



A comparative assessment of the performance between Farmers' Oilseeds processing Cooperatives and Private oilseeds processing Enterprises in the Sunflower Value Chain:

The Case of Singida Region in Tanzania

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## List of Acronyms

EUR	Erasmus University of Rotterdam
ISS	Institute of Social Studies
ECD	Economics of Development
AMCOS	Agricultural Marketing Cooperatives Societies
URT	United Republic of Tanzania
GDP	Growth Domestic Product
NGO	Non Governmental Organization

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## Abstract

The low output of cooking oil in Tanzania has been subject to critical debate given the increasing population and consumption in the country and the world in general. The question of having self sufficiency in terms of cooking oils and food security as well as social economic development is of great relevance to this research. It can be achieved by stimulating and improving the sunflower oil processing sector in the country. Stimulation has to be geared towards supporting small holder's farmers who constitute Agricultural Marketing Cooperatives (AMCOS) through out the sunflower value chain. There is a need to regulate the business relationship between private processors and farmers (seeds/raw materials producers), this would ensure mutually-beneficial market transaction and reduce the exploitation of farmers.

This paper, attempt to assess the performance gap between farmer's oilseeds processing cooperatives and private processing enterprises within the sunflower value chain in Tanzania. In this paper, both secondary and primary survey data from Singida Region are employed and descriptively analysed with the help of a computer program known as Statistical Package for Social Science (SPSS). The results indicate that, there is a negative performance gap which is observed in two dimensions within the study. Namely by; the identification of key performance factors and a perverse; Incentive and Reward system; In the incentive and rewards system practiced within the two enterprises, cooperatives are doing better in some cases such as with the distribution of shares; members feel a sense of social inclusion, they get Agricultural inputs and thus they are more happy and feel valued, this makes them work harder towards achieving the set of objectives.

However, salaries in the cooperatives are not as high when compared to private enterprises and this has an impact on worker's motivation. The key factors identified for the performance differences between the two enterprises includes; capital access and ownership, Quality of oils produced, Capacity of machines, level of business education, safety and cleanness measures and market power. These factors seem to affect most the cooperatives, for example, they lack access to capital from banks and also they own low capacity machines when compared to private enterprises that have enough capital and high capacity machines. Moreover, the paper found that, there are other conditions which may bring about social economic development and efficiency to the cooperatives if they are well implemented. These includes; increasing subsidies to the Agricultural Marketing Cooperatives (AMCOS), Regulation of business relationship( focusing on contract farming system), the facilitation of access to capital from micro financial institutions and banks, employing more extension officers, commissioning more research and improving the facilities for sunflower seeds warehouses in the cooperatives. Nevertheless, reducing unnecessary taxes such as rent tax, distribution tax, storage taxes, etc.; creating favourable business environments for the private oil processing enterprises seem to be significant conditions for the sunflower sector.



# Relevance to Development Studies

The term 'Development' has a broad definition in development studies. However, for the purpose of this study, Development is defined as the process of improving the life status of a human being from one stage to an improved stage. Human beings especially those living in the developing countries like Tanzania, are vulnerable to extreme poverty, particularly those living in the rural areas. That being the situation, these people have a poor status of development despite having potential factors of production such as land and labor. The Nation of Tanzania for example has an insufficient amount of cooking oil and food which prevents them from achieving development goals. This is due to the fact that, a high proportion of resources are being used for importing cooking oils instead of stimulating the local production of cooking oil to achieve self sufficient and food security.

Majority of people engage in Agriculture production growing both food and cash crops as well as keeping animals for their livelihoods. Among the cash crops grown, sunflower is one of the leading cash crops grown in more than six regions of Tanzania by rural small holder farmers. Singida region is the leading sunflower crop producer in the country. However, the crop is still not beneficial to the producers due to an existing negative gap between farmers and private enterprises engaging in buying and processing of oilseeds. Therefore, this study bears relevance to the development because it studies one of the development sectors in the Tanzanian economy; it therefore reveals the key factors for the differences in performance between farmers oilseeds processing cooperatives and private processing enterprises; it provides suggested solutions for the narrowing of such gaps and the recommendations on what actions should be taken into implementation by the key Agencies, stakeholders and Government within the sunflower value chain in order to bring about social economic development of the majority sunflower producers and processors in Tanzania. In addition to that, the Nation is able to have self sufficient and food security thus having health and productive people in the Nation.

## Keywords

Performance, Cooperatives, Private enterprises, and Sunflower value chain



Manufactured by:



Shigani Sunflower Oil Miller

P.O.BOX 161, Kiomboi Singida  
Tanzania

Tel: +255 765 463 264

+255 715 363 264

+255 767 058 692

E-mail: sshigani@yahoo.com

**Typical Nutrition Information**

Serving Per Bottle: 356 (5kg)  
Serving Size: Tablespoon (15ml)  
Per Serving (15ml) Per 100ml

Energy	356 Kcal	124 Kcal
Protein		
Carbohydrate	0g	9g
Total Fat	100g	14g
Monounsaturated	6g	39g
Polyunsaturated	277g	4g
Saturated	11g	1g
Natrium	0mg	0mg
Cholestrol	0mg	0mg
Vitamin E	8.4mg	60mg

MFD : **August 2014**

Exp Date : **Nov 2016**



Tanzania Sunflower cooking oils brand labels [Source: Field survey, 2015]

A worker in the cooperative processing enterprise at work

This picture was taken during field survey in Singida region of Tanzania [July, 2015]



A worker in the private processing enterprise at work

This picture was taken during field survey in Singida region of Tanzania [July, 2015]



# CHAPTER ONE: INTRODUCTION

This research paper studies the comparative assessment of the performance between farmer's oilseed cooperatives and the privately owned/financed processing enterprises using primary survey data from the selected sample of 49 key informants in Singida region, Tanzania, East Africa. The underlying motivation for this research is that, the current supply of cooking oil is not enough to meet the domestic and international increasing consumption demand in line with the growing country and world's population; the country is not self sufficient in terms of cooking oil production, this is because the performance of oilseed producers and processors is still low. Apart from that, there is little research being done in the sunflower sector for Tanzania in particular, hence this paper will be an addition to the research done before within the sector.

## ***1.1 Background of sunflower crop and sector***

Sunflower is among a cash crop to the majority of rural population living their lives depending on Agriculture; Agriculture is the backbone of Tanzania's economy as noted in (Kajimbwa, et al, 2010) that, 'Tanzania's economy heavily depends on agriculture, which accounts for 45 percent of gross domestic product, 80 percent of employment and 30 percent of the nation's foreign exchange earnings, therefore is at the heart of the fight against poverty'. 'The Sunflower plant is said to have originated on the North American continent and belongs to the plant *genus Helianthus* and the family *Asteraceae*, its official nomenclature is *Helianthus annul*, and it is described generally as an annual plant'( Match Maker Associates, 2010). The Sunflower crop in Tanzania was introduced during colonial period and it was found to be able to grow in almost all parts of the country. Differentiating itself from other crops like maize and groundnuts, sunflower is the type of crop that can be grown in dry climatic conditions. Among other regions, the major regions that are growing sunflower oilseeds in Tanzania are Singida, Dodoma, Tabora, Mbeya, Morogoro, Iringa and Songea (Ruvuma).

The sunflower oil seeds value chain passes through four main stages in sunflower subsector namely Production, Processing, Marketing and Consumption. The processing chain is critical component after production as it is where the produces (seeds) from sunflower crop is added the first value by processing it in a machine; this is a focus of this study. The majority of farmers unite together in groups legally forming (AMCOS) and get financial help from donors who are implementing interventions in various social projects including sunflower value chain development and improvement through capacity building in the regions. The donors provide them with machines for processing their seeds and capacitate them throughout the rest of the chains (marketing and consumption). However, there are also few private entrepreneurs and companies owning their own machines for oilseeds processing posing competition in terms of output generation in the whole value chain. These private companies also buys input/raw materials (seeds) from farmers through most commonly trafficking, side selling ways or contract farming in some cases.

Sunflower oilseeds production as one of the subsectors in the Agriculture has been of slightly increasing in Tanzania due to its high demand of sunflower cooking oil in local and international markets (KPMG, 2011:25) because of consumer's perception that, it is good and nutritious in human health of consumers and has no cholesterol compared to other vegetable/sesame and animal cooking oils. Additionally, it is a source of employment and revenue generation to the most of rural households and even to the households of urban areas where private processors have their processing plants employing people. However, like other subsectors in the Agriculture sector, poor farming practices and technologies (in sunflower crop production) lead to low productivity and poor seed oil content (URT,2007). Hence, majority of producers are vulnerable to low income earning having limited access to capital for increasing their production and value addition through processing.

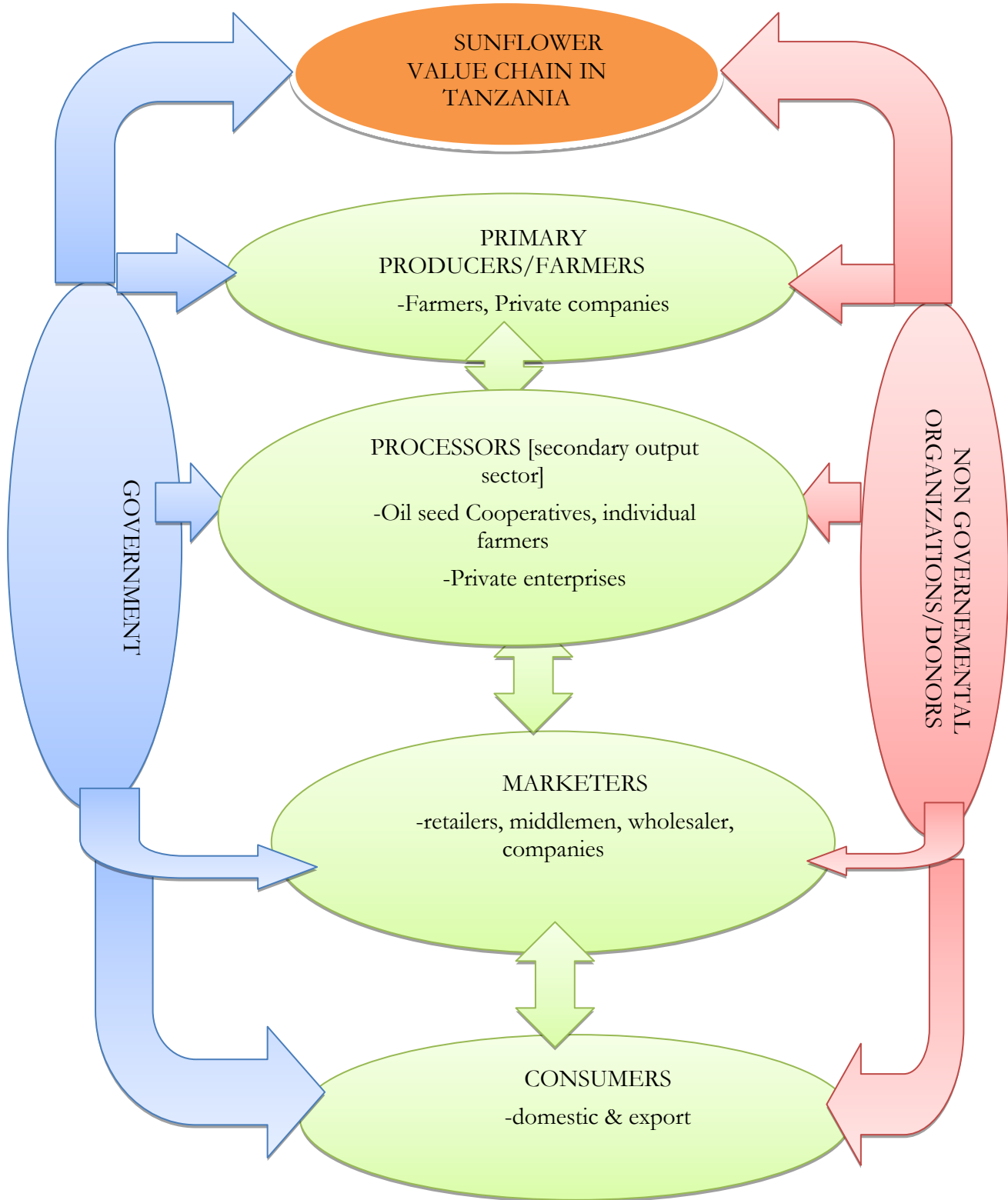
Moreover, sunflower crop production act as forward and backward linkage in the economy as it also produces feeds and inputs for other sectors such as livestock sector. The main product from sunflower seeds is cooking oil, but there is other by products from seeds processing which are seed cakes and soups that are used for animal feeding and chemicals as well as input into other subsectors of Agriculture. These products are highly demanded domestically and internationally due to their potential for animal health. The low volume of output produced due to low performances from both farmer’s cooperatives and private enterprises has resulted into shortages in the supply side from the sunflower cooperatives and enterprises (KPMG, 2011:25). **Figure 1** below shows the general model for understanding the sunflower value chain in Tanzania; the sector is mainly dominated widely by the Non-Government Organizations (NGO’s) and the Government in nutshell while has a potential for setting and implementing various policy and economic regulations for the betterment of the sector.

**Map 1: Map of United republic of Tanzania showing regions**



Source: <http://www.nationsonline.org/oneworld/map/tanzania-administrative-map.htm>

**FIGURE 1: SUNFLOWER VALUE CHAIN MODEL**



**Source:** Author's constructed drawing

From Figure 1, the middle part shows the key players in the sunflower value chain from production to consumption. The outer part shows the key stakeholders [Government and NGO/ private sector] operating/engaging in the whole sunflower value chain; the study focus is on the point in the processing chain where government and Private sector/NGOs engage at different degrees of involvement.

## ***1.2 Problem Statement and Justification***

There is still low output generated by oilseeds processing cooperatives and private enterprises and this is believed to result from poor performance in terms of oil quantity produced leading to unachievable consumption demand of sunflower cooking oil in the Nation and low income generation to the farmers. The presence of various interventions from NGO's in the sunflower value chain particularly in the processing segment such as capacitating and supporting the farmers in Singida region by providing modern technologies and machines has proved a failure. These NGO's have been there to support the sector due to being underperformance in production of both oilseeds and cooking oils. The evidence from literature shows that 'The production of both factory and home extracted oils contribute to about 40 percent of the National cooking oil requirement with the remaining 60 percent being imported' (Larsen et al. 2009:139). Also 'sunflower production in Tanzania from 2000 to 2005 increased almost 80 percent from 80,000 tons to 134000 tons' (Larsen et al. 2009:139). Similarly, Sunflower is one of the important cash crops in central corridor regions and the Tanzania national economy as a whole, the sector contributes about 32 percent of national cooking oil in the country and 60 percent is being imported from outside while 8 percent is filled by other oil seeds<sup>1</sup>. The sector also play role in providing employment to majority of rural and urban population in the country. It is observed that, in Singida region, Agriculture sector (which is mostly sunflower production) contributes to about 60 percent of the region's revenue and about 90 percent of the people are employed by the sector in production of both cash and food crop<sup>2</sup>.

