.4.4 Availability of family labour**

Family labours found to influence willingness to participate on MSP positively. This is because the adoption of any innovation of the new idea/technology needs labours and if the labours are provided by the households then it will have the positive influence to the outcomes of the innovated technologies. Table 9 shows greater rate of farmers participation was at the households with family labour ranging 6 to 9 members on average whereas out of 40 households 26 were willing to participate in MSPs and 5 households were not willing to participate on MSP. This is because a household head with large household size will be more willing to participate in the platform.

**Table 9: Family labour size between participants and non participants on MSP**

MSP Participation	Labour size			Total
	<5	5-10	>10	
Yes	10	34	37	81
No	59	3	7	69
Total	69	37	44	150

#### **4.4.5 Membership of association**

Table10 shows that 58 farmers out of 95 who belong to any group they are 66 were willing to participate in MSP. Farmer's membership to an organizations influence

decisions in participating or not to participating in Multi Stakeholder Platforms because membership to any group or an organization is a social capital as well as the sign of the farmer's level of networks and contact with informal groups. Farmers association enables farmers to learn more about agricultural technologies, share experiences and exchange new ideas about agricultural technologies with other farmers.

**Table 10: Distribution of participants and non-participants based on membership association**

MSP Participation	Group Belongingness		
	Yes	No	Total
Yes	58	8	66
No	37	47	84
Total	95	55	150

#### **4.4.6 Access to credit**

Table 11 below shows that 60 farmers out of 68 were those who had credit access. Access to credits was found to be an influencing factor toward participation on MSP positively. This is because farmers with an access to credit can engage in bulky purchase and group marketing to lower the transaction costs they incur in marketing. Seko (2009) in his study titled analysis of agricultural input supply system found that credits has a positive influence to farmers participation because it increases their marketing power and to reduce transaction costs associated with buying agricultural inputs. Though financial institutions in Kilombero district are not convenient for the poor farmers still the farmers have to repay their credit in a short period which is within six months to one year.

**Table 11: Farmers willingness to participate basing on access to credit**

MSP Participation	Access to credit			Total
	Yes	No		
Yes	60	8		68
No	16	66		82
Total	76	74		150

#### 4.4.7 Land ownership

Land availability has positive effects on the farmer's willingness to participate on MSP. Household heads with more land are able to produce more under ceteris paribus and earn higher income to overcome the transportation constraint as well as financial demands of the platform. Table 12 indicates that willingness to participate was higher for those who have more land, greater than 10 km<sup>2</sup> out of 64 household 50 were participants in Multi stakeholder platforms.

**Table 12: Land availability**

MSP Participation	Land size in Km <sup>2</sup>			Total
	<3	8	>10	
Yes	8	30	30	68
No	66	8	8	82
Total	74	38	38	150

#### 4.5 Analysis on the Factors Affecting Willingness of Farmer s' Participation

Results from the study showed that the coefficients of most of the variables hypothesized to influence the decisions of farmers' participation in the MSPs have the expected signs. Table 13 estimates the probabilities of willingness of farmers to participate or not to participate in MSPs. The dependent variable represents willingness to participate. The explanatory variables included the farmer's age, gender, education, marital status, household size, membership association and land availability. Others were farm decision, access to credit and total income earned. Variables were tested at two different levels of significance which were 1% and 5% Results of Probit model are summarized in Table 13.

All variables are significantly explained by the probability of willingness to participate in MSP.

#### **4.6 Factors Influencing Willingness of Farmers to Participate in MSP**

##### **4.6.1 Age of household heads**

The Age of farmer was statistically significant and negatively related to the probability of willingness to participate in MSPs. This implies that as the age of the farmer increase then there are 49% less likely to participate in MSP than the younger farmer. This result is consistent with Ayamga (2006), who found that as age increases, the probability of a farmer to participate in microcredit programmes in northern Ghana decreases. But the finding become different with that of Asante *et al.* (2011) who found a positive relationship between age and farmers' decisions to join farmer based organization in Ghana.

