THE ROLE OF FARMING GROUPS IN IMPROVING THE LIVELIHOODS OF WOMEN SMALLHOLDER FARMERS IN ZANZIBAR

By

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Abstract

Agriculture continues to be an important sector for the economic development of many Sub-Saharan African countries. In the region, agriculture is dominated by poor smallholder subsistence farmers who face several challenges to improve their production. The majority of these farmers are women who contribute substantially to food production and for the general economy of their communities. These women face greater challenges in access to productive resources compared to men due to the existing gender gap. Collective action in agriculture is suggested to overcome challenges facing smallholder farmers, and many governments and supporting organizations in the region prefer to work with various forms of farming groups rather than individuals. The study aims to determine the role of farming groups in livelihood improvement of rural smallholder women farmers in Zanzibar, a part of the United Republic of Tanzania.

Through the use of mixed methods whereas qualitative methods were the major, the study used the Social Relation Analysis approach to determine the role of supporting organizations to improve the abilities of women for better implementation of their group's activities towards better livelihood outcomes. Qualitative data were collected in 2017, and quantitative data in 2018 for the ability to generalization. In-depth interviews were conducted to key informant and women farmers in four districts followed by a face to face questionnaire with women. Insights demonstrate that through groups, women have increased their knowledge and application of improved farming methods which contributes to their increased production and improved livelihood. Through collective action women have increased their access to agricultural resources, and have improved their social capital, hence women have experienced social and economic empowerment. However, groups have demonstrated different achievements due to the different abilities of members in a particular group. The study urges the supporting organization to provide special support in favour for women to improve their abilities for better achievement of their livelihood outcomes.

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Table of Contents

List of Tables

List of Figures

List of acronyms

AfDB	African Development Bank
ATI	Agriculture Transformation Initiatives
CAADP	Comprehensive Africa Agriculture Development Program
CUZA	Cooperative Union of Zanzibar
DFID	Department for International Development
FAO	Food and Agriculture Organization of the United Nations
FGD	Focus Group Discussion
FINNIDA	Finnish International Development Agency
GDP	Gross Domestic Product
ILO	International Labour Organization
IFAD	International Fund for Agriculture Development
NEPAD	New Partnership for Africa's Development
NGO	Non-government Organization
SLF	Sustainable Livelihood Framework
SACCOS	Saving and Credits Cooperatives
ZSGRP	Zanzibar Strategy for Growth and Reduction of Poverty

Chapter 1 Introduction

1.1 Overview of Agricultural Development in Sub-Saharan Africa

Agriculture continues to be an important sector for development in many countries, especially in Sub-Saharan Africa. This is because the largest rural populations (63.9%) who depend on agriculture as their entire source of income in African countries can be found in Sub-Saharan Africa (FAO, 2014). In addition to their higher dependency on agriculture for their livelihoods, the majority of these rural populations in Sub-Saharan Africa are the poorest populations worldwide. It is estimated that almost 80% of the world's poorest people live in rural areas, while 95% of the total rural poor live in Asia and Sub-Saharan Africa (FAO, 2017). It is clear the sector has not developed enough in the region to improve the livelihoods of these people, and improvements are needed to reduce rural poverty. Agriculture is considered a key factor for the elimination of poverty by the Sustainable Development Goals (SDG) in 2030 and by the International Food and Agriculture Organisation (FAO, 2017).

The rate of economic growth in these countries is not able to keep up with the higher rates of population growth in the region. The huge deprivation for many African households, especially rural households, is the result of slow economic development combined with higher rates of population growth (AfDB, 2016). Africa shares the world's highest youth population which is estimated to rise from one fifth (1/5) in 2012 to one third (1/3) by 2050. It is estimated that higher rates will be found in West, Central, and East African countries (AfDB, 2016). The majority of this youth could be found in the agricultural sector, as it provides high employment rates in comparison with other sectors (FAO, 2015a). To cope with the food needs of the increasing population, agricultural production will have to increase by almost 80% in developing countries, including Sub-Saharan Africa (FAO, 2015).

Despite its importance for the development of the region, agriculture has not done enough to support the livelihoods of the people for various reasons. The sector is characterized by a high dependency on a workforce of smallholder farmers who face various challenges to improve their productivity. This includes inadequate access to productive resources and lower use of improved modern technology (NEPAD, 2013). The highest smallholder farmers are in Sub-Saharan Africa (Momsen, 2019), it is estimated that about 78% of the total agricultural land in the region is occupied by the smallholders (Makoni, 2018). These smallholder farmers are mostly engaged in subsistence farming and depend on a small cash income from selling some of their crops. They have less potential to produce extra crops to increase their sales. In general, smallholder farmers are identified as farmers who use small areas of land (less than 10 hectares) (Jayne, Mather, & Mghenyi, 2010). They work to support their families and they mostly use

family labour, although different countries may have different definitions of smallholder farmers.

Another feature of the agricultural sector in Sub-Saharan Africa is the greater involvement of poor smallholder women farmers. It is estimated that women represent almost 70% of the agricultural workforce in the region (NEPAD, 2013). These women are disadvantaged by poor access to productive resources compared to men (FAO, 2011). This disadvantage is a result of the existing gender gap in the region, which is associated with local norms and cultural beliefs towards women among the communities. The gender inequalities that women face undermine their efforts to increase their productivity, slow down agricultural development, and hinder rural development (FAO, 2017). These women are needed for economic development as well as for the food security of their communities; it is estimated that they produce 80% of the food resources in the region (ILO, 2009).

Efforts have been undertaken to increase agricultural productivity in the region to eradicate poverty and eliminate food insecurity. This has resulted in the development of national and international plans. For example, the Comprehensive Africa Agriculture Development Program (CAADP) was established in 2003, based on the work of the New Partnership for Africa's Development (NEPAD) and the FAO to support the development of agriculture in the region. Also, various studies have provided several suggestions to improve agricultural productivity in the region, including proposals to support smallholder farmers' productivity. Collective action in agriculture is recommended to increase poor farmers' access to the resources required to improve their activities. Through collective marketing, poor farmers can increase their access to inputs and improve the prices for their crops.

Several studies conducted in Sub-Saharan Africa have reported increased access to productive resources, better knowledge of modern farming methods, and improved use of modern agricultural equipment among farmers organised into various forms of collective action, such as groups, cooperatives, and associations (Effiom, 2014; Adong, 2014; Muhanji, 2009). As a result, they have increased their productivity and improved their incomes. For example, in Ethiopia, numerous studies conducted in the country have observed positive outcomes from agricultural cooperatives for poor smallholder farmers (Tefera, Bijman, & Slingerland, 2017). In Nigeria, cooperatives were observed providing loans to poor smallholders who could not afford to apply for loans from the official financial institutions (Effiom, 2014). In Uganda, households who were members of the farming groups showed greater adoption of improved agricultural technologies, such as the use of improved fertilizers, improved seeds, and improved breeds of livestock (Adong, 2014).

In addition to the general advantages of agricultural collective action, it was observed that poor women smallholder farmers who participate in farmers' groups gained additional benefits. They are reported as gaining social empowerment that could overcome the challenges they face about their gender. This includes increased decision-making power when dealing with men, increased ability to assume leadership positions, and improved ability in public speaking (Schroeder, 2013; Ferguson & Kepe, 2011). In Zanzibar, women were observed to have a higher commitment to working in groups compared to men. Also, they believe their participation in groups has contributed to improving their activities and increasing their incomes (Magimbi, 2010). In Benin, farming groups were observed to empower women by increasing their confidence and self-esteem (Schroeder, Zeller, & Agboh, 2013).

1.2 The Agricultural Sector and the Contribution of Women in Zanzibar

Zanzibar depends mainly on agriculture for its general economy and food security. Agriculture is the second leading sector in terms of contribution to GDP percentage and it contributes substantially as a source of foreign currency, as well as employing the majority of the population (Office of the Chief Government Statistician, 2013). The sector employs nearly 70% of the total workforce in the country, either directly or indirectly, and has a huge potential to support livelihoods for both the rural and urban populations (Revolutionary Government of Zanzibar, 2010). Agriculture is considered to have a large impact on the reduction of poverty and food insecurity for the people; however, improving agriculture is a challenge (Revolutionary Government of Zanzibar, 2010). Agriculture includes fishing, forestry, livestock, and crops. Although the sector is important for food security, production does not satisfy the entire food needs of the population. For example, 80% of the rice consumed, which is a major staple food, is imported (the United Republic of Tanzania, 2014). This indicates more efforts are needed to improve production.

The country has a higher contribution by women to the workforce in agriculture. Tanzania, of which Zanzibar forms a part, is reported to have over 90.4% of active women engaged in Agriculture (The United Republic of Tanzania, 2013). This is higher than that reported from Sub-Saharan African countries (64% of women employed in agriculture). It is also higher than the total estimated participation by women in agriculture (68.8%) for East African countries (FAO, 2014). The majority of agricultural activities in Zanzibar, including livestock keeping, are carried out by women who make up 70% of the agricultural workforce and produce about 70% of the agricultural output (Ministry of Social Welfare, 2015). Similar to other Sub-Saharan countries, the majority of these women are smallholder farmers who face similar challenges to other women in the region.

Similar to many other developing countries, Zanzibar's government has shown interest in supporting agricultural activities through collective action; and the government has been supporting farming groups for almost two decades. Government support is also provided in partnership with various international support organisations, such as the International Fund for Agriculture Development (IFAD), the African Development Bank (AfDB), and the World Bank. The aim of supporting collective action is clearly stated in the Agriculture Policy 2003 and the Agriculture Transformation Initiative 2010. Also, the Cooperative Policy 2014 has stated that government support will be provided to registered cooperative groups. On the other hand, the agricultural policy, in acknowledgment of the higher contribution of women in the sector, aims to promote gender equality in agricultural development, by ensuring that women have equitable access and control over productive resources, including land, water, and support services.

1.3 Aims of the Research

As discussed in the literature, and summarised above, several studies suggest that the organisation of farmers into collective action, such as farming groups and producers' cooperatives, can support poor smallholders to increase their access to resources and support services. However, several challenges facing these groups have also been reported. The majority of available studies have been conducted on mixed groups of farmers, comprising both men and women. As a result, there are a limited number of studies demonstrating the achievements of women smallholders in these formations. In addition to the economic benefits gained from these cooperatives, studies conducted with women have reported improved social empowerment, such as increased self-confidence, improved negotiation skills and increased power of household decision-making when dealing with men (Schroeder, 2013; Ferguson & Kepe, 2011). However, these studies did not consider the abilities of members in better sharing their skills and experiences to achieve social and economic changes for women within the groups.

Also, many studies have illustrated increased access to agricultural productive resources and increased access to support services by farmers organised in various types of collective groups. However, they did not investigate livelihood outcomes as a result of working in these groups. Also, no studies have been conducted to specifically determine the livelihood improvements for women who are involved in farming groups. In addition, a few studies have been conducted to establish the social empowerment of women through their participation in farming groups. (Mier zu Selhausen, 2015; Schroeder, 2013; Ferguson & Kepe, 2011). Since the Zanzibar Agricultural Policy intends to increase women's access and control over productive resources

to improve their income, women's economic empowerment should be analysed. Economic empowerment seeks to guarantee that people have access to resources for sustainable income and livelihoods, including capabilities and proper skills. Human and social empowerment is about the capacity of people to control their lives and to act on their issues (Luttrell, 2009). Currently, the government and other supporting organisations work with farming groups, so there is a need to analyse how women are being empowered in terms of human, social and economic through their participation in these groups.

The overall aim of the study is to determine the role of farming groups in livelihood improvement for rural smallholder women farmers in Zanzibar. In determining livelihood improvement, the study will examine the abilities of farming groups to fulfill the resource needs of women for better performance of their activities. Members' capabilities will be identified for the realisation of the social and economic benefits of women in these groups. Supporting agencies, government departments and non-government organisations' (NGOs) contributions to social, human and economic empowerment of women will be analysed (institutional analysis), as well as the groups' relationship with available support organisations. Lastly, the study intends to discover existing gender constraints that can affect the performance of women in these groups. The study was guided by the following specific objectives to achieve the main aim.

1. To analyse the role of farming groups in increasing access by women to agricultural resources and the support they need to improve their productivity and livelihoods.
2. To analyse the existing members' characteristics towards better performance of the groups' activities and the influence of social and economic changes among members.
3. To determine the role of government agencies and non-government organisations in the better functioning of farming groups to achieve better livelihood conditions for women farmers.
4. To examine whether there are any existing gender constraints that could prevent the participation and full involvement of women within farming groups.

To accomplish the above objectives, study questions have been developed under each objective to enable deeper exploration of the required information for the study. Table *1* presents the research questions.

Table 1: Research Objectives and Associated Research Questions

No.	**Objectives**	**Research questions**
1	To analyse the role of farming groups in increasing access by women to agricultural resources and the support they need to improve their productivity and livelihoods.	- What resources are required by women to improve their agricultural productivity and increase their incomes? - How have the groups been able to increase access to the resources needed by women to support their agricultural activities? - How do the groups increase access by members to available support services which they need for their ongoing activities?
2	To analyse existing members' characteristics towards better performance of the groups' activities and the influence of social and economic changes among members.	- What are the existing members' socioeconomic characteristics and what is their contribution to better achievement of the groups' activities? - What is the influence of members' abilities on social changes of other members within the groups? - What are the notable social changes for women that have resulted from their group membership? - Do farming groups improve women's perceived livelihoods?
3	To determine the role of government agencies and non-government organisations in the better functioning of farming groups to achieve better livelihood conditions for women farmers.	- What support do government agencies and NGOs provide to farming groups? - What is the relationship between farming groups and supporting organizations and how can farming groups access the support provided by these organizations? - How have women's abilities been influenced by the government's and NGO's support?
4	To examine whether there are any existing gender constraints that could prevent the participation and full involvement of women in farming groups.	- What are the existing gender issues that could prevent women from joining and working in farming groups? - Do women think that they have equal opportunity to work and benefit from the groups compared to men? - Do the formations and structures of farming groups allow for full involvement and participation by women farmers?

1.4 Contribution of the Research

This study will contribute to the available information on women's performance in farming groups in Sub-Saharan Africa. It will contribute to the availability of data on the reliability of collective action for poor smallholders in the region as a strategy to overcome their challenges in increasing their productivity. In particular, the study will elaborate on the need for consideration of members' abilities to increase the performance of these groups in improving women's livelihoods, on the one hand. And, on another hand, the need for supporting agencies to focus on improving women's abilities and empowerment to better manage their groups' functions and activities to achieve better livelihood outcomes. The study anticipates to provide suggestions for the better formation of farming groups for women and intends to increase the attention of policymakers on supporting the social and economic empowerment of women who are the main contributors in the sector. Empowering women in agriculture may help to reduce the existing gender gap in the sector and improve the livelihood outcomes for the entire community since women tend to spend their incomes on their families.

1.5 Thesis Outline

The thesis comprises nine chapters, starting with an introduction followed by chapters constituting the literature review. These are chapter two which provides the background and overview of the study area; chapter three discusses agricultural development in Sub-Saharan Africa, including the contribution of women in the sector; and chapter four discusses collective action in agriculture, followed by chapter five which discusses the concept of livelihood. After that, chapter six discusses the methodology, followed by chapter seven which discusses the study findings. Finally, chapter eight provides conclusions and recommendations.

Chapter 2 Background and Overview of Zanzibar

2.1 Introduction

This chapter presents background information and an overview of Zanzibar, which constitutes the study area. It starts with the country's location and its status within the United Republic of Tanzania, followed by a description of its economy and the contribution of the agricultural sector to the general economy and individual incomes. Then, the contribution of women in the agricultural sector is discussed followed by a short history and the status of agricultural cooperatives in both Zanzibar and the Tanzanian mainland. After that, gender issues faced by women in relation to economic development are discussed, and finally, a summary of the whole chapter is provided.

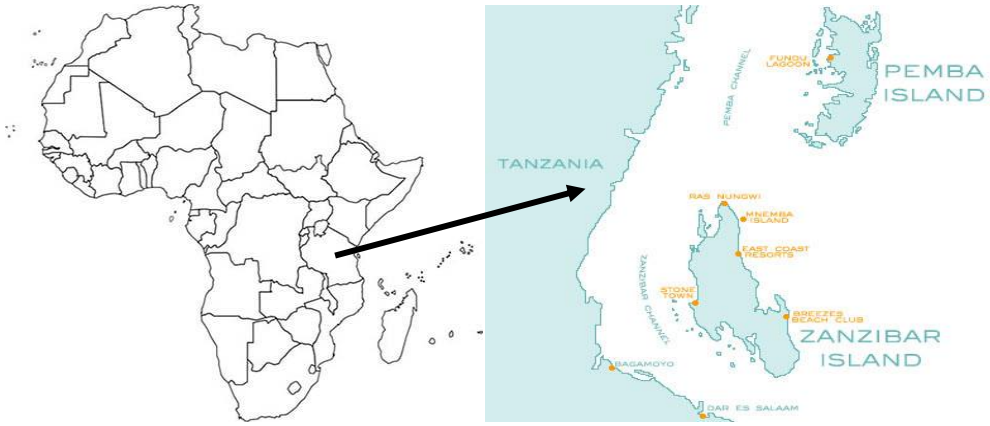
2.2 Overview of Zanzibar

Zanzibar gained its independence in January 1964 and then united with Mainland Tanzania, formerly known as Tanganyika, in April 1964, to form the United Republic of Tanzania. Being a part of the union, Zanzibar has autonomy in terms of its plans and economic development. This means that Zanzibar has separate policies, regulations, and development plans from those of the Tanzanian Mainland. However, some policies of the two parts of the union are similar but not the same. Essentially, the union government is responsible for the Tanzania Mainland economy and union matters, which include foreign affairs, higher education, defense and security, citizenship, the court of appeal and registration of political parties. The Zanzibar government possesses semi-autonomous status with its executive, legislature, judiciary and legislative assembly responsible for passing laws, regulations, and policies for Zanzibar (Bernadeta, 2008). However, the Mainland and Zanzibar work together to prepare some development plans that are supported by development partners, including agricultural development plans. Zanzibar having a higher Muslims population (about 99%), applies Islamic laws in the matters concerning inheritance and marriage, civil laws are in place for other concerns. Contrary to Tanzanian Mainland, Islamic laws are not applied for either inheritance or marriage issues for the Muslim residents. The study has focused entirely on Zanzibar; however, some comparison to Mainland Tanzania is made for a wider understanding of the subject. Therefore, the country in the discussion represents Zanzibar.

Zanzibar comprises two islands, Unguja and Pemba, located in the Western Indian Ocean around 30 km from the Tanzania mainland on the East Coast of Africa, between latitudes 5 and 7 degrees south of the Equator. However, the island of Unguja is often mistakenly named Zanzibar, even on some maps.

Figure *1* below shows the location of the country.

Figure 1: Location of Zanzibar within Africa



Source: http://www.google.co.uk

Zanzibar has a total area of 2,654 square km, with an area of 1,666 and 988 square km for Unguja and Pemba respectively, and a total population of 1,303,569, with an annual population growth of 2.8% (National Bureau of Statistics, 2013). In terms of administration, the country is divided into 5 regions, 3 in Unguja and 2 in Pemba, and each region is further divided into 2 districts, making a total of 10 districts.

The islands are relatively flat with some hilly areas particularly in the western parts of Pemba Island, and the soil is categorized as i) deep fertile soil in the western parts where most permanent agriculture is practiced occupies about 45% (74,000 ha) of Unguja and 85% (94,633 ha) of Pemba; ii) Coral rag soil characterised by a thin layer of soil pockets covering the eastern side of the land accounts for 55% (90,458 ha) and 15% (14,195 ha) of the total area of Unguja and Pemba respectively (the United Republic of Tanzania, 2014). Thus, Pemba has more fertile land for agriculture compared to Unguja.

2.3 Agriculture and Economic Development in Zanzibar

Economic growth in Zanzibar mainly depends on three sectors: i) services; ii) agriculture (including fishing, forestry, livestock, and crops); and iii) industry. The service sector includes trade, tourism, transport, and other social services, while the industry sector includes mining, manufacturing, power energy, and construction. The service sector is the leading contributor to the country's income followed by agriculture and finally the industry sector. However, agriculture remains an important pillar to support the livelihoods of the majority of the

population in the country as well as employing many people (42%) and contributes more than 25% to the national economy (Revolutionary Government of Zanzibar, 2010). Through the provision of crops, livestock and marine products, the sector is responsible for ensuring food security for the entire population (Revolutionary Government of Zanzibar, 2010).

The sector is largely dominated by crop production (53%), then fishing (22%), livestock (13%), and finally forest (12%) (Office of the Chief Government Statistician, 2013). It contributes about 34.6% of the total GDP in the country and provides around 75% of foreign exchange earnings. Also, it is estimated that almost 75% of the entire population depends either directly or indirectly on agriculture for their livelihoods (Ministry of Agriculture Natural Resources Environment and Cooperatives, 2003). The main cash crops for the country are cloves, coconuts, and spices but, in general, cash crops can be categorized into two groups: i) cloves and coconuts which are the most important export crops; and ii) exportable crops such as fruit, spices and some nuts (Ministry of Agriculture Natural Resources Environment and Cooperatives, 2003). It is estimated that almost 82% of clove trees are grown in Pemba while about 80% of coconut trees are grown in Unguja, due to differences in climatic and soil conditions between the two islands (Ministry of Agriculture Natural Resources Environment and Cooperatives, 2003). Cloves continue to be the major source of foreign currency for the country, but the crop faces price reductions and falling demand due to competition from other countries producing cloves, such as Madagascar, Brazil, and Indonesia. Crops such as rice, cassava, sweet yams, and bananas are grown to meet food requirements for the community, but the surplus is sold for income and, for some families, food crops are as important as the cash crops (Revolutionary Goverment of Zanzibar, 2011).

Approximately one third (30.4%) of the country's total population live in basic need poverty, with higher rates in rural areas compared to the urban population. Among the total population who live in food (extreme) poverty, the majority (81.8%) live in rural areas. Poverty is more persistent in rural areas where more than half (56%) of the population live (Chief Government Statistician Zanzibar, 2016). Basic need poverty represents populations who cannot meet their basic consumption needs, and extreme poverty represents people who cannot afford to buy basic foodstuffs to meet their minimum nutritional requirement of 2,200 kilocalories per day (Chief Government Statistician Zanzibar, 2016). These poverty figures are estimated from the national poverty lines in Tanzanian Shillings (T.sh) per adult per month. Table 2 below shows food and basic needs poverty lines for 28 days. And Table 3 shows the distribution of food poverty between rural and urban populations.

Table 2: Food and Basic Need Poverty lines 2014/15

Food and Basic Need Poverty Lines	T.sh
Food Poverty line (28 days adult) in T.sh	38.071
Basic Need Poverty line (28 days adult) in T.sh	53.377

Source: HBS 2014/15

Table 3: Distribution of Food Poverty in Urban and Rural Areas

	2014/15
Urban	18.2%
Rural	81.8%
Urban Poor Population	28,598
Rural Poor Population	128,535
Total Poor Population	157,133
Total Population	1,457,025

Source: HBS 2014/15

The average household size of the nuclear household is 5.4, with an average fertility rate of 5 children per woman (National Bureau of Statistics, 2011). However, in some situations, a man could have more than one wife (mostly 2 to 3, and occasionally 4), but commonly every wife lives in a separate house with their children. The majority of people living in rural areas reside in poor housing often with limited access to basic services such as electricity, safe sanitation, and clean water. Office of the Chief Government Statistician (2010) revealed that 47.8% of houses in rural areas are simple with walls made from either mud, poles, or stones, 36.3% with roofs of grass/leaves, and 50.6% of houses have an earth floor. In addition, 92.1% of the rural population own their homes, where 84.1% of houses are owned by males and 14.8% owned by females. Rural people have less access to improved water supply; the majority have no electricity, and they are more likely to be uneducated compared to urban populations, especially women. For example, 60% of rural females are uneducated, compared to only 23% of urban females; while only 6.6% of urban males are uneducated, compared to 25.3% of rural males. However, the gender gap in education tends to be narrower for youths and young adults, which indicates increased participation by girls in schools for the younger generation (Chief Government Statistician Zanzibar, 2016). In terms of health services, 69.9% of the urban

population live less than 1km from primary healthcare facilities, compared to 47.3% of the rural population. Table 4 illustrates the differences in services between urban and rural areas.

Table 4: Difference in services between rural and urban areas

Water supply	**Rural**	**Urban**
Improved source	17.7%	38.5%
Non-improved source	51.6%	28.6%
Electricity		
With electricity	14.8%	19.9%
Without electricity	45.8%	28.1%
Education		
No education	42.5%	21.7%

Source: HBS 2014/15

The majority of the rural population are involved in agricultural activities, as their entire source of income, but the type of agriculture and additional economic activities undertaken by people are determined by topography, soil type, and their location. Where the soil is deep and fertile, people are mostly involved in permanent food and cash crop production, including cloves, coconut, and various fruits, while those from the coral rag areas practice short-term food crop production and grow temporary fruits such as pawpaws. Agriculture in the coral rag is through shifting cultivation where the land must be left for at least 1 or 2 years. However, the application of this activity is currently declining due to the increasing transfer of land for tourism activities. such as the construction of hotels and bungalows in the area (Porter, 2011).

For the coastal villages located in the northeast and southeast of Zanzibar, in addition to fishing activities, subsistence farming also takes place in the coral rag areas and sometimes in more fertile areas. The main crops are cereals (maize, millet), tubers (cassava, sweet potatoes, yams), legumes (pigeon peas, green gram, hyacinth beans, cow-peas), bananas and vegetables mainly tomatoes (UNEPO/FAO/PAP, 2000). The area of deeper soil where cultivation is favourable has been passed from one generation to another and a system of crop rotation continues to be practiced 5 to 10 kilometers from the coast and villages. At least one member of the family participates in full-time crop cultivation, mainly for family consumption. The majority of the rural farmers are also involved in keeping a few cattle such as goats, cows, ducks, and mostly chickens, which supply an additional source of food and a small income (Mutayoba & Mbwete,

2013). The western parts of both islands are covered with deep fertile soil (45% of Unguja and 85% of Pemba); this area is where mixed permanent agricultural activities for food and cash crops take place (UNEPO/FAO/PAP, 2000). The food crop production includes various fruits, rice, cassava, maize, sorghum and millet, sweet potatoes, yam and cocoyam, banana, plantain, cowpea, pigeon pea, green gram, and vegetables (Revolutionary Government of Zanzibar, 2003). However, as mentioned earlier, some families sell their surplus food crops at internal markets as a source of cash income. While other families sell their food crops not because it is a surplus, but only because they need cash to spend on other important services and items. This means, to farmers, some food crops are also cash crops, but for the government, the cash crops are those sold at international markets, such as cloves and spices.

In addition to agriculture, the majority of coastal villagers are also engaged in fishing, mangrove cutting, coastal thicket harvesting, rope making or a combination of these. Fishing is the main economic activity in most coastal villages, providing full-time employment for the majority of people, as well as a part-time employment. However, fishing uses traditional methods which are said to reduce earnings from the activity. Men are mostly involved in deep-sea fishing while women are concerned with most of the on-shore (not far from the land) activities, such as a collection of seashells and crabs during low tides (UNEPO/FAO/PAP, 2000). Fishing contributes mainly to food, but other products are also used for exports, such as prawns, lobsters, sea cucumbers and, seashells. (UNEPO/FAO/PAP, 2000).