This situation draw attention to the sector as it remark the potential contribution to the National cooking oil demand that improvement is needed to stimulate output to cover the shortage, hence achieving both self sufficiency and food security. Also it would reduce the cost of imports that the Nation is spending rather than having surplus for export. Speaking in the parliament, the Minister for Agriculture and Cooperatives, Mr. Christopher Chiza argued that, despite an increase in the production of oilseeds, the country still imports 60 per cent of cooking oil, and thus the government is seeking to reduce the import by empowering small scale entrepreneurs to establish oilseed industries<sup>3</sup>. This is seen also in the report by Matchmaker Associates (2010) that, 'In relation to the cooking oil industry, development of the local sunflower oil industry has potential for significant import substitution given that the majority of cooking oil consumed in the country is imported'. Cooperatives constitute the majority of small holder farmers who engage in the sunflower production. The rest private enterprises are relative minors. The output stimulation would be geared towards mitigating the differences in benefits obtained from the business so that, to have a common mutually benefits to all players in the chain that will eventually lead to sustainable economic development.

## ***1.3 Objectives of the Study***

### ***1.3.1 General objective***

The general objective of this study is to investigate whether cooperatives are inherently inefficient or are there conditions underlying cooperatives that can be both efficient and bring positive social impact to the majority of sunflower farmers in Tanzania.

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<sup>1</sup> RINGO IRINGO (2013) SUNFLOWER SUBSECTOR: COLLABORATION BETWEEN SUNFLOWER OIL PROCESSORS AND RLDC FOR IMPROVED SUNFLOWER SECTOR IN TANZANIA. National Market Development Forum (NMD) Presentation in RLD meetings-DODOMA-Tanzania.

<sup>2</sup> SIDO report (2007) available at: [http://www.sido.go.tz/UI/Singida\\_Region.aspx](http://www.sido.go.tz/UI/Singida_Region.aspx)

<sup>3</sup> Tanzania: Government Seeks to Reduce Cooking Oil Imports. Daily News, 12/8/2012. Available at: <http://allafrica.com/stories/201208140079.html> [Accessed 14/01/2015].

### ***1.3.2 Specific objectives***

1. To identify the key differentiating factors for the performance in terms of output and quality of output produced from the farmer's cooperatives and the private enterprises
2. To identify the extent to which incentives and rewards system are inherent factors for inefficiency or the performance gap between cooperatives and private owned oil processing enterprises
3. To identify the key suggestions for narrowing the gap in performances and how to improve/increase production in both sectors

### ***1.4 Research Questions***

The main question this research paper will seek to answer is: are the cooperatives inherently inefficient or are there conditions underlying cooperatives that can be both efficient and bring positive social impact to the majority sunflower farmers in Tanzania?

The paper will also answer three sub questions below;

1. What are the key factors behind differences in performance between two oilseeds processing enterprises (cooperatives and private owned) in the sunflower value chain?
2. To which extent the incentives and rewards system are inherent factors for inefficiency or performance gap between cooperatives and private owned oil processing enterprises?
3. What are the key suggestions to address the identified factors so that to have an improved productivity in the sunflower sector for the welfare of the majority farmers and producers as well as economic development of the country?

### ***1.5 Relevance of the Study***

The Sunflower oilseeds sector is among the potential sectors for mitigating poverty and triggering social economic development of Tanzanian communities. However, the sector is not yet living up to its potentials, *'we still not yet exploited the potential of sunflower crop in the region where over 90 per cent of people engage in growing sunflower crop, if we do, then this might reduce poverty and serve a huge cost of importing cooking oils'* said Mr. Temba, Regional Economist of Singida Region, Tanzania (personal communication). This study is intended to add to the literature and policy design and implementation in the sunflower value chain development by studying processing segment within the sunflower value chain. It has focused in particular on the processing chain to find out in comparison the key factors underlying the differences in performances between farmer's oilseed cooperatives and the private owned processing enterprises. It has therefore employed both secondary and primary survey data from sunflower producers and processors in Singida region of Tanzania.

Many researchers on sunflower value chain focused on the impact of technological innovations and the significance of these technologies as well as the existing challenges to the producers and processors (see for example Hyman, 1992; Hyman 1993; Larsen et al. 2009; Diyamett and Mabala, 2007). However, the evidence from the application of these technologies especially processing machines is that, there still low performance especially in cooperatives leading to low output and poor quality of oil which does not even meet the domestic growing cooking oil demand in the country. Besides, the long term effects of most research papers on sunflower value chain are being the facilitation of the foreign project interventions in the sunflower value chain in Tanzania rural.



Therefore, this research will explore the performance gap in the sunflower value chain particularly in cooperatives and private enterprises. The results of this paper are expected to inform policy makers, other stakeholders (from private and government sectors) and players/actors in the Agriculture sector particularly in sunflower oil subsector on the social and economic impact of improving and managing oil seeds cooperatives for the sustainable economic welfare of the majority rural livelihoods. Thus could result into achieving the Nation's self sufficiency and food security in terms of improved production of sunflower cooking oils to cover the existing shortage.

### ***1.6 Limitation of the Study***

The most limiting factor was financial constraints whereby a researcher had few funds to cover the surveying logistics including travelling costs within a region. Hence, the data obtained are from the few informants that were reached and interviewed. Also, some secondary data from government offices are not easily available; this is due to poor record management of the published documents and surveyed data within government offices. However, a researcher succeeded in obtaining few documents containing secondary data. Alternatively, personal interviews were used to get the required information for the study. The research was also subject to time constraints as it was required to be submitted in three months.

### ***1.7 Organization of the paper***

This paper will be organized in the following series; Chapter one, it will provide an introduction and background of the research idea, statement of the problem, objectives of the study, research questions, relevance of the study and limitation of the study. Chapter two, it will provide literature review of the research idea and theoretical approach. Chapter three, it will provide research methodology approach used which includes data source and description of the study area, reasons for choosing the region for study, data collection, sampling size and techniques, sample distribution, limitations during data collection and descriptive analysis. Chapter four, it will provide a critical analysis of the performance comparison between cooperatives and private enterprises. Chapter five, it will provide conclusion followed by recommendations in chapter six. Lastly, list of references and appendices will be presented.

## **CHAPTER TWO: LITERATURE REVIEW**

This section will explain the general and theoretical concepts of the study, it will begin by explaining the overview of sunflower value chain in relation to performance of cooperatives and private owned enterprises in Tanzania followed by critical discussion of cooperatives and private enterprises from various literature in international perspective, then finally it will present theoretical approach of the study in relation to the research topic.

### ***2.2.1 General and theoretical concepts***

### ***2.2.2 Sunflower value chain relation to performance of cooperatives and private owned enterprises***

The sunflower value chain in Tanzania is one of the critical sub sectors of the Agriculture sectors helping large number of small holder producers to earn their livelihoods. This sector is predominantly operated by two enterprises namely farmer's cooperatives and private companies/entrepreneurs who mainly operate in the whole chain of the crop. The farmer's cooperatives are commonly known as Agricultural Marketing Cooperatives Societies (AMCOS). Findings indicate that, the output from the two enterprises is still low though there is a difference in terms of output and quality of oil produced in each side due to difference in the performances which is not a good phenomenon in the sustainable development of the country and economic welfare of the people involved in the sector. Various literatures suggest that, the quantity of cooking oils produced by processors both farmers' cooperatives and private companies in Tanzania are still low and of high cost to consumers, hence a need to increase the performance in production to meet the demand and stable price to domestic consumers. The evidence from (Hyman, 1992) suggests that, 'the domestically produced oils are more expensive in rural areas, due to high transport and distribution costs, if they are available at all'. Ironically, 'little of the oil produced by the urban factories in Tanzania is consumed in the rural areas where the oilseed crops are grown, thus, there is still a strong need to expand local production of low-cost, edible oil in rural areas'(Hyman, 1992). From this findings then, it is the matter of fact that, output produced is not only low but also it is of high price due to other factors such as high transport costs and distribution costs; this is the proof that the performance of rural processors is still less than that of private companies.

### ***2.2.3 Farmer's oil seeds Cooperatives Versus Private enterprises***

#### ***2.2.3.i The Meaning of farmer's cooperative and private enterprise***

Farmer's cooperatives are the form of organizations in which members (farmers) voluntary organize themselves according to mutually agreed terms, objectives and common interests. These organizations are registered legally under cooperative laws of the country. In most cases, they operate in the Agricultural sector as Agricultural marketing cooperatives though there are other forms of cooperatives such as consumer and retailer cooperatives especially in Europe and America (Nilsson, 2001). Ironically, Bennett (1983:4-5) argues that, 'the new forms of cooperative production, marketing, and consumption which are emerging in many developing countries are syncretistic versions of both the indigenous and institutional forms'. He distinguishes two types of cooperatives: indigenous that is formed by common members of the society with their common goals and Institutional that is western society origin, and has been modified in international scale (Bennett, 1983). Due to variation of types and characteristics of cooperatives, this study will focus on Agricultural Marketing Cooperatives which process oilseeds and private oilseeds processing enterprises in the sunflower processing sector.

In contrast to cooperatives, private enterprises are form of organizations which operate under certain terms and conditions set by the owner/owners. These also are legally recognized in the laws of any given country. The most differentiating feature of private and cooperative is the form of ownership whereby in private enterprises there is effective transfer of ownership unlike the former (Boardman and Vining, 2000:3). These private enterprises are in most cases characterized by business orientation in which they aim at profit maximization and increasing scale of production using modern technologies for self economic benefit unlike in the cooperatives.

### ***2.2.3.ii Objectives of cooperative and private enterprises***

The main objective of cooperatives is to strengthen market power and facilitate inputs-supply capacity that will eventually generate revenue for the members to benefit, that's aiming at majority benefit. Although cooperatives have been criticized by various economists who rely on the capital functioning and utilization of cooperatives ignoring the unique character of cooperatives inclined in their purpose of formation which is 'to counteract market failures on product markets' (Nilsson, 2001), the criticism does hold not in all cooperatives in the world because most of them function well especially those in developed world. Basically, members organize to have a common strength and bargaining power in marketing of their products in local and international markets; it has been successful in America and European countries. Similarly, the formation of cooperatives especially in rural areas aim at promoting equitable growth and poverty reduction that could eventually lead to improvement of economic welfare of the rural community; making easy for the donors to support rural initiatives for sustainable development of majority poor living in rural areas in Ethiopia (Bernard and Spielman, 2009). Actually, this is also applied to most of the rural Agricultural cooperatives in developing countries including Tanzania especially in the sunflower oilseed sector. Besides, (Soboh, et al., 2009) argues that, 'the prime objective of the cooperative is to provide stability and optimal growth conditions for its members'. This is also similarly noted in the work of (Hernández-Espallardo, et al, 2013) that 'co-operative's objective is to maximize benefits to members by maximizing the per-unit value or average price and this is done by distributing all earnings back to members in proportion to their patronage volume or use'.

Moreover, some economists see cooperatives in two ways, one that regards the members objectives and the other one that disregards the members objectives, the latter is considered to have different objective from the former because it is considered to be an independent firm with the element of private enterprise (Soboh, et al., 2009), that being the case, its main objective is to maximize profit at minimum costs. This latter form of independent processing firm follows the basic theory of the production firm which entails economies of scale that results to maximum profit at minimum costs of production by setting marginal cost is equal to marginal revenue, and hence profit is the measure of performance. Its production function looks like as indicated below;

$$\text{Max (profit)} = P_y * Q_y - C$$

Where,  $P_y * Q_y$  is the total revenue obtained after sales (i.e. price times quantity of output sold),  $C$  is the total cost of processing and  $y$ -is the output. Moreover, Soboh, et al( 2009) revealed that, there are other objectives which are considered to be alternative to single objective of an independent cooperative, these are; (a) Maximize the joint profit of the cooperative's and members' profit, (b) maximize the return to patronage, and (c) maximize the size of the total output (or membership) (see also LeVay, 1983:10-11 for further understanding). However, a brief discussion is given under the theoretical approach section in this paper.

### ***2.2.3.iii Organization structure***

The organizational structure for both cooperatives and private owned firms differ due to their differences in nature of objectives and management perspectives though in some cases there notable similarities in positions, example a manager is a position that exist in both cooperatives and private owned firm. The structure of Agricultural cooperatives is based on the common ownership of resources in line with the cooperative principles explained in the ‘origin cooperative principles of Rochdale, England in 1844’ (see Cotterill, 1987: 174 for details) which lay out the foundation for management of cooperative including how the members should be to qualify joining the cooperatives and the way how the members should elect their leaders in the cooperation. However, these principles have been modified by various Agricultural economists to suit the current international requirements, example the first principle have been modified to state that, membership should be always voluntary in joining the cooperative with additional considerations rather than just being open to everybody(Cotterill, 1987).

In contrast to cooperative, the private owned enterprises named by Cotterill as an “independent owned firms (IOFs)” are based on private ownership and control of resources and property rights, they are managed by corporate manager who always a top managing icon of the organization being driven by the principle of profit maximization (Demsetz, 2011). This means that, private owned enterprises may also have shareholders who actually exercise control of the resource available and obtained through sale of the products, but this usually rise and results to conflict of interests due to unequal payment of incentives (Demsetz, 2011). Most of processing enterprises in Tanzania are owned by single or group of individuals/entrepreneurs having the prescribed organizational structure in different context.

### ***2.2.3.iv Resource allocation: Incentives and reward***

The difference in ownership of resources and revenue for both cooperatives and private owned enterprises is the real picture that exists in the resource allocation within the two enterprises. Various literatures point out that, in AMCOS due to nature of common ownership of resources, the rewards and incentives are paid to the members equally out of the sales of the products; if there is any risk such as loss that might happen in their sales or cooperative operations, all members are liable for it (Nilsson, 2001; Cotterill, 1987; Hernández-Espallardo, et al, 2013). In Uganda, sunflower processing cooperatives members get loan in advance before farming season and then after harvest they pay back the loan and also the profit obtained from sales of oil is shared equally to the members; there is division of labor among members where women participate in not only reproductive activities but also in production activities while men concentrate in marketing segment (Opio, 2012).

In other way, the situation is different in private enterprises whereby the enterprise is always lead by the manager or director who is paid the salary or wage out of the revenue obtained, he also pay himself in the case of single person owned firm, the shareholders are paid the incentives and salaries from the profit of the business obtained after sales and deduction of the costs incurred; the reward of the product is the reward of the payment to the shareholders although this is not always the case as noted in the work of (Mueller and Spitz-Oener, 2006) who found that, ‘managers with large ownership shares have the ability to entrench themselves because a high managerial ownership share makes it difficult for other shareholders to control the management and gives the owner-managers the power to potentially disregard the interests of small shareholders’, again this signify the inequality of distribution of incentives in private firms. Besides, there are other enterprises which are owned by single person who enjoy the economies of scale and maximum profit as an entrepreneur, the salary is paid to the hired casual laborers as per agreed terms of working contract (see White and Callahan, 2013).

### ***2.2.3.V Economic significance and performance***

#### ***2.2.2.4.i Agricultural marketing cooperatives***

Various literatures from Agricultural economists have been realized the good performance and role played by the Agricultural cooperatives in social economic development of countries in the world. According to (Garrido, 2007), ‘Agricultural Cooperatives were potentially a great stimulating force for agrarian modernization, and an especially suitable instrument with which to reinforce the capacity for technical change of the family farm, which was to supply a growing portion of Europe’s agricultural output after the Great Depression at the end of the nineteenth century’. This shows that, cooperatives are very significance tools towards economic growth and development in any country that her economy heavily relies on Agriculture sector development. In addition to that, it is proved that the cooperatives performed well since 19<sup>th</sup> century to date in some countries especially in the developed world and they have been the source of advanced economies to those countries.