**Table 13: Probit regression results**

<b>Variables</b>	<b>Coefficient</b>	<b>Std.err</b>	<b>Marginal Effect</b>
Age	-0.486	0.585	0.019**
Gender	0.023	0.014	0.040*
Education	0.030	0.028	0.004**
Marital status	0.301	0.181	0.042
Household size	0.341	0.044	0.001*
Membership Association	0.193	0.113	0.032
Land availability	0.194	0.059	0.040
Farm Decision	0.017	0.009	0.031
Access to credit	0.029	0.011	0.074*
Total Income earned	0.065	0.020	0.011
Constant	2.9685	1.9417	
Number of observation		120	Prob>chi2
Log likelihood		-52.60	Pseudo R <sup>2</sup>
		26.4800	LR Chi2

(\*) (\*\*) Significant level at 1% and 5% respectively

#### **4.6.2 Effect of credit access on the farmers participation on MSP**

The farm credit variable is statistically significant and positively related to participation of farmers in MSP. The probability of participation in MSP by a household head with access to credit was higher than those without access to credit by 3%. The result was consistent with the findings by Asante *et al.* (2011); Nzomoi *et al.* (2007) and Mussei *et al.* (2001) who found credit to farmers is negatively related to participation in MSP. Access to credits enables farmers to overcome their financial constraints associated with production and adoption of innovations (Martey *et al.*, 2013). It also encourages group formation and learning.

#### **4.6.3 Education level of the household head**

The better the education level the farmer has, the better will be in his understanding concerning the knowledge of improved agricultural technologies provided to them (Seko, 2009). The result in Table 13 shows the same as Seko (2009) who observed that education level of household in a study area is statistically significant and positively related to participation in Multi stakeholder platforms. This means that as education of farmer increases then they are 4% more likely to participate in Multi stakeholder platforms because education increases knowledge to improve farming practices.

#### **4.6.4 Marital status of the household head**

The marital status of household head is statistically significant and positively related to participation in MSP. This means married farmers are 30% more likely to participate in MSP than female farmers. This is because married farmers need to increase income so that to pursue family needs. Thus they are actively involved in MSP. The negative sign was found in the study done by Martey *et al.* (2013), who revealed that, marital status is negatively related to participation in Rural Development Programmes. This is because

Married household heads normally have lots of responsibilities which include ensuring the well-being of the household members. The responsibilities of a married household may influence the household head to participate in development projects that will impacts positively in their income levels.

#### **4.6.5 Household size**

Household size represents the supply of family labours for production activities. The effects of household size in this study are statistically significant and positively related to participation in MSPs. This means as household size increases, there are 34% more likely to participate in MSPs than female farmer. This is because household size with large number have enough workforce to play part in productive activities thus they are active in MSPs. According to Martey *et al.* (2014) the demand of economically inactive household members coerces household heads to search for innovative ways to improve upon their farming business.

#### **4.6.6 Effect of membership in association on the farmers participation in MSPs**

The result in Table 13 showed that membership in association variable is statistically significant and positively related to participation in MSPs. This means as a farmer become member in association, there are 19% more likely to participate in MSPs than those farmers who are not members in any association. Organization enables farmers to learn about agricultural technologies, share experiences and exchange ideas about agricultural technologies with other farmers. This enables farmers to be able to assess and understand the risks and benefits associated with involvement in innovation platforms. Farmer groups associations give their members a wider chance for educating each other.

#### **4.6.7 The effect of land availability to the farmer's participation in MSPs**

The land availability variable is statistically significant and positively related to farmers' participation in MSPs. This means as a land become available to farmer, a farmer is 19% more likely to participate in MSPs than those farmers with no land or with small portion of lands. This is also reported by Adimado (2001) and Langyintuo and Mekuria (2005) who found a positive relationship between farm size and decision to join or adopt. Another study done by Seko (2009) found a negative relationship between farm size and decision to participate in agricultural input supply system.