The second important activity after fishing and food crop cultivation in the coastal areas is seaweed farming, mainly practiced by women. This farming has become a very important activity for household livelihoods among the villagers, providing income which varies depending on the size of the "plantation" and the intensity with which it is cultivated (in terms of the labour and time invested) (Mutayoba & Mbwete, 2013). Seaweed farming was established in 1990 after a successful trial operation in 1986 and has gained popularity among women due to the opportunity for 'instant money'. The activity has elevated the economic status of rural women with favourable effects on village life (UNEPO/FAO/PAP, 2000). It is believed that more women leave crop production in favour of seaweed farming in the area because the activity has maintained its position as their major source of income (Jiddawi, 2000). Moreover, seaweed farming is believed to have increased women's purchasing power and has brought about their social and economic empowerment (URT, 2014). Women sell their dried seaweed to private investors who sell it directly on the international market.

Nevertheless, agriculture stands as a major economic activity for the rural population for their livelihoods and is dominated by small-scale subsistence farmers where rice and cassava are the

main staple food. However, the activity cannot satisfy the entire food needs of the residents and the country is known as a food importer (Dadzie, Mwisomba, & Ali, 2009). Obviously, the country is characterized by low agricultural productivity, which is also a challenge for moving from subsistence farming to more commercialized agriculture. It is estimated that nearly 80% of rice consumed in the country is imported from other countries, including the Tanzania mainland (the United Republic of Tanzania, 2014). The Revolutionary Government of Zanzibar (2008) reported that 41% of the country's annual food requirement is reliant on food imports. The agricultural sector accounts for about 27.9% of the country's total GDP. This is dominated by crop production which contributes almost 15.9% of the GDP followed by 6.4% fishing, 2.8% livestock, and finally forestry, which contributes around 2.8% of GDP (Office of the Chief Government Statistician, 2015).

Irrigation, which is crucial for improving agricultural productivity, is highly dependent on the incidence of seasonal rain, making this type of farming more vulnerable. The majority of irrigated crops are paddy rice followed by a few vegetables and fruits, where most of the irrigation is practiced in Unguja, rather than in Pemba. Moreover, available land for this type of farming is about 8,521 ha, while currently, less than 700 ha are under irrigation due to improper canal construction and poor water management (the United Republic of Tanzania, 2014). The challenges that contribute to lower agricultural productivity in Zanzibar are not far from those facing many Sub Saharan African countries. These include poor knowledge and low use of agricultural technologies, low input use and inadequate use of improved planting materials; also, natural disasters such as droughts and floods, poor infrastructure, pests and diseases and post-harvest loss (Revolutionary Government of Zanzibar, 2003).

2.4 Policies and Agricultural Development in Zanzibar

Zanzibar's strategy for growth and reduction of poverty (ZSGRP), known in Swahili as MKUZA, is the main national development plan for the country, and it has been developed in line with international plans and the long-term Zanzibar national plan, the Vision 2020. The ZSGRP is a five year plan which must be reviewed during the end of the implementation period to develop the next successive plan. The current plan ZSGRP III is from 2016 to 2020, while its predecessor was for 2010-15. The country's policies and development strategies should then be developed in line with the ZSGRP. Both the Vision 2020 and the ZSGRP III emphasize the importance of improving the agricultural sector due to its impact on poverty reduction, especially food poverty. ZSGRP considers agriculture as a priority sector, along with the services and industry sectors, for achieving sustainable economic growth in Zanzibar by the year 2020 (The Revolutionary Government of Zanzibar, 2015). The strategy aims to modernize

agricultural production by increasing the volume and value of crops and ensuring proper coordination and linkages to other sectors; also, by advocating for access to credits in all sectors of agriculture, that is crops, livestock, forestry and, fisheries.

The agriculture policy 2003 is responsible for the planning, implementation, and coordination of all agricultural development activities in the country. Its overall aim is to promote sustainable agricultural development for the economic, social and environmental benefit of its people, by encouraging private sector involvement in increasing productivity, value addition, and the export of crops, also by transforming agriculture from subsistence to a more commercialized operation. Currently, the policy is under review to incorporate the current and updated international and national development plans. Other policies around food, livestock, and cooperatives have direct links to policy for improving the development of the agricultural sector as a way of achieving the main aim of the Zanzibar Vision 2020. The Vision aims to modernize and increase agricultural productivity to meet the country's food needs as well as promoting additional cash crop production for export earnings.

To put the agricultural policy and other supporting policies into practice, Zanzibar's government has developed an agricultural transformation initiatives (ATI) plan for the years 2010 to 2020. The ATI is similar to the agricultural development strategy for the Tanzania mainland, known as 'Kilimo Kwanza' in Swahili, which sets out to achieve a green revolution and improve the agricultural sector for the country's economy. The ATI targets are to increase agricultural productivity, attain food security and provide sustainable livelihoods for the people of Zanzibar. Among the actions planned to achieve the main plan for this transformation is to activate and support the establishment of effective producer organizations and farmer groups, as well as to enhance their capacity and participation (Revolutionary Government of Zanzibar, 2010).

The Zanzibar food security and nutrition policy (2008), in supporting livelihoods, recognizes the importance of managing and protecting natural resources and the environment, along with improving agricultural development activities for the welfare of the general population. The policy acknowledges the role of agriculture as an important income-generating activity for both rural and semi-rural populations. Also, the attainment of food and nutrition security for the community largely depends on the development of the agricultural sector.

The livestock policy (2013) has a similar main focus to the agricultural food policies, which is to increase livestock production and to increase food and nutrition security for the general community, respectively. On the other hand, the recently developed cooperative development policy (2014) is responsible for mobilising the formation of cooperative groups, including

agricultural cooperatives; and, supporting them with technical advice and guidance for the groups to be officially registered to qualify for the support provided by the cooperative department. As a result, many farming groups have been developed within the past two decades in the country and many have been registered as agricultural cooperatives.

2.5 Involvement of Women in Agriculture

Women make a strong contribution to Zanzibar's agriculture and carry out most of the activities, including livestock production. It is reported that women represent almost 70% of the total agricultural workforce and produce about 70% of the agricultural output (Ministry of Social Welfare, 2015). Approximately 98% of the rural economically active women in the country are engaged in agriculture and contribute substantially to both commercial and subsistence agriculture, including livestock production and fishing. In other words, they are involved in food crops as well as cash crop production in addition to their household domestic work (Pitamba & Hamza, 2004). Similar to many women in the world they are overloaded with reproductive roles, productive roles and community management (Momsen, 2010). A contributing factor for the high proportion of women in the agricultural sector is their low level of education compared to men, which also indicates lower representation by women in the formal employment sectors in the country. Porter (2011) reported that 56.8% of women had no education compared to 26% of men; moreover, 32% of women undertake paid non-agricultural activities compared to 68% of men (Ministry of Social Welfare, 2015).

Despite their large contribution to the agricultural workforce women remain poor while facing various challenges in the sector, including limited access to productive resources, appropriate technology, useful information, extension services, and capital. Also, they lack access to better markets with their lack of negotiation and bargaining skills (Pitamba & Hamza, 2004). Similar to many women from low-income countries, especially Sub Saharan Africa, they experience a high workload resulting from their dual roles; that is farm responsibilities as well as household duties, which include preparing food, fetching water and firewood, as well as caring for children and sick members of their families (Porter, 2011; Pitamba & Hamza, 2004; Jiddawi, 2000). In addition, they lack ownership of land for agriculture. Porter (2011) estimated that only 20% of women in Zanzibar own land, while 70% farm on borrowed land.

High poverty rates are reported among farmers, which could also suggest higher rates among women who comprise the majority of farmers in the country (Office of the Chief Government Statistician, 2010). Also, household decision-making is still under the control of men, even for women's agricultural produce. HBS, (2009/10) reported that only 19.7% of women make decisions on income from agriculture, and 33.4% make joint decisions with men (Office of the

Chief Government Statistician, 2010). The main point is the existing unequal power relations between men and women; however, resource poverty remains an important factor (Win, 2007). Women are excluded from improved agricultural methods and have less control over resources such as land (Momsen, 2010).

Traditionally, the role of a family provision was the sole responsibility of the father; however, there has been considerable change and more women now contribute significantly to their families' livelihood (Jiddawi, 2000). This is possibly due to the increased cost of living, increased female-headed households, and the irresponsibility of some men towards their families. As a result, women seek income-generating activities to support their households' basic needs. Jiddawi (2000) observed that women who work in seaweed production are important contributors to their household by spending their income from seaweed and utilizing their crops for their families. In addition, they spend their income gained through other activities to meet household necessities (Jiddawi, 2000). A rural woman working in agriculture is a victim, overworked, vulnerable, poor, and unrewarded compared to men while taking the burden of providing food and household wellbeing in the presence and absence of a husband (Okali, 2012).

In response to the high contribution of women in the sector, and acknowledgment of their low level of education, as well as lower access to productive resources, the Agriculture Policy (2003) intends to promote gender equality in agricultural development, to ensure that women have equitable access to, and control over, productive resources including land, water, as well as access to supportive services particularly credit and extension services. Also, the policy aims to introduce and enforce gender-sensitive policy programs and projects in all matters relating to agricultural development. Furthermore, it wishes to promote women's full and equal participation in the economy. Similarly, the Tanzania Mainland Agricultural Policy (2013) aims to promote equitable participation by men and women in the production of goods and services in agriculture while ensuring that benefits are equitably distributed. The Zanzibar Agricultural Policy considers the organization of farmers into associations, cooperatives, and groups as an important vehicle for policy changes and improvement in their bargaining power in the input and output markets. In recognition of women's higher contribution to agricultural activities, the Zanzibar Livestock Policy (2011) intends to make efforts to empower women and enable them to engage in profitable livestock activities, and at the same time protect their rights, while encouraging an equitable share of resources. Also, the policy aims to eradicate economic, legal, and socio-cultural barriers to women's full participation in the agricultural sector, especially to livestock keeping (Revolutionary Government of Zanzibar, 2011).

2.6 Agricultural Cooperatives in Zanzibar

Agricultural cooperatives as a form of collective action in agriculture have a long history in the country, and their establishment can go back to the 1920s. The cooperatives for both Zanzibar and Tanzania Mainland started before their independence. Then their movements slowed down after their independence, although during the 1990s the movements regained their momentum. The cooperative movement is similar for both parts of the union, but not identical. For the Tanzania Mainland, the movement was impressive during the 1920s to 1930s and then slowed down between the 1980s to 1990s, possibly due to the abolition of cooperative groups during 1967 by the first president of Tanzania (Bibby, 2006). The structure regained its momentum during the 1990s, following the structural adjustment for the liberalization of the economy, and the development of the Cooperative Societies Act, and the Banking and Financial Institutions Act of 1991, which enabled financial support to savings and credit cooperative (SACCOS) groups (Piperk, 2007).

According to Magimbi (2010), who conducted a pioneer study on cooperative development in Zanzibar, agricultural cooperatives started in 1925 under British colonization, but many of the rural poor were not involved due to their lack of land ownership. Modern inclusive cooperatives started in 1950, followed by the formation of various types of cooperatives between 1952 – 1964, including consumer, marketing, thrift, and loan co-operatives; also, housing rural credit, fisheries, coir making, and copra production, dairy, ranching, tailoring, and cooperative shops. Then, the movement declined from 1964 onwards following the revolution in Zanzibar due to monopoly control by the Revolutionary Government on export crops, until 1976, when there was government relaxation and some cooperatives were registered. There followed a remarkable improvement for the cooperative movement during the 1980s and 1990s following the enactment of the Cooperative Societies Decree no. 3 of 1979 and the amendment of Act no. 4 of 1986. Various groups were then formed, including farming, fishing, saving and small-scale industries (Magimbi, 2010). However, Magimbi argues that these organisations lack the characteristics of cooperatives as they were initiated from the top-down by the government.

In 1995, the Cooperative Societies Act No. 4 underwent some amendments which allowed for the establishment of the Cooperative Union of Zanzibar (CUZA). The CUZA was officially registered on 16th December 1996 with its bylaws approved in 2004. The primary cooperatives are supposed to be members of regional and district cooperative unions and pay their membership fees. The cooperative unions should affiliate with the CUZA while representing the primary cooperatives. In return, CUZA is supposed to provide technical and financial

support to its members. However, Magimbi (2010) discovered that many existing primary cooperatives are not members of the cooperative unions and members of many primary cooperatives are not even aware of the existence of CUZA. Therefore, many primary cooperatives are not affiliated with CUZA.

During the time of the study, Magimbi (2010) discovered that both union cooperatives and the apex cooperative, the CUZA, were weak in terms of human resources and financial capacity. On the other hand, the cooperative unions were unable to pay their annual contributions to CUZA. As a result, CUZA declined to provide services to both primary and union cooperatives due to a shortage of resources and the absence of linkages to primary cooperatives. Magimbi further discovered that there were no activities organised by CUZA or the cooperative unions for primary cooperatives. Cooperative unions and CUZA could have supported primary cooperatives to secure better prices in international markets for substantial potentials crops such as seaweed (Magimbi, 2010).

The cooperative law in Zanzibar states that a primary cooperative can be established with a minimum of 5 members and economic viability is not a requirement for forming a primary cooperative. This is the reason for the existence of many agricultural cooperatives with an average of 20 members or less. Another reason for the existence of many agricultural cooperatives with an average of 20 members is the mobilisation of farmers to develop groups by the Ministry of Agriculture for the implementation of various support projects. The Ministry and the existing international agricultural development support projects find it easier to work with farming groups than individual farmers. Twenty members per group was a convenient number of farmers for learning purposes. Eventually, members of many learning groups decided to register their groups and continue to work collectively.

For more than two decades, the Ministry of Agriculture in Zanzibar has been working with farming groups under various agricultural development projects, regardless of their legal status (registered or unregistered). This is possibly due to the advantages of working with groups where information, knowledge, and skills can be delivered to many people, at the same time, and sometimes with fewer resources. It could also be due to increasing interest by donors, local and international NGOs, in working with farming groups, as illustrated by Mabuza et al., (2015). IFAD (International Fund for Agricultural Development) is a current example of an international development partner in Zanzibar that encourages working with groups in both of their two major projects: the Agriculture Sector Service Project (ASSP) and Agriculture Sector Development Project Livestock (ASDP-L). They have established farming groups known as

farmer field schools (FFS) on both islands, where more than 1,200 groups currently exist. A report from IFAD and the M

inistry of Agriculture shows that there is an increasing number of unregistered farming groups in the country. According to IFAD (2015), members of FFS groups continue to work together in their agricultural activities even after completion of the project and increased active participation by women farmers has been observed in these groups.

PADEP (participatory development empowerment project) is another project that has worked with groups from 2003 to 2010. The overall aim of the project was to increase agricultural productivity through the application of a participatory approach with beneficiaries taking a leading role from identification, preparation, implementation, monitoring, and evaluation of the project activities. The project targeted farming households organised into groups, whereby existing groups and newly formed groups were involved to achieve the project objectives. (Ministry of Agriculture Natural Resources Environment and Cooperatives, 2003).

The ministry's motivation for working with groups is not only influenced by the interests of development partners, but also from a belief in maximizing achievement from collective action. This idea is demonstrated in the Agriculture Sector Policy (2003), in the Strategic Plan, and the Agricultural Transformation Initiatives of the country. With regard to the policy, it mentions the promotion and monitoring of farmers' associations among the policy instruments for achieving the sectoral objectives. The policy recognizes farmers' associations as important grassroots organizations since the extension officers, credit institutions and input buyers and suppliers of agricultural produce will not need to deal with individual farmers due to the presence of these entities (Revolutionary Government of Zanzibar, 2003). Also, the strategic plan 2016-2020 states that the promotion and formation of stronger farmers' associations/organisations is one of the strategies for achieving the plan's objectives (Ministry of Agriculture and Natural Resources, 2016). The Zanzibar Agricultural Transformation Initiatives (ATI) have mentioned support creation and the strengthening of trade unions, producer organizations and farming groups among the implementation plans (Revolutionary Government of Zanzibar, 2010).

Formation of farming groups and the influence of the Ministry of Agriculture to work with groups could also be influenced by ILO Cooperatives Recommendation 193 of 2002 since the Zanzibar Cooperative Policy (2014) clearly states that the formation and functions of the economic groups in the country are governed by the ILO cooperatives recommendation 193 of 2002. The presence of a Cooperative Department in the Ministry could be proof of this statement; hence promoting the formation of farming groups and cooperatives is a vital role

for this ministry, as stated in the policy. However, several of these groups are not officially registered, and are only informal groups (IFAD, 2015), probably due to the absence of the Cooperative Policy until the year 2014, which gives mandate to the Department of Cooperatives on mobilisation and supporting registration of the economic groups in the country.

Farming groups and other economic development groups are regulated by the Cooperative Policy at the Cooperative Department. One of the roles of the department is to raise awareness of the community on the importance of economic and production groups, to promote their formation, to allocate available groups, and support them to develop their constitution, as well as to support their registration (RGoZ, 2014). Also, they provide them with skills and knowledge regarding the management of groups, as well as editing, monitoring, and evaluation of these groups. Essentially, all economic groups are grouped according to types of economic activity: i) Agriculture (including livestock and fishing); ii) Finance; iii) Small industries and handicrafts; iv) services (including tourism). However, agricultural groups are the majority in the country and constitute about 73.8% of all registered groups (RGoZ, 2014). It is a requirement that a group must be registered and should have a bank account to be eligible for receipt of loans and other available support from the Cooperative Department.

The Cooperative Policy 2014 illustrates that, from a total of 1,575 (73.8%) of the registered agricultural groups, 841 groups are involved in farming, 451 in livestock keeping, 185 in fishing, 78 in forest planting, 15 in beekeeping and, 5 in seaweed farming. The majority of the agricultural groups are involved in farming activities. Also, the report shows that the majority of farmers are involved in mixed agricultural activities; that is farming and livestock keeping (Mutayoba & Mbwete, 2013). However, livestock keeping is only a minor activity for the majority of farmers in the country, as stated earlier, although it is estimated to have a high potential for poverty reduction, especially poultry and dairy production (International Fund for Agricultural Development, 2015).

2.7 Women and the Issue of Gender in Zanzibar

Gender inequality is still an issue of concern in the discussion on women's livelihoods and their general progress in the country. It is believed to contribute to lower achievement by women in terms of economic development. The existing direct and indirect discrimination against women and girls marginalizes them from effective participation and the benefits from economic, social, legal and political development in Zanzibar (Revolutionary Government of Zanzibar, 2016). Women in this country face various challenges relating to their gender despite ongoing efforts by the government and various stakeholders. This includes less representation

in management and political positions, less participation at all levels of decision making, and the existence of oppressive attitudes towards women (Revolutionary Government of Zanzibar, 2016).

The existing culture, norms, and beliefs of the community also contribute to this situation. As stated in the country's Gender Policy, deep-rooted cultural, structural and systematic practice of unequal relations and opportunities between men and women have placed women in this condition. This also affects their confidence and ability to take part in public representation. The community perceives women only as mothers who are supposed to take care of their children and work on general household tasks. As a result, the majority of girls were denied their basic rights to education and ended up in early marriages. In the past, most parents did not allow their daughters to go to school, although recently the number of girls in schools, universities and other educational institutions has increased. However, young girls are still removed from schools to get married. As a result, there are a low number of women in management and official decision-making bodies in both local and central government.

Also, the culture in the country favours men having decision-making power. Daughters always have to obey decisions and follow orders from their male parents and relatives (fathers, brothers, and uncles), while wives are expected to obey their husbands in addition to their male parents and relatives. Women have poor access to and lower control over, productive resources. They also have low control even over their agriculture produce, since men tend to carry out most of the marketing activities. "They have limited coverage of social protection and cultural factors are not in their favour, as women are considered as subordinate to men" (Porter, 2011 p. 14). It is more likely to find the majority of women in developing countries less educated and not qualified technically or professionally compared to men. They do not have equal treatment under the law in issues such as property rights, making contracts, mobility, and freedom to joining associations (Nussbaum, 2000). Since women spend more time in their households and are denied the opportunity to make decisions, even for their children, the majority of women are not able to speak in open forums or groups.

Although women's contribution to agriculture is remarkable, their efficiency is limited by poor access to productive resources and lower use of modern knowledge and equipment. This includes the low use of inputs and inadequate access to extension services and training (Revolutionary Government of Zanzibar, 2016). Moreover, they have insufficient information on the significance of land ownership, and they are unaware of the laws and legal procedures for land ownership. On the other hand, inadequate implementation of inheritance law in Zanzibar affects the ability of women to access collateral for loans from banks and other formal

financial institutions (Revolutionary Government of Zanzibar, 2016). It is estimated that women are 8 times less likely to obtain credit from banks and other formal institutions compared to men (Mohammed & Temu, 2011).

It is believed that when women gain control over land assets their income increases, as a result, they spend more on food, healthcare, and education for their children (Porter, 2011). Women from both parts of Tanzania face similar challenges about land ownership. However, each part of the union has its laws and regulations for land ownership. Nevertheless, they both recognize the importance of land ownership for women and they both work to provide support for women to own land. The National Land Policy of Tanzania mainland underwent a reform process which resulted in Land Act No. 4 and Village Land Act No. 5, both in 1999. The Village Land Act, which deals with land tenured under customary law, was then further modified in 2003, and it limits the application of customary law "if it denies women rights to ownership, recognizes co-occupancy and access by both spouses, and recognizes the need for the wife's consent in case of disposing of family land" (Pitamba & Hamza, 2004. p10).

Although the Zanzibar government has demonstrated their intention to provide equal rights to land between men and women, the related laws and policies face impediments relating to cultural practice and patriarchal attitudes towards women. The Islamic and civil law of Zanzibar provide different ways by which men and women can possess the land, such as purchasing, gift, inheritance, and government grant. However, the majority of Zanzibar's women do not benefit from the laws because they are unaware of these opportunities, especially those in rural areas with a high level of illiteracy and poverty (Porter, 2011). Islamic law offers a structure for the basic welfare of all family members, as well as a means for assisting those who face economic crisis. This could provide support, especially to poor rural women. Nevertheless, these measures face difficulty in the case of polygamy and divorce. Many women become vulnerable after being divorced and, as a result, they give up their rights to inherit land to retain support from their extended family by avoiding conflicts that may arise when claiming their inheritance (Porter, 2011).

The former Gender Policy of Zanzibar was developed in 2001 but had to be reviewed following its failure to achieve its intended objectives. A new policy was developed in 2016, to ensure equal participation by men and women in development opportunities. The policy aims to tackle the root cause of the problem, such as the culture and local norms and values of the community that result in discrimination against women and the denial of their basic rights. Also, the new policy has been developed to cope with current global conventions and resolutions, as well as regional agreements and national development plans.

The Gender Policy 2016 aims to attain gender equity, equality and empower women in all areas of life. Since, the culture and norms of the community facilitate the existing unequal opportunities between men and women, one of the policy's objectives is to promote good cultural practices and social transformation and eliminate the existing values, norms, and cultures that hinder gender equity, equality, and empowerment of women (Revolutionary Government of Zanzibar, 2016). To implement the policy in collaboration with other key actors, the government intends to create an environment conducive to ensuring that women access productive resources and increase their ownership of assets. Also, the policy aims to facilitate continuous gender sensitisation, training and public debates on behaviour and attitude change towards women and their role in decision making. In addition, it will assist with accessible and affordable agricultural services and information, credit facilities, extension services, modern agricultural equipment, and inputs to smallholder farmers, particularly women (Revolutionary Government of Zanzibar, 2016).

2.8 Summary

The chapter presents the location of Zanzibar, its autonomy from the union government, and its economic status along with its dependency on agriculture. Contribution of women in agriculture is discussed and the way country's policies acknowledge women's contribution. The agricultural cooperative movement is also discussed followed by the place of women in gender relations and their disadvantage to their social and economic empowerment.

Chapter 3 Agriculture Development in Sub-Saharan Africa

3.1 Introduction

Agriculture remains an important sector for economic development in many Sub-Saharan African countries. This is because Sub-Saharan African countries have a higher rural population that is highly dependent on agriculture as their entire source of income. Nearly 80% of the world's poorest people live in rural areas and mainly depend on agriculture for their livelihood (FAO, 2014). Sub-Saharan Africa, together with East and South Asia, constitute about 95% of the world's rural poor (World Bank, 2016). In Sub-Saharan Africa, agriculture is an important sector for both food and the economy. It is estimated that more than 40% of households in the region depend on their produce as their source of food (AfDB, 2016). About income, agriculture contributes a larger share of the economy than the industry for many countries in the region, and in some countries, agricultural products account for nearly half of the export income (IFAD, 2016b).

Agriculture continues to absorb a large proportion of the working population in many African countries, where almost half of the new workforce goes into the sector each year (NEPAD, 2013). This is particularly the case in Sub-Saharan Africa where employees account for the largest share of the workforce in agriculture (ILO, 2013). Yet, the sector has not significantly improved in many countries in the region, faced with an increasing rural population, falling farm incomes, and increased rates of poverty (ILO, 2013). The future population of Sub-Saharan African countries is projected to be young with a smaller land area for farming (FAO, 2016); therefore, improving trade in agricultural products is perceived as an important route to economic development for these countries (ILO, 2013).

Further efforts are needed to improve agricultural activities in many Sub-Saharan countries to satisfy the food needs of the population and to improve the economy. Sub-Saharan countries are reported to have the lowest GDP compared to other parts of the world, as well as a higher rural population, except South Africa which has the lowest (38.4%) rural population in the region (NEPAD, 2013). On the other hand, West Africa and Central Africa have more than half of the rural population 54.9% and 56% respectively. The highest rural population is in East Africa, with almost 70% of its population dependent on agriculture for their livelihoods (NEPAD, 2013). Central Africa has the lowest GDP (106 billion US$) (FAO, 2014). Therefore, my discussion about Sub-Saharan countries excludes South Africa, which is quite different in terms of its economy, and the country has improved significantly in terms of general development.

In addition to the lower performance of agricultural development in Sub-Saharan Africa, the region also has some similar social and economic features. The region is reported to have a higher poverty rate, greater incidence of disease, higher levels of illiteracy, and low economic growth (UN, 2015; IMF, 2016; FAO, 2009). Therefore, the analysis in this study has focused on Sub-Saharan Africa not only because many countries in the region share similar features, but also because the study area is one of the countries in this region.

3.2 Overview of Smallholder Farmers in Sub-Saharan Africa

One of the important characteristics of African agriculture is its high dependence on labour from smallholder farmers. Several studies have shown that African agricultural activities, especially in Sub-Saharan Africa, are dominated by smallholders who rely on family labour with poor access to productive resources and insufficient means of increasing their productivity (Fischer & Qaim, 2012; Jayne et al., 2010; NEPAD, 2013). Smallholder farmers can be recognized as farmers who perform their agricultural activities on small pieces of land. In general, there is no substantive definition of smallholder farmers, as various countries have different definitions for small-scale farmers. However, a study conducted in five countries of Sub-Saharan Africa identified households farming less than 10 hectares as small-scale farmers (Jayne et. al., 2010). Discussion on agricultural development in Sub Saharan Africa cannot avoid smallholder farmers because they constitute the majority of farmers in the region. At the same time, they face several problems that hinder their ability to improve the activity and which also reduces their opportunities to commercialize agriculture.

Rapid rates of population growth for many countries in Sub-Saharan contribute to reducing average land size due to the increasing number of landholders (FAO, 2014). Although it is believed that many smallholder farmers worldwide share similar features, such as working on small-size farms, and lower use of improved modern machinery, in Sub-Saharan Africa the situation is more of a challenge. For example, almost 95% of farmland in Sub-Saharan Africa depends on rain-fed farming (FAO, 2014). Farmland dominates the rural landscape and farmers face barriers to accessing productive resources to improve their productivity. As a result, they are unable to compete for better market access. Their productivity is confined to subsistence farming, since many smallholders grow food crops to satisfy their families' food requirements, unlike medium and large-scale farmers who specialise in specific crops for commercial agriculture. Moreover, many smallholder farmers are also restricted to rural natural resource demands, which are associated with population growth. As a result, most of them are not even able to cope with the food demands of their communities. It is estimated that subsistence producers and lower-paid farm labourers from the rural areas are among the world's most food-

insecure people (FAO, 2014). While food demand is growing, land and water resources have become degraded and scarce, yet increasing agricultural productivity is vital to meet food demand and for increasing rural incomes (FAO, 2014).