The performance of cooperatives in the processing segment in other Agricultural sector such as bison, organic milling, and special cheese have been good in other countries such as United states of America whereby it has been proved to be an important tool for rural economy initiatives that can help to fight against poverty and hence trigger economic development of the country (see Harris, et al, 1996; Hind, 1994) due to good performance that lead to high output and good quality of the products. However, cooperative sector has been faced by number of factors including the presence of free rider members, lack of commitment and capital accumulation (Harris, et al, 1996).

Moreover, (Nilsson, 2001) found that, ‘Co-operative firms occupy a strong position in many business sectors; where farmers’ co-operatives in the European Union and in North America both often account for 30–70 percent of the market’. In addition to that, ‘co-operative enterprises account for 8 percent of the Swedish gross national product and 14 percent of the country’s private consumption’ (see Nilsson, 2001). This is the great contribution to the GDP and economic development of the country from Agricultural cooperative sector.

Besides, Agricultural cooperatives being the main source of income generation and employment to majority of rural people in Uganda as realized in the report by SNV that, found that the revenue obtained from sunflower processing helped many people especially women to become more economic self independence and well off and hence improved livelihoods (Opio, 2012). However, this is not clear if it applies to the whole sunflower value chain whereby most of farmers (i.e. producers and processors) are benefiting from the business or it is just the benefit for the project beneficiaries in the area!

#### ***2.2.2.4. ii Private owned enterprise***

The private enterprises sector in Agriculture particularly in edible cooking oil industry is believed to hold importance role in economic development of the country with greater performance as compared to cooperative sector. Though, the findings from literature show that, there is still no clear difference in performance between two sectors (cooperative Vs non cooperative). However, there are some differences in some performance indicators such as stock turnover and logistics whereby cooperatives seen to perform better than non cooperatives (Hind, 1994). Again this argument may hold in developed countries but in developing countries is questionable.

In other way, the role of private enterprises can not be ignored in the economic growth of the country since they are the source of government revenue collected from tax; they contribute into social development by

supporting social services like water supply, education and road infrastructure development. Additionally, they are catalyst in boosting the production and output in the Nation. In Myanmar, private sector is considered to be the force of growth of oilseed sector development that will foster economic growth of the country and improve livelihood of majority farmers as well (see Wijnands et al., 2014), since it is believed that private owned enterprises are capital efficient, they apply high and modernized technologies of production and processing, comminuted to business and hence scoring high level output and good quality.

#### ***2.2.4 Limiting factors for both enterprises [cooperatives and private enterprises]***

It has been observed in various literatures that, there are number of factors that limit the performance and growth of cooperatives and private sector in the Processing oil industry in the Agricultural sector as explained below. However, in most cases, there are no factors identified from the literatures that are specific to only cooperatives and others for private enterprises in the sunflower oil processing sector within sunflower value chain in Tanzania due to interdependence of the two enterprises.

The evidence from literatures suggest that, there is a need to improve or upgrade the small holder in the sunflower value chain in order for them to benefit from increased output and revenue obtained from selling of the output to buyers, the upgrading should include providing cooperatives with modern technologies, assets like warehouse and improving transport infrastructures such as roads to reduce the costs of transporting to the market (see Ugulumu and Inanga, 2013 for example).

Also, (Larsen et al., 2009) conducted their research on sunflower value chain in Africa (Tanzania being one of the country included) and noticed that, there are number of factors/constraints leading to low output produced from processing of sunflower seeds, such factors includes but not limited to lack of seeds from high yielding varieties, higher price of available seed stocks and inadequate funding for Agricultural researches and extension services. These factors could be thought to be inclined to the performance of in both cooperatives and private oilseed processing enterprises in Tanzania.

Similarly, some reports for example in (Kajimbwa, et al., 2010) suggests that, 'Production and productivity levels in oil sunflower subsector are low, Agro-dealers and extension services are not adequately addressing sunflower and sesame production (low quality seeds), nor market needs consequently, farmers focus on seed color and not on seed oil content, which limits farmer's capacity to negotiate for better price'. 'Producers and processors lack the business skills, knowledge and access to alternative financing facilities to grow their businesses to scale' (Kajimbwa et al., 2010). This allows going deeper looking at the effects of these factors on the output produced in the cooperatives and private enterprises.

Moreover, information dissemination is one of the key factors for good performance in both farmer's cooperatives and private enterprises, failure to get information about the price of product in the market can lead to price distortion and low profit obtained form the sales thus can lead to poor or weak cooperatives, other information includes extension services and weather. (Ugulumu and Inanga, 2014:42) found that, market information system is still poor in most of rural sunflower producers this create weak market power for the rural small holder producers who are mainly in the cooperatives and hence lack of good linkage to the other actors in the sunflower value chain.

Besides, experience from Uganda shows that private enterprises benefits more than farmers cooperatives in the value chain of oilseed crops due to lack of enough market information as a result they lack power to negotiate the output price; '[...] Mukwano endeavors to make its prices known during the marketing period which, albeit does not help producer make informed production decision because it comes after harvest' (Wilson, 2014:10). On the other hand, it has been found that, there is unequal share of returns between private buyers and farmers in the business transaction, also the most constraining factors for the performance

of cooperatives are lack of good governance, poor commitment among members and poor public transport infrastructures such as roads which push the costs of logistics for the crop produces (Wilson, 2014:10).

Therefore, from the various literatures as discussed earlier, it is revealed that, the driving forces towards the differences in the performance between cooperatives and private enterprise relies on the factors such as input stocks availability and logistics, organizational management, rewards and performance, marketing information, inadequate researches, extension services, infrastructures and price of products in the market. However, for the purpose of this study, it will focus on performance in terms of incentives and reward assessment by making comparison in both cooperatives and private enterprises. The paper will compliment to the literature by critically assessing the key factors for low performance of both farmers cooperatives and private business enterprises that leads to low output and poor quality of oil produced in processing stage (Ugulumu and Inanga, 2013).

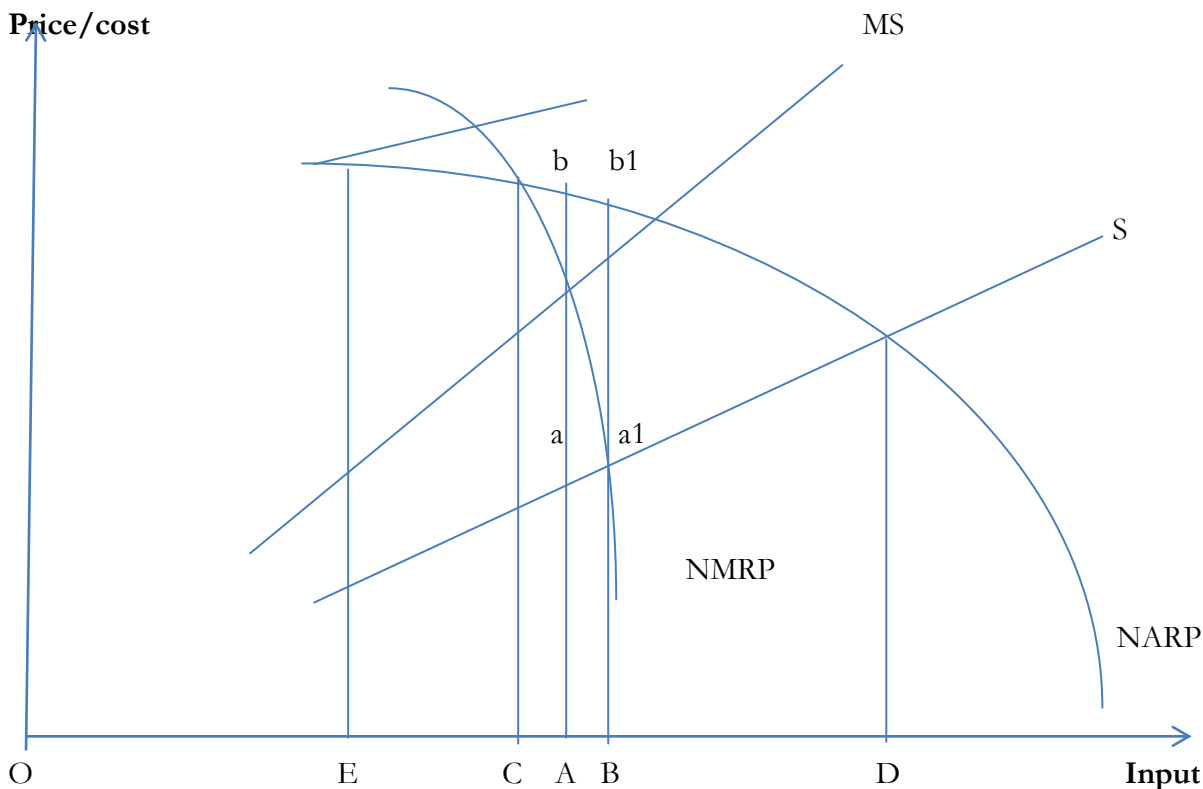
Ultimately the results of this paper would inform stakeholders and policy makers in the sunflower value chain in Tanzania about what is real needed to address in order to improve the performances of both enterprises, hence increasing the output to meet the cooking oil demand for domestic and export as well as widening employment scale to majority of Tanzanians thus ultimately boost economic development and improved welfare of the people.

### ***2.2.5 Theoretical Approach***

The theoretical approach of this study is based on the cooperative theory explained in (Harris, et al, 1996; LeVay, 1983: 1-44 ) whereby it has been clearly identified that, the key motive of formation of Agricultural cooperatives especially marketing cooperatives was to strengthen market power (bargaining power) and input-output supply chain that will ultimately create returns to the members for welfare development of rural economy; under this study I attempt to assess the performance comparison between the two enterprises; farmer's cooperatives and private owned enterprises. The idea is that, the farmer's oilseed cooperatives sector performs lower than private enterprises; this was exactly the hypothesis that has been tested and concluded right from empirical survey data presented on this paper.

Hypothetically, it is believed that, the private enterprises are performing better in terms of output and quality of products from sunflower seeds as compared to the farmer's cooperatives in Tanzania. This is also evidenced in literature as noted in the work of ( LeVay 1983:29 ) that, 'Co-operative growth has furrowed the brows of many agricultural economists who have addressed themselves to its relatively poor performance for example, the co-operative, once created, is constrained by the special interest group that undertook its organization'. According to cooperative theory portrayed by LeVay, it can be understood that, if there are good Agricultural, industrial and economic policies to regulate market price and value chain of the farmers products, then it will lead to high returns in terms of output and income to members of the cooperatives as they struggle to achieve their objectives, this will lead to ultimately improvement of their livelihoods. Figure 2 shows the effect of prices and quantities of input in the adaptation of variety of objectives in the cooperative organizations.

**Figure 2 Agricultural Marketing cooperatives theory**



**Source:** LeVay, 1983:11: *Agricultural Cooperative theory, A review*

From the above diagram (Figure 2), according to LeVay (1983);

NARP curve is the maximum price the co-operative can return to its members after covering fixed and variable costs, for the various levels of raw materials supplied.

NMRP is the marginal curve associated with NARP, the area below NARP represents the profit seeking firm's short run demand curve for the input.

S- Shows the members' supply curve of the input which is the same as AC curve of the producing firm

MS is the marginal supply curve, relevant to the determination of price and output for the profit maximizing firm at point where  $MS = NMRP$ .

In this case, if there policy application that are relevant to co-operative associations will result into outputs change A-E as follows;

Profit maximization will be realized at point A; at point B is where joint profit maximization on inputs and output or maximum producer surplus plus profit can be attained. Producers will get maximum returns per unit of their raw products at point C because average cost of producing is low. Again, membership or output maximization subject to a no loss constraint will be attained at point D and the higher dividend that a member is likely to get per unit of input will be realized at point E.

**Therefore,** only point B is consistent with Pareto Optimality (LeVay, 1983), meaning that everyone is able to enjoy the benefits of resource allocation in the cooperatives organization without making others worse off.



# CHAPTER THREE: RESEARCH METHODOLOGY

This chapter presents the source of data and identify the study area, key methodologies applied and limitations encountered during data collection.

## ***3.1 Data source and Description of study area***

Singida region is among the regions in the central corridor in Tanzania; It is located between 'longitudes 33<sup>0</sup> 27" 5' and 35<sup>0</sup> 26" east of Greenwich, and latitudes 3<sup>0</sup> 52" and 7<sup>0</sup> 34" south of the equator' (URT, 2007). The region has about '49.342 square Kilometers of land size'<sup>4</sup>. Besides, it has four districts namely Iramba, Manyoni, Singida rural and singida urban, though there are also two newly formed districts which are Ikungi and Mkalama making the total of six districts. Moreover, within the region, there are about '21 divisions, 85wards and 346 villages'<sup>5</sup>.

The population of the region according to the 2012 National census on population and housing, there was about 1,370,637 inhabitants in the region (URT, 2013). Majority of households about 179,400 engage in production of sunflower crop as their main cash crop plus other crops which are significant for income generation, the remaining 83,079 households engage in livestock production (URT, 2007). The sunflower contributes to about 86 percent of the cooking oil in the region (URT, 2007). Other cash crops grown in the region includes tobacco, cotton, finger millet, groundnuts and onions.

### ***3.1.1 Reason for choosing the region***

Therefore, this region was chosen to be the case study due to the fact that, it is the leading region for growing sunflower crop in the country. There about 68,297 metric tones of oil seeds produced annually from Singida region itself out of 238,314 tones for the Nation's total production from other regions (Ugulumu and Inanga, 2013); it is a potential region to stimulate the production of sunflower oilseeds for social economic development of the majority people; it is in this region where both sunflower oilseeds cooperatives and private enterprises are well established making easy for data accessibility. Table 1 indicates the regions producing sunflower in Tanzania whereby Singida is the leading region according to the ministry of Agriculture and cooperatives report<sup>6</sup> (2008). The data presented in the table 1 are from the period of 2000/2001 to 2004/2005. Singida region has about 67,000MT of sunflower oilseeds ranking number one in production as compared to the rest of the regions in the year 2004/2005 though the production trend is not stable as shown in the table.