#### **4.6.8 Gender of household head**

Gender of household head is positive and significant in influence on willingness to participate in multi stakeholder platforms. In table 10, the results show that male household heads are 2% higher than female household heads in participation on Multi Stakeholder Platforms. This is because according to Africans culture and norms women have less access to external inputs, resources like land and information. Males household headed are favored by their responsibility as men in the society where female farmers are not and according to their responsibilities as family careers.

#### **4.6.9 Total income earned by household**

The total income drew a positive and significant result related to participations of farmers in MSPs. This means a farmer with large income is 7% more likely to participate in MSP than those farmers with less total income earned. More income is enabling farmers to meet the financial demands associated with participation and adoption of new technologies. Sustainability of participation and adoption is highly dependent on farmers' income level.

#### **4.7 Benefits Obtained from Participating in MSPs**

Multi Stakeholder Platforms (MSPs) create stronger combination and influence in advocacy and cooperation as well as strategic partnerships among stakeholders (Assefa and Fenta, 2006). Participation of farmers in a multi stakeholder platform in Kilombero district helps in identifying research problems and transfers them to researchers. It opens market opportunities for agriculture produce and exchange of information on marketing activities. In addition MSPs bring to the forefront, the need to build the innovative ability aimed at generating new ideas and approaches as well as strengthening particular skills to address challenges in agribusiness sectors.

#### **4.8 Challenges Facing Farmers from Participating in MSPs**

Identified challenges from Kilombero small holder farmers are lack of sufficient and adequate opportunity for farmers to decide on price of their products and lack of information on marketing. Also farmers lack financial support to promote and encourage local innovation processes provided to them. Funds are provided only to research projects and not to smallholder farmers.

#### **4.9 Challenges Facing other Stakeholders from Participating in MSPs**

Weak participation of farmers is a big challenge identified from the interviewed stakeholders in Kilombero district. Faysse (2006) in his study of troubles on the way of an analysis of the challenges faced by multi stakeholder platforms also highlights weak participation as one of the challenges facing multi stakeholder platforms. Also weak participation from some other groups of stakeholders which is the result of bad strategies such as underrepresentation of some groups, inclusion of many groups with similar interests, self-exclusion when the economic and political opportunity costs of participation is a challenge faced by stakeholders. Other challenges identified are like

power imbalance, lack of funds for research activities, disorganized farmers in groups. Resnick and Birner, (2010) in the area of agricultural strategy and policy formulation underline power imbalance and its negative effects on the credibility of participatory and multi stakeholder processes as the most challenging constraints to achieve agricultural strategies development through a participatory approach and MSPs in Senegal and Burkina Faso.

## **CHAPTER FIVE**

### **5.0 CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Conclusion**

The overall objective of this research was to access the influence of multi stakeholder platforms in promoting agribusiness improvement. Specifically the study attempted to identify the stakeholders and their roles which can improve the performance and competitiveness of the agribusiness sector and thereby improve the income of small holder farmers. Also the study found the linkage between farmers and stakeholders of agribusiness development by analyzing factors influencing farmer's participation on the MSP and activities introduced to them.

#### **From the results analyzed the following conclusion can be drawn:**

This study has included the key aspects in identifying the key actors or stakeholders who perform different roles with varying ability in the existing process of promoting agribusiness development in a study area. Therefore, in order to establish strong linkages for sustainable agricultural development one would need to know the impact made by the stakeholders in a certain place and the roles performing in the agribusiness development. The results of the survey have demonstrated that both private and public institutions and groups are stakeholders in promoting agribusiness development in Kilombero district. About 29 stakeholders were identified in a study area. In this study farmers have been classified as a target group in agribusiness development and actors in agribusiness value chain. To bring sustainable agribusiness development stakeholders should act together. Agricultural services like extension, marketing, training, input supply, credit provision, research and social mobilization were amongst all delivered in the scheme for the

recognition of bringing about change at agribusiness sector hence poverty reduction to smallholder farmers.