3.3 Challenges Facing Smallholder Farmers in Sub-Saharan Africa

Despite agriculture being the most important economic activity in the region, the development of the sector is hindered by several challenges that require reliable solutions to achieve the first (no poverty) and second (zero hunger) UN Sustainable Development Goals (SDGs) by the year 2030. Essentially, the sector in this region is characterized by low productivity caused by several factors, such as low use of modern equipment, inadequate use of inputs, and insufficient application of modern agricultural methods and skills. It is estimated that the most common technique employed by the farmers to increase their productivity is increasing land size for cultivation and mobilising a larger workforce; less emphasis is given to changes in production techniques (NEPAD, 2013). Many smallholder farmers are mostly involved in subsistence farming. But since many of them depend entirely on agriculture for their income, they have to sell some of their crops to meet other essential needs such as buying other items and paying for health and other services. Nevertheless, they can barely produce enough to feed their own families (NEPAD, 2013), let alone pay for other important services.

Studies conducted in the region have reported multiple challenges contributing to lower productivity among smallholders, including lower access to financial markets, and lower access to inputs and improved tools (Fischer & Qaim, 2012). The FAO (2014) observed low use of fertilizers and improved seeds by farmers in Africa compared to other regions, with the lowest use in Central and Eastern Africa. Also, these farmers are characterized by low use of irrigation farming, low input use, and inadequate access to financial support and, low use of modern agricultural methods and technology. It is believed that these factors contribute to smallholders' inability to compete with large commercial producers in the region (Jayne et. al., 2010). Limited use of irrigation farming in the region contributes to their inability to achieve a green revolution (Jayne et al., 2010). Many farmers have poor access to land ownership, and they face problems with access to better markets. Also, crop diseases and post-harvest losses contribute to the low output from agriculture (Jayne et. al., 2010; Dadzie et. al., 2009; Ferguson & Kepe, 2011; Ortmann & King, 2010). Handly et al. (2009) reported that lower use of technology and poor management of pests and diseases in Sub-Saharan countries prevents many poor smallholders from increasing their productivity.

Several studies have reported that the majority of poor smallholder farmers in the region have inadequate access to financial services such as credit, loans, and capital that could have

supported them towards improving their agricultural activities (Sebatta et. al., 2014; Ortmann & King, 2010; Mabuza et. al., 2015). Lack of access to better markets by farmers is also associated with poor infrastructure which is a feature for many Sub-Saharan countries, in addition to an insufficient application of improved crops with added value. As a result, they miss the opportunity to take advantage of markets while facing higher transaction costs for their produce, as well as for their agricultural inputs (Fischer & Qaim, 2012; Ortmann & King, 2010; Jayne et al., 2010). Eventually, they are unable to compete in markets with larger producers due to the higher transaction costs (IFAD, 2016).

The inability to access and own land for agriculture is a persistent challenge for the majority of smallholder farmers in the region (Anriques & Stamoulis, 2007). A contributory factor is the absence of adequate property rights (Ortmann & King, 2010), as well as a lack of awareness about procedures for official land ownership by much of the rural population. Increasing demand for land by farming communities is caused by growth in the rural population who mostly depend on agriculture for their livelihoods. Africa was known to have the bulk of its land suitable for agriculture, but the situation is changing for many Sub-Saharan African countries. The land ratio per person is decreasing due to the increasing population engaged in agriculture as a result of high population growth in the region (Jayne et al., 2010).

Although higher rural populations in many Sub-Saharan countries are engaged in agriculture the region faces a problem with low yields. The majority of smallholders in the region cannot afford to produce large volumes of high-quality crops to satisfy market demand (Mabuza et. al., 2015). A study conducted in Ethiopia, Kenya, Malawi, Mozambique, and Zambia revealed that crop productivity has not increased between the years 1960 and 2000 compared to other parts of the world, for similar reasons to those already mentioned (Jayne et. al., 2010). On the other hand, less access to support and services needed by poor smallholder farmers contributes to lower efficiency and low productivity in the sector, including less access to extension services by farmers. Studies conducted in the region revealed that many poor smallholders have inadequate access to services and agricultural support that they most need to increase productivity (Handly et al. 2009; Mabuza et. al., 2015).

Apart from the above challenges which reduce their productivity, their activities are also hindered by agroecology in the region, which is characterized by periods of drought and incidents of heavy rain. For example, in Kenya, agriculture does not seem to contribute to poverty reduction for several reasons, including poor soil fertility and inadequate irrigation (Kamya, 2015). Productivity is hindered by dependency on seasonal rains, whereas heavy rain could result in floods and eventually ruin vegetation. Similarly, during droughts crops are

ruined due to lack of water. On the other hand, the low annual budget for many governments in Sub-Saharan countries for supporting agricultural development activities is one of the reasons for lower achievement in the sector (Jayne et al., 2010).

In addition to the reported challenges, numerous studies have also provided suggestions for supporting smallholder farmers in the region (Jayne et al. 2010; Dadzie et al., 2009; Fernandez, 2014; Ferguson & Kepe, 2011). Various efforts have been undertaken in Sub-Saharan Africa, and Africa in general, to overcome the challenges and improve productivity. For example, CAADP (Comprehensive African Agricultural Development Program) was established under the efforts of NEPAD (New Partnership for African Development) and the FAO (Food and Agriculture Organisation of the United Nations) in 2003 to support African agriculture through the application of 4 pillars. First, management of land and water; second, rural infrastructure for market access; third, increasing food supply; and fourth, agricultural research. Implementation of the CAADP was committed by African heads of state in Maputo 2003. However, Poulton et al. (2014) observed that the pace of the CAADP movement appears to be slow due to the lack of commitment by some countries' government leaders.

The CAADP operation only increased after the international agriculture donor support decided to link their aid to the implementation of CAADP objectives. Nevertheless, reports show that only a few countries in Sub-Saharan Africa have a high commitment to CAADP initiatives, including Rwanda and Ethiopia. On the other hand, Tanzania, Mozambique, and Kenya show weak political influence to invest in smallholders (Poulton et al., 2014), which indicates a low political will to improve agriculture by these countries. This suggests the need for government commitment to support smallholders to improve their productivity. As noted by Poulton et al. (2014), leaders' commitments in the region are not satisfactory although considerable changes need to occur among smallholder farmers. For example, Zimbabwe had a significant (16%) contribution to agriculture in its total annual budget expenditure during 2009-2010, whereas Kenya, Tanzania, and Uganda (East African) had less than 6% agricultural expenditure (FAO, 2014). It is argued that, since agriculture provides a direct way for the rural population to benefit from land and labour, there is a substantial impact on poverty reduction for low-income countries to invest in agriculture, especially for smallholders, in comparison to investing in other sectors (FAO, 2017).

3.4 Women Farmers in Sub-Saharan Africa

Poor women smallholder farmers make a strong contribution to agricultural activities in Sub-Saharan Africa and this is an important feature of agriculture in this region compared to other parts of the world. It is estimated that nearly 70% of the agricultural workforce in the region

are women (NEPAD, 2013). And the majority of women in Sub-Saharan Africa depend on agriculture as their entire source of income to support their families (AfDB, 2015). In addition to the fact that the majority of these women are smallholders, they also face greater challenges compared to men in terms of access to productive resources and the support they need to improve their activities. It is proposed that in areas with challenging agricultural circumstances it may become even tougher for women (Slavchevska, 2015). This is an outcome of the persistent gender gap that exists between men and women in the region; hence, gender issues become an important matter in the discussion on agricultural development for women in the region. All over the world, women are not treated equally with men. But the situation is worse in developing countries because the issue of inequality is associated with poverty resulting in severe failure of fundamental human capabilities. Women lack the critical support they need to live a human life. They lack that vital support only because they are women (Nussbaum, 2000).

The majority of women in Sub-Saharan Africa depend on agriculture as their main source of income to support their families (AfDB, 2015). ILO, (2009) demonstrated that more than 64% of women in Sub-Saharan Africa are employed in the agricultural sector. Although men are less likely to spend their income on their families, they are the ones who get a better-paid job involving technology (Momsen, 2010). The higher contribution to agriculture by women can be found in East African countries where around 68.8% of women participate in the sector (FAO, 2014). Also, Tanzania is reported to have the highest number (over 90.4%) of women actively engaged in Agriculture (The United Republic of Tanzania, 2013). Therefore, discussion on agricultural development in Sub-Saharan African countries cannot avoid the contribution of women. Also, in the discussion for supporting rural poor smallholder women farmers in the region two issues need to be considered. One, women face additional challenges to access productive resources compared to men (FAO, 2011); two, their time consumed in agricultural activities is constrained by being entirely responsible for undertaking household roles (FAO, 2014).

Despite the international efforts and conventions about gender equality, economic growth and modernization are not gender-neutral. Experiences show that economic prosperity helps gender equality, but some gaps are resistant to change. For example, economic growth in East Asian countries has contributed to narrowing gaps such as education and difference in wages, but nothing has changed about political representation (Momsen, 2010). The achievement has not been made in closing the gender gap due to differences across countries and communities. The gap is different between countries and within the same countries due to differences in religion,

race, ethnicity, class, and stages of life. For example, the young and elite have greater chances for education (Momsen, 2010). Evidence shows that gender equality enhances development, for example, increasing education and access to input for women farmers increase their crops. Children of educated mothers are more likely to have better food and to go to school. However, developing countries face inequality in terms of legal, social, political and economic rights compared to men (Momsen, 2010). The following sections discuss the challenges facing women farmers in the region about their access to resources, land rights, and the gender gap.

3.4.1 Resource Access

Many challenges facing women in agriculture are rooted in the existing gender gap in the region, including their limited access to resources such as land, inputs, and financial support. The existing inequality between men and women is the outcome of deep-rooted cultural norms and beliefs in different societies (Wekwete, 2013). These long-term cultural beliefs towards women have resulted in discrimination against women by being denied their rights to education, decision-making power, and ownership of assets. Eventually, they have fewer means to access the agricultural resources needed to improve their activities and increase their income.

It has been shown that a lack of access by women to the resources and opportunities required to maximize their productive time in agricultural activities has contributed to the underperformance of agriculture in many developing countries (FAO, 2011). Several studies in Sub-Saharan Africa have reported less access to productive resources by women compared to men, including access to land, labour, credit, and low use of inputs; also, they are more likely to be less educated than men (Quisumbing et al., 2013; Maisaganah, 2010; Killic et al., 2015). They have inadequate access to agricultural assets and extension services (FAO, 2011). It is reported that the majority of female-headed households in rural areas have less access to many important assets and services that are vital for their livelihoods compared to male-headed households. This includes improved seeds, fertilizers, mechanical equipment, extension services, and agricultural education (Wekwete, 2013).

Furthermore, women have been reported to have low agricultural productivity compared to men. This can be attributed to the above mentioned challenges for women, as well as limited access to credit, insecure land property rights, and their exclusion from irrigation projects. Since men have greater access to agricultural resources, support, and equipment they are expected to obtain greater outputs compared to women (Wekwete, 2013). For example, in the Tanzania mainland, it was observed that plots managed by men obtain higher productivity compared to plots managed by women during the same year, and even when planted with the

same crops (Slavchevska, 2015). Possible because women manage lower size farms (an average of 1.48 acres) compared to those of men (an average of 3.25 acres), although they both grow the same types of crops (Slavchevska, 2015). Also, due to their high involvement in small-scale subsistence farming, women are not able to access markets by linking to the wider network of markets (Wekwete, 2013).

In women and development (WID), the absence of resource access to women is the key to their subordination, but the concern is not raised about gender relations which is a source of the problem. It is suggested that conflict, power and gender relations are crucial in understanding the subordination of women (Razavi & Miller, 1995). Literature shows that the analysis of social relations results in an emphasis on the inclusion of women's empowerment in women development programs. Women's discrimination in credit and labour markets and gender-specific role models in production have been detected contributing to different limitations facing women in various economic activities (Razavi & Miller, 1995).

It is useful to undertake detailed gender analysis to improve the economic situation of women in a particular area. Gender analysis is a "diagnostic tool for planners to overcome inefficient resource allocation. It identifies gender-based divisions in productive and reproductive work, and gender differences in access to and control over income and resources. It aims to highlight the key differences between the incentives and constraints under which men and women work; the insights gained from this analysis are then used for tailoring planned interventions such as the provision of credit and training to improve overall productivity" (Razavi & Miller, 1995. p.14). However, attention should be made on differences among women. "In addition to the scarcity of sex-disaggregated data on poverty, less attention has been made to women's differences such as age, ethnicity, and class which is critical in determining how poverty might be feminizing" (Chant, 2011. p.178).

3.4.2 Land Rights

The land is a primary crucial asset needed for agricultural activities, yet the majority of poor rural women in Sub-Saharan Africa have limited ownership and control over land, despite their higher dependency on agriculture for their livelihoods. Research conducted in Nigeria and Tanzania acknowledged that women are the primary food producers and the denial of their land rights has damaging outcomes for entire families which depend on them. The studies looked at the impact of both customary and statutory laws on women's access to land, and the extent to which women's productivity is negatively affected by favouring male ownership (Rathgeber, 1990). It is estimated that only 15% of women in the region own land and the data is even lower in some countries, for example, in Kenya only 5% of women are registered as

landowners (Wekwete, 2013). It is believed that two issues are behind this: one; the legal framework, and second; inheritance guidelines within the given communities. Due to persistent gender inequality, most inheritance guidelines among the communities favour men. On the other hand, women's lack of knowledge and awareness about the existing laws and procedures for land ownership increases their risks, even in countries with suitable rules for land possession in Sub-Saharan Africa (Quisumbing & Pandolfelli, 2010).

The inability to own land by the majority of poor rural women in the region also increases their limited access to other resources necessary to improve their productivity, such as loans. It was also observed that the lack of land ownership contributes to women being excluded from irrigation projects, as mentioned earlier. Some projects use land ownership as a requirement for project user groups to which women have less access, and pricing of water is calculated based on men's income and women might not be able to afford to pay (Quisumbing & Pandolfelli, 2010). In Zanzibar, loans from official banks can only be provided if farmers use irrigation which could guarantee short-term production and a short period of repayment. Since the majority of women in the country farm on borrowed lands, they cannot afford an irrigation system, as a result, they cannot access loans.

Another significant observation about land ownership between men and women is that women are more likely to own small areas of land compared to men. It is estimated that women cultivate an area of only about one third to two-thirds of the area that can be cultivated by men (Wekwete, 2013). A study conducted in Tanzania observed that in addition to women using smaller land sizes, they also work on lower quality lands (Slavchevska, 2015), and this could explain their lower yields. The poor performance of the agricultural sector in many developing countries is mainly caused by women's unequal access to the resources and opportunities they need to be more productive in relation to men (FAO, 2011).

3.4.3 Gender Gap between Men and Women Farmers

As indicated earlier, the majority of challenges facing poor women farmers in the region are caused by the longstanding gender gap. As a result, women suffer more in terms of access to, and ownership of, productive resources compared to men (FAO, 2011). The existing gender gap is an outcome of social beliefs toward women which differ across countries and communities. However, according to gender and development literature, 3 basic themes appear in all societies. One, creation of labour division by sex within communities. Second, to understand gender roles in production we must understand household gender roles while appreciating women's productive and reproductive roles. Third, economic development is

impacted differently by men and women, with mostly negative impacts from women (Momsen, 2010).

Several studies have reported that women's limited access to productive resources such as land, inputs, and credit is an outcome of their gender (Quisumbing & Pandolfelli, 2010; Masaiganah, 2010; Slavchevska, 2015; Quisumbing et al., 2013). This eventually reduces their ability to achieve more in agriculture. Nonetheless, women's contribution is greatly needed for general economic development, as well as for the region's food security, since they are estimated to produce 80% of the food resources (ILO, 2009). Also, women spend much of their income supporting their family requirements including food, education, clothes and health services, which means family welfare improves when women's income increases (Cheston & Kuhn, 2002). Gender mainstreaming has increased countries' awareness to respond to international prospects to gender analysis and made many men more informed on the necessity to consider gender-specific demands. Nevertheless, gender mainstreaming frequently leads to technical solutions while lacking the essence of feminist activists and the aim of advocacy for women's justice, rights, equality, capacities, and empowerment. (Cornwall et al. 2007).

Most of the current knowledge for the world, ourselves and our societies have resulted mainly from the knowledge and theories of men from limited nationalities and economic classes. Being male-dominated the process has excluded women and other groups from the theorizing process and knowledge-building. Such knowledge, when applied to research and policy actions, eliminates the attention of specific issues for women and disregards their contributions in the implementation of such activities (Bailey et al. 2000). Women's social roles and the way they negotiate differ according to personal characteristics such as education, age, etc. and differences in contexts such as social, political, cultural, racial, religious, etc. Gender experiences differ across cultures and in terms of personal experience. Race, culture class and alike pose differences that should be carefully considered, women should not be treated as homogenous as doing that will result in theories not different from those of the traditional approach (Bailey et al. 2000).

Numerous studies have estimated that the existing gender gap in agriculture is the main contributing factor to the lower performance of women in agricultural production (Fischer & Qaim, 2012; Brahic & Jacobs, 2013; International Food Policy Research Institute, 2013). A study conducted in East Africa (Ethiopia, Tanzania, and Uganda) reported that women face gender-specific issues associated with the patriarchal system which affects them within their communities and in workplaces. This also undermines women's confidence, self-esteem and bargaining power (Brahic & Jacobs, 2013). For example, women face challenges in terms of

land ownership compared to men, due to the existence of local land inheritance procedures and other land tenure systems that are not in their favour. As a result, their ability to adopt technologies and to participate in agricultural markets is reduced (Mudege et al., 2015). Also, the roles and responsibilities of women in agriculture are highly determined by social and cultural norms for a given community (FAO, 2014), which also affects their access to and ownership of resources.

Various studies have shown that there is a persistent gender gap in agriculture within Sub-Saharan African countries despite ongoing efforts by various governments, development partners and international organisations to remove this gap between men and women (Quisumbing and Pandolfeli, 2010; Slavchevska, 2015; Kilic et al., 2015). The nature of these gender gaps varies across countries within the region and also across communities within the same country, which makes designing policy to address the gap more challenging (Kilic et al., 2015). Since it is believed that gender inequality is influenced by local culture and norms, this is also a potential reason for the existence of these differences between different communities. For example, Slavchevska (2015) reported differences in the gender gap within different zones in Tanzania, observing that the gaps can be substantial in more disadvantaged regions.

Women farmers in Ethiopia and Ghana reported poorer access to extension services compared to men since women are not regarded as agricultural decision-makers. Also, women can miss the opportunity to communicate with officers because the interaction between men and women within a community is influenced by local cultural norms (Quisumbing & Pandolfelli, 2010). In other words, the interaction between women farmers and male extension officers in some communities is considered inappropriate by their cultures and norms. Moreover, these women lack decision-making power within their households, even for their crops, and they have lower bargaining power when dealing with men (Ferguson & Kepe, 2011). The reason for the lack of women's power over men has possibly resulted from the "social and economic structures that have historically marginalised women from access to resources, employment opportunities, and decision-making positions" (Ferguson & Kepe, 2011. p.425).

Another important constraint facing women in increasing their agricultural productivity is their burden of household responsibilities in addition to their farm work. Several studies have reported that women in Sub-Saharan Africa are responsible for their household roles in addition to their agricultural activities, including preparing food, fetching water and firewood, caring for their children, and having to look after the sick members of their families (Malapit & Quisumbing, 2015; Jiddawi, 2000; Porter, 2011). As a result, they face a high workload of more than 14 hours a day compared to men (Pitamba & Hamza, 2004). The dual roles facing

women with the low use of technology in both farm and household tasks to reduce their burden prevents them from investing more time in higher agricultural productivity (Quisumbing & Pandolfelli, 2010). On the other hand, income from these women could be needed to provide for their families. For example, studies conducted in Malawi and Zanzibar have demonstrated that women are more likely to spend their income on the needs of their households compared to men (Cheston & Kuhn, 2002; Sebu, 2013). This implies a need to support rural women farmers to increase their agricultural productivity for the general wellbeing of these communities. Well-managed social protection programs, when targeted at women, could improve overall household welfare since women prioritize their children's wellbeing (FAO, 2016).

Since the majority of the agricultural workforce in Sub-Saharan Africa comprises women smallholders, strategies for increasing agricultural productivity in the region should include efforts to reduce the gender gap (Kilic et al., 2015). Interventions to reduce the gender gap should be considered about specific communities since there are different beliefs about gender roles and women's positions across countries within Sub-Saharan Africa, and even within the same countries, due to existence of diverse norms and cultures in the region (Quisumbing & Pandolfelli, 2010). It is estimated that closing the gender gap in agriculture could increase productivity and promote economic growth, and eventually reduce poverty and hunger (FAO, 2011). However, it is essential to consider the burden of time for women on expanding income-generating activities, not only concentrating on expanding the activities as conducted in WID/WAD interventions (Rathgeber, 1990). "Many development projects in several parts of the world rarely move beyond the identification of differences in work done by men and women in implementing programs for change in gender relations. The common strategy is to provide women (or men) with labour-saving technologies and to assume that their burden will be reduced to carry out their productive/reproductive responsibilities with less effort. This approach may have an important impact on the lives of individual women, but it does little to break down existing stereotypes and male-oriented cultural patterns". (Rathgeber, 1990. p. 499).

Women are the majority of the poor but the burden of family provision and the general economic development especially in Sub-Saharan Africa fall on their shoulders. "They are increasingly at the frontline of dealing with poverty. While the burden of household survival has long been widely documented as falling disproportionately on women, the unevenness between women's and men's input and their perceived responsibilities for coping with poverty both seem to be growing" (Chant S, 2011. p. 181)**.** It is like 'feminization of responsibility and

obligation' since women have higher reproductive labour share and higher working time per day compared to men. The important point is the differences in time and labour inputs not only inequality in incomes between men and women. Women need to be empowered to challenge these growing responsibilities and strike new deals within their households rather than accepting in a spirit of self-sacrificing (Chant S, 2011). On the contrary, it seems as women's education, skills and access to economic opportunities expand, the more they are encouraged to support their families (Chant S, 2011). In fact, "women's household tasks are not counted as part of a nation's incomes underlines the gap between male and female employment. Gender segregation of work and wage differentials between men and women continue to harm the labour market, despite women making up around 40% of the global workforce; 2% of farmers are registered as women, despite the full participation of women in farming". (Shirin, 2011. p 20).

3.5 Summary

The chapter provides a general overview of agricultural development in Sub-Saharan Africa including the challenges faced in improving the sector. Agriculture in SSA depends on a large number of small holder farmers of whom the majority are women. However, women face structural constraints which limit their ability to move from subsistence to commercial agriculture. The chapter goes on to discuss in detail the challenges facing women specifically which contributes to the lower performance of agriculture in the region.

Chapter 4 Collective Action and Agricultural Development in Sub-Saharan Africa

4.1 Introduction

Collective action has a long history across the world and can be employed for various social, economic and development purposes. Broadly, collective action can be defined as "voluntary action taken by a group of individuals who share mutual interests and expect to achieve common benefits" (Mabuza et al., 2015. p1026). Cooperatives are a well-known form of collective action, due to their long history and their widespread use worldwide. Their origin can be traced back to the 18th century; however, some records go back to at least the 1770s (ILO, 2014). However, it is difficult to summarise their effectiveness and challenges because they vary significantly with eras, countries, and types (Simmons & Birchal, 2008). Simmons and Birchal (2008) differentiated cooperatives into four groups in relation to countries: one, more economically developed countries; two, the ex-communist countries; three, transition countries; and four, low economy developing countries. They proposed that cooperatives are an important means for supporting isolated rural populations in low economy developing countries.

Concerning types, G. Ortmann and R. King (2007) classified cooperatives broadly according to their main activities: One, marketing cooperatives which may process or manufacture, bargain for better prices, and sell farm products; two, farm supply cooperatives which may supply farm inputs and equipment by purchasing larger volumes of inputs. And three, service cooperatives that provide services such as loans, storage and drying services. Also, cooperatives can be identified in terms of their main activities, such as agricultural cooperatives, saving and credit cooperatives (SACCOS), manufacturing cooperatives and service cooperatives (RGoZ, 2014). Also, agricultural cooperatives can be further categorized into farming, livestock keeping, fishing, and forest planting. On the other hand, Tefera et al. (2017) differentiated agricultural cooperatives into two types in relation to their organizational characteristics, marketing oriented and livelihood oriented. Marketing cooperatives link farmers to output markets by selling their crops collectively, but in livelihood cooperatives, farmers do not sell collectively, the main aim is the provision of inputs to their members. Also, agricultural cooperatives can vary greatly in the size of their membership depending on the guiding principles for a particular country.

Cooperatives have been established worldwide for the main purpose of serving the interests of their members (G. Ortmann & R. King, 2007). They are established as a practical means by which working people can meet their daily necessities and as a means for creating a better

society. Moreover, they play an important role as a source of food, shelter, health services and social protection (ILO, 2014). This means that cooperatives can operate in all economic sectors, which is why there are different types of cooperatives. They are defined differently in different countries, especially in countries that do not refer to the ILO Recommendation 193 of 2002. This defines cooperatives as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (ILO, 2014. p19).

The ILO recommendation 193 provides the types of roles and responsibilities to be undertaken by governments, as well as the type of directions within the cooperative management to achieve better performance of the cooperative's objectives and functions for all the economic sectors involved. It seems that for a country to be in line with the ILO cooperative recommendations, it has to develop policies for guiding the movement and type of regulations with which people need to comply to establish a cooperative. The ILO recommendation 193 "calls for the adoption of measures, among other things, to assist coops to create and develop income-generating activities and sustainable decent employment" (Bibby, 2006. P14). "Cooperatives Recommendation 193 is a landmark international policy guideline, which provides a modern framework for cooperatives. Since its adoption nearly 100 countries have made use of the Recommendation to revise and develop their cooperative policies and laws" (ILO, 2014. p ix).

4.2 Theories of Collective Action.

A theory is mostly defined as "scientific theory, which emphasizes a logically unified framework, generalization, and explanation" (Bailey et al. 2000. p 2). Mancur Olson's theory 'The Logic of Collective Action' was fundamental and, continues to provide scholars with a basic understanding of the theory due to its methodological individualism despite various critiques made through the development of social research over time. It was published in 1965 and allowed for the refutation of former theories (Czech, 2016). The previous theories deprived individuals of the opportunity to make their own decisions based on their personally defined rational interests, while they relied on a holistic approach. Olson suggested that groups should be treated as a gathering of rational individuals and not treated as a group in the same way as individual behaviour, although members share similar interests and benefits in collective action. Also, the former theories did not describe the lack of organised action implemented by groups (Czech, 2016).

The former theories claimed that people were forced into collective action to accomplish common goals through their characteristics of self-organization, and Olson presumed that they may be correct. Also, other theories claimed that the development of complex societies caused

the dissolution of small groups, replaced by associations and social groups which provide individual protection and a sense of belonging similar to small groups (Czech, 2016). However; Olson challenged that the theories did not explain the reasons for the achievements of some groups and the failure of others, regardless of them having similar potential and related goals. He proposed that we should not consider the relationship of benefits to costs for a group, but rather for individuals since even individuals share similar goals with zero costs for organising groups, yet it is not enough for collective action to take place (Czech, 2016).

However, it is clear that people organise groups and likely achieve the benefits they work for, but we need to know the factors for managing successful collective action. According to Olson, the size of a group and the mechanism for selective incentives matter. He estimated that small groups are the most successful and privileged for providing collective goods. And, it is possible to successfully monitor the small number of members. In favour of smaller groups, he added that most successful groups work in subgroups for better efficiency. He hypothesised that it is not easy to predict success in intermediate groups since none of the members manage to gain enough benefits to bear all the cost of action, while in large groups it is difficult to organise and achieve collective benefits due to issues of free-riding and small individual benefits. As a result, collective action will not take place unless free-riding is eliminated and individual actions are encouraged (Czech, 2016).