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<sup>4</sup>SIDOreport (2007) available at: [http://www.sido.go.tz/UI/Singida\\_Region.aspx](http://www.sido.go.tz/UI/Singida_Region.aspx)

<sup>5</sup> Ibid

<sup>6</sup> By Enock Ugulumu (2008) Assignment: Sunflower value chain in Tanzania, Round Table Africa

**Table 1 Sunflower producing regions and their seeds production estimates (in '000 tones) in Tanzania**

S/No	Region	2000/1	2001/2	2002/3	2003/4	2004/5
1	SINGIDA	25.20	42.50	21.34	72.64	67.00
2	TABORA	-	0.63	0.15	0.74	0.89
3	TANGA	-	0.01	0.03	0.60	1.87
4	SHINYANGA	7.80	8.80	0.46	2.57	2.84
5	RUVUMA	-	0.01	0.40	1.54	1.45
6	RUKWA	32.12	26.18	6.10	49.96	21.01
7	MOROGORO	0.56	0.60	0.13	5.15	2.04
8	MWANZA	-	-	0.03	0.07	0.02
9	MBEYA	4.69	1.42	1.81	1.71	2.75
10	MARA	10.50	-	0.01	0.35	0.19
11	MANYARA	-	-	6.37	12.11	5.01
12	KILIMANJARO	-	-	3.72	2.80	0.29
13	KAGERA	-	-	0.10	0.02	0.02
14	IRINGA	-	16.30	7.30	63.48	12.21
15	DODOMA	-	0.6	6.58	34.64	16.66
16	ARUSHA	-	7.40	0.44	0.06	0.11
<b>TOTAL</b>		<b>80.87</b>	<b>104.40</b>	<b>55.04</b>	<b>247.84</b>	<b>134.36</b>

(Source: Ministry of Agriculture, Food and Cooperatives, 2008)

### ***3.2 Data collection***

A questionnaire using a psychometric scale with the same questions was employed to investigate how both small scale oil processors from Agricultural Marketing Cooperatives (AMCOS) and Private large/medium scale oil processors perceive/have knowledge about the performance gap in the sunflower value chain. Semi structured interview was applied to obtain data from the series of qualitative individual interviews. The key questions were addressed based on the incentive and reward system existing in the two enterprises, output trend and factors for performance gap within these two enterprises. The questions therefore operationalized the conceptual framework of the study by investigating the identified driving forces behind differences in the performance that results into low output of oil in the region and the Nation as well. Besides, the key factors behind the differences in performance between the two enterprises were investigated and identified during the survey. The survey involved visiting AMCOS and Oilseeds processing private enterprises in four districts namely Singida, Manyoni, Iramba and Ikungi within the region. About 11 AMCOS and 9 private enterprises were visited.

A researcher also managed to conduct some personal interviews with key players and stakeholders in the sunflower sector. These people were from the region, Research Institutes and district offices namely Regional cooperatives Officer, Regional Economist, Business Development Officer from SIDO, Senior researchers from Sokoine university of Agriculture and Ilonga Agriculture Research Institute (IARI) in Morogoro and District Agriculture, Irrigation and Cooperatives Officer (DAICO).

### ***3.2.1 Sampling size and techniques***

The main technique that was employed is purposeful sampling whereby the respondents were selected for the purpose of obtaining necessary information in a particular point or situation. Initially, a proposed sample was to interview 20 respondents in total whereby 10 from AMCOS and 10 from private enterprises, however a researcher managed to reach a total of 49 respondents from both enterprises whereby 24 respondents from 11 AMCOS and 25 respondents from 9 private enterprises. The summary of AMCOS and private enterprises visited is presented below on the table 2 a, b, 3 and 4. The sample size presented in the tables of findings in the next chapter is different because it reflects the number and position of respondents over a particular question. It has to be noted that, respondents were categorized in terms of their positions namely Managers/Directors, Workers and Suppliers in both enterprises.

### ***3.2.2 Sample distribution***

The survey covered respondents/key informants of three different levels of groups within cooperatives and private enterprises. These groups were Managers/Directors, Workers and Suppliers. The variation on the sample size in each group depended on the significant information requirements from the particular group, for example suppliers and workers were the leading groups with large sample size followed by Directors/Mangers group. Therefore, the questions were designed according to the position of the respondent in the cooperative or private enterprises; all questions were the same to obtain comparative information from both cooperatives and private enterprises.

**Table 2 Sample distribution**

#### **A: Oilseeds cooperatives (AMCOS)**

<b>Position of respondent</b>	<b>No. of respondents</b>
Chairmen/Manager	07
Workers	06
Suppliers	11
<b>TOTAL</b>	<b>24</b>

Source: Own Author's survey, July, 2015

## **B: Private oilseeds enterprises**

<b>Position of respondent</b>	<b>No. of respondents</b>
Director/Manager	07
Workers	07
Suppliers	11
<b>TOTAL</b>	<b>25</b>
<b>GRAND TOTAL (A+B)</b>	<b>49</b>

Source: Own Author's survey, July, 2015

### ***3.2.2 Limitations during data collection***

There were some limitations that were encountered by the researcher during field survey, these includes financial constraints, time and availability of respondents in the areas visited. However, a researcher used his own financial resources to ensure that the exercise is successful by getting a reasonable number of respondents from different districts. Also, in some cases only suppliers and workers were found and interviewed and even sometimes only leaders were found in the visited AMCOS/enterprise; this is due to the fact that the survey had occurred concurrently with the pressure of general political election in the country where most people were busy for political campaigns. Also, there is a problem of data record management in most of the cooperatives, private enterprises and government offices, some of the data are not well recorded and kept for future references, so it was difficult to find recorded data and hence personal interview was used as an alternative means to get the required information. Besides, interview with farmers require one to have knowledge on rural economy to interpret some of the ideas given by farmer during conversation.

**Table 3 Summary of oilseeds processing AMCOS surveyed**

S/No	Name of AMCOS	Location District	No. of respondents
1	Tumaini	Singida	3
2	Sumai	Singida	4
3	Mtinko	Singida	2
4	Mwenge	Singida	3
5	Ngimu	Singida	2
6	Mjindani	Ikungi	3
7	Mshikamano	Ikungi	1
8	Mrimi	Ikungi	1
9	kipunda	Ikungi	2
10	Maweyand	Ikungi	1
11	Mampando	Ikungi	2
<b>TOTAL</b>			<b>24</b>

Source: Own Author's survey, July, 2015

**Table 4 Summary of private oilseeds processing enterprises surveyed**

S/No	Name of an enterprise	Location district	No. of respondents
1	Super Mwarabu Oil mills	Manyoni	3
2	Ndewedo Oil mills	Manyoni	3
3	Shigani Sunflower oil millers	Iramba	4
4	Singida Fresh Oil mills	Singida	4
5	Mount Meru Millers	Singida	3
6	Kona oil mills	Singida	3
7	Singida supper quality mills	Singida	2
8	J.J.Oil mills	Singida	1
9	Mwenge Oil mills	singida	2
<b>TOTAL</b>			<b>25</b>

Source: Own Author's survey, July, 2015

### ***3.3 Descriptive analysis***

The descriptive statistics of data analysis was tested by the help of computer program commonly known as Statistics Package for Social Science (SPSS) in order to obtain results that could be interpreted in response to the research questions and to meet the intended objectives. The findings and discussion of the study are presented in the next chapter in form of descriptions, illustrations and tables. The nature of this study is the use of primary data which is obtained from series of qualitative interviews and is mostly analysed in descriptive form. Hence, it is difficult to perform any other quantitative analysis such as Regression since the data coded into database are in form of string (non numerical).

# CHAPTER FOUR: PERFORMANCE COMPARISON BETWEEN OILSEEDS PROCESSING COOPERATIVES AND PRIVATE OILSEEDS PROCESSING ENTERPRISES

This chapter presents the comparative results after descriptive analysis. Basically, the findings presented here are from the investigation on the key factors for the performance gap ; the extent to which incentive and reward system can be inherent factor for inefficient or performance difference between cooperatives and private owned enterprises in the sunflower value chain in Tanzania. Also, output trend and other general findings observed during field survey are presented. The sample size presented in the tables of findings is different because it reflects the number and position of respondents over a particular question. It has to be noted that, respondents were categorized in terms of their positions namely Managers/Directors, Workers and Suppliers in both enterprises. That is why one can not see the total sample size of 49 in the table due to being divided into categories of respondents during analysis. However, indication has been put below each table.

## ***4.1 Key factors for the performance gap between the oilseeds cooperatives and private owned enterprises***

The investigation on the key factors for the performance gap was based on the interviews with the processors from both processing enterprise in the region. The idea was to get information that could provide answers to the research questions and to test the hypothesis that, cooperatives always preform low in relation to private owned enterprises. This was found in the survey that, it is true there is a gap, in the response to the question posed “Do you think there is a performance gap between cooperatives and private enterprises? If yes, why....?” The following were the results obtained;

Table 5 show that, about 100 per cent of the interviewees at management level from the cooperatives said yes there is a gap. While table 6 shows that, about 86 per cent from private oilseeds enterprises agreed that there is a performance gap and only 14 per cent said no gap. The factors or reasons for such gap identified from the interview to be as follow;

### ***4.1.1 Capital gap***

It was found that, there exist a capital gap whereby cooperatives have shortage of capital for operations such as purchase of modern high capacity machines, investing in production of seeds and paying incentives and rewards to members. Besides, the access to financial capital such as loan from Banks is limited due to lack of collaterals and trust from banks. However, cooperatives have the potentials to increase productivity of both seeds and oils if there could be facilitation to access financial capital from bank for expanding their investment in the sunflower sector.

While in private enterprises the situation is different, private processors have enough capital to run their business including buying of seeds and having advanced processing machines. Also, they have access to financial capital from banks because they have collateral and banks trust them that they can be able to repay the loan.

## A: Oilseeds Cooperatives

**Table 5 Do you think there is performance gap?**

Response from management	Frequency	Percentage
Yes	7	100.0
No	0	0
<b>Total</b>	<b>7</b>	<b>100</b>

Source: Author's own survey, July, 2015 [7 sample size=Managers/Directors]

## B: Private oilseeds enterprises

**Table 6 Do you think there is performance gap?**

Responses from management	Frequency	Percentage
Yes	6	85.7
No	1	14.3
<b>Total</b>	<b>7</b>	<b>100.0</b>

Source: Author's own survey, July, 2015[7 sample size=Managers/Directors]

These results indicate that, the low performance of cooperatives is due to low capital and limited access to capital from banks/micro finance institutions.

### 4.1.2 Capacity of machines

It was identified from the study that, the cooperatives are having low capacity machines which leads to low output quantity and low quality as well. Example cooperatives machines have capacity to produce up to maximum of 500liters per day or below. While the capacity of private enterprises can produce up to maximum of 1000liters per day or more; also the machines are more advanced with the ability to do double refinery and produce high quality oil. Table 7 shows that, 100 per cent of the cooperatives produce maximum of 500 litters of sunflower oilseeds per day. While table 8 shows that 57 per cent of the private enterprises produce more than 1000 litters of oilseeds per day, about 27 per cent produce between 500-1000 litters per day and only 14 per cent produce 500liters per day. These findings obtained from interviews with management team constituting a total of 7 people from each enterprise [cooperatives and private enterprises].

## A: Cooperatives

**Table 7 Litters oils produced per day**

Littre's per day	Frequency	Percentage
500 liters	7	100.0
500-1000 liters	0	0
More than 1000 liters	0	0
<b>Total</b>	<b>7</b>	<b>100</b>

Source: Author's own survey, July, 2015 [7 sample size=Managers/Directors]



## B: Private enterprises

**Table 8** Litters of oils produced per day

Litters per day	Frequency	Percentage
500liters	1	14.3
500-1000 liters	2	28.6
More than 1000 liters	4	57.1
Total	7	100.0

Source: Author's own survey, July, 2015[7 sample size=Managers/Directors]

These results indicates that, private enterprises are more efficient than cooperatives in the sunflower oil processing sector in terms of quantity of output produced due to high capacity machines they own.

Sunflower Oilseeds processing Machine owned by the farmers Cooperatives (Agricultural Marketing Cooperatives)

Source: Author's own field survey, July, 2015: Singida region, Tanzania



Sunflower Oilseeds processing Machine owned by the private processing enterprise

Source: Author's own field survey, July, 2015: Singida region, Tanzania



From the picture one can see that, private enterprises machines are better and more advanced than cooperatives machines.

### 4.1.3 Market power

The study found that, there is gap in terms of market power whereby private enterprises have large market share in the sunflower processing industry because they have well established sales power, good quality oils and enough capital to meet market operations such as packaging, branding, advertising and distribution. “We produce good quality of oils, we have marketing team and enough distribution facilities to reach our customers in Tanzania, this is the reason for us to dominate the sunflower oil market” said one of the managers at Mount Meru oil mills in Singida (personal communication).

On the other hand, Cooperatives have low market power because of lack of operating capital and poor quality of oils produced, this creates a performance gap. They always suffer from private processors especially when the price of seeds is pushed up by the private processors, most of them collapse or slow production of oils. However, they have opportunity to compete if they would have enough capital and improved oil seeds quality.

### 4.1.4 Quality of sunflower oils

The survey found that, the oils produced from private is better than that produced from cooperatives, this signify that, there is a performance gap between the two enterprises. Also, the products of private enterprise are labelled and certified from Tanzania Bureau of standards (TBS) that they are qualified for human being consumption. However, it has been also observed that, producers/suppliers use recommended seeds from certification authorities such as Tanzania Official Seeds Certification [TOSC] in farming; hence, this is not a reason for poor quality of oil seeds in most cases. Table 9 shows that, about 73 per cent of the seeds producers’ interviewed agreed that, they use recommended seeds and supply from the cooperatives; only 27 per cent have no access to recommended seeds and hence they use seeds from previous season in farming activity.

While the seeds producers who supply to private enterprises also responded almost the same, table 10 shows that, about 55 per cent use recommended seeds, 27 per cent have no access to recommended seeds and only about 18 per cent does not use recommended seeds in their farming activity. The 11 sample size shown on table comprises of suppliers/oilseeds producers.

#### A: Cooperatives

**Table 9 Use of recommended seeds by National certification agency/Extension officers**

Responses	Frequency	Percentage
Yes	8	72.7
No	0	0
Not available	3	27.3
Total	11	100.0

Source: Author’s own survey, July, 2015 [11 sample size=suppliers]

## B: Private enterprises

**Table 10 Use of recommended seeds by National certification agency/Extension officers**

Responses	Frequency	Percent
No	2	18.2
Yes	6	54.5
Not available	3	27.3
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

This imply that, there is a critical challenge to the cooperatives products as they are not well packed, labelled and certified leading to poor demand in the local market, hence low sales as well as poor performance.



*A picture on the left side above shows a well packed sunflower oils from Ndededo oil mills [private enterprise]. And on the right side shows local packaging of oils from cooperative processors (Source: Author's own field survey in Singida region, July, 2015)*

### 4.1.5 Decision making process

It was found in this study that, the decision making process in the cooperatives take too long and are not efficiency; they are subjected to bureaucratic system in such a way that all members should discuss any issue thereto. This affect response to business issues such as market changes. While in private owned enterprise is fast decision in any matter as may rise concerning business.

#### **4.1.6 Business education**

The survey found that, in most of the cooperatives there is low business education. For example products are not well packed and branded. While in the private enterprises the management and workers are well educated about the business ethics and product development as well as management.

#### **4.1.7 Safety and cleanness measures**

It was found that, in most of the cooperatives processing plants there is poor management and observation to cleanness and safety during processing of oils. Oils are processed under dirty condition not recommended for oil processing ambience; storages are dirty, seeds are stored on the ground floor and packaging is done using un-cleaned facilities.

While in the private enterprises, they observe cleanness and safety as well; oils processing is done under a good condition well monitored by the technical personnel and management.

#### **4.2 The objectives of cooperatives and private owned enterprise**

Most of the respondents interviewed from the cooperatives said that, the key objectives of forming their AMCOS was to; Provide market for the oilseeds produced by the farmers because farmers will be able to have assured market from cooperative; Adding value on the crop as the seeds would be processed into oils and seed cakes thus value addition; To strengthen market power that mean bargaining power whereby they can be able to compete with other processors into the market due to increased competitiveness in terms of products and collectiveness; To enlarge the scale of income generation within the community members as a results of increased productivity.