From the result, age, gender, education, household size and accessibility to credits show significance results in influencing farmer's participation in MSP. Participation of farmers brings a strong linkage within a platform because of its vital importance in transferring knowledge and provision of agricultural services to other farmers effectively. Therefore factors which influencing farmers participation should be considered so as to ensure the engagement and effective participation of farmers in services provided by stakeholder.

## 5.2 Recommendations

Based on the results of this study, the following recommendations have been suggested to enhance agribusiness development in Tanzania.

**Recommendation to farmers:** In order to have a good participation of farmers in Multi Stakeholder Platforms there is the need to create awareness and knowledge provision among them. There should be an increase in promotional and propagation activities concerning benefits of participation.

**Recommendation to other MSP participants:** Stakeholders should strengthen efforts to improve the development of sustainable agricultural technologies and their knowledge transfer and dissemination under mutually agreed terms in a country supporting national efforts to foster the modernizations of agricultural sector by access and promote agricultural technology, research and information through suitable communication.

To see the impact of MSPs actors should facilitate the active participation of vulnerable groups includes women, youths and native peoples, in the explanation, local and national planning of rural development taking into account national laws.

**Recommendations to policy makers;**

- i) In order to make the idea of MSP active, the Ministry of Agricultural Food Secure and Cooperative should create a favorable environment for other actors to come and participate in agribusiness sector. This should be done in designing agricultural program and policies that incorporate activities that promote stakeholder's involvement hence impact farmers positively.
- ii) Government should consider creating incentives and support to the agricultural sub sector and to the farmers in form of credit or loan as these would allow them take action to use sustainable agricultural practices
- iii) Government and international organizations have to collaborate with cooperatives such that there is easy access to affordable finance, the adoption of sustainable production techniques, investment in rural infrastructures and irrigation, strengthened marketing mechanisms, and support for the participation of women and youths in agricultural activities;
- iv) In addition, the government through extension agents should encourage farmers to form organization or farmers groups' in order to increase farmers networking.

- v) Farmers' organizations involved in inputs distributions and credit provisions need to be empowered by the Government and NGO so as to have higher bargaining power in competitive markets.

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## APPENDICES

### **Appendix 1: Household survey questionnaire**

#### **1.0: Basic Information**

- 1.1 Questionnaire Number.....
- 1.2 Contact details of the farmer: Mobile number.....
- 1.3 Ward.....
- 1.4 Village.....
- 1.5 Date of interview .....

#### **2.0 personal factors**

- 2.1 Name of the respondent \_\_\_\_\_ Sex\_\_\_\_\_
- 2.2 Age of respondent \_\_\_\_\_
- 2.3 Marital status
  - 1. Single 2. Married 3. Divorced 4. Widowed
- 2.4 Education level
  - 1. Illiterate 2. Primary Education 3. Secondary Education and Above
- 5. Total number of household members (active labor force) -----

#### **3.0 Socio-Economic Factors**

- 3.1. Do you own land?
  - 1. Yes 0. No
- 3.2. If yes, mention the source and size of farmland?
  - 1. Own farm size..... 2. Rented from other source.....

3.3 What are the sources of family income?

1- From farming activities 2- non farming activities 3- others specify

3.4 What amount of money you earn annually from your income sources?.....

3.5. For what purpose you are using the money you get?

1. To purchase inputs 2. To purchase cattle 4. Home consumption materials 5. Others specify

3.6. Is the price of inputs affordable?

1. Yes 0. No

3.7. If your answer is no, what was its impact on you in the use of improved crop inputs?

1- Using below recommended level  
2- Partly use of package inputs  
3- Decision for not using  
4-Others specify.....