Olson is criticised for not considering the difficulties of organising groups and most of his work discusses reasons for, and examples of, successful collective action, "his path of analysis was firmly grounded in economics and its assumptions of rational maximising behaviour. And did not consider groups' working constructions, preservation of natural or cultural heritage, or charity since they fall beyond the scope of economics" (Czech, 2016. P 119). Also, Olson's model of the rational individual (thin model) is criticised because it fails to "take account of the characteristics which they see as making us human – emotion, passion and a limited ability to weigh up the exact pros and cons of a situation. Various versions of a 'thick' model attempt to flesh out Olson's rational individual to create a more realistic paradigm of human decision-making" (Gillison, 2004. p 10). Where 3 other factors have been observed to explain reasons for people to cooperate; firstly, when they have a fervent belief about a subject; second, when mobilised against a collective bad; and third, when they benefit from the company of people with similar ideas and interests. Similar reasons apply to collective action by farmers, where members seem to believe that farming groups can deliver better outcomes for their activities. Also, they benefit from the collaboration of members with similar intentions to improve their farming for a better income to support their families.

Research about collective action problems mainly suggests that the level of cooperation varies across different settings from very low to considerably high levels. Field researchers have identified huge numbers of contextual variables that are favourable or damaging to endogenous collective action (Ostrom, 2000). These include "type of production and allocation functions; the predictability of resource flows; the relative scarcity of the good; the size of the group involved; the heterogeneity of the group; the dependence of the group on the good; a common understanding of the group; the size of the total collective benefit; the marginal contribution by one person to the collective good; the size of the temptation to free-ride; the loss to co-operators when others do not cooperate; having a choice of participating or not; the presence of leadership; past experience and level of social capital; the autonomy to make binding rules; and a wide diversity of rules that are used to change the structure of the situation" (Ostrom, 2000. p148).

A common observation among some reliable findings drawn from empirical research is that users of common-pool resources who organise themselves to develop and enforce their own basic rules tend to manage local resources more sustainably compared to a situation where rules are imposed on them from outside (for example external organisations and government regulations) (Gillison, 2004). It is believed that considerable progress has been made in the theory on a tendency to cooperate, but additional work is needed to provide a clear understanding of the reasons why some contextual variables enhance cooperation while others discourage it (Gillison, 2004).

4.3 Agricultural Cooperatives

Collective action in agriculture is strongly proposed as a vital action to support poor rural smallholder farmers in Sub-Saharan Africa (Ahmed & Mesfin, 2017). Various forms of collective action in agriculture, including networks, cooperatives, and producer organisations have been observed to help rural poor farmers to increase their access to productive resources and improve their agricultural productivity (FAO, 2017). The essence of collective action for poor smallholders is its ability to reduce transaction costs, both for buying inputs and selling their crops at better prices because it is difficult for smallholders to access better markets and bargain for better prices individually (Tefera et al., 2017). Numerous studies have observed that agricultural cooperatives play a major role in improving smallholders' productivity and increasing their incomes (Tefera et al., 2017).

There are different forms of agricultural collective action within Sub-Saharan Africa, ranging from informal groups, networks, organizations, and the famous cooperatives, and they also vary in terms of their legal status (Mabuza et al., 2015). For example, informal groups can be

established simply without the need to be officially registered, while cooperatives have to be established under the policy and procedures of a given country. However, there is increased popularity for informal groups rather than cooperatives. This is possibly due to their flexibility in relation to members' needs and maybe because they are easy to establish compared to cooperatives and other well-managed networks and organisations (Adong, 2014; Mabuza et al., 2015). As a result, many poor smallholders have shown preferences for informal groups that are not administered by legal instruments (Mabuza et al., 2015). In some cases, informal groups join cooperatives, which act as umbrellas providing extended services to farming groups. For example, Manyakabi Cooperative Enterprise in South Western Uganda consists of farming groups as members (Ferguson & Kepe, 2011).

Many governments in the region and agricultural development support programs prefer to support farmers in groups rather than as individuals (Mabuza et al., 2015). For example, in Nigeria, the government initially organised farming groups through the department of agriculture; afterward, the groups were taken on by the cooperatives during 1936 (Effiom, 2014). Also, farming groups in Kenya are encouraged to join cooperatives to improve their functioning and to benefit from the supply and marketing of goods and services provided by the cooperatives (Effiom, 2014). In Zanzibar, many informal groups were developed under the influence of the government for supporting project implementation; the groups are then encouraged to register as cooperatives. Also, rice farming groups in Benin were receiving support from a rice research project (Schroeder et. al., 2013). Agricultural cooperatives are more advanced and seem to provide considerable benefits to members compared to informal farming groups. Maybe smallholders' preferences for informal farming groups are also the result of their low management skills and low levels of education.

The actions of many governments in the region to encourage the formation of collective groups in agriculture may seem promising in terms of supporting smallholders, but it may also have negative consequences for the achievements of agricultural cooperatives. This is particularly the case when the cooperatives are established based on a top-down process by the government. Cooperatives, in general, are supposed to be autonomous associations owned and controlled by their members. However, it is believed that one of the reasons leading to the failure of some cooperatives in the region is government control as a result of being established from the top. In other words, these cooperatives were never really autonomous (Simmons & Birchal, 2008). However, support from governments is still crucial for improved achievement by poor smallholders in the management of their cooperatives and other collective groups. Although

their autonomy is important to serve the needs of their members, their ability is also crucial to achieving their objectives (Simmons & Birchal, 2008).

4.4 Benefits of Agricultural Collective Action

Various studies conducted in Sub-Saharan Africa have suggested collective action as a resolution towards solving challenges facing small-scale farmers in increasing their productivity (Adong, 2014; Effiom, 2014; Bibby, 2006; Ortmann & King, 2007). Cooperatives are believed to overcome constraints that prevent poor farmers from taking advantage of their work, by empowering them economically and reducing the risks they may face in the markets (Ahmed & Mesfin, 2017). Numerous studies have confirmed the role of cooperatives in improving the livelihoods of poor smallholders and reducing poverty (Ahmed & Mesfin, 2017). Ahmed and Mesfin (2017) observed that smallholder farmers who join agricultural cooperatives have experienced a positive impact on their wellbeing in Ethiopia.

The main purpose of collective action in agriculture is to increase access to productive resources and to improve the ability of poor farmers to compete with larger producers. However, studies have also demonstrated that the overall aim of these types of organizations is to meet their members' economic and social needs (Bibby, 2006; Effiom, 2014; Alho, 2015). This means that, apart from their economic benefits, these groups also offer social support to their members, such as small loans from their savings and individuals' contributions to cover their emergency needs. Cooperatives were observed to play an important role in the empowerment of women, especially women-only groups, by building their self-confidence and problem-solving skills (Ahmed & Mesfin, 2017). Also, they provide education and advice among members about matters concerning their families (Ferguson & Kepe, 2011; Schroeder et al., 2013). "Collective action increases members' participation in the decision-making process and influence formulation of national policies which affect their livelihoods" (FAO, 2017. P 10). Eventually, they act as a catalyst for improving livelihoods through economic and social improvement by members (Effiom, 2014).

Tefera et al. (2017) summarise the advantages of agricultural cooperatives to poor smallholders about production and market accessibility, as presented in Table 5 below.

Table 5: Advantages of Agricultural Cooperatives

Smallholder Producers' Constraints	Collective Action as Potential Solution
Production Process: Lack of access to agricultural inputs, such as seeds and fertilizers.	Supplying inputs while other suppliers do not exist or are unattractive due to higher prices and/or lower quality.
Lack of access to credits.	Providing or facilitating low-cost credit or provide inputs on credit.
Lack of knowledge and skills of improved production methods.	Providing training and technical assistance.
Lack of access to water for irrigation.	Providing and facilitating access to irrigation water.
Access to markets: Lack of access to remunerative markets.	Link farmers to modern value chains such as supermarkets and export markets.
Lack of inadequate market information about prices, markets, and product characteristics.	Collecting market information and supply to members.
Inadequate infrastructure which raises the cost of selling farm products.	Providing storage and facilitating transportation.
Weak linkages to other actors in the value chain.	Facilitating vertical coordination in value chains.
Low bargaining power by members.	Enhancing members' bargaining power.

Source: Tefera et al., 2017 Page 433

Many studies have reported improved performance for these types of organisations for poor smallholder farmers within Sub-Saharan Africa, including increased access to financial services, increased access to better markets and increased use of modern technology (Effiom, 2014; Bibby, 2006; Ortman & King, 2007; Adong, 2014; Muhanji, 2009). Small-scale farmers are advised to organise themselves into collective action and other community-based organizations because through these organisations they can increase their access to inputs, markets, credit and saving schemes (FAO, 2014). Studies conducted in South Africa, Kenya and Nigeria have noted that, through collective action, farmers were able to buy inputs and small machines, able to sell their produce in bulk for good prices, and share information and skills for better production methods (Ortman & King, 2007; Fischer & Qaim, 2012; Julius, 2015). In Nigeria, farmers who belong to cooperative groups had greater access to loans, labour, fertilizers, insecticides, herbicides, tractor services, processing equipment, and storage facilities compared to non-members (Julius, 2015). Also, members of farming groups in Uganda were observed to improve their access to inputs, have better access to improved equipment, and capital (Meier zu Selhausen, 2016).

Collective marketing reduces transaction costs for high-quality crops which requires quality and safety processes associated with long marketing channels. In addition to cost reduction for high-quality items, they also reduce the cost for other items such as the sale of livestock. The cost of transportation to markets and buying supplies for the livestock can be cheaper if performed by a group of farmers rather than individuals (Ortmann & R. King, 2007) Also, collective action can increase access to resources including equipment and transportation services (Fischer & Qaim, 2012). Moreover, collective action has been observed to increase farmers' bargaining power when dealing with suppliers of inputs and when marketing their yields, since without bargaining power dealers would just set the prices for farmers (Ferguson & Kepe, 2011). For example, in Uganda, members of farming groups were able to increase their productivity, increase their access to markets, and negotiate for good prices through collective selling (Meier zu Selhausen, 2016).

Farming groups are also associated with increased access to technical innovation and extension services in Kenya; members were observed to use more inputs and follow recommendations from extension officers (Fischer & Qaim, 2012). On the other hand, collective action can increase access by poor farmers to knowledge and information. It may enhance the sharing of experiences, and enable them to build linkages to available services and support that can also provide them with the required training. As a result, they could improve their food security and livelihoods (FAO, 2014).

In Western Africa, cooperatives have increased their popularity through the provision of credit to poor smallholder farmers and traders who struggle to access loans in the formal financial sectors, as high-value collateral is not a condition for granting loans by the cooperative (Effiom, 2014). It is observed that the majority of cooperatives in Nigeria are producers or farmers' cooperatives who pool their resources and engage in large-scale production and market their crops by themselves. Effiom (2014) suggested that farming groups could provide farmers with a voice, facilitate their economic growth, improve their food security, and enhance their social inclusion. The reported achievements of these collectives for poor smallholder farmers could be why many governments, local and international supporting organisations prefer groups rather than individual farmers (Mabuza et al., 2015).

Cooperatives and other forms of collective action have been observed to have several benefits for smallholder farmers. These collective formations are considered to be a solution for reducing the challenges faced by smallholders. Questions could arise about the ability of the poor smallholder farmers to participate in these formations. In Ethiopia, 3 factors were observed to influence some farmers' participation in cooperatives: One is related to distance to

markets; farmers are less likely to join cooperatives if they are near to the market while those who are far from the market could join cooperatives to reduce their transaction costs. The second factor is proximity to the coop offices; farmers who are nearer to cooperative offices are more likely to join. This may be because they can obtain more information and a better understanding of the cooperatives' functions and benefits compared to those who are distant from the offices. Finally, larger land size increases the likelihood of farmers becoming members. It was claimed that farmers with larger farms have greater opportunities to increase their productivity, which means they need cooperatives for inputs as well as for selling their produce (Ahmed & Mesfin, 2017).

About women's participation in agricultural collective action, the study conducted in Uganda revealed that women who have access and control over land are more likely to join cooperatives (Meier zu Selhausen, 2016). The study also determined factors that influence commitment and active participation by women in producer cooperatives. It was found that access to extension services and more equal intra-household power relationships between men and women increase women's commitments to cooperatives. This also suggests that sensitization and training on gender equality at the household level are important to increase women's participation in collective action (Meier zu Selhausen, 2016).

4.5 Challenges for Agricultural Collective Groups

Despite numerous reported benefits of agricultural collective action, many studies have also reported several challenges facing these organisations in Sub-Saharan Africa. The reported challenges range from improper management and lack of awareness by members of conflicts, corruption, and embezzlement. It is argued that poor management is an important factor contributing to the failure of agriculture cooperatives in the region (G. Ortmann & R. King, 2007). Lack of knowledge, skills, and understanding among members in relation to group management have been observed in the study conducted in South Africa, Tanzania and Nigeria (Ortmann & King, 2007; Magimbi, 2010; Bibby, 2006; Effiom, 2014). In these countries, members were not even aware of the purposes and objectives of their cooperatives, as well as their rights as members. This was because the cooperative groups were registered without prior provision of appropriate knowledge to members. In Zanzibar, members were not even keeping proper records of their accounts (Magimbi, 2010). Due to poor service delivery by a cooperative, members entered into conflicts. This outcome resulted from the lack of education and information among members, where decisions were made by leaders without consulting members (Ortmann & R. King, 2007).

In Nigeria, it was observed that poor performance by groups and cooperatives was the result of incompetency of their committee members and illiteracy among members (Effiom, 2014). In Tanzania, agricultural cooperatives were observed with inappropriate structures, poor management, lack of working capital, and lack of education and cooperative democracy., some members were observed taking part in corruption and embezzlement (Bibby, 2006). In addition to poor leadership and weak internal governance, cooperatives in Ethiopia were observed with high dependence on the government and low economic capability (Tefera et al., 2017).

Although studies have reported increased access to productive resources by smallholder farmers through collective action, as discussed earlier, members of cooperatives and farming groups have been observed facing difficulties in accessing the resources and support they need. For example, members in Benin were reported to have problems in land preparation activities due to the lack of suitable equipment, and with a lack of funds to develop their activities. Also, they handled harvests poorly due to the lack of proper storage facilities, In addition, they lacked fertilizers and were unable to control pests due to the lack of pesticides (Schroeder et al., 2013). Apart from these problems, farmers were also unable to access markets for selling their bulky rice produce. Similarly, some cooperatives in Nigeria were reported to have failed to raise funds for extending their activities and improving their performance, because their incomes were low and they were unable to access loans from formal financial institutions (Effiom, 2014). Lack of funds and poor access to loans by members of farming groups and cooperatives is estimated to contribute to the poor achievements of these organisations in some countries (Ortmann & King, 2007; Magimbi, 2010). On the other hand, Ortmann and R. King (2007) argued that the persistence of subsistence farming by members contributes to the poor performance of smallholder farmers in collective action.

As mentioned previously, cooperatives in Sub-Saharan Africa also face challenges of being controlled by the government. As a result, cooperatives lack autonomy which is essential for better achievement. Also, it is believed that passing laws does not always give coops the freedom they need from the government and political parties (Simmons & Birchal, 2008). Another factor contributing to the failure of market improvement by the cooperatives could be the level of coordination by the cooperatives between the village level, district level, and cooperatives at union/higher levels (Tefera et al., 2017). The cooperative unions are supposed to link lower level coops to local and external buyers, but that is not exactly how it works for some countries, for example, Zanzibar (Magimbi, 2010).

The above discussion revealed that many factors contribute to the failure of some cooperatives in the region. Among these is lack of education, knowledge, skills and, lack of commitment by

members, which can be identified as members' characteristics. The idea is supported by Magimbi (2010) and Ortmann & King (2007), who both suggest that most of the management challenges have resulted from a lack of education and information among members. However, farmers in collective action also face challenges that can be regarded as external factors/sources, and members have no control over these. For example, many group members do not have legal possession of their land (Ortmann & king, 2007; Magimbi, 2010). Some governments contribute to this problem if they do not prioritize issues of property rights, as observed in Zanzibar. Also, Effiom (2014) observed that the groups have less freedom in their general functioning due to excessive control from the Nigerian government, and recommended government commitment only in terms of capacity building, but not controlling these organisational functions. Furthermore, Murisa (2011) argued that small farming groups in Zimbabwe did not receive enough support to meet their needs as a result of being isolated by large networks and associations in the country, including national and international NGOs.

4.6 Women and Collective Action in Agriculture

There is a lot of literature about women in groups but a few studies have been conducted particularly for women farming groups within Sub-Saharan Africa. However, available studies have suggested women's participation in agriculture collective action is a solution to reduce the hardships they face compared to men (Meier zu Selhausen, 2016). When women are organised in groups they share their knowledge and experiences and can demand their basic social, legal and political rights. If women get space for discussing and exchanging their experiences within their local production groups regarding the roots of their poverty and lack of power, they can experience conditions for empowerment (Razavi & Miller, 1995). It is claimed that organisation of women for demanding the provision of their basic needs can initiate the process of freeing themselves from social, legal, and political control which limits their freedom. Regardless if they are self-organized or motivated by the supporting organisations, space is created in such organisations for awareness-raising and capacity building. Hence the women start to question their social positions and coordinate to end discrimination (Rowlands, 1995**)**. However, most of these groups are informal, developed by women to escape from some of their economic limitations. Usually, these groups are specific to the socio-economic circumstances within the context they operate. Although they are not homogeneous, they have some common interests. In many societies they cooperate and help each other with childcare, farming in rotation and combining their saving to cover for social events or for investing in production (Razavi & Miller, 1995).

The collective empowerment of poor women implies facilitating women to take full control of their life by establishing their plans, organise self-help groups, and make demands to the state for support and change (Rowlands, 1995**)**. It is believed that the observed gender gap in access to resources can be reduced through active participation by women in farmers' organisations, such as farming groups and producers' organizations. They can support women to access capital, markets, useful information and improved agricultural skills (FAO, 2014). However, individual abilities are needed for a person to participate in groups, even a slight sense of personal ability and value including the ability to overcome impediments such as time to participate in a group (Rowlands, J. 1995**)**. Some studies have reported improved performance by women in agricultural activities through participation in collective action (Ferguson & Kepe, 2011; Schroeder et al., 2013; Meir zu Selhausen, 2016; Magimbi, 2010). Their organisation into groups helps them to share their knowledge, information, and experiences. In Uganda, women through farming groups have improved their collaboration, they share knowledge and skills in agriculture and have increased their abilities in problem-solving (Ferguson & Kepe, 2011). Also, they were observed to support each other in intensive tasks such as planting, weeding, and harvesting.

Some studies have shown that through collective action women smallholder farmers can increase their access to knowledge and information, increase their bargaining power, and increase their access to markets for their produce, as well as for agricultural inputs through collective marketing. Moreover, groups help women to tackle the difficulties in accessing financial support (Mier zu Selhausen, 2016; Masaiganah, 2010; Schroeder et al., 2013). In Uganda, women were able to sell their coffee collectively for a profitable and stable price. Also, the availability of access to financial support motivates farming group members to join cooperatives (Meier zu Selhausen, 2016). Farming groups in Benin have supported women to access inputs such as improved seeds and fertilizers, working tools such as tractors and hoes, and increased their access to information through the sharing of ideas and good practice. Furthermore, the majority of members were selling their crops collectively for better bargaining power (Schroeder et al., 2013).

Generally, women have been observed receiving two types of benefits from agricultural collective action. First, there is an economic benefit through increased productivity from improved knowledge, skills, and increased access to resources such as inputs and equipment that can be acquired through group participation. Second, there is the social benefit, which includes sharing of useful information, such as their basic rights, advice on their personal and family matters, and support during difficulties, including small loans. Similarly, women have

been observed to join farming groups for the same two purposes/advantages. As demonstrated by Schroeder et al. (2013), women join groups to increase their agricultural productivity through improved access to resources, technology, information, and skills to improve their living conditions along with their families and to obtain social support. Women in Uganda decided to establish groups and undertake agricultural activities that will enable them to improve their livelihoods without being dependent on men. As a result, they were able to improve their market access through their membership to cooperatives which link them to local and national wholesale dealers. In addition, they benefited from various training sessions provided, including pre-market production planning, post-harvest handling, quality control, and they were supplied with input and seeds (Ferguson & Kepe, 2011).

One of the significant outcomes observed for poor women farmers who are involved in groups is improved social empowerment. This includes confidence, negotiation skills, increased power in household decisions, and the ability to transfer skills within their communities. Likely, women do not join groups for this purpose; the empowerment may have resulted from group involvement. For example, women members from Uganda argued that they have gained leadership and business skills and developed independence from men. Also, they can speak openly in the community and can negotiate with traders; moreover, they can decide how to allocate their crops to household consumption, sales, and input (Ferguson & Kepe, 2011). In Benin, through group participation, women were observed to improve their ability to assume leadership positions, increase their confidence and self-esteem, because the group enabled them to develop as individuals through capacity building (Schroeder et al., 2013).

A few studies have noted improvement in women's active participation within groups compared to men, such as the ability to take leadership positions (Schroeder et al., 2013; Magimbi, 2010; IFAD, 2015). In Zanzibar, some women's groups were reported to be more visible and active compared to men's; they were more successful in their activities and they served as providers for their families (Magimbi, 2010). They responded better to sensitization programs. Also, women believed that groups play a major role in supporting their daily income as well as for their social support (Magimbi, 2010). IFAD noted special changes in women in Zanzibar in relation to increased self-confidence, ability to assume leadership positions, and improved ability to speak openly (International Fund for Agricultural Development, 2015). Cheston and Kuhn (2002) reported a success story for women in the country who improved their income-generating activities as a result of working in groups. In Benin, some groups were initiated by active women farmers who were able to mobilize other women to develop groups (Schroeder et al., 2013).

Data also revealed that the representation of women is higher in many cooperative groups compared to men in Zanzibar. Among the registered groups to September 2013, the total number of women members was 31,795 compared to 17,869 men, which is nearly double that of men (The Revolutionary Government of Zanzibar, 2014). However, women's representation in leadership positions is low despite their large representation in groups; they constitute only 33.2% of the leadership positions compared to 66.8% of men (Cooperative Policy, 2014). As a result, the Cooperative Policy intends to increase women's decision-making power, increase their asset ownership, and increase their number in leadership positions through education and capacity building programs.

Many poor smallholder women farmers in Sub-Saharan Africa join collective action to improve their livelihoods. Due to their inability to improve their agricultural activities, many women were observed to be involved in collective action to increase their productivity and improve their daily incomes (Mier zu Selhausen, 2016; Schroeder et al., 2013). In their organizations, women are advised to seek various training, financial support and access to information, and forming partnerships to avoiding isolation and marginalization (Razavi & Miller, 1995). Collective action is reported to support women in increasing their access to productive resources for agriculture; however, this does not mean that collective action can provide solutions to all the challenges facing women in the sector. As argued by Ferguson and Kepe (2011), cooperatives cannot solve all the challenges facing women from poor agricultural societies. People who are involved in collective groups need to change in terms of their abilities to take control of discovering and achieve their demands in the levels of households, communities, institutions, organisations, and societies. Also, we should acknowledge that the efficiency of such group activities relies on how members are empowered even a few (Rowlands, 1995).

Women in agriculture collective action face similar challenges of agriculture collective action in general that were discussed earlier. This includes a lack of knowledge on modern agricultural methods, lack of capital and lack of equipment and inputs. Schroeder et al. (2013) reported women seeking external support for their groups on issues of agricultural technology, working tools, inputs, funding, and storage facilities. Their groups were not able to provide these services, or what was provided was insufficient to satisfy their entire need. Another important observation is about the freedom of women to participate in farming groups, which is related to issues of gender. It was observed that some women in Uganda were not able to join farming groups solely because their husbands would not let them (Ferguson & Kepe, 2011).

Studies have observed the benefits of farming groups for poor smallholder farmers which establish relationships between group membership and access to productive resources and supportive services (Adong, 2014; Ortmann & King, 2007; Muhanji, 2009; Murisa, 2011). However, only a few studies have been conducted to establish the role of these groups in improving the livelihood of these poor farmers to discover their livelihood outcomes and their contribution to poverty alleviation in rural areas (Masaiganah, 2010). A detailed examination of the specific context is needed to come out with specific recommendations for a particular area. While considering context-specific issues of gender in particular regions we also need to understand the livelihood realities rooted in different localities and move beyond the generalised patterns of gender and development. As they vary over time and space (Momsen, 2010). On the other hand, many studies have reported several challenges facing these formations of smallholders which appear to be similar across Sub-Saharan Africa (Ortman & King, 2007; Magimbi, 2010; Effiorm, 2014; Mier zu Selhausen, 2016). This suggests a need for further research to come up with better suggestions to improve the groups' performance.

Also, few studies have been conducted for women farmers, in particular, to demonstrate the ability of these groups to improve their performance in agricultural activities (Mier zu Selhausen, 2015; Schroeder, 2013; Ferguson & Kepe, 2011). This indicates a lack of sufficient data to demonstrate how these formations can be effective for poor women farmers in the region. Women's informal theorizing, cultural experience and knowledge, and their daily experiences need to be considered to build theory and knowledge in the feminist approach. Women will give their distinctive perceptions on issues affecting their lives. The reconstruction of knowledge affects the life of women by influencing policy and actions (Bailey et al., 2000). Also, a few studies have reported improved social benefits for women in addition to economic benefits as a result of working in farming groups (Schroeder, 2013; Ferguson & Kepe, 2011). It is believed that the existence of group rules, competition, social learning, monitoring, and peer pressure within the groups also contributed to these changes (Schroeder, 2013; Ferguson & Kepe, 2011). However, no study has been conducted to determine the ability of farming groups to improve the general livelihoods of women farmers.

The majority of the studies conducted on agriculture cooperatives and groups have used quantitative methods which provide zero opportunity for women to express their experiences and opinions on the impact of these kinds of organisations to their daily life. Most of these studies intended to measure the economic benefits of these formations without considering the household relationship between men and women. The qualitative study conducted by Ferguson and Kepe (2011) in Uganda intended to go beyond the monetary values and measure the social

empowerment of women. They assessed women's confidence, negotiation skills, ability to serve their community by transferring their skills to non-members and their ability to have control of some household decisions in the cooperative case study, which covered several farming groups. The small number of participants did allow for in-depth inquiry of the subject through FGDs, but they did not consider groups as a study unit. As a result, they were not able to detect the abilities of women in the management and functions of the individual groups. Also, they did not examine livelihood outcomes for women through those groups (Ferguson & Kepe, 2011).

Similarly, a qualitative study conducted by Schroeder et al. (2013) in Benin intended to determine women's empowerment resulting from the Nerica Rice Project which supported groups of women rice growers. The qualitative approach was appropriate for exploring information from women through their views and perceptions. However, the study did not conduct FGDs with members, regardless of participants having the same criteria set for the study; instead, individual interviews were conducted. The criteria were 3 years membership duration, participation in the project group, and at least 60% representation by women in the groups. I think FGDs with participants who share similar criteria would save time and resources. Focus groups are a useful method for a researcher to learn how participants jointly make sense of a particular issue and hence build meaning about it (Bryman, 2012).

The study also intended to measure the success of the project in terms of women's empowerment, but not the capacity of individual groups for either the empowerment of women or their livelihood outcomes. However, the study considered a membership duration for social learning processes to occur. Social learning was important because the author valued the interaction of women in groups for social and personal changes to occur, including increased self-esteem, ability to speak openly in the community, increased decision-making power, behavioural changes, and personal awareness. Social change is a process and a process needs time; therefore membership duration should be considered to come out with social changes that women acquired from a particular group. The study conducted in Benin estimated the increased social factor for women members for three years (Schroeder, 2013). However, the study conducted in Uganda did not consider membership duration in estimating the social factor improvement (Ferguson & Kepe, 2011).