However, these objectives seems not well achieved due to the fact that, most of the cooperatives are being faced by a lot of challenges including but not limited to shortage of seeds and low price in the market due to poor quality of oils produced, Lack of operating capital and Low capacity of their processing machines. They actually lack business skills such as packaging, branding and processing skills. *“We are not able to reach our objectives because we produce low quality oil as compared to the private processors, thus we get low price in the market”* said one of the cooperative leader from Sumai AMCOS, in Singida district (personal communication). The low quality of oil produced is not only because of poor quality seeds but also due to poor handling of seed, low technology and poor storage as well as processing environments in most of cooperatives.

While in the private enterprises, the situation is a bit different. However, the objectives seem to be similar to those of cooperatives but differ on how they are strategized within the organizations. The key objectives are; to provide market for farmers' sunflower seeds produces; to enlarge the scale of value addition within the sunflower value chain and to provide services to the customers and the community such as cooking oils and employment creation. It has been found from the survey that, the private owned enterprises are successful in meeting their objectives given their power in terms of capital, processing machines and market power in the country. One of the Directors interviewed said *“we have enough capital, our machines have high capacity to produce oils of good quality and we dominate the market local and export, so we are in a good position in business indeed”*. Shigani Sunflower oil miller, Iramba district (personal communication).

### 4.3 Incentives and reward system in cooperatives and private enterprises

#### 4.3.1 Presence of incentive and reward system

The incentives and rewards system seem to exist in most of the cooperatives enterprises; however this system is not in a written documents for record and reference purpose, it is merely a verbal kind of a policy. Besides, the system is known to workers and members/suppliers of the cooperative enterprise; this is according to response from management interviewees. Also, it acts as the key motivation to workers to work hard towards achieving the objectives of the cooperative. According to the interview conducted from cooperatives management posing three question of; do you have incentives and rewards system?; is the rewards and incentives system known to members?; are the members and suppliers motivated by the system?, most of them constituting 100 per cent of 7 people from cooperative enterprises in the management team [i.e. managers/Directors] said yes to the questions as shown on table 11, 12, and 13.

#### A: Cooperatives

Table 11 Presence of incentives and rewards system

Responses	Frequency	Percent
Yes	7	100.0
No	0	0
Total	7	100

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

Table 12 Incentives and reward policy to be known to members

Response	Frequency	Per- cent
Yes	7	100.0
No	0	0
Total	7	100

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

Table 13 Motivation due to practice of rewards and incentive system

Responses	Frequency	Percent
Yes	7	100.0
No	0	0
Total	7	100

Source: Author's own survey, July, 2015[7 sample size=managers/Directors]

These results indicate that, the presence of incentive system is among the key motivation in increasing performance to workers and members towards achievements within cooperatives enterprises that could eventually increase output of sunflower cooking oil in Tanzania. In addition to that, this is a factor that, if is well improved in its practice, could bring about increased productivity in the cooperatives.

## B: Private enterprises

The situation is a bit different in private enterprises, as shown in table 14, about 57 per cent of people interviewed based on the question that do you have reward and incentive system? Said yes and about 43 per cent said no. this indicate that, not in all private enterprises they have rewards and incentives system. Also, table 15 shows that, the same results as in table 10, the implication here is that, in some private enterprises, the rewards and incentives system is not there and not known completely to the workers and suppliers. Moreover, table 16 shows that, about 86 per cent of the private enterprises motivate their workers due to practice and transparency of rewards and incentive system while only 14 per cent are not motivated even if there is reward and incentive system in the organization. These findings were obtained through individual interviews with management team consisting of 7 people from private enterprises [i.e. managers/Directors].

**Table 14 Presence of incentives and rewards system**

Responses	Frequency	Percent
Yes	4	57.1
No	3	42.9
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

**Table 15 Incentives and reward policy to be known to workers**

Responses	Frequency	Percent
Yes	4	57.1
No	3	42.9
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

**Table 16 Motivation due to practice of rewards and incentive system**

Responses	Frequency	Percent
Yes	6	85.7
No	1	14.3
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

Despite of these findings to show more percentage in cooperatives and some variation in private enterprises, I would say that, the performance in cooperatives still lower than in the private enterprises due to other factors apart from incentive and reward system, of course the factors may includes lack of working tools, unreliable power source, poor storage facilities, capital and capacity of the machines of which were found during the survey. However, *ceteris paribus*, cooperatives are doing better as compared to private enterprises under this condition explained herein.

### 4.3.2 Salary structure criteria

In both cooperatives and private enterprises, it was found that, salary for workers is structured according to the existing economic and financial performance which is basically the business cycle that prevails at a particular season or year. In most of the private enterprises, salary is structured by the top management (Director and Board) based on the current business performance and it does not involve participatory approach as in the case of cooperatives where it is structured based on the same criteria but being under discussion, agreement and approval during general meeting of all members. In responding to the question on

how do you structure salary or reward in cooperative/enterprises? Out of 14 people interviewed from both enterprises, all 100 per cent responded that salary is structured based on the current economic and business performance of the cooperative/private enterprise [see table 17&18].

Salary was identified as among the key motivational factors for the workers to work hard towards achievement and increase performance of the organization. However, there is variation in the degree of amount of salary paid to the workers in the cooperatives and those in the private enterprises; “*we are working hard here but a salary is not encouraging [...] not enough, we wish to get more than this amount*” said one of the workers from Ngimu AMCOS in Singida district (personal communication).

#### A: Cooperatives

**Table 17 Criteria for structuring salary in cooperatives**

Response	Frequency	Percent
Current economic performance	7	100.0
Workers demand	0	0
Total	7	100

Source: Author’s own survey, July, 2015 [7 sample size=managers/Directors]

#### B: Private enterprise

**Table 18 Criteria for structuring salary in private enterprises**

Response	Frequency	Percent
Current economic and financial performance	7	100.0
Workers demand	0	0
Total	7	100

Source: Author’s own survey, July, 2015 [7 sample size=managers/Directors]

These results indicate that, wherever there is poor business performance of the cooperative or company, the salary paid is also affected negatively and vice versa.

### 4.3.3 Job position placement

The study found that, in most of cooperatives enterprises, job placement is done by election among members. Table 19 shows that, about 86 per cent of the people interviewed agreed that job placement is done by election among members and only 14 per cent said they hire external experts to work in processing. These findings indicate that, in the cooperatives the placement or filling of job vacancies is done by election from among members and some times expert/skilled personal are hired to operate the processing machines. Therefore, this does not negatively affect the performance in terms of operation but other factors such as shortage of raw materials and lack of reliable power source to run the machines are the major limiting factors for the good performance of most cooperatives. On the other hand, this create the sense of trust and social inclusion among the members of the cooperatives as they feel valued with their cooperatives management regarding their education, skills and experience they have. In addition to that, it lowers the costs of hiring external expert outside the cooperative organization.

While in most of the private owned enterprises, vacancies are filled by hiring external skilled people and the decision are based on the own management. In response to the question on how do you fill positions in your organization? Table 20 shows that about 71 per cent of the interviewees said job placement is done by hiring external experts and bout 29 per cent said they take their own decision meaning that, the owner is the worker and a manager at the same time in some of the processing enterprises.



## A: Cooperatives

**Table 19 Job placement in cooperatives enterprises**

Variables	Frequency	Percent
Election among members	6	85.7
Own decision	0	0
Hiring external	1	14.3
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

## B: Private enterprises

**Table 20 Job placement in private enterprises**

Variables	Frequency	Percent
Hiring external	5	71.4
Election among members	0	0
Own decision	2	28.6
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

These results indicate that, due to having more qualified experts to run the machines and operations of the private enterprises, their performance is higher than that of cooperatives.

### 4.3.4 Distribution of incentives and shares/benefits among members/workers

Table 21 shows that, about 71 per cent of people from cooperatives said that the shares are distributed equally at the end of the season; only 14 per cent said they receive according to member's shares and 14 per cent said are paid at the end of the season. Something interesting is that, the distribution of incentives and benefits was seen to be among the factors that boost the working spirit of members or workers and hence increases production which automatically performance within the cooperative; Just because there is equal distribution of benefits from the little profit obtained in business.

In other hand, most of the private enterprises are family owned business where there is no formal organization structure such as board of directors, etc. in this regard, there is no share investment from any member outside family. The profit obtained is shared among family members who own the business, and this profit is what they term it as the dividends. Table 22 shows that, about 86 per cent responded that they distribute dividends at the end of year and only 14 per cent said they distribute equally the profit obtained from business.

## A: Cooperatives

**Table 21 how shares or incentives are distributed**

Response	Frequency	Percent
Equally	5	71.4
According to members share	1	14.3
Dividends at the end	1	14.3
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

## B: Private enterprises

Table 22 how shares or incentives are distributed

Response	Frequency	Percent
Equally	1	14.3
According to members share	0	0
Dividends at the end	6	85.7
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=managers/Directors]

These results tell us that, cooperatives are doing better in term of distribution of benefits [shares] than in the private enterprises. Cooperatives consider the element of equality while in private enterprises is less considered [see also cross tabulation in the Annex 4]

### 4.3.5 Working and seeds supplying benefits

The majority of the people interviewed from private enterprise said that, the common benefits that they receive as a results of being employed to work in the processing of sunflower oils are salary which is income for them; good relationship with their employer that enable them to create social network/capital; more business skills and experience. *"I am happy because being employed here I get salary that is enabling me to run my own life and family as well[...]I can buy food, cloth and paying school fees for my children, this is an incentive to me"* said one of the employees at Singida Fresh oil mill, in Singida district (personal communication).

Those working in the cooperatives have the benefits apart from salary, these are; sense of social recognition, sense of ownership of property, inputs for farming activity, trainings and improving skills.

Supplying in the cooperatives helps to get Agricultural inputs such as seeds for farming, dividends and good price of produces. Also sometimes the management facilitates them to easily get inputs such as seeds for farming. Table 23(a) shows that about 46 per cent of the people responded that the get benefits of dividends at the end of the season, 36 per cent said they get good price and 9 per cent said they get inputs for farming, dividends and good price of their produces. Besides, table 23(b) shows that, about 64 per cent of people agreed that the cooperative management helps to get seeds for their farming activities and only 36 per cent disagreed.

## A: Cooperatives

Table 23(a) what are incentives do you get from being a supplier

Response	Frequency	Percent
Dividends at the end	5	45.5
Inputs for farming	1	9.1
Good price of produces	4	36.4
All of above	1	9.1
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

**Table 23b is the management helps to get easily agricultural inputs such as seeds?**

Response	Frequency	Percent
yes	7	63.6
No	4	36.4
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

### **B: Private enterprises**

The study found that, about 100 per cent of the suppliers of seeds [see table 24(a)] to private enterprises get good price for their seeds. However, the issue of facilitating to get inputs such as seeds for farming remain an issue of responsible to farmers/suppliers. Table 24(b) show that, about 55 per cent of the suppliers said they are solely responsible for finding their own input for production of seeds and 45 per cent said they get support from the management. This distinguishes from the cooperatives role of boosting production of seeds as it support its suppliers for inputs to some extent.

**Table 24(a) what are incentives do you get from being a supplier**

Response	Frequency	Percent
Good price	11	100.0
Input for farming	0	0
Dividends at the end	0	0
All of the above	0	0
Total	11	100

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

**Table 24b is the management helps to get easily agricultural inputs such as seeds?**

Response	Frequency	Percent
yes	5	45.5
No	6	54.5
Total	11	100.0

Source: Author's own survey, July, 2015 2015 [11 sample size=suppliers]

This means that, these benefits are within the incentive and reward system of which helps to motivate the workers and suppliers towards increasing productivity of sunflower oil in Tanzania.

### **4.3.6 Salary as a motivation factor**

Table 25 shows that, most of the workers constituting about 67 per cent are not motivated with the salary they get from their employers while about 33 per cent said are motivated. This was actually realized on the side of cooperatives where most of the workers were saying they are not happy with the salary they get, and of course they said the reason is the poor processing which result into low output and ultimately low sales thus low profit. These results are not promising in terms of improving economic welfare of majority workers in cooperative enterprises, the group of people constituting 67 per cent is not something to ignore in planning and implementing development policies for the betterment of the sector.

## A: Cooperatives

Table 25 is the salary paid motivates?

Response	Frequency	Percent
yes	2	33.3
No	4	66.7
Total	6	100.0

Source: Author's own survey, July, 2015 [6 sample size=workers]

## B: Private enterprises

While in the private enterprise mostly said they are happy although they claimed to get more than what they get at the present time due to the fact they produce high quantity of good quality oils and the business is good. Table 26 shows that, about 71 per cent responded "yes" to the question posed and about 29 per cent said "no". However, there are still minor people working in the private enterprises as compared to the cooperatives enterprises where majority are employed in production and processing of seeds and oils.

Table 26 is the salary paid motivates?

Response	Frequency	Percent
yes	5	71.4
No	2	28.6
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=workers]

These results indicate that, private sector is doing better in terms of performance in the business that's why it pays well her workers as compared to cooperatives[see also cross tabulation in the Annex 3].

### 4.3.7 Key challenges at work

Table 27 above shows that, out of six people interviewed from working class in cooperatives, about 83 per cent said the most key challenge they get is unreliable power source, about 17 per cent said shortage of raw materials affecting their working schedule.

On the other side of private enterprises, the study found that about 43 per cent of the enterprises facing the challenge of unreliable power source, 29 per cent being facing the challenge of shortage of raw materials and 28 per cent said they face challenge of shortage of raw materials and power source is poor[see table 28]. However, the private enterprises are mostly situated in urban areas and they have alternative source whereby they use generators as power source once national electricity is off.

## A: Cooperatives

Table 27 Working challenges

challenges	Frequency	Percent
No reliable power source	5	83.3
Shortage of raw material	1	16.7
All of the above	0	0
Total	6	100.0

Source: Author's own survey, July, 2015 [6 sample size=workers]

## B: Private enterprises

**Table 28 Working challenges**

challenges	Frequency	Percent
No reliable power source	3	42.9
Shortage of raw materials	2	28.6
All of the above	2	28.6
Total	7	100.0

Source: Author's own survey, July, 2015 [7 sample size=workers]

This indicates that, lack of reliable power source is the most common challenge at work in most of the cooperatives processing enterprises in the region which are allocated in the villages and also they are not able to afford to use an alternative means such as generators due to lack of operating capital.

### 4.3.8 Access to education/trainings

The study found that, most of the agribusiness trainings and extension services in cooperatives are provided by the private sector and Non Governmental Organizations (NGO's) which are doing project interventions in the sunflower value chain in Tanzania. In addition to that, the management in cooperative enterprises facilitates their workers and suppliers to get business trainings to improve their working and farming knowledge and skills. Table 29(a) shows that about 64 percent of the people interviewed said that, they receive trainings from NGO's while about 36 per cent said they receive from government.

Besides, table 29(b) shows that about 64 per cent of the farmers/suppliers agreed that the management help them to get more business trainings which are given mostly by private sector and NGOs in the region, and only 36 per cent said management does not facilitate anything as far as business training.