#### **4.0 SITUATIONAL FACTORS**

4.1 Is there road facility which helps you for input purchase and market out late?

1-Yes 0- No

4.2 If your answer is yes, what type of road you are using?

1- All weather road 2- winter season road 3- others specify

4.3 If your answer for question 4.1 is no, how do you cope up?

1- Bare foot roads 2- others specify

4.4 What do you use to bring agricultural inputs from the farm?

1. Transport car 2. Own cart 3- others

4.5 How do you evaluate the facilities related to road and transportation means in relation to input use?  
.....

4.6 Do you have access to market for your produce?

1. Yes    0. No

4.7 If no, what is/are the main constraint (s) regarding access to market?

- 1. Unable to get market information 2- far distant of market place
- 3. Unable to get alternative market 4-Lack of means of transportation 5- High market tax

## **5.0 ORGANIZATIONAL AND INSTITUTIONAL FACTORS**

5.1 Are there credit institutions in this area?

1. Yes    0. No

5.2 If your answer is yes, what is the name of credit institution? \_\_\_\_\_

5.3 Are you ever used credit from the organization?

1. Yes    0. No

5.4 If it is cash, for what purpose you borrowed the money?

1. To purchase inputs    2. For home consumption    3. Others specify \_\_\_\_\_

5.5 If your answer for 5.4 is to purchase inputs, what type of inputs you purchased?

1. Seed 2. Fertilizer    3. Farm tools    4. Pesticides    5. Others specify \_\_\_\_\_

5.6 If your answer for question 5.3 is no, what is the source of your money to purchase inputs?

- 1. From own farm income    2. Borrowed from neighbors    3. Gift from relatives
- 4. Others specify \_\_\_\_\_

5.7 If your answer for question 5.3 is no, what is your reason to not borrow?

- 1. High interest rate
- 2. Presence of own money
- 3. Lack of collateral

4. Others specify \_\_\_\_\_

5.8 What problem you are encountered related to input credit?

.....  
.....

5.9 What is your suggestion for efficient input credit service in the future?

.....  
.....

5.10. Is there storage facility nearby to store agricultural produce?

1. Yes 0. No

5.11 If your answer is yes, what is its contribution to your farming activity?

.....  
.....

5.12 Is there any service supportive in your area?

1. Yes 0. No

5.13 Are you a member of any association/ farmer group ?

1. Yes 0. No

5.11. Are you ever participated in extension training?

1. Yes 0. No

5.14 Who were the providers of that training?.....

5.15 Did you incur any cost in attending that training?

1. Yes 0.No

5.16. If yes, in what area of extension training you have participated?

.....  
.....

5.17 If your answer for question 5.13 is no, why?

1. Not invited to participate 2. No interest in the program 3. Others specify.....

## **6.0 Multi stakeholder identification**

6.1 Who are the actors in relation to agricultural services provided to you? Indicate their roles.

No	Name of Actor	Roles/Functions
1		
2		
3		
4		
5		

**THANK YOU FOR YOUR COOPERATION!**

**Appendix 2: Key Informant Interview for actors involved in agricultural services provision**

1. General Information

Name of the organization \_\_\_\_\_

Address \_\_\_\_\_

Major occupation \_\_\_\_\_

2. Please provide a short description of your organization/institution/Group

.....  
.....

3. What are the main activities of the group/institution?

4. Who are the main target groups in the agribusiness chain?

.....

5. Do you have a trend in collecting feedbacks from users?

1. Yes 2. No

6. If your answer is yes, what are the feedbacks for your services?

No.	Type of the service providers	Feedbacks from users/Do they participate or not?
1	Input supply	
2	Credit provision	
3	Knowledge transfer	
4	Others specify	

7. Are you participating in any agricultural Convention?

1 Yes 2.No

8. What benefits do you expect from being participating in MSP

.....

**THANK YOU FOR YOUR COOPERATION**