The abilities of group members are also important in the discussion of the groups' successes whether in terms of economic or social benefits, since members with certain characteristics or capabilities may influence changes in other members. Schroeder et al. (2013) linked social changes in women with a 'social learning theory' where people learn by observing and

imitating others. This suggests the existence of members with certain abilities in a group such as better knowledge of production, awareness of their rights, and problem-solving skills, to influence others to change or to achieve certain skills. Sharing of skills and information is possible among members since some women might have higher knowledge and more experiences compared to others within groups (Mabuza et. al., 2015). In contrast, there is less sharing of knowledge and information in a group of women with low skills and low levels of education, and with low awareness of their rights and existing policies. No study has been conducted with consideration of members' abilities towards the improved performance of women in these groups. The study conducted in Uganda considered characteristics such as education, but only as determinants for women to join the groups (Meier zu Selhausen, 2016).

As presented earlier women are not homogenous group, they differ in terms of age, education, ethnicity, and class. Meaning they have different knowledge and experience of their social context, but they may have similar interests as mentioned earlier. However, the male-centered theorizing approach has created beliefs that affect all women such as women's work is biologically determined, hence they confined to childcare and household tasks. (Bailey et al., 2000). Certainly, we cannot generalise the situation of women for the entire region. For example, we cannot assume that all women in Sub-Saharan Africa are poor, pregnant and powerless, therefore focusing our efforts to eradicate poverty which is identified as resource poverty (Win, 2007). Some middle-class women need different measures to close the gender gap they face. To improve the economic position of women local solutions are needed for their problems. To make this possible, research is needed for appropriate theory and policy formulation (McClean, 2000). Therefore, experiences, views, and opinions from women in their localities are essential to understand how their social relations impact their livelihood. Socialist feminists center their interests on gender social relations examining the validity of roles assigned to women and men in different societies while recognizing the social construction of production and reproduction as the foundation of women's repression. (Rathgeber, 1990).

When we talk about closing the gender gap women empowerment has to be an essential part of the process. Since women are disadvantaged not only in access to resources but also in terms of ability to making choices (Rowlands, 1995). Women empowerment can be identified as a process by which "women become able to organise themselves to increase their self-reliance, to assert their independent right to make choices and to control resources which will assist in challenging and eliminating their subordination" (Rowlands, 1995 p 104). The gender and development (GAD) envisions a woman not as passive recipients of development assistance,

but as an agent of change, and emphasizes women to organize themselves for a more efficient political voice (Rathgeber, 1990). Socialist feminists and researchers in GAD investigate the links and the inconsistencies of gender, class, race, and development. From a GAD perspective, a key focus of research is to improve women's legal rights, such as the reform of land and inheritance laws. Also, to examine the confusion created by the existence of customary and statutory laws in many countries and their propensity to the disadvantage of women (Rathgeber, 1990).

The above discussion suggests that only a few studies have been conducted based on women's experiences and views to examine the impact of farming groups and other forms of farming organisation on women's development in particular. Therefore, further studies are needed particularly for women to examine their views about the performance of these groups towards their livelihoods. As well as to examine their level of empowerment by these groups. Since women are important for food security and they significantly contribute to the economic development of their countries. Rural women are considered agents of change; therefore concentrating on improving their incomes is vital to achieve inclusive and equitable growth (FAO, 2015b). In acknowledging differences among women, the study focuses on smallholder women farmers in the rural areas of Zanzibar. Their differences in relation to education, knowledge, and skills in farming and groups' management will be carefully considered to examine their level of achievement. The findings from women's knowledge will be translated to recommendations for policymakers. Eventually, their views and experiences may become an essential part of the country's decision-making process (Rathgeber, 1990).

4.7 Summary

The chapter presents the overall advantages of agricultural collective groups along with their challenges in supporting agriculture development for smallholder farmers in Sub-Saharan Africa. And finally, it discusses the outcomes of these farming organisations to women in particular.

Chapter 5 The Concept of Livelihood

5.1 Introduction

Livelihood can be simply defined as a way of earning money in order to live or the means to secure life's necessities. Rebelo et al. (2010) in their study conducted in Sub-Saharan Africa on the distribution and contribution of agriculture to livelihoods, considered livelihood to be activities undertaken by people to fulfil their daily needs. The term livelihoods, particularly sustainable ones, was defined in detail by Carney and Scoons (1998) as "livelihood comprises the capabilities, assets and activities required for a means of living" (Mazibuko, 2013). A livelihood is sustainable if it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets as well as provide sustainable livelihood opportunities for the next generation and furthermore, which contributes net benefits to other livelihoods at the local and global levels in the short and long-term (Mazibuko, 2013, p179). This suggests that a sustainable livelihood does not end with personal daily necessities but with entire communities and for many years to come.

5.2 Livelihood Studies

Many studies conducted concerning livelihoods and agricultural activities have considered increased income or benefits among farmers as an indicator of improved livelihood (Robelo et al., 2010; Rosenstock et al., 2014; Bryan et al., 2013). This is because income can be easily measured quantitatively and also increased income may indicate the ability to pay for food, education and other services which signifies an improved livelihood. Therefore, the main concern is related to increasing people's income. Given that the main concern of livelihood is income creation for the poor, these different authors stress determining resource value such as land, water, trees and other forest products to achieve income results (Okali, 2012). Consequently, programmes using livelihood approaches intend to achieve increased productivity without considering the social and political issues that influence the ability of social groups to achieve their objectives (Okali, 2012). Conversely, for women, the social and political issues which influence their ability are determined by gender relations which are normally not in their favour (Okali, 2012).

The view of livelihood does not directly lead to addressing the gender issues or placing social issues in its activities, the focus of livelihood is on assets which are a core analysis under this perspective (Okali, 2012). Social norms and institutional constraints on the ability of individuals and groups to access resources are acknowledged by enhancing human capital, for example, building the capacity of women in groups and by means of building social capital such as encouraging the formation of women's groups to improve assets ownership (Okali,

2012). There is a need to understand household dynamics in supporting women's livelihood outcomes and most importantly their power to make decisions. For example, women have limited control over their crops, thus they end up with fewer incentives to increase production (Okali, 2012). After a divorce or when a husband dies, women are more prone to lose control of resources, local culture and norms restrict their freedom to work in public and when their incomes increase the husbands decrease their provision, especially in African cultures. These household/community relations restrict women from engaging in improved production and better markets, hence limit growth in African agriculture. These dynamics create a problem for women's production, wellbeing, and empowerment. Therefore, they serve as a guide as regards action, leading to the development of legislation that improves women's rights to access and control resources, assets and credits (Okali, 2012).

Social norms and values determine how and in what circumstances decisions are being made and also who speaks in public. We should disaggregate the data to individual group members when we report positive change rather than just assuming all women have less control over resources and decision-making and that they are disempowered (Okali, 2012). This study aims to examine individual women's ability and their contribution to the achievement of their groups' objectives and improve their livelihoods. To examine the livelihood outcomes of women, we need to understand and address the complexity of social reality seeing as the institution of households, communities, markets and the State are connected (Okali, 2012). The study aims to work with women only farming groups and/or farming groups with a higher number of women members, given that it is rare to find women who are autonomous individuals in daily life and community activities. However, this idea of involving men in 'women's in agriculture' is opposed by various gender experts and activists (Okali, 2012). It is essential to mention that most farming groups in Zanzibar are mixed groups of men and women with only a few women-only groups.

Certain studies have used the sustainable livelihoods framework (SLF) developed by the Department for International Development (DFID) to measure the livelihood achievement of rural people (Mazibuko, 2013; Tang et al., 2013). The framework was developed by the DFID as a tool to improve our understanding of livelihoods, particularly the livelihoods of the poor, the majority of whom are located in rural areas (DFID, 1999). It is argued that the idea originates from Chambers and Conway (1992), although the DFID modified the idea to promote a wider understanding and implementation of the framework for supporting the livelihoods of rural populations (Mazibuko, 2013). However, the framework has received widespread criticism due to its limitations. Levine (2014), argued that there was a time when

the SLF was out of fashion due to its limitations. Most importantly concerning gender perspectives, the framework is gender-neutral, making it unsuitable for gender analysis involving household dynamics and social relations.

5.3 Gender Analysis Frameworks

During the WID (women in development) and GAD (gender and development) periods "several different 'gender frameworks' were developed and promoted for use as research, policy and planning tools. However, it is claimed that the use of these frameworks in policy formulation and agricultural research has not resulted in sustainable agricultural development and not generated positive changes in rural women's lives, principally because they do not deal with women explicitly as members of society" (Okali, 2012 p 2).

Significant consideration has been given to develop gender analysis frameworks along with the effort to mainstream gender more broadly in research and development organisations since the 1980s, such as Moser's Gender Empowerment Framework and the Harvard or Gender Roles Framework which differ in their origins and focus on different issues (Okali, 2012). For example, the Harvard Framework was used to analyse smallholder farming families where the household is the focus of data collection and analysis. Gender frameworks are "means to a bigger end for devising and implementing policies and programmes which do not exclude or harm women, which take their needs and perspectives into account and which may help redress some of the existing gender imbalances. Those using gender frameworks must not ignore cultural differences, as experiences show that the frameworks are not universal" (March et al., 1999. p14). Gender relations differ "across diverse groups of people and according to time and place, it is about the distribution of power between sexes, meaning they also vary according to social relations such as ethnicity, race, class and disability" (March et al., 1999. p18).

All gender analysis frameworks highlight the presence of both reproductive and productive activities; however, they have different scope and emphasis. They are practical tools for assisting users to incorporate the analysis into social research and planning. Therefore, choosing a suitable framework depends on the setting, the tasks and the resources (March et al., 1999). Gender relations and roles change over time, so examination is necessary to establish how this will affect particular people. Both the Social Relations Approach and People-Oriented Planning Framework focus on change over time, while the Longwe and Harvard frameworks do not include time as an important variable (March et al., 1999). The Social Relations Approach analyses gender relations while the Harvard framework analyses gender roles. Furthermore, the Social Relations Approach analyses the power relationship between people according to their gender, age, race and other divisions, whereas frameworks that analyse

gender roles do not necessarily examine the way power is negotiated and organised (March et al., 1999). The Women in Development (WID) approach is criticised for not providing resources to women specifically, seeing that it only focuses on the general distribution of the resources without thinking that women have poorer access to the resources in the first place.

It fails to ask how change is undertaken in production and the division of roles and duties between men and women and moreover, "it does not pay enough attention to how powerful gender relations can subvert resources directed to women" (Razavi & Miller, 1995. p 16). As empowerment is self-generated, it is recommended that the policies provide a conducive environment and resources for women to take overall control of their lives and decide the type of gender relations they prefer (March et al., 1999).

5.4 The Social Relations Approach

As mentioned above, the Social Relations Approach is concerned with the analysis of how power is shared within society, so as to give women more freedom to access and control resources and have complete freedom in their individual life. Therefore, detailed analysis of a specific society is required to achieve this aim. Kabeer's approach comprises five structural elements that can be connected with persistent gender inequality, namely rules, resources, people, activities and power (Okali, 2012). All these affect women differently regarding their age, education, ethnicity, classes and other categories, as a group of women can have something in common but will vary in other ways. It should be noted that women's subservience involves reallocating power more than a matter of redistributing economic resources. Social relations must change otherwise it will be difficult to reallocate economic resources equally (Razavi & Miller, 1995). Comprehensive knowledge about a set of social relations through which production is organised and demands are met should inform planning at the macro and micro levels.

Those adopting social relations analysis do not assume that the reallocation of resources will automatically increase women's productivity and moreover, reallocating resources to women does not definitely lead to women's autonomy or equality. Certain studies suggest that there is no explicit connection between the ability of women to earn individual incomes and their power in household decision-making (Razavi & Miller, 1995). Social relations analysis focuses on various factors that define the power of a woman. It does not assume that improving the economic status of women will result in their improved decision making, it is concerned with specific institutions such as the household, marriage, community, market and the State, besides the terms under which men and women co-operate. It is essential to ascertain how women

perceive their interests and to consider how these relate to their position in the family and the household to understand economic decision-making for women (Razavi & Miller, 1995).

Women's experiences in relation to their knowledge, skills, abilities etc, including their social relations challenges, should be accepted and included in the planning process. Analysis of social relations seeks to undertake extensive analysis of a social relation in which men and women live. Additionally, the findings will support development planners to design more suitable interventions (Razavi & Miller, 1995). Attention must be paid to the process by which more equitable power-sharing between the genders is to be attained in focusing on aspects of power relations, which is the viewpoint of the framework. The Social Relations Approach "explicitly requires the planners to examine their institutions and understand how the institutions bring biases into the planning process" (March et al., 1999. p 26). Literature indicates that the analysis of social relations results in an emphasis on the inclusion of women's empowerment in women's development programmes (Razavi & Miller, 1995).

In examining resource allocation between men and women, it is imperative to understand differences between access to resources and control over resources - women may have access but not the control. Access is an opportunity to make use of resources, whereas control is the power to decide who accesses the resources and how they are utilised (March et al., 1999). The framework uses a method of analysing gender inequalities in the distribution of responsibilities, resources and power. "It concentrates on the relationships between people and their relationship to resources and activities - and how these are re-worked through 'institutions' such as the state or the market (March et al., 1999. p 102). To uncover how inequalities and gender crosscut each other across various institutions, one should focus on numerous institutions in a context (March et al., 1999).

The Social Relation Approach has five main concepts: One, development relates to increasing people's wellbeing and not merely boosting productivity or economic growth. It involves individual participation in decision-making, autonomy and activities which ensures their livelihoods. Two, 'social relations' influence the creation of differences in allocating people of different groups. That allocation determines our roles, responsibilities, rights and the control we have over our life and life of others. Three, gender inequality is replicated in several institutions, thus institutional analysis is required to examine how inequality is created and reproduced (March et al., 1999). Table 6 shows the essential institutions need to be analysed.

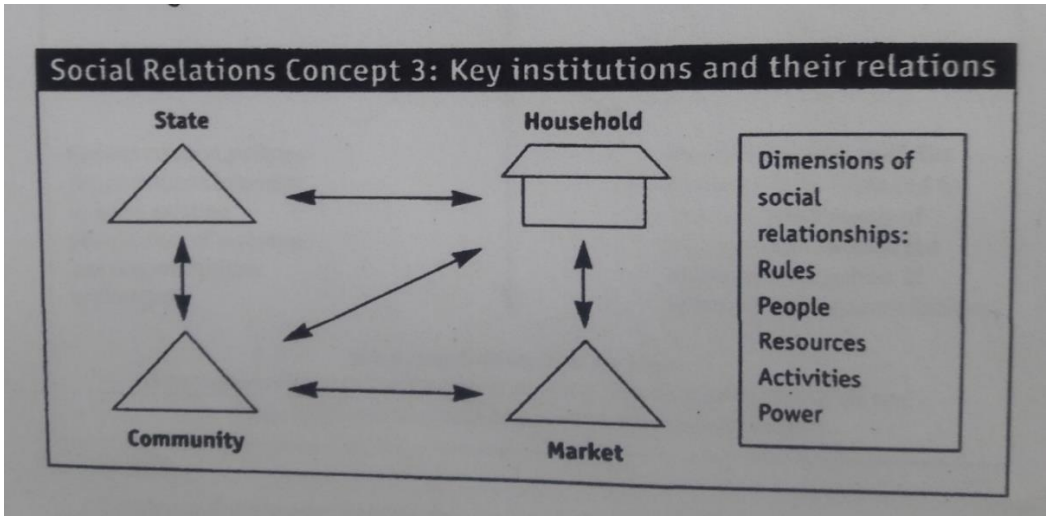
Table 6: Key Locations for Institutional Analysis

Example of Social Relations Concept 3: Institutional analysis	
Key institutional locations	*Organisational /structural form*
State	Legal, military, administrative organisations
Market	Firms, financial corporations, farming enterprises, multinationals, and so on
Community	Village tribunals, voluntary associations, informal networks, patron-client relationships, NGOs
Family/kinship	Household, extended families, lineage groupings, etc.

Source: March et al., (1999)

It is suggested that inequality and social variations are reinforced and produced by these institutions. They are interrelated and policy change or practice that occurs in one institution is more likely to change other institutions too (March et al., 1999). Kabeer noted these institutions "have few common aspects, although they differ with cultures, they possess five dimensions of the social relationship which are significant in the analysis of gender inequality; specifically rules, resources, people, activities and power. Examining institutions based on these dimensions is termed institutional analysis" (March et al., 1999. p 106). **Error! Not a valid bookmark self-reference.** presents the interrelation of the institutions and the dimensions of the social relation.

Figure 2: The Interrelation of the Institutions and the Dimension of the Social Relations

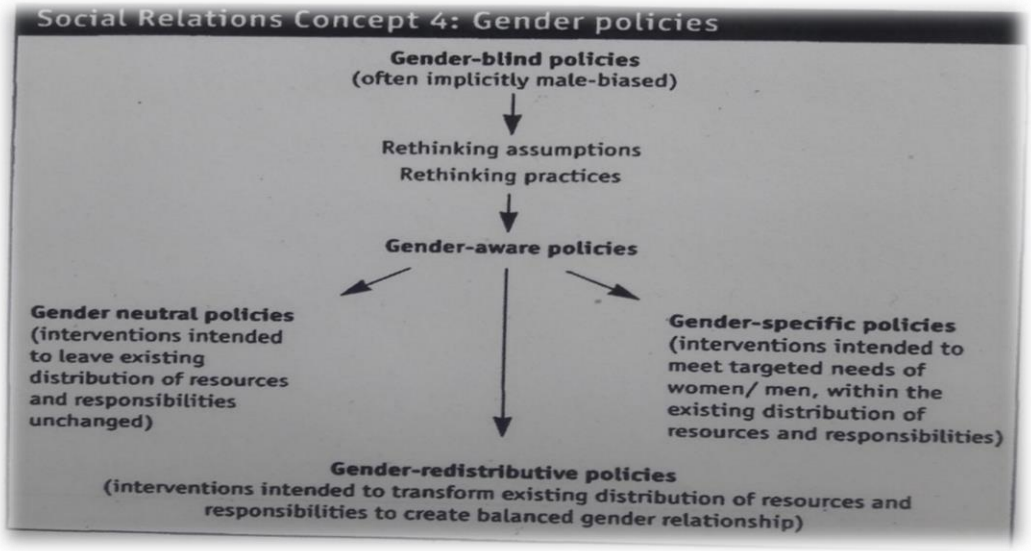


Source: March, et. al., (1999).

Institutions undertake *activities* that are governed by *rules* to achieve specific objectives. Furthermore, they mobilise and distribute *resources* including education, skills, labour, assets and money. Institutions deal with *people* in a selective way that reflects gender, ethnicity, class, and other social differences and they have *power* over the distribution and control of the resources (March et al., 1999).

The fourth concept pertains to institutional gender policies which can be either gender blind or gender-aware policies based on how they respond to the needs of the people. **Error! Not a valid bookmark self-reference.** shows the types of policies and their plans for people.

Figure 3: Types of Gender-Related Policies



Source: March et al., (1999).

Concept 5: "In analysing a situation to plan an intervention, this framework explores the immediate, underlying and structural factors which cause the problems and their effects on the various actors involved" (March et al., 1999. p 109).

5.5 Use of the Social Relations Approach in the Study

A detailed analysis of the institutions is required in the application of the Social Relation Approach in a study. Due to the limitations regarding study time, this research will use a number of important institutions in Zanzibar that have a direct impact on the development and empowerment of women in farming activities. The Social Relation Approach requires detailed analysis of the complex reality and can be simplified by conducting institutional analysis on some of the five categories (March et al., 1999).

The study aims to conduct institutional analysis to examine how the government (state) in coordination with the international supporting organisations (market) have influenced the general livelihood of women farmers. The study aims to analyse the interrelation and impact of the government departments, agriculture support organisations, the existing financial support organisations and the community norms and beliefs toward livelihood improvement of women farmers. As discussed previously, the country's policies including the Agriculture, Livestock, Food and Nutrition, Cooperative and Gender policies have a clear aim to support

women to access and control productive resources. The study aims to examine the implementation of these policies concerning resource allocation including education, skills, inputs and financial support to women and the ability of women to access this support. Specifically, the study needs to examine if there is any bias in the allocation of resources between men and women by way of achieving gender equality. The study has focused on farming groups because the government has demonstrated its intent to support women through these sorts of farming organisations. The community's perceptions about women's participation in farming groups will be analysed, as well as household relations towards women's power regarding decision making and their freedom to participate in farming groups.

Women's experiences and perceptions of how the existing institutions have influenced their general wellbeing will be the base of the analysis. Since women are not homogenous groups, their differences concerning, education, skills and abilities to access valuable information will be considered as regards the performance of individual farming groups towards the achievement of individual member's objectives. Moreover, women's ability to access resources and support, together with awareness of their rights and the policies that affect their functions will be examined to determine how much they are empowered. In analysing their livelihood outcomes, women's perceptions of improved wellbeing and their increased ownership of assets will be explored. Since economic welfare and food security are considered an important part of livelihood objectives (Levine, 2014), their ability to obtain better food and increase their income will be investigated also. Finally, I want to examine the existing gender constraints that can prevent women's participation, full involvement and achievement in farming groups. The findings of the study will make recommendations from women pertaining to improved planning and the implementation of the development programmes and empowerment of women.

5.6 Conceptual Framework for the Study

Several studies on collective action in Sub-Saharan Africa have demonstrated the benefits of agricultural cooperatives and farming groups for smallholder farmers (Effiom, 2014; Ortmann & King, 2007; Muhanji, 2009; Bibby, 2006). Consequently, smallholder farmers can solve some of their challenges and improve their productivity to obtain better incomes. A few studies have reported that these groups improve the social empowerment of women (Schroeder et al., 2013; Meier zu Selhausen, 2016). However, these structures also face various challenges preventing them from realising the potential collective benefits (Effiom, 2014; Magimbi, 2010; Meier zu Selhausen, 2016; Ortmann & King, 2007).

As discussed previously, some of the challenges result from members' lack of ability, such as low levels of education, inadequate skills, lack of commitment and poor management. This means the abilities of members can influence the performances of these groups. The existence of group members with improved knowledge and skills in production methods, coupled with good access to beneficial information and better markets, can help to increase members' productivity through the application of good methods, thereby increasing their access to better markets for their crops. Likewise, the existence of members with improved management skills and commitment can improve their overall functions and management for better achievement of their objectives. The existence of members with an awareness of their rights and existing policies may raise the awareness of other members and eventually improve their social benefits (Schroeder et al., 2013) and empowerment. Consequently, economic benefits and women's empowerment can improve and contribute to better livelihood outcomes.

From the Social Relation Analysis approach, institutions which include government departments (state), financial institutions (market), NGOs, voluntary associations (community) and household relations influence the allocation and control of resources via the existing rules, policies and local norms which influence social variations and inequalities among different groups, genders, ages, ethnicities and classes of people. This study aims to analyse how resources are allocated to women farmers who are involved in farming groups and how much those women have access and power to control those resources for better implementation of their activities and improved livelihood outcomes. Alternatively, the study wants to examine how women are empowered and able to seek the support they need from the available support organisations, as well as their awareness of their basic rights and ability to participate in the decision-making process. The government and existing NGOs can either support women to improve their access and control over productive resources or may influence the unequal distribution and allocation of resources among different groups of people owing to gender blind policies and procedures. For example, difficult circumstances for poor farmers to qualify for loans or long procedures and bureaucracy in the process of land ownership

This study is framed around the following concepts. First, poor women who are members of groups may benefit from their collective power, including increased access to resources such as fertilisers, seeds and working tools, and eventually may increase their productivity. Additionally, via the collective sale of crops, prices may improve and increase their incomes. Second, supporting agencies including government departments, existing development projects and NGOs could improve the capabilities of women members through various

capacity-building programmes, such as training sessions. Thus, members will be empowered and improve their skills for better productivity and their ability to access resources and services.

Third, some women in farming groups may have good levels of knowledge, skills, experience, and useful information and some may be aware of their basic rights and existing policies that regulate their activities, as well as better access to existing support services for agriculture. Furthermore, these women will probably share their knowledge and experiences with their fellow members to improve their awareness and achievements as observed in the literature. Finally, overall access to support services for women in farming groups may improve, such as extension services, input, equipment and credit, and furthermore, their overall performance will improve.

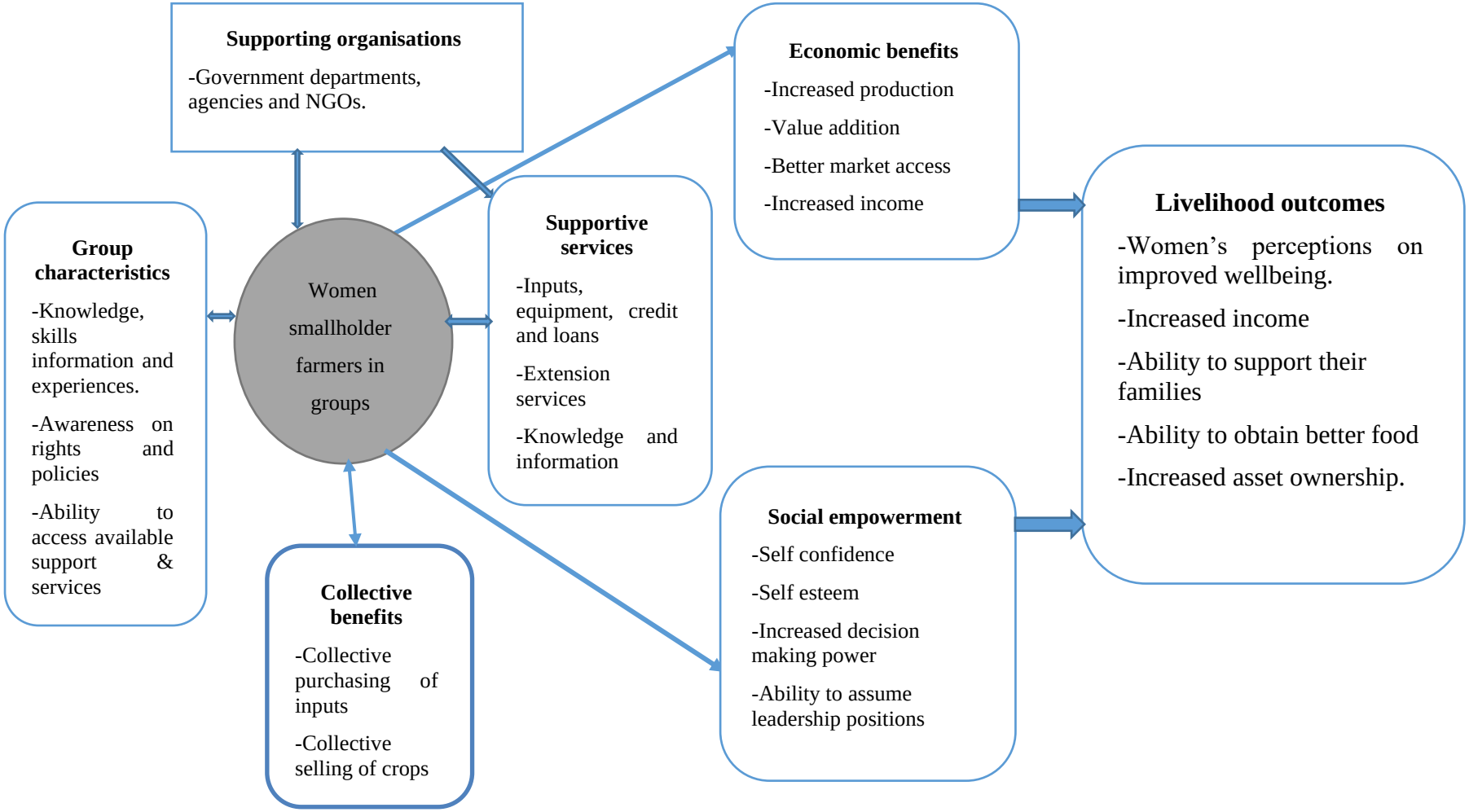
The overall benefits for individual members will be an economic improvement which may include increased production, the addition of value, better access to markets, as well as social empowerment such as self-esteem, self-confidence and increased power as regards decision-making. Eventually, their household living conditions could improve. This can be ascertained by their increased income, their ability to support their families, better food, increased asset ownership and their perceptions pertaining to improved wellbeing.