The personal interview conducted with DAICO of Singida district revealed that, there is serious shortage of extension officers and working facilities such as motor vehicles and cars to the available Extension officers. He argued that, the current situation in the district is not promising in terms of delivering education to farmers, due to the fact that, the ratio of extension officers and farmers to be reached is imbalance. For example, normally one extension officer should be able to reach only 600 farmers in one village, but currently one extension officer is available in one ward having 22 villages, that means he/she has to reach more than 600 farmers!. This leads to inefficiency of performance in terms of education delivery and of course inefficiency to sunflower producers.

## A: Cooperatives

**Table 29a Source of extension services**

Source of extension service	Frequency	Percent
From government	4	36.4
From private company/NGO	7	63.6
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

**Table 29b Management facilitation for Agribusiness training**

Response	Frequency	Percent
yes	7	63.6
No	4	36.4
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

### B: Private enterprises

While in the private enterprises, table 30 (a) shows that, about 64 per cent of the people said they receive extension services from NGOs and private sector and about 36 per cent said they receive from government extension officers. On the other hand, the management in these enterprises does not facilitate their workers and suppliers to get Agribusiness training [see table 30(b)] showing that, about 64 per cent said the management does not facilitate training and about 36 per cent agreed that management do facilitate trainings.

These indicate that, the potential of private enterprises in facilitating the production through Agribusiness training facilitation if poor as compared to the cooperatives.

**Table 30a Source of extension services**

Source of extension service	Frequency	Percent
From government	4	36.4
From private/NGO	7	63.6
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

**Table 30b Management facilitation for Agribusiness training**

Response	Frequency	Percent
yes	4	36.4
No	7	63.6
Total	11	100.0

Source: Author's own survey, July, 2015[11 sample size=suppliers]

These results indicates that, the involvement of government in provision of trainings is still low in the sunflower sector leading to poor performance of production of both seeds and oils; of course most people claimed that, this is not good thing for the improving productivity of the crop in the country. *"we do not even know if there is any government extension officer here because we have never ever seen to come and give us trainings on good agriculture practice, we only see some trainers from NGO's"* said one of the sunflower farmer of Kipunda AMCOS in Ikungi district (personal communication)

### 4.4 Input availability

The availability of Agricultural inputs such as seeds in the sector is a critical problem. This study found that, the management in cooperative processing enterprises does not provide enough quantity of inputs such as seeds to the suppliers/farmers ,which means they oblige to buy from another source or some time due to lack of capital they use the pervious season seeds. Table 31 shows that, most of the farmers constituting about 64 per cent said that, they do not get enough inputs from management, hence they buy from other source so that to meet their requirements in the farming season. While only about 36 per cent said they receive enough quantity of inputs from management for their farming activities.

## A: Cooperatives

**Table 31** does the management provides enough quantity of agriculture inputs?

Response	Frequency	Percent
Enough quantity of input	4	36.4
Not enough	7	63.6
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]



Few Sunflower oilseeds from harvest stored on the ground floor, this is poor handling of oilseeds in most of the AMCOS [Source: Field survey Singida, 2015]

## B: Private enterprises

While in the private enterprises, a group of suppliers constituting about 82 per cent said they do not get enough inputs from management and about 18 per cent they get enough inputs [see table 32]. This indicates that there is a problem of inputs availability to most of producers of sunflower seeds in the region and Tanzania in general.

**Table 32** does the management provides enough quantity of agriculture inputs?

Response	Frequency	Percent
Enough quantity of input	2	18.2
Not enough	9	81.8
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

This indicates that, the majority of seed producers who are the basic and foundation of the sunflower oil processing industry still facing problem of availability of recommended modern seeds from Seed agency

authorities such as Tanzania Official Seeds Certification [TOSC], this lead to low production of seeds and oils as well.



Sunflower oilseeds stored in a good warehouse at the Private enterprise [Source: Field survey in Singida, 2015]

#### **4.5 Access to market information**

The study found from the cooperative that, there is no serious problem for the producers and processors in access to market information in the sunflower value chain. Following the introduction of modern technology of communication such as use of mobile phone, most of people are having mobile phone which do facilitate in communication, hence, the price information are easily reached to the farmers and oil producers. Table 33 shows that, about 91 percent of the people said that, they get market information through mobile phone communication; only 9 percent said they have no access to market information.

##### **A: Cooperative**

**Table 33** how you get market information

Means of access	Frequency	Percent
Mobile phones	10	90.9
No access to information	1	9.1
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

##### **B: Private enterprises**

While in the private enterprises, most of the people 100 per cent of the said the use mobile phone to access market information such as price of seeds and oils processed, distribution demand and other logistics in the marketing chain [see table 34]



**Table 34 how you get market information**

Means of access	Frequency	Percent
Mobile phones	11	100.0
No access to information	0	0
Total	11	100

Source: Author's own survey, July, 2015[11 sample size=suppliers]

These results indicate that, mobile phone technology has played significance role in boosting the accessibility of market information to sunflower producers in the region and country as well.

#### **4.6 Other incentives paid to workers**

##### **A: Cooperatives**

Table 35 shows that, about 83 per cent of the people responded “no” to the question that was posed about extra benefits from cooperatives, and about 17 per cent said yes they get extra benefits in most cases bonus of seed cakes after processing of oils. Though during personal interview with some of members, they said that, there are other social benefits that they actually get, such as feeling the sense of social inclusion, respect and valued. Also, participation in decision making make them feel they are part of the cooperatives administration.

**Table 35 “are you paid other incentives such as cars and bonus?”**

Response	Frequency	Percent
Yes	1	16.7
No	5	83.3
Total	6	100.0

Source: Author's own survey, July, 2015[6 sample size=workers]

##### **B: Private enterprises**

While in the private enterprises, about 71 per cent of respondents said the do not receive any extra or other benefits from management and about 29 per cent receive other benefits in most cases these other benefits are salary bonus[see table 36].

**Table 36 “are you paid other incentives such as cars and bonus?”**

Response	Frequency	Percent
Yes	2	28.6
No	5	71.4
Total	7	100.0

Source: Author's own survey, July, 2015[7 sample size=workers]

These results indicate that, there are no any other incentives paid to the workers in both enterprises.

#### 4.7 Significant of cooperatives in the sunflower farming and oil sector

Table 37 Occupational of parents in both Cooperatives and Private enterprises

Occupation	Frequency	Percent
Farmers	11	100.0
Non farmers	0	0
Total	11	100

Source: Author's own survey, July, 2015[11 sample size=suppliers]

The survey found that, the cooperatives are significant since they constitute a large number of suppliers being employed in the production of seeds in sunflower value chain. This was realized during interviewing about the occupation status of the respondents from both enterprises whereby the response was all are farmers engaging in sunflower farming and processing. Table 37 shows that, all 100 per cent of the respondents who are supplier/members said they are farmers. They said Agriculture is the back born of their lives and cooperatives is the only means they can sustain their farming activity due to common ownership of resources and possible access to finance where is deemed necessary. This help them to engage in production of sunflower seeds though are faced by various challenges such as price fluctuation, poor farming technology, access to inputs and capital, access to education and storage facilities(Field interview,2015). Besides, the significant of Agricultural marketing cooperatives (AMCOS) is justified in various agricultural researches done in Agriculture sector of Tanzania. It is noted that, about 50 per cent of GDP is from Agriculture sector and 60 per cent of the foreign currency are from Agriculture exports; also Agriculture sector employ about 80 per cent of the population in Tanzania<sup>7</sup> majority of them living in rural areas. These populations in most cases are the ones engaging in farming activities through AMCOS. Besides, speaking during personal interview, a Regional Economist of Singida region said “majority of farmers living in rural areas engage in sunflower production and they are in cooperatives, the crop contribute to about 80 percent of the region’s revenue” [personal communication]. This remarks the potential of cooperatives and hence they are not supposed to be left behind in the value chain, more emphasis to be on the sunflower seeds (raw materials) production segment.

#### 4.8 Other conditions for the cooperatives (AMCOS) that can be both efficient and bring about positive social economic impact

##### 4.8.1 Agricultural Marketing Cooperatives oils processors

The study found that, there other condition that can be both efficient in cooperatives and bring about positive social economic impact to the majority of sunflower producers in Singida region and Tanzania as well. Actually, conditions here are referred to as those good environments that can lead to efficient in the cooperatives and also could accelerate positive social economic impact to the majority of farmers/producers in the sunflower value chain. These were found during personal interviews with different key informants from government, cooperatives and private sectors. The following were revealed;

Subsidies to the Agricultural marketing cooperatives (AMCOS), the subsidies on agriculture input such as improved seeds, tractors and processing machines will reduce costs of production and boost productivity of both seeds and oils

Regulation of business relationship especially focusing on Contract farming system where farmers are assured of the market for their produces

Facilitation of access to capital from micro financial institutions and banks

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<sup>7</sup> By Enock Ugulumu (2008) Assignment: Sunflower value chain in Tanzania, Round Table Africa

Employing more extension officers, this will facilitate spreading of education and technical know to most of the sunflower producers, hence increased productivity through good Agricultural practices.

Putting emphasis on more researches in the development of quality seeds and their impact on the output as well as to consumers

Improving sunflower seeds warehouses storage in the cooperatives

#### 4.8.2 Private oilseeds processors

On the side of private enterprise, it was found that, reduction or removal of unnecessary taxes such as rent tax, distribution tax, storage taxes, etc. would reduce operating expenses and hence can be a motivation factor for increasing revenue from business. Thus it can trigger more expansion of investment and hence create more demand for raw material from sunflower producers which in return generate market for sunflower seeds from producers.

#### 4.9 Output and cost per input trend

Table 39 and 40 shows the trend of output in relation to the cost of inputs (seeds bag) from both AMCOS and private processors for six months consecutively in the year, 2014 as obtained during the field survey in Manyoni and Singida districts of Singida region, Tanzania. Table 39 indicates that, the price of seed bags (inputs) tend to be stable from June to September and then rise significantly during October through November from Tsh.50,000/= to Tsh.85,000/= per one bag of seeds, the reason is that, this is the period where there is great shortage of sunflower seeds and high demand for seeds from processors. It is high price because by that time it is the post harvest period where most farmers have already harvested the crop and most sold to processors; it is at this time where processors also increase the price of sunflower oils due to high demand in the market and additional costs as a result of input cost to rise. However, other suppliers tend to store and wait to release at this time in order to fetch high price. Also, output trend is constant given the available number of machines and capacity to produce oils per day in average.

##### A: Private enterprise

**Table 38 Output and cost per input trend (June-November, 2014)**

MONTH	QTY OF INPUT/DAY(BAGS)	COST OF INPUT/BAG	OUTPUT/BAG(in LITERS)	No of machines	Average days/month	Total costs per moth	total Output per month
June	30	50000	20	4	20	1500000	48000
July	30	50000	20	4	20	1500000	48000
August	30	50000	20	4	20	1500000	48000
September	30	50000	20	4	20	1500000	48000
October	30	70000	20	4	20	2100000	48000
November	30	85000	20	4	20	2550000	48000
<b>TOTAL</b>	<b>180</b>	<b>355000</b>	<b>120</b>	<b>4</b>	<b>120</b>	<b>10650000</b>	<b>288,000</b>

Source: Super Mwarabu oil mills, Manyoni-Singida, Tanzania (Field survey, 2015)

Table 40 shows the output and cost per input trend from cooperative side, whereby it indicate the same movement of price of inputs but rises less significant from October to November from Tsh. 50,000/= to

Tsh.70, 000/= per one seeds bag. This is because most of the members sell their seed bags to cooperatives at an agreed price by all members, and they usually consider their financial status (capital available to purchase the seeds). There are regulations that every member should bring his/her produces to the cooperative machine for processing oil. Besides, output trend is constant given the available number of machine and the average days for processing oils during a month.

## B: Cooperatives

**Table 39 Output and cost per input trend (June-November, 2014)**

MONTH	QTY OF INPUT/DAY(BAGS)	COST OF INPUT/BAG	OUTPUT/BAG(in LITERS)	No of machines	Average days/month	Total costs per moth	total Output per month
June	20	50000	20	1	15	1000000	6000
July	20	50000	20	1	15	1000000	6000
August	20	50000	20	1	15	1000000	6000
September	20	50000	20	1	15	1000000	6000
October	20	60000	20	1	15	1200000	6000
November	20	70000	20	1	15	1400000	6000
<b>TOTAL</b>	<b>120</b>	<b>330000</b>	<b>120</b>	<b>1</b>	<b>90</b>	<b>6600,000</b>	<b>36,000</b>

Source: Sumai AMCOS-Singida, Tanzania(Field survey, 2015)

Comparing the output trend between cooperatives and private enterprises, one can see that, private processors perform better than cooperatives in terms of output. Example private processor with one machine can produce at least 600 liters per day which is equal to 12,000littere per month; if there are four machines as indicated in Table 39, he/she can produce to at least 48,000 liters per month.

While in the cooperatives, they can manage to produce at least 400litters per day which is equal to 6,000liters of oils per month given one machine they own. It was observed that, the machines owned by cooperative have low capacity as compared to those owned by private enterprises. Moreover, private enterprises can be a good source of good market for producers of sunflower seeds because the price seems to be better than that of cooperatives. Thus cooperatives could be beneficiaries of market for the seeds they produce instead of processing oils, and hence perform better in terms of seeds production which ultimately improve their livelihoods due to substantial income generated from production of sunflower seeds and selling to the private buyers/processors.



A sunflower processing plant machine owned by private enterprise in Singida region of Tanzania, it has capacity to produce at least 600 liters per day [Source: Field survey, July, 2015]

#### ***4.10 Level of commitment in business***

##### **A: Cooperatives**

Cooperatives seems to have good commitment in business, other things remain constant, they are said to be better with performance in business due to high commitment of both leaders and members. Table 41 shows that, about 82 per cent of interviewees who are suppliers/members said there is high commitment in business for both leaders and members, while only about 18 per cent they said there no or low commitment for both members and leaders in business operations leading to poor performance.

**Table 40 Commitment of leaders and members**

<b>Commitment level</b>	<b>Frequency</b>	<b>Per- cent</b>
High commitment to both leaders and members	9	81.8
No or low commitment to both parties	2	18.2
<b>Total</b>	<b>11</b>	<b>100.0</b>

Source: Author's own survey, July, 2015[11 sample size=suppliers]

## B: Private enterprises

In the case of private enterprises, also there exist the same observations in term of commitment level. It was found that, there is high commitment to both leaders and workers in business operations leading to high performance in business, *ceteris paribus*. Table 42 shows that, about 91 per cent of respondents said there is high commitment for both management and workers while only 9 per cent said there is no or low commitment.

**Table 41 Commitment of leaders and members**

Commitment level	Frequen- cy	Per- cent
High commitment to both leaders and members	10	90.9
No or low commitment to both parties	1	9.1
Total	11	100.0

Source: Author's own survey, July, 2015 [11 sample size=suppliers]

These results indicate that, there is high commitment of business management in both enterprises.

Generally, the results discussed in the previous sections indicate that, private enterprises perform better than cooperatives in sunflower oils processing industry within the sunflower value chain in Tanzania.