Figure 4 below presents the conceptual framework for the study, which is a working model developed via the existing literature, as summarised in the above explanation. It illustrates the importance of members' abilities in support of better functioning of the farming group, as well as support and coordination from the supporting agencies. This results in better access to resources and supportive services regarding improved economic conditions and social empowerment and finally, improves livelihood conditions for women.

5.7 Summary

The chapter discusses how livelihood studies have been conducted; the majority were noted to have measured increased incomes as an indicator of improved livelihood which is not suitable for measuring women's livelihood, as women not only lack access to resources but also control over resources due to the persistent gender gap which is an outcome of gender relations in different communities. Subsequently the chapter discusses the relevance of using the Social Relations Approach and ends by presenting the conceptual framework of the study.

Figure 4: The Conceptual Framework for the Study



Chapter 6 Research Methodology

6.1 Introduction

The chapter explains how the study was carried out to answer the research questions, achieve the specific objectives and finally contribute to the main aim of the study. It starts with a discussion about the mixed methods research employed by the study, including the reasons for choosing this approach and the design of the mixed methods undertaken by the research. This is followed by a description of the research process and a detailed discussion of the qualitative methods used, including the selection of participants, data collection, data analysis, and its limitations. Then, a detailed discussion of the quantitative method is provided, including reasons for its inclusion, the process by which it was conducted, and its limitations. The chapter ends by providing a summary.

6.2 Mixed-Method Research Design

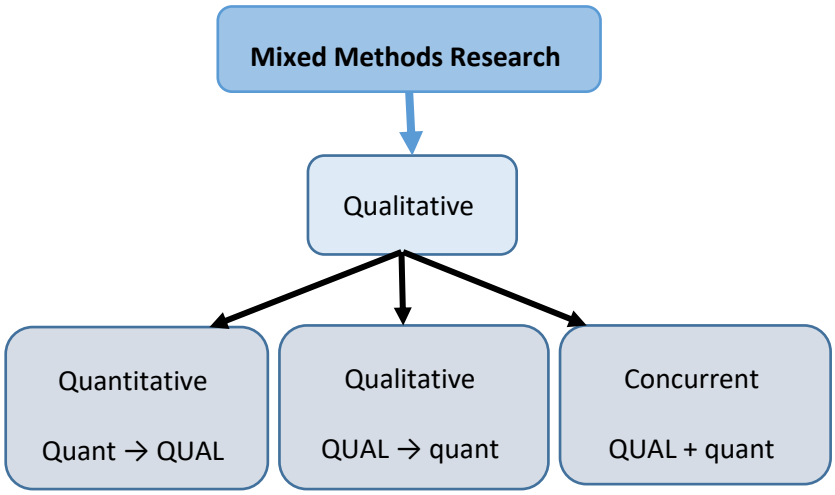
Mixed methods research has become increasingly popular and recognized as the third major research approach (methodology) after qualitative and quantitative research (R. Johnson, Onwuegbuzie, & Turner, 2007). However, this does not mean that the use of mixed methods is preferable to using a single approach for research (Bryman, 2012). Various definitions have been provided for mixed methods research by different authors. For example, Bryman (2012) refers to the term as "a simple shorthand to stand for research that integrates quantitative and qualitative research within a single project" (p. 628). Whereas Johnson et al. (2007) defined it as "the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (p. 123).

Also, different authors have presented different ways of and purposes for conducting mixed methods research. Qualitative and quantitative methods can be combined in a mixed-methods approach for various reasons, such as triangulation, different research questions, credibility, illustration, and enhancement (Bryman, 2012). In triangulation, a researcher may combine methods to validate results, while in different research questions, the nature of the questions demands answers from different research methods. In terms of credibility, the researcher intends to improve the integrity of findings while for illustration purposes, qualitative methods are used to provide greater elaboration of the quantitative results. For enhancement, one aims to augment the results by using another method. Johnson et al. (2007) cited Sieber (1973), who provided several reasons for combining both qualitative and quantitative methods, and outlined

that the combination can be effective at different stages of the research, such as during the design, data collection, and analysis process. For example, quantitative data can be useful in assisting the qualitative part, during the stage of research design to achieve a representative sample; while qualitative data can help the quantitative part in the development of the conceptual idea. Also, during the analysis of the qualitative data, quantitative methods can be used to facilitate generalisation of the qualitative findings; alternatively, qualitative methods can be used to provide a detailed description for understanding the quantitative results.

In addition to documented reasons for employing mixed methods for a piece of research, studies also have suggested different designs for mixing both methods. Creswell (2007) presents triangulation, embedded, explanatory, and exploratory mixed methods designs which also differ in terms of weight and sequences for mixing both methods in each design. Similarly, Bryman (2012) presents different designs of mixed methods strategy according to priority and sequence of occurrence for each method. Also, by considering priorities for both methods, he came out with three main designs that are each further divided according to the sequences of methods being applied to the three designs, resulting in a total of nine designs. The first three main designs include 'Qualitative', where the qualitative method carries more weight in a study and the quantitative method contributes only a small part. 'Quantitative' applies greater use of quantitative methods than qualitative methods. 'Equal-weight' is where both methods apply equal weight. My study is covered more by the qualitative method than the quantitative method; therefore, the study falls within the 'Qualitative' design proposed by Bryman (2012), as shown in Figure 5 below.

Figure 5: Qualitative Design Mixed Methods Research



Source: Bryman, (2012)

Figure 1 above summarises the Qualitative design for mixed methods where upper and lower case indicates priority; arrows indicate sequence; and + indicates concurrent. The Qualitative is further divided into 'quantitative', 'qualitative' and 'concurrent', but qualitative methods are the priority for all. I selected the 'Qualitative' design which appears in the middle because my study was mainly conducted using qualitative approaches due to the nature of my research questions. This means the qualitative method is the priority and the most suitable method for the study. The decision to include a quantitative method was made after obtaining the results, in order to generalize and triangulate the findings. Therefore, qualitative methods were used at the beginning of the study followed by the quantitative method, which is only a minor part.

The aim to compare findings through the use of mixed methods may arise after data collection, which means a triangulation exercise may occur as planned from the beginning of the study or be scheduled just after data collection (Bryman, 2012). Therefore, the study started by designing qualitative data collection methods which were influenced by the nature of the research questions, and later the decision was made to collect quantitative data, as discussed in detail in the following sections.

6.3 Overview of the Study

As described earlier, the study aims to determine the role of farming groups in livelihood improvement for women farmers in Zanzibar. The literature revealed that smallholder farmers in Sub-Saharan Africa are organised into groups to overcome their challenges in agriculture; however, these groups also face several challenges (Effiom, 2014; Ortmann & King, 2007). Many studies have come up with suggestions and recommendations as to how these groups could improve their functioning to achieve better performance in agriculture. These include

increasing government and non-government support to improve their capacity. Furthermore, most agricultural development support organisations prefer to work with farmers organised in various forms of groups (Mabuza et al, 2015; Schroeder et al, 2013; FAO, 2014).

The literature also revealed that some of the challenges facing farmers in collective action arise from the limited abilities of members, such as their low level of education and poor management skills. On the other hand, support and capacity building programs could improve their skills, and eventually improve their functioning (Ferguson & Kepe, 2011). As a result, the performance of women involved in farming groups could improve, leading to increased productivity and better livelihood outcomes. The study examines the ability of farming groups and the impact of existing support organisations on the livelihood outcomes for women members in the study area.

As discussed earlier, the conceptual framework for the study focuses on examining three main aspects that influence the performance and achievements of women in these groups. Firstly, the study set out to identify the available support organisations and the type of support being provided. The second aim was to determine the outcomes of the groups' activities through the support and services they receive, and the ability of members concerning social and economic improvement. The third was to examine women's livelihood outcomes resulting from their involvement in these groups. Since the main aim was to examine women's livelihood outcomes, the SLF was also used to develop the analytical framework for the study. However, due to various critiques made of the SLF over time, suggested amendments to the SLF for conducting research were carefully considered. Then, appropriate methods for data collection were selected, as discussed in detail in the following sections.

6.4 The Research Process

Research is a process that involves various steps in planning and conducting fieldwork, such as the development of research questions and the selection of suitable methods for data collection. Priority needs to be given to various dimensions involved in the research process, and the choice of research design reflects decisions about these priorities (Bryman, 2012). The process started with an analysis of the literature and secondary data collected during the first year (2016) of the study. This resulted in the development of the study objectives and research questions. The decisions about the study design and the methods were based on the research questions. The questions were qualitative, demanding in-depth information from study participants; therefore, the qualitative method was the most appropriate to provide answers and achieve the main aim. However, the study was also flexible in the sense that information collected in the field may influence the need for collecting additional information to generate

further information for the issues under study. Using a flexible design, the task starts with one problem in which the researcher is interested (Robson, 2011).

This research is a case study of Zanzibar, where farming groups are the study unit/unit of analysis, and women members are the study participants; however, key informants are also involved as study participants. Robson (2011) argues that size does not matter in a case study; it involves a social group study that can involve small direct contact groups such as families or large groups, for example, occupational groups. Many case studies focus on an issue within the case to provide a deeper understanding of the issue in question. The case can be an individual, multiple individuals, and a program or activity (Creswell et al., 2007). Furthermore, Creswell et al., citing Yin (2003) have illustrated that, in general, case studies involve a detailed description of the case and the setting for the case in relation to its environments. This study focuses on farming groups and their outcomes in terms of women's livelihoods in the context of Zanzibar. "Case study research is a qualitative approach where an investigator explores facts from the given case through details and in-depth data collection techniques involving multiple sources of information such as observations, interviews, audio-visual materials, documents and reports" (Creswell et. al., 2007, p. 245). Therefore, I decided to include both primary and secondary sources of data to achieve better validity.

Currently, there are two types of farming groups in the country - registered and non-registered; and some supporting projects work with only registered groups, while other projects work with just informal groups (non-registered). However, the Cooperative Department is currently taking the role of registering all existing economic groups, including the farming groups. Also, the department has made clear that support from the government will only be provided to the registered groups. Therefore, to determine the impact of the supporting organisations on the achievement of members in farming groups, I decided to only include registered groups. Further elaboration on the process of group selection is included later in the chapter.

6.4.1 Ethical Considerations

Before arriving at the clear process and plan for the study, ethical approval from Newcastle University was sought. Seeking approval from ethical review boards and committees before the start of the project is compulsory for anyone who intends to conduct research (Robson, 2011). The University's online ethics form was completed and confirmation received that the project met ethical expectations and no further reviews were required since the study does not fall under any potential high-risk areas. This process needs to be repeated if the objectives change. I refined my objectives during the study and the process was repeated with a similar response.

Also, permission to undertake the research in the study area was required from the Chief Government Statistician through the office of the Second Vice President upon submission of and introduction letter from the university and the research proposal. It is suggested that a researcher should be familiar with the specific system operated in a particular country (Robson, 2011). The authorisation granted provides legitimate access to the specified organisations and departments, because no officer can provide information without this approval. Also, permission makes districts and village leaders more supportive and welcoming.

6.4.2 Research Assistant

The process also involved the selection of a research assistant required to support the whole process of data collection. This included note-taking because even though the discussions were to be recorded there was still a need to note down some important points, as demonstrated by Matthews & Ross (2010). It is useful to have someone to assist with note-taking while the researcher facilitates FGDs and conducts the interviews. Assistants were selected using specific criteria: First, they should be female; second, they should be educated to at least diploma level; and finally, they should have experience of working with the community. Two assistants were selected - one from Pemba and one from Unguja - and the process was facilitated by officers from the umbrella NGOs. Table 7 below, summarises the major processes undertaken by the study.

Table 7: Major Processes Involved in the Study

Steps	Activities	Outputs
Project planning	• Literature review. • Review of primary data. • Proposal development.	• Aim of the study. • Study objectives. • Research questions. • Selection of research methods.
Qualitative methods	• Phase one • Phase two • Phase three	• Government documents and official reports. • Recorded in-depth interviews, and field notes
Qualitative data analysis	• Organising, transcribing, and translating. • Transferring data to the NVivo Program. • Coding. • Developing, defining and naming themes.	• Clear definition of themes and their names. • Qualitative findings
Quantitative method	• Developing a questionnaire • Conducting pilot • Conducting questionnaires	• Quantitative data
Quantitative data analysis	• Data entry to SPSS. • SPSS data analysis	• Quantitative findings
Reporting findings	• Discussion of qualitative results. • Discussion of quantitative results. • Integration of qualitative and quantitative findings.	• Results of the study • Suggestions and recommendations. • Limitations of the study

Source: Developed by the Researcher

6.4.3 Research Quality

The section aims to explain that the qualitative data collected are valid and reliable. Bryman (2012) cited LeCompte and Goetz (1982) who wrote about reliability and validity in qualitative research. They discussed external reliability as the degree to which a particular study can be replicated, and they considered this to be impossible since the social setting cannot remain the same for another identical study to be conducted. However, they suggested other strategies that can be applied, such as adopting similar social roles to those undertaken by the original researcher. For internal reliability, they proposed members of the research team who can agree with what they see and hear. Regarding internal validity, they mentioned the existence of a good match between theoretical ideas and observed outcomes, while external validity is difficult due to the use of case studies and small samples in qualitative studies. This study has described step-by-step methods; therefore it is possible to follow and replicate the study either

in a similar context or in a different one with similar organisations of women farmers with some modification to suit the particular context.

Furthermore, Bryman (2012) cited Guba (1985) and Guba and Lincoln (1994) who suggested alternative ways of assessing qualitative research quality, different from those used by quantitative studies. They proposed assessing trustworthiness and authenticity, where trustworthiness constitutes four criteria equivalent to those used in quantitative studies. These are credibility, which matches internal validity, transferability, which matches external validity, dependability, which matches the reliability, and confirmability, which matches objectivity.

Two approaches are presented for confirming the credibility of the study (Bryman, 2012). The first is respondent validation, where a study should be carried out using good practice and the findings submitted to respondents to confirm whether the researcher understood their social world. The second is triangulation, where more than one method or data source is used in a social study leading to better assurance of the results. Triangulation is also used to refer to cross-checking of the findings from different research methodologies.

My study used different qualitative strategies as well as primary and secondary sources to ensure the quality of the findings. In addition, triangulation through the use of quantitative methods was used for better validity and generalizability of the findings.

6.5 Qualitative Method

As mentioned previously, I decided to use a qualitative method due to the nature of my research questions and the need to explore information in relation to participants' views, experiences, and understanding. As supported by Robson (2011) that methodology choice can be made in regards to the research questions. The research questions posed seek to understand the ability of farming groups to increase access to the resources and support needed by women to increase their productivity, and to identify the abilities of members for better functioning of the groups. Also, the study involved questions that explore existing gender issues that can prevent women's achievement in farming groups. The overall aim was to determine the livelihood outcomes of women through their participation in farming groups, through their perceptions of better livelihood conditions. Therefore, open-ended questions were necessary to explore the women's ideas, views, opinions, experiences, and understanding to come out with the answers required by the study. A qualitative method was appropriate, as it involves open-ended questions seeking opinions from participants (Creswell et al., 2007)

In qualitative studies, aims are directed at providing an in-depth understanding of the related issues of the study participants by learning from their experiences, circumstances, perspectives, and history (Moriarty, 2011). In both data collection and analysis, qualitative methods mostly emphasize words rather than numbers (Bryman, 2012). Therefore, a qualitative methodology was the right approach for this study, since I was anticipating explanations and descriptions from the respondents rather than numbers. This study demands an in-depth exploration of information from women about existing members' abilities that could influence better performance, as well as social and economic changes among members. Generally, the study seeks to identify ways in which these groups can provide better livelihoods for women in connection with the existing support. Subsequently, the study could come out with clues as to whether these entities provide fair opportunities for women in agricultural development, as they contribute substantially to the sector.

Also, the decision to use qualitative methods was made after analysis of various research methods employed by different studies on farming groups. The majority of studies have used quantitative methods to measure specific groups' predetermined benefits, such as access to markets, finance, inputs, improved seeds, skills, information and, modern technology. Or to make comparisons between members and non-members' benefits by using the same predetermined or traditional collective benefits (Julius, 2015; Alho, 2015; Mier zu Selhausen, 2016; Mabuza et al., 2015; Sabates-Wheeler, 2002). Also, some quantitative studies have compared membership with the use of modern technology and increased household income (Fischer & Qaim, 2012; Adong, 2014; Ito et al., 2012). However, most of these studies did not provide room for other additional benefits to emerge from study participants, suggesting that qualitative studies are needed which can explore more detailed information. Most of these quantitative studies are designed to measure the economic impacts of these farming organizations through relationships between variables, whereas this study is looking to explore and understand more detailed insights from the participants.

The literature revealed that some studies that employed qualitative methods were able to measure both economic benefits and the social empowerment of women through these groups; including increases in women's household decision making, confidence, negotiation skills, and their ability to take control over their agricultural produce (Ferguson & Kepe, 2011; Mudege et al., 2015; Schroeder et al., 2013). The majority of these studies intended to determine the social empowerment of women by the groups, but the use of qualitative methods provided an opportunity for participants to explain their challenges and benefits through their own experiences and opinions (Mudege et al., 2015). However, many studies did not consider

membership duration and members' aptitudes as an important factor to establish the effectiveness of groups' performance towards achieving the needs of members (Ferguson & Kepe, 2011). The study by Schroeder et al. (2013) did consider membership duration but not the capacity of members towards the achievement of their objectives.

The qualitative methods selected for this study offered the opportunity to explore insights into the groups' outcomes from women through their views and opinions. They provided the opportunity to meet with the women and seek their opinions as to whether the groups have resulted in better livelihood outcomes according to their views and understanding. On the other hand, there might be some structural factors that influence gender imbalance within the agricultural sector which can also be explored using these methods.

The study will explore the capacities of group members to access available support and the services they need, hence the contribution of members' abilities towards the better management and functioning of the groups needs to be identified. The qualities under consideration are skills and experience of better farming methods, experience and skills in group management, and the ability to access useful information. Through long-term membership of at least three years' duration, I will be able to determine any perceived social and personal changes in the women through social learning processes. Furthermore, the study needs to find evidence from women themselves about their economic changes and social improvement through their group participation. Finally, the structures of farming groups have to be examined to discover whether they allow for full participation and involvement by the women. Therefore, only qualitative methods are appropriate to explore this kind of information.

Despite the increased uses of qualitative methods in social science research, the disadvantages of the methods have also been presented, such as the inability to generalise the results due to the use of purposive sampling and the lower number of participants. The inability to generalise is considered the main disadvantage, where findings cannot be extended to a wider population in the way that quantitative findings can since the qualitative findings are not tested statistically for their significance (Atieno, 2009). Qualitative methods tend to be more descriptive "based on an understanding of the social world through examination and interpretation of the participants to that world" (Bryman, 2012 p.401). Researchers who use qualitative methods are interested in the structures of people's worlds in connection with the way people make sense of their lives and experiences. Also, they intend to come out with knowledge about how people make sense of their experiences, lives, and their construction of the world (Atieno, 2009). This means that they are not essentially concerned with the generalisation of the results, but they

are specific within the given context of their study in the way people make sense of their environment.

Being a case study, the research aims to provide an in-depth understanding of the farming groups and their impacts from the experiences of women to be able to describe in detail the outcomes for these groups in terms of the livelihoods of women farmers in Zanzibar. However, a comparison of findings with other contexts with similar kinds of farmers' organisations will be made for evaluation and for suggesting ways to improve these entities; and contribute to reducing the gender gap in agricultural development for poverty reduction in general.

The use of different techniques for data collection in a case study is suggested to explore facts in-depth and in detail (Cresswell et al., 2007). I decided to use three different techniques for collecting data for having interactive contact with study participants and to ensure the collection of all relevant information. These are individual interviews, FGDs, and observations which were also undertaken through a transect walk. The detailed descriptions for each technique follow.

6.5.1 Individual Interviews

Individual interviews are considered a common method of data collection in qualitative studies (Robson, 2011). Generally, they are face-to-face; however, the use of telephones and the internet saves time and resources (Robson, 2011). The kind of interviews meant for qualitative studies are either unstructured or semi-structured, depending on the researcher's intentions (Bryman, 2012). In unstructured interviews, the researcher knows the flow of the questions to be asked by having the issues to be discussed in mind, while in semi-structured interviews, the interviewer should have some sort of a summary for the questions or topics to be completed. This is known as an interview guide.

In qualitative studies, both unstructured and semi-structured interviews are also referred to as depth or in-depth interviews (Robson, 2011). In-depth interviews provide a better way to study and theorize about the social world; also, "they reveal evidence of the nature of the phenomenon under investigation, including the contexts and the situations in which they emerge, as well as insights into the cultural frames people use to make sense of these experiences and their social worlds" (Silverman, 2013, P 51). The interview guide serves as a checklist for the issues to be covered, but the flow of the interview can influence the modification of the wording as well as the flow of the questions. In addition, extra questions can be added in response to the information being provided by the interviewees (Robson, 2011).

This study chose to use semi-structured interviews for having an interview guide which includes all the issues that needed to be discussed and to avoid the chance of missing important information that needed to be accessed from the participants. Also, it was important to have an opportunity to ask additional questions and request further elaboration. It is important to consider what needs to be known to answer all of the research questions (Bryman, 2012). Therefore, interview guides were prepared regarding the research questions. The study intended to conduct two types of individual semi-structured interviews: first, with the key informant; and second, with women farmers including members, non-members, and group drop-outs. However, the guides were different depending on the type of participants. For example, guides among the key informants were not the same, since they came from different organisations with different roles. Also, there was a difference in the questions for members and non-members. Although similar guides were used for non-members and drop-outs, the guides are attached in appendix A1 and A2.

Qualitative interviews also have some limitations which can alter the quality of the data. Longer interviews can result in 'respondent fatigue' and reduce participants' willingness to carry on the discussion. On the other hand, Robson (2011) proposed that interviews of less than 30 minutes are not acceptable. Thus, plans should be made in advance to consider a suitable time for the discussion. Robson (2011) added that the researcher may have difficulty obtaining cooperation in the field. However, this was not expected to happen since I belong to the country of the study and have experience of working with the community. A detailed description of how interviews were conducted is provided in the data collection section.

6.5.2 The Focus Group Discussions

FGDs or group interviews are a convenient technique where a lot of data can be collected from a group of participants at the same time. Also, "group dynamics help to focus on important topics and it is fairly easy to assess the extent to which there is a consistent and shared view" (Robson, 2011: P 294). Within the group discussion, members can share their views, raise important issues, and can easily fill gaps in information left by others within the discussion. In this activity, the interviewer is interested in how participants discuss an issue as members of a given group, not as individuals. On the other hand, the researcher is interested in how participants respond to each other's views and build up a view from this interaction (Bryman, 2012). "In this technique, an interviewer is also interested in how people interact within the group and, how they construct their understanding of the topic they discuss together" (Matthews & Ross, 2010, page 236). Moreover, focus group discussion may encourage

participants who are unwilling to speak or those who think they have nothing to contribute (Robson, 2011).

The FGDs were included to allow construction of meaning for the issues under study by the groups rather than through individuals. It was necessary to obtain information from groups in the way they reach a general agreement and even correcting and reminding each other during the discussion. Through FGDs, it is easy to identify issues that they consider important and matters that need further attention and more detailed analysis by the study. The method is participatory and allows everyone to deliver information based on their own experiences, enabling a researcher to understand and come out with the basic concepts about the issues under discussion. The method provides an opportunity to observe participants' confidence when they respond to each other with either agreement or disagreement about their different views. Also, the method was effective for identifying important points that needed further elaboration, since it was easy to identify common and significant matters through their shared views. Finally, the activity enabled the selection of significant participants for individual interviews.

FGDs also have some limitations that need to be considered before the process. Bryman (2012) presents a list of limitations including loss of control by a facilitator in the discussion. A facilitator is advised to remain active to avoid loss of control and make sure that participants' discussions remain focused on the intended questions. Another challenge is domination by some participants, leading to restrictions on other participants' contributions. This can be reduced by setting some ground rules for the discussion and making clear that the views of all participants are of value and that everyone has an equal opportunity to participate. The author also considered the huge amount of data released from the focus groups as a challenge for transcription and analysis. The selection of a reasonable number of groups for the discussion can overcome this limitation. Bryman (2012) also noted that the organisation of the activity may be a challenge due to the difficulty of gathering participants in one place and at the same time. Proper arrangement with prior decisions about time and place for activities is vital to overcome this limitation. A detailed description of how this method was used and how limitations were overcome is presented in the data collection section.

6.5.3 Recording the Interviews

An interviewer in qualitative research is not only interested in what is being said but also how the statement is being produced. Therefore, he/she has to pay attention to what is being said, follow interesting points, and probe where necessary. Also, he/she has to draw attention to any discrepancies in the answers provided; hence, it is better to record the conversation rather than

being distracted by note-taking (Bryman, 2012). In interviews, audio recording is usually preferred, although sometimes performance in the discussion can be affected by a sensitive topic, the expectations or characteristics of the participants (Robson, 2011). My study does not involve sensitive questions; however, some sensitive gender issues may arise during the discussions. However, I believe that group members share similar social roles, and could have developed a sense of trust between them through their long-term membership.

I decided to record all interviews by audio tape recorder to allow enough time to follow the discussions, request elaboration, and to ask additional questions. However, participants' consent needs to be obtained before attempts at recording. If they disagree, then notes should be taken. It is also suggested that important points are noted, even when the interviews are recorded, although Bryman (2012) argues that this is only possible for individual interviews where the researcher can ask the interviewee to pause or to repeat some information while noting a few points, but not in FGDs.

6.5.4 Selection of Study Participants

Qualitative studies employ purposive or convenience sampling for selecting participants due to the nature of the studies which seek to understand deep information from the desired and relevant sources (Moriarty, 2011). Hence, information needs to be collected from specific participants; not randomly selected from the desired population. Bryman (2012) noted that qualitative research is normally based on purposive sampling, where a researcher needs to select units with reference to the research questions. He also added that research questions provide directions on the unit to be sampled, including the type of people to be targeted. "Purposive sampling lets us choose a case because it illustrates some feature or process in which we are interested; however, this does not provide a simple approval to any case we happen to choose. Rather, it demands that we think critically about the parameters of the population we are studying and choose our sample case carefully on this basis" (Silverman, 2010: p.141). Qualitative studies mostly focus on in-depth analysis of small samples that have been selected purposively, not to generalise to a wider population (Moriarty, 2011).

Since qualitative methods were selected according to the nature of the research questions, similarly participants were selected according to the chosen methods. Purposive sampling was employed to select specific participants believed to have the essential information needed by the study. Because study questions were directed at farming groups, it is clear that study participants should come from these groups. Bryman (2012) mentioned two important levels of sampling in qualitative research: a sampling of areas and sampling of participants. I used purposive sampling for both areas and participants. Purposive sampling involves in-depth,

small studies aiming to collect qualitative data based on views and experiences and, when the samples have the same characteristics, in-depth investigation of a particular aspect is well enabled (Matthews & Ross, 2010). Thus, a clear definition of the criteria for selecting participants was made before the selection took place.