## CHAPTER FIVE: CONCLUSION

Therefore, this paper has assessed the comparative performance between sunflower oilseeds processing cooperatives and private oilseeds processing enterprise in the sunflower value chain using both secondary and primary survey data from Singida region in Tanzania. In overall findings presented in this paper, I accept the tested hypothesis that, cooperatives perform low as compared to private enterprises; I would therefore conclude that, they are inherent inefficient and perform low as compared to private enterprises. Moreover, I therefore disprove the theory of Agricultural marketing cooperative explained in (Harris, et al, 1996; LeVay, 1983: 1-44) due to the fact that, oilseeds processing cooperatives in the sunflower value chain in Tanzania are found to be inherently inefficient. Hence, they are not in the position to reach the optimal point of profit maximization that members could enjoy the benefits of surplus and returns from their investment in processing of oils. However, the study found that, there are other conditions such as Subsidies to the Agricultural marketing cooperatives (AMCOS), improvement of storage facilities, facilitation of access to financial capital from micro finance institutions/banks and Regulation of business relationship that can be both efficient in production of sunflower seeds/oils and can bring about social economic impact only if they are well implemented in the sunflower oil processing sector.

Moreover, the study found that, there is differential gap in performance between cooperatives and private enterprises due to various factors such as capital ownership and accessibility, quality of oilseeds produced, capacity of the machines and business education level. Besides, the incentive and reward system also found to be practiced less efficient in the cooperatives as compared to the private enterprises. Though to some extent, cooperatives are doing better in the resource allocation such as distribution of shares as part of reward and incentive system. Example members are motivated because they can easily be facilitated to get Agricultural inputs such as seeds, feeling sense of ownership and respect, get employed within the cooperative and assurance of getting dividends at the end of the processing season.

Besides, this study reveals that, local private oilseeds processing enterprises are the good source of market for sunflower seeds since they have enough capital and strong market power as compared to cooperatives. Thus, this paper suggests that, instead of the AMCOS to venture and concentrate into oilseeds processing, they could concentrate on production chain by being sunflower seeds [raw materials] producer's cooperatives in the sunflower value chain instead of oils processing. This is because the market is available from private enterprises having enough capital and advanced technology in processing of oils. This paper assert that, *Ceteris paribus*, the regulation of business relationship between seeds producers [farmers] and buyers [private processors] will increase productivity of both seeds and oils in the country and bring about social economic development to the majority of sunflower oilseeds producers in Tanzania. Also, the increased production of sunflower seeds and oils will lead to achieving both self sufficiency and food security in the country. Private sector in the sunflower sector is seen as a hub for improving the sector and welfare of oilseeds producers if there is clear, good and regulated business regulations as well as good business environments which may include emphasis on contract farming system; expansion of Agro processing industrial base that would assure market for the farmers produces; reducing or removal of unnecessary taxes imposed to private processors could motivate them to expand their investment and increase market for the sunflower products, hence income generation to the sunflower oilseeds producers.

## **CHAPTER SIX: RECOMMENDATIONS**

This section presents some critical recommendations to policy makers, stakeholders, actors and the Government of the United Republic of Tanzania for improving the sunflower oils processing sector within the sunflower value chain. The following recommendations are based on what was discussed in the previous chapters. Should the recommendations be implemented, then Tanzania will be better placed to achieve self sufficiency in cooking oils and in the realm of food security as whole. Complementary, social economic development will be possible due to sunflower producers/processors being able to increase their revenues.

### ***6.1 General recommendations***

Facilitate easier access to financial capital for farmers, ideally from both micro financial institutions and banks. Doing so, will help to increase the productivity of both seeds and oils in the region and hence lead to income generation that ultimately contributes to reducing poverty in the region.

Putting emphasis on implementing the construction of Agro processing oil industries in the leading sunflower production regions such as Singida, Dodoma and Morogoro

Improving seeds quality through the implementation of an effective Quality Declared Seeds (QDS) system that will be effective at making the improved variety seeds available to the farmers in the regions

Employing more government extension officers and capacitate them with working tools in order to be able reach the farmers/sunflower growers in the region

Improving and creating Farmer field Schools will improve the dissemination of information on proper Agronomic practices and Agribusiness education to many farmers in the region

Coordination of Agricultural input suppliers in order to satisfy the needs of the farmers for the various materials. The dealers must also be monitored to curb unscrupulous activities such as weight tampering, adulterated products, poor quality items and price fixing. This will ensure greater regularity in the availability of fairly priced inputs

### ***6.2 Recommendations for supporting Cooperatives***

Improving the storage facilities of sunflower seeds in the processing enterprises especially for cooperatives; this will help to mitigate the unnecessary contamination of the oils produced

Close monitoring and evaluation of AMCOS and Private enterprises, this will help to ensure that, they have clearly, implemented and well documented incentive and reward systems within their organizations

Contract farming will help to reduce exploitation of farmers produces and will ensure market in the region

Increasing subsidies on the Agricultural inputs and oils processing machines, such inputs are tractors, seeds and fertilizers. This will help to expand production due to being affordable for most producers and processors of sunflower seeds and oils.

### ***6.3 Recommendations for supporting private enterprises***

Reduce the importation of cooking oils in order to create and increase the market for the home produced sunflower oils

Improving infrastructure particularly with regards to the supply of electricity would work toward the overall reduction in the costs of production, as greater efficiencies lead to reduced costs.



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## Appendix 1 Questionnaire

### QUESTIONNAIRE FOR SUNFLOWER OILSEED PROCESSORS

#### Part 1 OILSEEDS PROCESSING COOPERATIVES

#### Section "A"

#### Questions for chairmen/manager

Dear respondent,

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

#### **Socio economic characteristics of respondent**

**Name of respondent:**.....**Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male (b) Female **Location of cooperative:**.....

**Name of cooperative** .....

**Position of respondent** .....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift **Family size** (a) 2people (b) more than 2 people (c) 1person

**Occupation of parents** (a) Farmers (b) Non farmers

1. Could you please tell me the main objectives in your cooperative? (Mention three)

a.....

b.....

c.....

2. Do you have reward and incentive policy in organization?

(a) Yes (b) No

3. Is the rewards and incentive policy known to the workers/ members?

a) Yes b) No

4. Do you think the rewards and incentive system in your organization motivates workers/members to work towards achievements? (a) yes (b) No

5. Please rate the importance of the following criteria as qualification for an award of incentive and rewards to members/workers:

	Not at all Important	Average Importance	Extremely Important
Outstanding performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Focus on innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consistently doing a good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exceeding performance objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achieving cost savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exceeding service expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrated teamwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding customer service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How do you structure your salary or rewards in cooperative?

- a) Member's demand
- b) Current economic and financial performance of cooperative

7. How many people work in the oil processing section?

- (a) 1 (b) 2 (c) More than 2

8. How do you fill positions in your cooperative?

- a. Election among members
- b. Hiring external based on educational skills and experience
- c. Nomination

9. How do you distribute your cooperative share and incentives from sales among members?

- a) Equal distribution (b) According to member's amount of share (c) According to profit obtained (d) dividend at the end of season or year

10. Does the current structure of your organization allow you to perform efficiently and achieve your desired outcomes?

- (a) No (b) yes (c) need change

11. How do you get access to market information for your produces?

- a. Mobile phone
- b. Media eg. TV, news papers and radio
- c. Personal information
- d. No access

12. How many liters of oil do you process per day?

- a. 500 liters
- b. between 500 and 1000litres
- c. more than 1000litres
- d. less than 500litres
- e. less than 500litres

13. Do you process everyday?

- (a) Yes (b) No (c) when we have seeds

14. Do you receive any business or financial management training from the NGOs or government?

- a. Yes, we receive from government
- b. Ye , we receive from NGOs

c. No any training

15. Do you have training program in your cooperative for improving employees' and members' business skills?  
 (a) No (b) yes

16. Do you think there is a performance gap between cooperatives and private enterprises in oil processing?  
 (a) Yes (b) No

If yes, why?.....  
 .....  
 .....

**“THANK YOU for your cooperation”**

**Section “B”**

**1. Questions for workers of a cooperative**

*Dear respondent,*

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

***Socio economic characteristics of respondent***

**Name of respondent:**..... **Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male  
 (b) Female **Location of cooperative:**.....

**Name of cooperative** .....

**Position of respondent**.....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size(if any)** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift

**Family size** (a) 2people (b) more than 2 people (c) 1person

**To which managerial level do you belong?** (a) Entry level (b)Junior level (c) Middle level (d) Senior Management level

1. Could you please tell me, what are the benefits of you to work in this cooperative?  
 .....  
 .....

2. What are the challenges for working at this cooperative?
  - a. No enough working tools
  - b. No reliable power source to run the machine
  - c. Shortage of inputs (Seeds)
  - d. No enough storage facilities
  - e. All of the above
3. Are you aware of the incentives and rewards system in the organization? a) Yes (b) no
4. Are you paid according to the job position, skills, experience, education or productivity?
  - a) Job position (b) skills (c) Experience (d) Education (e) Productivity
5. Is the salary paid by the cooperative management motivates you to continue working hard?
  - a. Yes b. No
6. Is the cooperative offers other incentives such as cars and bonus for you to continue working?
  - a. Yes b. No c. I work because I have no alternative job
7. Is the cooperative management supports you in your farming activities if any?
  - (a) Yes b. No (c) I have no farming activity
8. Do you get any extra benefits such as health insurance apart from basic salary?
  - a. Yes b. No
9. Do you feel comfortable with the working environment of this cooperative?
  - a. Yes b. No
10. Does the cooperative management facilitate any extra training for you to improve your work performance?
  - a. Yes b. No
11. How would you rate your overall satisfaction with the current rewards and incentive programs offered by the organization?
  - a. Very Satisfied b. Neither satisfied nor dissatisfied c. Not Satisfied
12. Do you work everyday or some days per week?
  - a) Some days when we have seeds (b) Everyday when we have seeds (c) less than three days per week because of shortage of seeds

***“THANK YOU for your cooperation”***

**Section C.**

**2. Questions for suppliers** [*suppliers in this section are considered to be members of cooperative*]

*Dear respondent,*

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

**Socio economic characteristics of respondent**

**Name of respondent:**.....**Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male (b) Female **Location of cooperative:**.....

**Name of cooperative** .....

**Position of respondent** .....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift

**Family size** (a) 2people (b) more than 2 people (c) 1person

**Occupation of parents** (a) Farmers (b) Non farmers

1. Could you please tell me why do you supply to this cooperative?
  - a. I am a member b. It is near from my farm c. No alternative market
2. What are the incentives do you get from being a cooperative supplier?
  - a. Dividends at the end of season/year b. Inputs for farming c. good price for produces d. All of the above
3. Is the cooperative helps you to easily get agricultural inputs for your production?
  - a. Yes b. No
4. What are the mechanisms used by the cooperative management to deliver Agricultural inputs to you?
  - a. On loan (credit input system) b. Free delivery to members c. Cash payment
5. Does the cooperative provide enough quantity of agricultural inputs for your sunflower farming activity?
  - a. Enough quantity of input b. Not enough, I oblige to buy outside
6. Do you use modern recommended seeds variety for farming activity?
  - a. No b. yes c. not available
7. Do you sell your seeds on cash or on loan to cooperative?
  - a. On cash bases b. On loan bases c. On exchange for Agricultural inputs
8. Is the cooperative management facilitates to get any Agribusiness or farming training?
  - a. Yes b. No
9. Are you motivated to continue being a member of cooperative and work hard in your production activity?

- a. Yes, because I have assurance of market for produces and I easily get inputs
- b. No, I have plan to quit membership because it does not pay well and not motivated

10. Where do you get extension services?

- a. From cooperative
- b. From Government
- c. From private companies/NGOs

11. What methods used by the cooperative to pay the dividends to members?

- a. Cash
- b. Agricultural inputs
- c. Processed Oil

12. By the time of dividends payments, are you satisfied with what you receive; is it on time or delayed?(a)Yes and it is on time (b) No, and it is paid late

13. The commitment of members and leaders towards achieving the objectives of cooperative is described below? (Choose one answer)

- a. high commitment to both leaders and members
- b. low commitment to members but high to leaders
- c. low commitment to leaders but high to members
- d. no or low commitment to both parties

14. How do you get market information for your produces?

- a. Mobile phone
- b. Media eg.TVs, News papers and radio
- c. Notice board of cooperative
- d. no access to information

15. Are you satisfied with the decision making process of your organization?

- a. No
- b. Yes

***“THANK YOU for your cooperation”***



Part 2 PRIVATE OILSEEDS PROCESSING ENTERPRISES

**Section “A”**

**Questions for Director/Manager**

*Dear respondent,*

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

***Socio economic characteristics of respondent***

**Name of respondent:**.....**Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male (b) Female **Location of enterprise:**.....

**Name of enterprise** .....

**Position of respondent** .....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift **Family size** (a) 2people (b) more than 2 people (c) 1person

**Occupation of parents** (a) Farmers (b) Non farmers

1. Could you please tell me the main objectives in your enterprise? (Mention three)

a.....

b.....

c.....

2. Do you have reward and incentive policy in organization?

a. Yes b. No

3. Is the rewards and incentive policy known to the workers/ members?

a. Yes b. No

4. Do you think the rewards and incentive system in your organization motivates workers/members to work towards achievements? (a) Yes (b) No

5. Please rate the importance of the following criteria as qualification for an award of incentive and rewards to members/workers:

	Not at all Important		Average Importance		Extremely Important
Outstanding performance	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Focus on innovation	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Consistently doing a good job	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Exceeding performance objectives	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Achieving cost savings	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Exceeding service expectations	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Demonstrated teamwork	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Outstanding customer service	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

6. How do you structure your salary or rewards in enterprise?

- c) worker's demand
- d) Current economic and financial performance of an enterprise

7. How many people work in the oil processing section?

- (a) 1 (b) 2 (c) More than 2

8. How do you fill positions in your enterprise?

- a. Election among board members
- b. Hiring external based on educational skills and experience
- c. Nomination
- d. Own decision

9. How do you distribute your enterprise share and incentives from sales among members/workers?

- a) Equal distribution (b) According to member's amount of share (c) according to profit obtained (d) Dividends at the end

10. Does the current structure of your organization allow you to perform efficiently and achieve your desired outcomes?

- (a) No (b) yes (c) need change

11. How do you get access to market information for your produces?

- a. Mobile phone
- b. Media eg. TV, news papers and radio
- c. Personal information
- d. No access

12. How many liters of oil do you process per day?

- a. 500 liters
- b. between 500 and 1000litres
- c. more than 1000litres
- d. Less than 500litres e. Less than 500liters

13. Do you process everyday?

- (a)Yes (b) No (c) when we have seeds

14. Do you receive any business or financial management training from the NGOs or government?

- a. Yes, we receive from government
- b. Ye , we receive from NGOs

c. No any training

15. Do you have training program in your enterprise for improving employees' and members' business skills?  
 (a) No (b) yes

16. Do you think there is a performance gap between cooperatives and private enterprises in oil processing?  
 a. Yes b. No

If yes, why?.....  
 .....  
 .....

**“THANK YOU for your cooperation”**

**Section “B”**

**1. Questions for workers of an enterprise**

*Dear respondent,*

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

***Socio economic characteristics of respondent***

**Name of respondent:**.....**Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male (b) Female **Location of enterprise:**.....

**Name of enterprise** .....

**Position of respondent**.....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size(if any)** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift

**Family size** (a) 2people (b) more than 2 people (c) 1person

**To which managerial level do you belong?** (a) Entry level (b) Junior level (c) Middle level (d) Senior Management level

1. Could you please tell me, what are the benefits of you to work in this enterprise?  
 .....  
 .....

2. What are the challenges for working at this enterprise?
  - a. No enough working tools
  - b. No reliable power source to run the machine
  - c. Shortage of inputs (Seeds)
  - d. No enough storage facilities
  - e. All of the above
3. Are you aware of the incentives and rewards system in the organization? a. yes b. no
4. Are you paid according to the job position, skills, experience, education or productivity?
  - a) Job position (b) skills (c) Experience (d) Education (e) Productivity
5. Is the salary paid by the cooperative management motivates you to continue working hard?
  - a. Yes b. No
6. Is the enterprise offers other incentives such as cars and bonus for you to continue working?
  - a. Yes b. No c. I work because I have no alternative job
7. Is the enterprise management supports you in your farming activities if any?
  - a. Yes b. No c. I have no farming activity
8. Do you get any extra benefits such as health insurance apart from basic salary?
  - a. Yes b. No
9. Do you feel comfortable with the working environment of this enterprise?
  - a. Yes b. No
10. Does the enterprise management facilitate any extra training for you to improve your work performance?
  - a. Yes b. No
11. How would you rate your overall satisfaction with the current rewards and incentive programs offered by the organization?
  - a. Very Satisfied b) Neither satisfied nor dissatisfied c) Not Satisfied
12. Do you work everyday or some days per week?
  - a) Some days when we have seeds (b) Everyday when we have seeds (c) less than three days per week because of shortage of seeds

***“THANK YOU for your cooperation”***

**Section C.**

**2. Questions for seeds suppliers**

*Dear respondent,*

*This questionnaire aim at comparative assessment of the Performance between Farmers Oilseed Cooperatives and Private Enterprises in the Sunflower Value Chain: A Case of Singida Region in Tanzania. This survey is purely conducted for academic purpose. Your response to this questionnaire will be kept secret.*

**Socio economic characteristics of respondent**

**Name of respondent:**.....**Age** (a) 18-25 (b) 26-33 (c) 34 and above **Sex** (a) Male (b) Female **Location of enterprise supplied:**.....

**Name of an enterprise supplied** .....

**Position of respondent** .....

**Education level** (a) Primary (b) Secondary (c) High school (d) College/University (e) None

**Farm size** (a) 1 ha (b) more than 1 ha (c) less than 1 ha **Farm ownership**(a) Renting (b) Own (c) Gift

**Family size** (a) 2people (b) more than 2 people (c) 1person

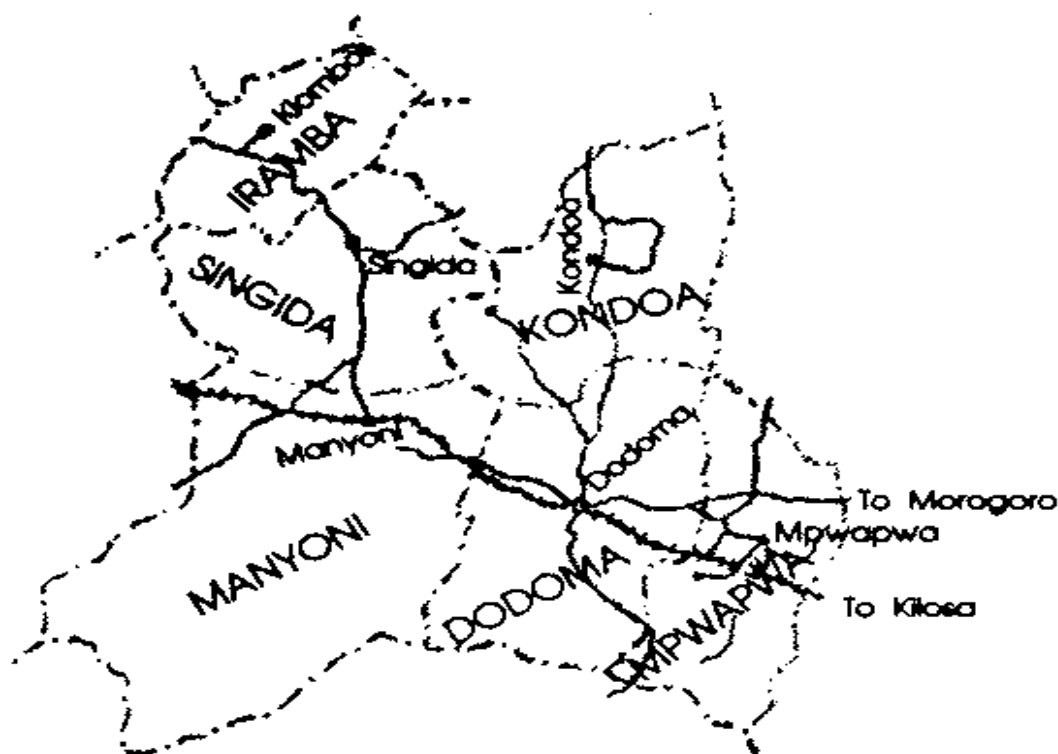
**Occupation of parents** (a) Farmers (b) Non farmers

1. Could you please tell me why do you supply to this enterprise?
  - a. I am a member b. It is near from my farm c. No alternative market
2. What are the incentives do you get from being a supplier to this enterprise?
  - a) Dividends at the end of season/year (b) Inputs for farming (c) good price for produces d. All of the above
3. Does an enterprise help you to easily get agricultural inputs for your production?
  - a. Yes b. No
4. What are the mechanisms used by an enterprise management to deliver Agricultural inputs to you?
  - a) On loan (credit input system) (b) Free delivery to suppliers (c) Cash payment
5. Does enterprise provide enough quantity of agricultural inputs for your sunflower farming activity?
  - (a) Enough quantity of input (b) Not enough, I oblige to buy outside
6. Do you use modern recommended seeds variety for farming activity?
  - (a) No (b) yes (c) Not available
7. Do you sell your seeds on cash or on loan to enterprise?
  - (a) On cash bases (b) On loan bases (c) On exchange for Agricultural inputs
8. Does and enterprise management facilitate to get any Agribusiness or farming training?
  - a. Yes b. No
9. Are you motivated to continue being a supplier of this enterprise and work hard in your production activity?
  - a. Yes, because I have assurance of market for produces and I easily get inputs
  - b. No, I have plan to quit being supplier because it does not pay well and not motivated

10. Where do you get extension services?  
a) From cooperative (b) From Government (c) From private companies/NGOs
11. What methods used by an enterprise to pay the dividends to members (if any)?  
a. Cash b. Agricultural inputs c. Processed Oil
12. By the time of dividends payments, are you satisfied with what you receive; is it on time or delayed? (a)Yes and it is on time (b) No, and it is paid late
13. The commitment of members and leaders towards achieving the objectives of enterprise is described below? (Choose one answer)
- a. high commitment to both leaders and members
  - b. low commitment to members but high to leaders
  - c. low commitment to leaders but high to members
  - d. no or low commitment to both parties
14. How do you get market information for your produces?  
a. Mobile phone  
b. Media eg.TVs, News papers and radio  
c. Notice board of enterprise  
d. No access to information
15. Are you satisfied with the decision making process of your organization?  
a. No b. Yes

***“THANK YOU for your cooperation”***

## Appendix2: A Map of the central corridor of sunflower production regions in Tanzania



Source: <http://www.fao.org/wairdocs/ilri/x5485e/x5485e0e.htm>

## Appendix 3: Salary as a motivation factor [cross tabulation]

Variables	Total responses	yes	no	Grand Total
CM	7	-	-	7
CS	11	-	-	11
CW	-	3	3	6
PM	7	-	-	7
PS	11	-	-	11
PW	-	5	2	7
<b>Grand Total</b>	<b>36</b>	<b>8</b>	<b>5</b>	<b>49</b>

Source: Author's own survey, July, 2015 - 2015

### Key

CM-Cooperatives Management      PS-Private Suppliers  
 CS-Cooperatives Suppliers      PW-Private Workers  
 CW-Cooperatives Workers  
 PM-Private Management

## Appendix 4: Distribution of incentives and shares/benefits among members/workers [Cross tabulation]

Variables	Total responses	Equal distribution	According to members amount	According to profit	Dividends at end	Grand Total
CM	-	5	1	1	-	7
CS	11	-	-	-	-	11
CW	6	-	-	-	-	6
PM	1	-	-	-	6	7
PS	11	-	-	-	-	11
PW	7	-	-	-	-	7
Grand Total	36	5	1	1	6	49

Source: Author's own survey, July, 2015 – 2015

### Key

CM-Cooperative Management      PW-Private Workers

CS-Cooperative Suppliers

CW-Cooperatives Workers

PM-Private Management

PS-Private Suppliers



# Appendix 5 Sunflower and other crops production; Target trends in the region of Singida: For the years 2012/2013, 2013/2014 and 2014/2015

## UTEKELEZAJI WA MALENGO YA KILIMO KWA MSIMU WA 2012/2013 NA MALENGO YA KILIMO CHA MSIMU WA 2013/2014

### 1.0. Utangulizi

Sekta ya kilimo (mazao) inachangia asilimia 69 ya uchumi wa Mkoa wa Singida. Sekta zingine ni Mifugo (20%), Huduma (5%) na Viwanda (3%) (Singida Region Profile, 2009). Kwa wastani sekta ya kilimo imeajiri asilimia 80 ya wakazi wote. Mkoa umechagua kuendeleza mazao ya uwele, miama, viazi vitamu na muhogo kwa upande wa chakula na alizeti, vitunguu, pamba na asali kama mazao ya biashara tangu mwaka 2006.

### 2.0. Hali ya hewa.

Takwimu za hali ya hewa kwa msimu wa 2012/13 zilionyesha Mkoa kupata jumla ya mm 821 ikilinganishwa na mm 582 mwaka 2011/12. Kwa ujumla kiasi hiki cha mvua kinatosheleza isipokuwa mtawanyiko haukuwa mzuri kwa baadhi ya maeneo macheche.

### 3.0. Utekelezaji wa malengo ya mwaka 2012/2013

Katika msimu wa kilimo 2012/2013 Mkoa wa Singida ulijiwekea lengo la kulima hekta 683,006 za mazao ya chakula zilizotarajiwa kuzalisha tani 1,045,470 na hekta 260,868 za mazao ya biashara zilizotarajiwa kuzalisha tani 405,199. Hadi kufikia Juni, 2013 jumla ya hekta 572,338 (83.8%) za mazao ya chakula na hekta 206,518.2 (79%) za mazao ya biashara zililimwa. Taarifa za mavuno hadi kufikia Agosti, 2013 zinaonesha jumla ya tani 859,544 (82%) za mazao ya chakula na tani 292,029 (71%) za mazao ya biashara zilivunwa. Mchanganuo wa hali ya utekelezaji wa malengo kwa mazao ya chakula na Biashara kwa kila Halmashauri umeonyeshwa kwenye jedwali namba 1 na 2.

Jedwali 1; Hali ya Utekelezaji wa Malengo kwa Mazao ya Chakula kwa kila Halmashauri

Halmashauri	Eneo la Kilimo (Ha)		Asilimia	Uzalishaji (Tani)		Asilimia
	Lengo	Utekelezaji		Lengo	Utekelezaji	
Manyoni	112,973	71,999	63.73116	143,149	86,432	60
Singida	140,938	141,559	100.4406	239,440	182,345	76
Ikungi	80,259	98,489	122.714	123,992	122,944	99
Iramba	170,547	123,147	72.20707	251,806	217,564	86
Mkalama	163,814	127,955	78.10993	253,750	223,642	88
Singida Manispaa	14,475	9,189	63.48187	33,333	26,617	80
<b>Jumla Kuu</b>	<b>683,006</b>	<b>572,338</b>	<b>83.79692</b>	<b>1,045,470</b>	<b>859,544</b>	<b>82</b>

Jedwali 2; Hali ya Utekelezaji wa Malengo kwa Mazao ya Biashara kwa kila Halmashauri

Halmashauri	Eneo la Kilimo ((Ha)		Asilimia	Uzalishaji		Asilimia
	Lengo	Utekelezaji		Lengo	Utekelezaji	
Manyoni	60,636	46,949	77	44,536	36,262	81
Singida	62,504	44,569	71	141,100	74,842	53
Ikungi	22,650	18,761	83	39,546	25,793	65
Iramba	53,746	48,430	90	74,005	71,289	96
Mkalama	53,272	47,598	89	95,326	78,111	82
Singida Manispaa	8,060	3,204	40	10,686	5,733	54
<b>Jumla Kuu</b>	<b>260,868</b>	<b>206,518.2</b>	<b>79</b>	<b>405,199</b>	<b>292,029</b>	<b>72</b>

**UTEKELEZAJI - MAZAO YA BIAHARA - 2012/2013**

Zao	Lengo (Ha)	Matarajio ya Mavuno (Tani)	Utekelezaji (Ha)	Mavuno Halisi (Tani)
		259,221	140,137	196,071
1 Alizeti	164,062	11,212	9,632	7,718
2 Pamba	12,488	18,245	7,441	10,498
3 Ulezi	11,806	30,784	24,772	23,354
4 Karanga	32,045	11,425	12,261	8,314
5 Ufuta	14,373	4,344	220	502
6 Mbaazi	3,054	8,927	4,274	3,866
7 Dengu	7,890	3,536	403	606
8 Gilgilani	2,357	54,613	8,956	39,395
9 Vitunguu	9,904	2,892	1,415	1,707
10 Tumbaku	2,889			
<b>Jumla kuu</b>	<b>260,868</b>	<b>405,199</b>	<b>209,511</b>	<b>292,029</b>

**UTEKELEZAJI - MAZAO YA BIAHARA - 2013/2014**

Zao	Lengo (Ha)	Matarajio ya Mavuno (Tani)	Utekelezaji (Ha)	Mavuno Halisi (Tani)
		226,972	134,301	220,202
1 Alizeti	150,884	12,249	4,237	2,673
2 Pamba	11,852	56,879	11,593	66,650
3 Vitunguu	11,109	153	1,119	2
4 Korosho	1,596	13,767	8,878	13,599
5 Ulezi	9,070	31,905	26,503	26,261
6 Karanga	32,319	13,883	12,079	8,277
7 Ufuta	14,234	1,947	1,706	1,755
8 Mbaazi	1,947	7,685	5,388	6,396
9 Dengu	6,908			
10 Choroko	-	-	18,767	16,352
11 Tumbaku	2,889	2,892	1,069	1,233
12 Gilgilani	-	-	24	24
<b>Jumla</b>	<b>242,808</b>	<b>368,331</b>	<b>225,664</b>	<b>363,423</b>

**MALENGO YA UZALISHAJI MAZAO YA BIAHARA - 2014/2015**

Zao	Lengo (Ha)	Matarajio ya mavuno (Tani)
1 Alizeti	158,417	253,039
2 Pamba	11,447	10,311
3 Vitunguu	13,076	42,615
4 Korosho	1,080	155
5 Ulezi	9,383	13,754
6 Karanga	31,376	30,178
7 Ufuta	14,041	13,840
8 Mbaazi	1,862	1,862
<b>Jumla Kuu</b>	<b>240,682</b>	<b>365,754</b>

Source: Singida Regional Cooperatives Office, July, 2015