There was a need to identify better selection strategies for suitable participants because farming groups are scattered all over the country. Therefore, purposive sampling was the only suitable. Matthews and Ross (2010) proposed three approaches suitable for collecting participants through purposive sampling: convenience samples, snowball, and quota samples. Convenience samples are samples that are readily available or accessible by the researcher, while for snowball sampling, a researcher selects a few people who are appropriate for the research questions, and then those people suggest other suitable participants. In quota sampling, participants are selected based on certain criteria, which means a researcher needs to determine specific categories of people to be included or needs to make sure specific cases are included in the samples (Matthew & Ross, 2010).

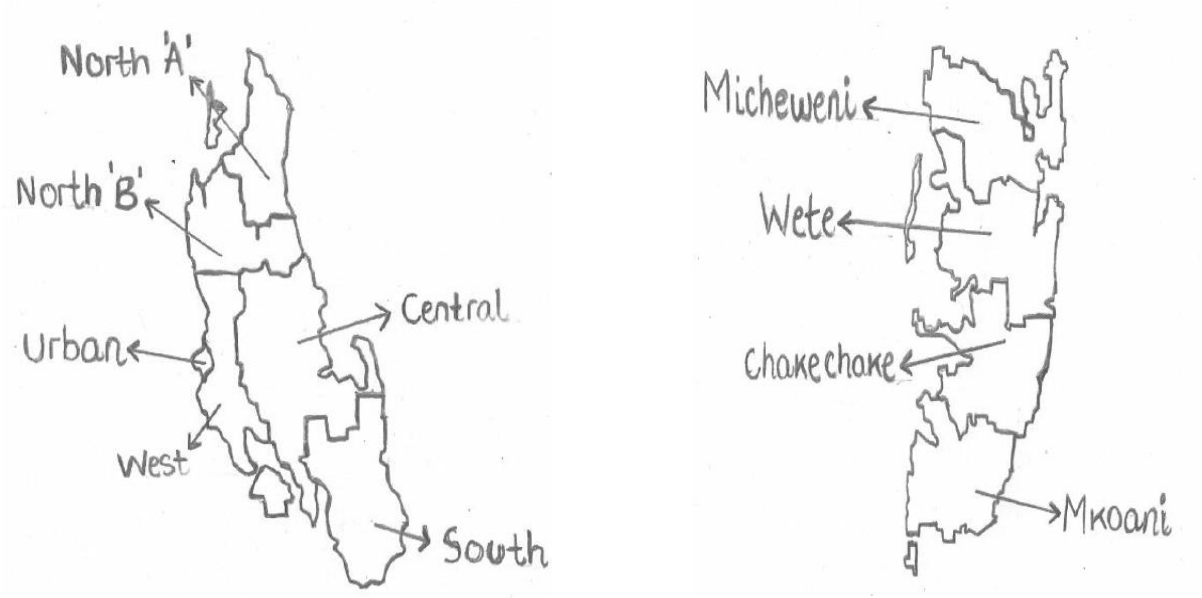
To start with area selection, I planned to include only three districts due to the time limitations for my research. All districts are involved in agriculture except one which is the urban center of the country. Therefore, selection criteria enabled the inclusion and exclusion of the districts. High agricultural activity in the district was the main criterion. However, one district from Pemba was deliberately selected with the same criteria because the two islands are not similar. Generally, Pemba is estimated as being left behind for many development aspects, such as infrastructure and the existence of important services, compared to Unguja. However, the island is very fertile with 85% of deep fertile soil (94,633 ha) compared to 45% (74,000 ha) for Unguja (URT, 2014). Pemba is reported to have higher poverty rates for different measures of poverty (food poverty, basic need poverty, and poverty gaps) compared to Unguja (Chief Government Statistician Zanzibar, 2016).

Central and Western districts were selected in Unguja and Chake chake district from Pemba. Nevertheless, differences were not observed for the districts of Pemba in terms of production, since available reports show performance for individual crops, not overall production. Therefore, the district was selected based on easy accessibility and better infrastructure compared to others. Generally, there is no cumulative data that shows specific performance for each district, but according to various agricultural officers, there has been a shift from food production to more vegetable production through the use of modern skills, especially irrigation. Although current reports do not show rates of vegetable production, their increase is recognizable by their significant availability, and many farming groups are involved in this

enterprise. Therefore, the selection of districts was supported by agricultural officers who have experience in the general performance of each district. Figure 6 below shows the location of districts within the islands.

Figure 6: Location of the Districts within the Islands

Unguja **Pemba**



Source: Modified from Zanzibar Crop Report, 2012

The existence of desired farming groups influenced the selection of villages in the districts. Therefore criteria for group selection had to come first before selecting villages. First, groups should be registered; second, they should be women-only or with a higher number of women; and finally, they should have been established for at least three years. I assumed long-term groups would have greater experience of working with different projects and could have received various amounts of support. Since the Department of Cooperative regulates all registered groups I presumed they had records and background information for all groups, and through this list, I would be able to select desired groups. Unfortunately, their computer record system had collapsed, and I had to work with District Agriculture and Cooperative officers to select groups. These officers have a list of groups with a summary of background information in their districts since they are supposed to support these groups. I picked groups from their list followed by physical visits to the groups to confirm whether they meet the criteria. This means that I had to make several visits and undertake informal chats with the groups before selecting the appropriate ones.

Finally, three groups were selected, one from each district; however, an additional five groups were added following the suggestions of the cooperative officers. I decided to include them as

extra groups for curiosity, to find out what is special to them by making comparisons with the selected groups. Thus, 8 groups were involved, one from each village except for Kizimbani and Wawi which had 2 groups each, but the extra groups were not studied intensively due to limited time. After identifying the groups, I decided the criteria for selecting the women in the groups: these are: they should have been members of their particular group for at least three years, and they should depend entirely on agriculture for their livelihood. For non-members, only the second criteria was applicable. Table 8 summarises the groups with their respective villages and districts.

Table 8: Selected Farming Groups

Island	**Unguja**				**Pemba**			**Total**
District	**Central**		**West A**	**South**	**Chake chake**			4
Type	Selected	Extra	Selected	Extra	Selected	Extra		-
Village	Umbuji	Uroa	Kizimbani	Paje	Wawi	Wawi	Vitongoji	6
Groups	1	1	2	1	1	1	1	**8**

Source: Data, 2017

The process also involved the selection of key informants which was done before the selection of the groups. Regarding the government departments, they were selected from the Ministry of Agriculture, the Department of Cooperatives, the Department of Women's Development and the Ministry of Finance. Also, three NGOs were included based on longer experiences in supporting farmers and higher coverage in the country. They were selected with the support of the Association of NGOs (ANGOZA), from their list of all registered NGOs with their background information. All key informants were purposely selected from their respective organisations and departments in connection to their roles and responsibilities towards farmers. Snowball sampling was also involved in the selection; as a result, 15 key informants were selected. Table 9 summarises the details of the key informants.

Table 9: The Key informants Involved in the Study

GOVERNMENT ORGANISATIONS		**Ministry of Agriculture**		
	No.		Projects and Planning Department	**Gender**
	1	Title	Planning Officer	Male
		Role	Coordination planning and implementation of government and development support projects and services for agricultural development in the country	
	2	Title	Monitoring and evaluation officer (M & E officer)	Male
		Role	Monitoring and evaluation for ASSP & ASDP/L projects	
	3	Title	M & E Officer	Male
		Role	Monitoring and evaluation for PADEP & ZANRICE projects	
	4	Title	Pemba Coordinator	Female
		Role	The ASSP & ASDP/L project Liaison Officer	
	5	Title	Forest Officer	Female
		Role	Coordinates forest conservation and management projects	
	6	Title	Block Extension Officer	Male
		Role	Provides agricultural extension services	
	7	Title	Program District Officer	Female
		Role	Supports ASSP & ASDP/L project district implementation	
		Ministry of Labour, Empowerment, Elders, Youth, Women, and children		
		Cooperative Department		
	1	Title	Cooperative Development officer	Male
		Role	Deals with cooperative development issues in the country	
	2	Title	Compliance Officer	Female
		Role	Resolves group conflicts	
		Department of Women and Children		
	1	Title	Senior Officer	Female
		Role	Welfare and Economic Empowerment of women	
		Ministry of Finance and Planning		
		Planning Commission		
	1	Title	Planning Officer	Female
		Role	Coordinates poverty reduction plans and implementation	
	2	Title	Planning Officer	Male
		Role	Coordinates research and national plan implementation	

NON-GOVERNMENT ORGANISATIONS		**National Network of Farmers' Groups in Tanzania (MVIWATA)**		
	1	Title	The Coordinator	Male
		Role	Coordinates support provision and services to farming groups	
			The Network for Vegetable Farmers in Zanzibar (UWAMWIMA)	
	2	Title	Administrator	Female
		Role	Coordinates support provision for vegetable farmers	
		Women Empowerment in Zanzibar (WEZA)		
	3	Title	Assistant Coordinator	Female
		Role	Coordinates supports for women development and empowerment	
TOTAL:				**15**

Source: Field Data, 2017

6.5.5 Number of Respondents

In qualitative studies, the number of respondents is generally suggested to be small due to the need to explore in-depth information from the study participants. However, it should be sufficiently high to deliver all of the information required. Different suggestions are provided for the number of participants for different qualitative methods. For example, Bryman (2012) cited Morgan (1998) who suggested 6 to 10 members for FGDs, and due to the problem of 'no shows' that one might face, he cited Wilkinson (1999) who recommended over-recruitment as a solution. Matthews and Ross (2010) suggested 20 participants for individual interviews as reasonable; however, circumstances might arise where the sample can be less than 20. Also, he proposed between 5 and 13 people for FGDs. For a minimum number of interviews to be accepted Bryman (2012) cited Warren (2002), who recommended about 20 to 30 interviewees. Furthermore, he cited Gerson & Herowitz (2002) who proposed that more than 150 interviews would involve so much data that analysis would be difficult, although less than 60 cannot support convincing conclusions. Researchers in qualitative studies face a delicate situation in determining the number of respondents since a suitable number to support convincing conclusions varies depending on the situations in purposive sampling terms (Bryman, 2012).

The decision about the number of respondents for each qualitative technique was made through consideration of the above suggestions, and through reflection on the study questions, study areas, and the purpose of achieving data saturation. The issue of 'no shows' was also considered for the FGDs. Therefore, I decided to conduct two FGDs with 6 to 10 women from each of the 3 selected groups, while expecting 8 attendees for each FGD. This makes 16 women per group and a total of 48 women from the selected groups. For individual interviews, I

planned to select 15 participants from each of the three selected villages, which makes 45 interviewees, where five are with members, five with non-members, and five drop-outs. Nevertheless, there were no drop-outs in two villages, so I ended up with 35 interviewees. Also, the number of FGD participants increased due to the inclusion of extra groups, as mentioned previously. A large sample may be acceptable "for making meaningful comparisons in relation to the research questions, but not so large as to become so diffuse that a detailed and nuanced focus on something, in particular, becomes impossible"(Mason, 2002: p.136). Table 10 shows the number of participants for each method of data collection in the villages.

Table 10: Number of Participants Involved in the Study Village

Islands	**UNGUJA**				**PEMBA**		**Total**
Districts	**Central**		**West A**	**South**	**Chake chake**		4
Villages	Umbuji	Uroa	Kizimbani	Paje	Wawi	Vitongoji	6
Number of farming groups	1	1	2	1	2	1	8
Number of FGDs	2	2	2	1	3	1	11
FGDs participants	15	10	19	7	19	8	78
Individual interviewees	15	-	10	-	10	-	35
Total Respondents:	30	10	29	7	29	8	**113**

Source: Field Data, 2017

6.5.6 Observations and Transect Walk

I decided to include observations as it is suggested that they are conducted with interviews to provide more detailed information (Cresswell et al., 2017), but also because some aspects of my research questions could only be discovered through this approach. Since my study set out to discover livelihood outcomes, there was a need to observe the availability of important services in the villages, such as clean water, schools, health centers, markets, and other infrastructure. This meant that a transect walk had to be included as part of the observations.

The transect walks were conducted in the villages once after we had introduced the study to the village leaders before any discussion with members of the farming groups. A daily diary was used to record all the observed issues. The activity aimed to support basic understanding of poor women's situations about their environment and access to services which affects their daily life. However, the activity was only conducted in three of the selected villages and one

additional village; these are Umbuji, Kizimbani, Wawi, and Uroa respectively. It was easy to include Uroa since it belongs to the same district as the selected village of Umbuji; nevertheless, the additional village of Vitongoji also belongs to the same district as the selected village of Wawi. However it was not possible due to the lack of reliable transport in the district, and the rainy season during the time of the fieldwork increased the difficulty.

Also, I wanted to observe some characteristics of women, such as active participation in their planning meetings. I was interested to observe how they perform their group activities. In observations you do not need to ask about participants' views, you only need to listen and watch what they are doing (Robson, 2011). Moreover, observations were used to verify the data collected from discussions, as sometimes people do not say what they actually do. It is an opportunity to watch what they do and listen to what they say (Robson, 2011). Therefore, it was an opportunity to verify the information collected from the FGD and interviews.

Observations can be either participants or non-participants, whereas in participant observation a researcher participates in activities with the participants. The non-participant observation was suitable to acquire all the information I needed from the women, and I wanted to observe their meetings, their farms, and them conducting their farming. However, the achievement of all the observations was determined by the availability of these activities during the time of fieldwork. The next section provides a detailed description of the activity.

6.6 Data collection

Data were collected during three months of fieldwork from September to November 2017. The process involved three sequential phases, where each phase provided directions on what should be accessed at the next. Table 11 summarises the activities involved in each of the three phases. However, after conducting key informant interviews, data were then collected from one village after another. This means that the collection of all information was completed for each village before going to the next. Therefore, the sequential data collection was from one village to another, by starting at Umbuji followed by Kizimbani, Uroa, Wawi, Vitongoji, and finally Paje, as discussed below. However, data collection from the villages was preceded by a pilot for the questions and introduction of the study to the district officers and village leaders.

Table 11: The Step-by-Step Field work Activities

		Activities	Significance/importance
PHASE ONE	1	Application for the study permit in the study area	To fulfill the country's requirement and authorization for acquiring the information needed
	2	Selecting the research assistant	To provide support in the data collection process
	3	Conducting key informant interviews	To collect required information and data from the key informants
PHASE TWO	4	Conducting pilot	To evaluate the study guides and make necessary corrections
	5	Introducing the study to the district authorities and village leaders	Introducing the research and obtaining legitimate access to work in the villages
	6	Visiting the villages	Get to know the areas, their activities and available services
	7	Planning meetings with the farming groups	Get to know the groups and plan for the focus groups and the following activities
	8	Conducting focus group discussions	Exploring the in-depth necessary information from the groups
PHASE THREE	9	Conducting individual interviews	Exploring the in-depth necessary information from women farmers
	10	Conducting observations	Discover how activities are conducted within the groups

Source: Field, 2017

6.6.1 Conducting Key informant Interviews

Key informant interviews were conducted after receiving permission, but before that, I had to introduce the study to the selected government departments and NGOs. First, a visit was made to the Ministry of Agriculture by meeting with the Director of Research and Planning who introduced me to the Planning Officer who recommended other key informants in various sections of the ministry. Therefore, I had to conduct informal meetings with each of the proposed key informants to plan our forthcoming discussions. Also, I used the opportunity to ask for secondary data. As I said before, discussion with key informants has to come first because they have general information about farming groups. Second, a visit was made to the Ministry of Labour, Empowerment, Elders, Youth, Women, and Children where I met with the Officer for Women's Development and Cooperative Officers. Finally, I visited the Planning Commission from the Ministry of Finance. However, the procedure was the same, starting with informal meetings with the officers, which also assisted in the selection of other appropriate key informants, and then the actual interviews.

For the NGOs, I started with MVIWATA, then UWAMWIMA and finally WEZA and the process were similar to that of the government departments, where informal meetings were conducted before the actual interviews. Generally, the informal meetings and the interviews

were randomly conducted for both organisations, depending on the availability of the key informants. Each of 15 key informants was interviewed in respect of their role and the support they provide to women and the farming groups. All interviews were recorded, except for one officer who refused, where points had to be noted followed by full notes after the discussion. The interviews took about 30 minutes to avoid 'respondent fatigue', as suggested by Robson (2011).

Key informants from the Ministry of Agriculture were asked about the kinds of services they provide, their relationship with available groups, and how groups can access support. They were asked whether they provide special support in favour of women in response to gender equality. Also, I asked about the origin of farming groups and why they prefer working with groups; also, I needed to know how they decide which groups to support. Similar questions were asked of other government key informants with slight modification. Few changes were made for questions that were asked of key informants from NGOs. Details of the questions can be seen in appendix A3.

Information collected from the key informants provided further insight into the information required from the women. Also, their information was then cross-checked with the women, for example, I checked with the women whether they do receive the range of services mentioned by the key informants to determine whether there is a bias in service provision.

6.6.2 Conducting the Pilot

The need for piloting before actual data collection is more pronounced for structured interviews to ensure the suitability of the tool for the study (Bryman, 2012). Nonetheless, I decided to test my interview guide to ensure that the questions are clear and understandable by the interviewees and to confirm whether the questions led respondents to provide the desired information in sufficient detail.

I conducted two pilots, one for the FGD guide and one for the individual interview guide, but they were conducted after the introduction of the study to the district authorities. Introducing the study to the districts was essential, as it provides legitimate access to villages. Generally, during the introduction to the district officers, you need to present the approval certificate and then they provide you with official letters for the village leaders. The letter informs them that the study has been approved and requests their co-operation with the researcher. It is a kind of formality in the country for those who intend to conduct a study or work with the community. Village leaders ask for permission letters before working or giving information to anyone.

The group for piloting was recruited with the support of The Network for Vegetable Farmers in Zanzibar (UWAMWIMA) with the same criteria for selection of the study groups and the participants as mentioned earlier. Participants involved in a pilot preferably should have similar characteristics to the study sample. Therefore, women's farming groups were recruited from members of the network in the West District of Zanzibar, followed by informal meetings with women and selection of suitable respondents; then arrangements were made for the group discussion and the individual interviews.

During the activity, we realised that a few questions were leading to the same answers, and some answers were provided before even asking the actual questions. Therefore, I decided to remove these similar questions and retain questions where the answers were provided before being asked because these questions still need to be asked if the answers are not provided beforehand by the participants. For the individual interview guides, no modifications were made as all the questions led to the right information. However, the flow for both guides remained the same, since the subsequent question was regulated by the information/answers being provided by the participants at a particular point in the discussions.

6.6.3 Umbuji Village

Umbuji was the first village where there was an opportunity to meet with women face-to-face to seek their opinion and experiences about their achievements in farming groups. The village is located in the Central district which is located in the middle of Unguja Island, as the name implies. The district covers 453 square kilometers and comprises three Constituencies with eight Wards and 40 villages, with a population of 76,346 where 37,808 are females and 38,538 are males (Census, 2012). The role of agriculture in the district is significant because 88% of the households are reported to be involved in some form of agriculture, which is higher than the national average of 75%. (Central Profile Report). It is also reported to have the highest number of households (8,907) involved in selling crops, and 36% of the households are reported to have insufficient land for agricultural production.

The selected farming group is a women-only group, established in 2012 and registered in 2015. Table 12 summarises the group description where M represents males and F females.

Table 12: Description of the Group at Umbuji Village

	Name		Established	Registered	Female	Total
Name	Tunamuomba Mungu		2012	2015	23	23
Activities	Farming					
Crops	Vegetables: tomatoes, eggplant, okra, spinach, peppers, and others.					
Land size	About 0.5 acre					
Level of education	None	Primary	Secondary (form II)	Secondary (form IV)	Six form/Diploma	University
	7	9	6	1	-	-

Source: Field Data, 2017.

I met with the group members after introducing the study to the village leader and conducting a transect walk, as mentioned previously. Firstly, I had a chat with a few members, including the group leaders, to introduce the aim of the study, the activities involved, and the necessity for them to participate in the study. However, I made clear that their participation was voluntary. Also, I asked about the group's general background and ended by setting a day for the planning meeting, as they had to send the information to their fellow members. During the planning meeting, we agreed on a suitable time and place for the discussions and identified appropriate participants according to my selection criteria, as mentioned earlier. The process was similar for all the other farming groups and the discussions were held near their groups' farms or their homes. All groups agreed for recording and gave their consent for photos to be taken from their farms and during their activities.

During the first FGD, five women participated instead of eight for social reasons. As a result, the second discussion involved 10 women, including those who missed the first meeting. Because women were interested to participate they did not want to miss their chance. Before the start of each discussion, I provided a short description of the study's aim and sought their consent for participation. All invited participants provided their consent along with their demographic characteristics. The sample consent form is attached as appendix A4. Background information for members in the groups was recorded for analysing members' capacities.

We all wore name badges (both researchers and participants) to assist with identification. This enabled me to encourage those who did not effectively participate by calling their names and asked for their contribution. Also, we agreed on some ground rules to make the discussions go smoothly and to avoid two or more people speaking at the same time, which would ruin the

quality of the recordings. This procedure was similar for all FGDs in other groups and they did not last for more than two hours. As suggested by Bryman (2012), FGDs takes a minimum of 1 hour but can be extended to two or more. We asked women how they benefit in groups and whether their ability to support their families has improved through their group participation. In addition, comparison during their membership and non-membership time was made to ascertain the contribution of groups to their livelihood changes. Details of the questions can be seen in the FGD guide in appendix A5.

Individual interviews: followed the FGDs and group members assisted in the recruitment of the drop-outs and non-members, since it was easy for them to identify these. Snowball sampling was also applied, where non-members identified other non-members. However, few FGD participants also participated in the individual interviews as their interesting points had already been raised during the discussions. This made me realise that I needed more individual details. It was an opportunity for women to express their views in a more free and private situation about changes they have experienced in groups, including personal changes; as well as changes within their household relationships, and their decision-making power. The activity provided an opportunity for the drop-outs to express their reasons for leaving groups and their views on how groups should be managed to attract more women. Also, the interviews needed to understand why other women are not involved, which could also be gender-related. Suggestions and recommendations for improving groups were obtained through the activity.

Similar to FGDs, prior arrangements for suitable places and times were made through informal chats with the selected participants. Fortunately, some participants were ready to start the interviews after our informal chat, which saved time. As in the FGDs, a short description of the study was provided before the interviews and participants were asked for their consent to participation and recording, followed by completion of the same consent forms as for the FGDs. The same procedure was applied in other villages and all participants gave their consent to both participation and recording and were eager to participate voluntarily.

Observations: were conducted at the end of the data collection process and were initially scheduled after the second FGD for each village. However, the schedule was later confirmed or rescheduled depending on the time spent on the individual interviews, since observations were conducted after the interviews. They were informal observations, although a semi-structured guide (see appendix A6) was in place just as a reminder of the important aspects to be observed. The guide was not in hand during the activity and notes were not taken; we were just observing and asking when necessary. However, we asked no questions during their

meetings because that would be disruptive. 2 observations were made - one for their activities and one for their meetings.

Notes were written after each observation with the support of the research assistant for cross-checking any important issues observed. Consent for the observations was granted during the planning of the activity, as was their consent for taking photographs. However, photos were only taken during activities, not during meetings. Also, it was not difficult to catch-up with their working time, since most group work is performed during reasonable times, unlike individual activities that normally take place in early mornings. It was easy to arrange observations in Umbuji because they have specific days in the week for group work and meetings.

6.6.4 Kizimbani Village

The village belongs to West 'A' District, formerly known as West District, which has recently undergone subdivision to form two districts West A and West B. It is one of the few districts in the country with quite a high population of 163,740, as reported by the Housing and Population Census 2012 with six Constituencies, 12 Wards, and 31 Villages. Major crops being produced are paddy, sweet potatoes, cassava, yams, millet, banana, and other different varieties of fruit and vegetables. Kizimbani leads in terms of production for all crops being reported compared to other villages; these are cassava, paddy, bananas, yams, maize, sweet potatoes, and pineapples.

In the village, farming groups have united to form a network called the 'Letu Cooperative'; however, the network currently only provides savings and credit services. Group members conduct their agricultural activities in their individual farming groups. The name of the selected group is "Ndugu Njooni", Table 13 shows the background of the group. When I asked who came up with the idea of uniting the small groups into a network, I was told that it was the woman who is the leader of her group. Therefore, I was interested to meet the group and I decided to conduct my second FGD with that group named 'Hatungoji kusukumwa' established in 1986, with 16 members and only 1 man. Table 14 summarises the group's background information.

Table 13: Description of Group 1 Kizimbani Village

	Name		Established		Registered		Female		Male		Total	
Name	Ndugu Njooni		1997		2002		12		4		16	
Activities	Farming											
Crops	Mainly Cassava, others are maize, beans, and yams.											
Land size	3 acres											
Level of education	None		Primary		Secondary (form II)		Secondary (form IV)		Six form /Diploma		University	
	M	F	M	F	M	F	M	F	M	F	M	F
	-	5	1	4	2	2	1	1	-	-	-	-
Total	5		5		4		2					

Source: Field Data, 2017

Table 14: Description of Group 2 Kizimbani Village

	Name		Established		Registered		Female		Male		Total	
Name	Hatungoji kusukumwa		1986		2015		15		1		16	
Activities	Farming											
Crops	Mainly Cassava, others are maize, beans, and yams.											
Land size	0.5 acres											
Level of education	None		Primary		Secondary (form II)		Secondary (form IV)		Six form /Diploma		University	
	M	F	M	F	M	F	M	F	M	F	M	F
		3	1	3	-	5	-	4	-	-	-	-
Total	3		4		5		4					

Source: Field Data, 2017

The individual interviews: were conducted after both FGDs, since both groups came from the same village. However, there were no drop-out interviews because those who left the groups were no longer residents of the village.

Observation: The plan for observations was similar to that of Umbuji village and all the arrangements and procedures were the same. Similar to Umbuji, both groups in Kizimbani have specific days in the week for group work and meetings. Therefore, planning for the

activity was not difficult. I observed both group activities separately, but for the meeting, I observed a meeting of their united network made up of five groups.

6.6.5 Uroa Village

Uroa belongs to the same district as Umbuji and it is an extra village, as mentioned previously. All villages followed a similar process for planning and conducting the discussions, as indicated earlier. It is the only additional village where the transect walk was undertaken. Also, we conducted two FGDs with members. A unique difference for this group compared to other members is that they were also involved in fishing and seaweed farming because the village is near to the sea. Seaweed farming is mainly conducted by women individually and provides them with quick money by selling their harvested dried seaweeds which they keep in their homes, while men are involved in fishing. The majority of farmers in this village own land because the village is covered by a large area of coral reef soil owned by the government, where one can clear a piece and use it for farming. The group is mixed in gender and was recommended by cooperative officers as mentioned before; otherwise, it did not meet my selection criteria since it was only recently established. Table 15 below summarises the background to the group.

Table 15: Description of Uroa Group

	Name		Established		Registered		Female		Male		Total	
Name	Hakueki		2015		2017		20		10		30	
Activities	Vegetable Farming											
Crops	tomatoes, eggplant, okra, spinach, peppers, watermelons, and other vegetables											
Land size	10 acres											
Level of education	None		Primary		Secondary (form II)		Secondary (form IV)		Six form /Diploma		University	
	M	F	M	F	M	F	M	F	M	F	M	F
		1	1	2	2	6	6	10	1	1	-	-
Total	1		3		8		16		2			

Source: Field Data, 2017

We conducted 2 FGDs with 10 members of this group where both the first and the second had 5 participants each. After the discussions, I had a chat with their group secretary.

Observations: Actual arrangements for observations and procedures for all the villages where the activity was undertaken were the same. All group members granted their consent for observations and taking photos. Similar to the previous villages, it was easy to plan observation of their activities as they have specific days during the week for their group work. However, I got to observe their meeting only because I was lucky enough to be around at the time, as they conduct meetings once a month.

6.6.6 Wawi Village

The village belongs to the Chake chake district of Pemba located in the South Region with a population of 97,249 - 46,411 males and 50,838 females. The district is divided into 4 constituencies and 17 wards with 29 villages. Their main economic activity is predominantly characterized by subsistence farming and fishing dominated by smallholders. The role of agriculture is said to be significant in the district, where 85% of the rural households reported involvement in some form of agriculture, which is higher than the national average (District Profile, 2017). The main food crops are sweet potatoes, yams, rice, maize, cassava, and bananas.

The group studied is called “Tujitumeni”, comprising a mixture of men and women members involved in vegetable farming. Table 16 summarises the background information for the group.

Table 16: Description of the Group at Wawi Village

	Name				Established		Registered		Female		Male	Total
Name	Tujitumeni				2010		2016		13		5	18
Activities	Farming											
Crops	Various vegetables including tomatoes, spinach, eggplant, okra, and others											
Land size	3 acres											
Level of education	None		Primary		Secondary (form II)		Secondary (form IV)		Six form /Diploma		University	
	M	F	M	F	M	F	M	F	M	F	M	F
		4	2	5	1	4	1	1	-	-	-	-
Total	4		7		5		2					

Source: Field Data, 2017.

As explained previously, two additional farming groups were included in the FGDs in this district (Chake chake). One belongs to the same village as the selected group (Wawi) and the second belongs to another village called Vitongoji. However, I started FGDs with the selected group with the same procedures as conducted in the previous villages, where the first and the second discussion had nine and six participants respectively. Then, I completed the individual interviews with members, and non-members, whereas drop-outs were not available. I completed data collection with the group for all methods before conducting FGDs with both additional groups.

Observations: followed after the individual interviews, similar to the preceding villages. However, the situation was the same as that for Uroa for both working and meeting days. As a result, I got to observe their work, but not the meeting because they only conduct meetings quarterly.

Mtakata AMCOS

This is an additional group, where AMCOS stands for Agriculture Marketing Cooperative Society, established in April 2017 and registered in June 2017. It is a network representing different farming groups but, surprisingly, members are individual farmers from different villages, not groups. However, their meeting center is at Wawi village, the same as their demonstration plot, and some members work within the same area, which is government land. They have applied to the government for ownership of the land and they intend to build their

offices in the area if their application is approved. The coop consists of 49 members - 34 men and 15 women, but our discussion involved only four respondents - two men and two women. Therefore, it was not possible to collect demographic characteristics for all members.

6.6.7 Vitongoji village

In this village, 'Kibokoni SACCOS' the recommended group was visited. The village belongs to the same district (Chake chake) as the Mtakata and Wawi groups. The SACCOS represents the Savings and Credit Cooperative Society and was established in 2000 with 35 members and currently (2017) has 57 members - 40 women and 17 men. They started with savings and credit activities until the year 2001 when they included agricultural activities in the group and their main crops are cassava, rice, and peanuts to earn cash. Similar to the above group, it was not possible to collect demographic information for members, and the FGD was conducted with 8 members - 3 men and 5 women.

6.6.8 Paje Village

This was the last village visited and is situated in the South District of Unguja. The group named 'Mtule AMCOS' was recommended by cooperative officers. The AMCOS represents the Agricultural Marketing Cooperative Society similar to that of Mtakata. Mtakata and Mtule share some similarities, which will be discussed further in the results chapter. Similar to Mtakata, it is recently established (April 2016) and registered in May 2016 with 164 members, where 57 are women and 107 are men. Similar to Vitongoji and Mtakata, details of the members were not recorded; however, I was able to obtain their general background descriptions through our discussion, which was useful for drawing comparisons. Table 17 summarises all FGDs with the numbers of participants in each village.

Table 17: Participants Involved in the FGDs

Village	District	FGD No.	Female	Male	Total
Umbuji	Central District	1	5	-	5
		2	10	-	10
Kizimbani	West 'A' District	1	7	2	9
		2	9	1	10
Wawi	Chake chake District	1	7	2	9
		2	6	-	6
Additional villages:					
Uroa	Central District	1	4	1	5
		2	4	1	5
Paje	South District	1	5	2	7
Vitongoji	Chake chake District	1	5	3	8
Wawi	Chake chake District	1	2	2	4
TOTAL:		**11 FGDs**	**64**	**14**	**78**

Source: Field Data, 2017

6.6.9 Limitations

Researchers must be aware of the limitations of qualitative interviews which can alter the quality of data so that ways can be sought to overcome these limitations. Robson (2011) discussed the duration of the interviews to maintain the willingness of the interviewees to continue. I tried to keep my interviews to one hour, and the minimum time was 30 minutes, due to the number and nature of the open-ended questions. However, the time was exceeded for one cooperative officer who was willing to continue and provide greater elaboration. On the other hand, the interview with the project coordinator at the Ministry of Agriculture Pemba was about 25 minutes.

Key informants were cooperative, with some showing special interest in the study, and asked for a copy of the report upon completion. However, the main challenge I faced was related to their availability; it was difficult for them to meet, even at their preferred time. Sometimes we had to stop the discussions due to their commitments; and some cancellations happened after I have arrived for the interviews, which was disappointing because the fieldwork had to be

completed by a specific time. However, I was flexible and patient where new appointments were made and had to go back many times until the activity was completed. Patience was essential because data has to be collected on a sequential basis. Therefore, it was not possible to jump to the next phase without completing the first.

Although FGD is a useful method for building understanding through participants' views, it has some limitations, as discussed previously, such as going off the intended topic, the domination of the discussion by some participants and two or more people speaking at once. I remained active, leading them to the desired topic to avoid off-topic discussions; however, it was not easy to avoid this completely and it occurred on a few occasions. I had to remind them about our topic by expanding on what exactly the question asks. The ground rules established before discussions, such as 'everyone has equal opportunity to participate', 'all participants' views are important and have the same value' helped to avoid domination of the discussion by some respondents.

On the other hand, a few participants were rather quiet despite my encouragement of active participation. It happened at Wawi village from the selected group. In the beginning, only a few participants were responding and then, with encouragement, more participants responded. This could be an impact of the culture, where women normally do not speak in public, but this behaviour is currently changing and most women are now able to speak openly in meetings and discussions. Also, in a few cases, participants responded at the same time but the disruption was only minor as they were mostly responding together for agreements or disagreements such as 'Yes' or 'No'. Therefore, the recording quality was not affected.

Another limitation involved the number of participants per group discussion, but this was expected, which is why I issued 10 invitations expecting that two participants would be 'no shows'. However, this did not work exactly, due to the women's social obligations I ended up with a minimum of 5 and a maximum of 10 participants per group, as can be seen above in Table 16, despite our prior agreement for the appropriate time. In general, women were willing to participate voluntarily without expecting payment, as I assumed before.

During my visit to Pemba, I faced a challenge related to the weather. The moderate rainy season commenced and it was difficult to meet some of the appointments with women, as a result, some activities had to be rescheduled; however, all planned interviews were successfully conducted. The rainy season also increased difficulties in terms of accessibility to the group farm due to poor infrastructure within the village, which also affects the transportation of crops to the markets.

The absence of drop-outs from two selected groups was a bit of a challenge, as it reduced the number of expected participants. However, the limitation did not affect data quality, since all essential information was accessed through participants. Essentially, data saturation point was reached, as we reached a point where we realised that there was no more new information coming from the participants.

6.7 Qualitative Data Analysis

Data were initially analysed along with data collection to support progress among the three phases involved in the process, where the subsequent phase depended on the information collected from the previous phase. Information collected from key informants was analysed based on an understanding of what is supposed to happen and/or how things should happen in farming groups. As a result, some questions were developed which needed to be answered by women in the farming groups. Similarly, from the information collected during the FGDs, some questions were developed for individual interviews with members and non-members.

The full analysis was possible after collecting data from all sources involved, including secondary data, such as project reports, official reports, and official documents. Various steps had to be taken in the process, which included organising, sorting, classifying and describing information to produce results. The immediate step was to transcribe the recordings, but before that, all the data had to be appropriately organised through their respective collection method regarding time and location where these activities had taken place. A short comprehensive report was written for all activities, including general observations, challenges faced, limitations and major achievements.

Transcribing is time-consuming. Therefore, a careful time plan was considered, as a one-hour recording can take up to 10 hours to transcribe. However, one can decide to be selective, picking only appropriate statements (Robson, 2011). To be selective, I had to transcribe in Swahili which was the language used for data collection, the national language of the country, and my first language. Therefore, transcribing in Swahili would easily encourage the selection of the relevant information, and facilitate the discovery of important opinions through the process. The transcriptions were then translated into English for analysis. The reason for transcribing in Swahili then translating into English was to avoid the loss of important concepts or the actual meaning of the information. It is easy to go back to the transcripts and retrieve any information missed or to clarify any doubts. Moreover, it was easy to share the interviews and the analysis process with my supervisors through English. Finally, the NVivo program used for analysis uses the English language.

To obtain transcripts that would include all the necessary information I had to listen to the recordings twice before transcribing, as Bryman (2012) suggested that it is better to listen to the recordings carefully once or twice, to better enable selection of the appropriate portions of text for transcription. The average time for all recordings was 41 hours, 8 for the key informant interviews, 14 for the FGDs, and approximately 19 for the individual women's interviews. This makes a total of 410 hours of transcription (Bryman, 2012). The whole process of transcribing and translating took approximately 3 months.

6.7.1 Use of NVivo Program

I decided to use the NVivo program because the program helps to manage data effectively, links related ideas, and stores all important text in one place. However, the program does not conduct the analysis, it only assists the process. A range of data including interviews, FGDs, transcripts, pictures, video, and audio materials can be imported into NVivo and properly organised, enabling the researcher to work with the data carefully and productively (Matthews & Ross, 2010). The use of the software can help to overcome the main difficulty with qualitative data, resulting from the production of large amounts of data that can be either in the form of field notes, documents and interview transcripts (Bryman, 2012).

Coding is the initial step for analysing qualitative data for different methods such as thematic analysis. The codes are presented as nodes in NVivo. I conducted the process through the use of thematic analysis, although the program was used to assist in the coding process. The program is useful for easy coding rather than cutting and pasting words. it is easy to retrieve any information from its source through the program. Therefore, all steps required for the thematic analysis process, as presented by Braun and Clarke (2006), were followed, and eventually, themes were developed according to the research questions. Table 18 below presents the steps involved in conducting the thematic analysis followed by a detailed description for each phase, as conducted by the study.

Table 18: Steps Involved in Conducting Thematic Analysis

	Phase	Description of the process
1	Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2	Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire dataset, collating data relevant to each code.
3	Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4	Reviewing themes:	Checking whether the themes work with the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5	Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6	Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, the final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Source: Braun & Clarke, 2006

Familiarizing with the Data

All audio recordings from the field were transcribed and then translated into English; the translation also involved field notes taken during the process. Then, all information was transferred to NVivo 11. After that, the transferred information was read repeatedly to identify initial thoughts.

Generating initial codes

Through the repeated reading of the information, several codes were developed regarding the information provided by the participants. Information was analysed about what they meant or represented, with consideration of all information; as a result, many codes were developed. For example, lack of support, pests and diseases, access to land, use of inputs, use of irrigation, and others.

Searching for Themes

Then each code was evaluated critically and I came to realise that some codes are similar; they represent only one theme. In other words, some codes can be combined to represent one theme. For example, lack of support, pests, and diseases, and other similar codes were combined to represent challenges facing the farming groups.

Reviewing themes

Through a further review of the information under each code and the developed themes, some of these themes were then combined to present more meaningful themes. As a result, 12 themes were established as follows:

- Challenges of farming groups
- Advantages of farming groups
- Achievement of individual objectives
- The livelihood outcomes of women
- How the groups can be improved
- Access to information
- Access to markets
- Gender issues
- Available support and services
- Social changes
- The group formation, structure, and functions
- Suggestions

Defining and naming themes

At this stage, the above themes were analysed in relation to the research questions to develop appropriate names for the themes according to the study questions, where it covers the overall picture of the analysis.

Producing the report

Finally, the themes were used to present and discuss the findings of the study where a comparison of findings to secondary data was also made. Since the names of the themes were developed according to the study questions, then the themes were discussed under the objectives of the study in the report. Also, through the use of NVivo, it was easy to retrieve specific quotes from the respondents that needed to be included in the report.

6.8 Quantitative Methods

As discussed previously, quantitative data were collected only for triangulation and the ability to generalise the qualitative findings. Researchers using this method are mainly concerned with the ability to generalise their findings to a larger population from which study samples were drawn; in that sense, one should think of selecting a real representative sample (Bryman, 2012). The method also involves steps that need to be considered during the process, including a

decision on the issue to be researched, the research questions, the population, sample size, the development of the questionnaire, and a method for analysing the data.

Since the aim of employing the method was only for triangulation and generalization of findings acquired from the qualitative methods, similar research questions were involved based on how they have been answered in qualitative findings. The qualitative study focused on women involved in farming groups; therefore quantitative methods also had to focus on members of farming groups. Therefore, study samples had to be drawn from the farming groups, although non-registered groups were also included, unlike in the qualitative methods which involved registered groups only. The detail on how this method was applied by the study is as follows.

6.8.1 Sampling Method

Because all regions in the country are involved in agriculture and farming groups are scattered around the country, I decided to randomly include three regions of Unguja, where each region has two districts, making a total of 6 districts for the study. There are only an estimated 464 farming groups in the country (Department of Coop, 2017), with no details for each group, and the total number of women farmers is not available. Therefore, to calculate the sample size (n), first I calculated the number of women farmers in the country (N) from the total population of women, which is 672,892 (Population Census, 2012).

To estimate the number of women farmers in the country, first I deducted 44.8% of women under 15 years from 672,892 to obtain the total number of women in the workforce. The calculation gives 301,456 total women in the working population. Since 70% of women in the country are employed in agriculture this means that 70% of 301,456 is the number of women farmers (N). And the calculation from that gives 211,019 women farmers in the country.

The sample size based on the Slovin's formula (Ellen, 2018):

$$n = N/ (1+N*e^2)$$

Where N=population size and e=error tolerance. Using e=0.05 provides a 95% confidence level (NAO, 2001). Calculating this gives:

$$n= 211,019/ (1+211,019*(0.05)\ 2)$$

$$n = 211,019/ (1+211,019 \times 0.0025)$$

$$n = 211,019/(1+527.54)$$

$$n = 211,019/528.54$$

n = 400

However, limitations can also determine the sample size, where a 50 to 100 sample size may be reliable for the majority of purposes (NAO, 2001). Ellen (2018) suggested that, the formula ($n = N/ (1+N*e^2)$) can also be used for individual groups instead of the whole group. Due to time limitations, it was not possible to collect data from both islands. As a result, I worked with only six districts out of 10 total districts. Therefore, based on estimations for the sample existing in three regions instead of all five regions, and due to limited time and resources, I decided to include 300 women from farming groups instead of a 400 sample size (n). The sample was selected from all six districts of Unguja, excluding the four districts of Pemba.

Random sampling was not possible, because no sampling frame exists for women farmers in Zanzibar. Instead, it was decided to randomly select 50 women members of farming groups from each of the 6 selected districts to obtain 300 respondents.

6.8.2 Structured Interview

The study intended to conduct face-to-face structured interviews with women farming group members because most women farmers in the country do not know how to read and write. Certainly, self-administered questionnaires would be impossible. Structured and standardised interviews are appropriate for quantitative methods (Bryman, 2012). The aim was to ask respondents the same closed-ended questions in the same order, and then formulate codes for the answers to simplify the process of data entry.

Based on qualitative findings, a questionnaire was developed with fixed responses for the respondents to choose from, with examples provided below. Also, Likert scale type questions were used for some parts of the questionnaire. The questionnaire is attached to appendices B1.

- Yes – No – I do not know
- Always – Sometimes – Never
- Strongly agree – Agree – Neither agree nor disagree – Disagree – Strongly disagree.

6.8.3 Data Collection

Data were collected for four weeks in August 2018 with the support of the same research assistant as for the qualitative data collection; however, I had to orient her with the tool before the process. Also, a pilot for the questionnaire was conducted to ensure the suitability of the tool before employing the interviews with the respondents.

Since there was no reliable list for all the existing farming groups within the district, similar to qualitative data collection, cooperative officers and agricultural officers in the districts were

involved in locating the groups. Also, because we had to introduce ourselves to the village leaders before data collection, these leaders helped to link us with groups existing in their villages. Eventually, women members who were available during the visits to the villages were involved in the questionnaire. However, we considered that each district should provide 50 respondents, as mentioned previously. Finally, 297 women responded to the questionnaire and details of the number of respondents per district and region are presented in the quantitative results section.

6.8.4 Data Analysis

The IBM SPSS Statistics program was used for analysing the quantitative data following data entry which was conducted along with the data collection process. Since most of the data were qualitative (nominal and ordinal) descriptive statistics were most appropriate for the analysis. Also, because qualitative analysis resulted in the development of the hypothesis that 'mixed groups of men and women perform better in terms of achievements compared to women-only groups, the hypothesis was tested by conducting Cross tabulation and the Chi-square test of dependency. Increasing production, support received by the group, members' ability to support their family, members' improved quality of life, and the ability of the groups to achieve members' objectives were factors used to compare the two types of groups. The null hypothesis of 'no relationship' with the alternative hypothesis of 'there is some relationship' between the factors and group types were developed for each factor to be tested. The outcome of this analysis is described in the results chapter, and statistical tables from the outcome of the SPSS analysis are presented in appendix B2.

6.8.5 Limitations

The main limitation of the method is the inability of employing an actual random sampling method, which was led by the absence of a sample frame for both the farming groups and members within individual groups. The existence of records for all farming groups, with their locations, and the number of members in terms of gender would enhance the random selection of women farming groups in the first place. Then, the random selection of women within the farming groups, and the chance of involving as many groups as possible would increase. Due to this shortcoming, only 20 groups were included. However, the aim of triangulation was not limited and generalisation was not affected due to the large sample size and wider coverage in the country.

6.9 Summary

This chapter discusses all the steps and processes in the research methodology, including various methods employed by the study. It starts with an introduction followed by the reasons for using mixed-method research. The chapter then discusses the details of the qualitative methods, as undertaken by the study, including data collection and analysis. Following that, it describes all activities involved in quantitative data collection and concludes by presenting the limitations.

Chapter 7 Discussion of the Study Findings

7.1 Introduction

This chapter presents and discusses the overall results following the analysis of qualitative and quantitative data including the secondary data collected during the fieldwork. As described earlier, quantitative data were only collected for greater validity and the capability for generalisation. Qualitative findings were used to develop a questionnaire for collecting quantitative data. This means the questionnaire aimed to answer the same research questions for achieving the same objectives. However, findings from the third objective were not verified quantitatively, because detailed information was needed to verify the findings of this objective. The quantitative findings are mostly in the form of descriptive statistics, because the collected data were mainly qualitative (nominal and ordinal), as discussed in the quantitative data analysis. Moreover, only the main qualitative findings were verified quantitatively. In general, the quantitative findings observed were similar to those of the qualitative findings.

The chapter is organised into three main sections: One, organisations and support from the Government and NGOs which addresses objective number 3 of the study. Two, knowledge and skill-building which addresses objective number 1. Three, the women empowerment which addresses objectives 2 and 4 of the study. Section 1 discusses the support provided to farming groups by the government departments and the NGOs towards improving women's performance in agriculture. Section 2 discusses how women have increased their skills of better farming methods and other types of knowledge and information through the farming groups. Including their improved access to available support services to improve their activities. Lastly, section 3 discusses how women have been empowered through their participation in farming groups. Including social empowerment and economic empowerment, which has contributed to their improved livelihood conditions, and how existing culture, norms, and beliefs of the people have influenced full participation and achievement of women in these entities. The section ends with the analysis of the farming groups' structures and formations towards women's participation.

7.2 Organisations and Support from the Government and NGOs

This section addresses objective number three of the study which has been achieved by analysing the existing organisations which support women and farmers in general. Through the use of the Social Relations Analysis (SRA) approach, the study aimed to conduct institutional analysis on the government departments, NGOs, and other support organisations that have a direct influence on the achievement of women in agriculture development. The study aims to

analyse the policies, strategies, and activities of the available agricultural support organisations in the country towards empowerment and resource allocation to women. Including provision of education and capacity building, skills, inputs and financial support to women and the ability of women to access those support. Specifically, the study needs to examine if there is any bias in the allocation of the resources between men and women through achieving gender equality and women empowerment. The general aim was to analyse the environment surrounding the farming groups, including policies, strategies, and activities targeted at the groups, before analysing the abilities of the groups to access the existing support. Therefore, this section focuses on the country's strategies and the implementation of agricultural development in the country; and how the supporting organisations and NGOs provide their support to farming groups, especially to women members who are the major contributors to the sector's development.

7.2.1 Implementation of Agricultural Development

As discussed previously, the agricultural development policy and other supporting policies, including the Food and Nutrition Policy, the Gender Policy, the Cooperative Development Policy, and the Livestock Policy, have clearly stated the aim of supporting agricultural development in the country. Both government and Non-government organisations (NGOs) have focused their support on groups of farmers rather than individuals; however, support to individual farmers is also provided by both organisations. For example, most of the subsidies from the government, such as tractor services, seeds, and pesticides, are provided to individual rice farmers. However, many rice farmers are organised into groups and networks to manage effectively the support provided. Also, some women members of farming groups are involved in rice production as their individual activity; for example, the women from the Kizimbani group. As mentioned earlier, rice is a staple food for the community, although the current production does not fulfill the entire food needs of the people.

Rice farming is conducted by smallholders who largely depend on seasonal rains, and it is mostly grown once a year. Only a few households use irrigation. The total capacity of the land for rice is about 11,646 hectares and 8,521 hectares could be irrigated (Ministry of Agriculture Livestock and Environment, 2010). However, the government cannot support irrigation because of technical and financial limitations. Hence, the country imports about 80% of the estimated 100,000 tons of rice consumed per annum. This is possibly why the government has only focused on providing subsidies to rice growers. However, achievements are mostly made by vegetable producers, which is the main activity for many farming groups in the country. This suggests that this may be the time for the government to consider the provision of

subsidies for vegetable farming too. An interview with a key informant from the Ministry of Agriculture reveals:

> "The Government and the Ministry centered their support on rice production; however, you can easily see that vegetable growers are doing better, without doing research. For example, tomatoes used to come from Tanzanian mainland and currently 40% are produced in the country. So vegetable producers are doing better, even without the support of subsidies, since the enterprise pays, the farmers are ready to buy better seeds for better production". (Key informant 04)

The Ministry of Agriculture is the main provider of agricultural support from the Government, such as extension services and training to enable farmers to adopt improved technologies for better production. This enables them to move from subsistence to more commercialized agriculture (Revolutionary Government of Zanzibar, 2003). The Ministry is responsible for the coordination and mobilization of other stakeholders including NGOs to provide the required support for agriculture. The support is provided to both farmers and cattle keepers, but some farmers tend to mix both farming and cattle keeping. Nevertheless, farmers join groups based on their main activities. Therefore, it is easy to identify farming groups.

Support from the Ministry is mainly through the implementation of various agricultural support projects funded by the government and development partners, where farming group membership is the main condition for farmers to qualify for the support. The main reason for the Ministry's preference for groups is for their easy reach at a reduced cost, as revealed by the interview with the officer from the ministry:

> "It is easier to reach farmers in groups rather than individuals, which is expensive and more time consuming, while in groups one extension officer can reach 20 people at a time. First, it is easier and, second, we need something from this participatory approach, farmers have their indigenous knowledge and own experiences. So if you put them in a group they can share their previous knowledge and add with the new knowledge about their surrounding environment; one is aware of one thing and another knows about the other". (Key informant 02)

In addition to saving time and costs when reaching farmers, the Ministry prefers groups as they encourage the sharing of information and skills among farmers. This is valuable as local farmers, especially the older ones, have considerable knowledge about the cultivation of certain key crops. Table 19 summarises the projects that target support to groups from 2003 to 2018.

Table 19: Agricultural Support Projects from 2003-18

	Project	Funded by	Type of support	Duration
1	PADEP-Participatory Agriculture Development and Empowerment Project	World Bank	Promote adoption and use of improved technologies through a cost-sharing mechanism	2003-10
2	MACEMP- Marine and Coastal Environment Management Project	World Bank	Capacity building on efficient use of resources for environmental protection	2006- 12
3	ASSP-Agriculture Sector Service Programme for crops.	IFAD, AfDB & Government	Extension services for rural men and women on implementation of improved farming technologies	2007-14
4	ASDP-L-Agriculture Service Development Programme for Livestock.	IFAD, AfDB & Government	To improve livestock production and marketing systems for livestock products.	2007-17
5	MIVARF-Marketing Infrastructure, Value Addition, and Rural Finance	IFAD, AfDB, and Government	Improve marketing infrastructure, support post-harvest management and capacity building on marketing to producers, and support provision to improve rural finance development	2011-18
6	TAPP-Tanzania Agricultural Productivity Programme, a US feed the future initiative	USAID	Increasing farmer's access to improved technology for increasing fruit and vegetable production and raising their awareness about health and nutrition	2011-16
7	SLDP-Smallholder Livestock Development.	Government	Improve adoption of best livestock-keeping techniques by smallholder farmers.	2011-16

Source: Data from the Ministry of Agriculture, 2017.

The major support from the Government is through the provision of knowledge and skills in better farming methods. However, under the support of PADEP, the Government was

subsidizing half of the production costs depending on the particular type of activities in which farmers were involved. The information revealed that the ministry of agriculture was responsible for motivating farmers to form groups, and the ministry influenced the establishment of many groups. However, formal registration is not a requirement for the ministry of agriculture; registration is influenced by the Department of Cooperatives.

One of the roles of the Department of Cooperatives is to support formal registration of farming groups and other economic groups in the country. The process includes supporting groups to develop their constitutions and bylaws, supporting them through the procedure until they receive their certificate of registration as cooperatives. As a result, all groups end up having a similar management structure because they are all made by a structure from the department. This was revealed by the officer from the department, as well as the reason for their preference for registered groups only:

> "We prefer registered groups because they are well organised with a chain of command, organisation structures, annual general meetings, supervisory committees, as well as small committees such as education and loan committees. We have the model for general management structure and we help them to develop in their groups". (Key informant 05)

The Cooperative Department is also responsible for monitoring the groups' development by providing them with the necessary knowledge and skills, as stated by the officer in the interview:

> "We support agricultural cooperatives by the provision of training before and after their registration, including project planning, appraisal, and implementation. We conduct auditing and inspection of groups during our monitoring visits. We also deal with conflict resolution as it is likely to find conflicts in groups". (Key informant 05)

However, further analysis revealed that the Department is incapable of conducting all the activities with groups, as mentioned by the officer, due to financial constraints. The majority of the activities conducted depend on development partners' support. This means that the support provided is influenced by the specific project objectives supported by the development partners. For example, at the time, the department was under the support of the ILO (International Labour Organisation), which was supporting cooperative knowledge and registration. This is why the department was able to support the registration process for various groups. Under the support of IFAD, the department conducted a great deal of training for SACCOS (saving and credits cooperatives) groups. The farming groups were not receiving

other support apart from the support they receive for their registration. The Department of Women and Children's Development is involved with farming groups, as it provides support to economic groups, especially women's groups. Similar to the Department of Cooperatives, it is responsible for providing a range of support to the groups from building individual members' capacities for better management of their activities to financial support provision. Explaining their roles to groups, the officer from the department said:

> "First, we promote groups that are not known to be visible; we find those groups, investigate their challenges, and opportunities in their areas to support them, we need to know if they are registered or not. For the individuals, we motivate them to establish registered groups to qualify for the support we provide, such as loans. Groups should be registered with bank accounts and be involved in visible activities to receive loans; our loans do not have difficult conditions. We connect them to local and international market opportunities, and we support them to produce quality products. Second, we motivate them to develop large networks, train them on administration, management, accounting, and motivate women to take positions in decision-making bodies. Also, we train them to be aware of their rights as women, on gender issues, and about gender-based violence". (Key informant 01)

I discovered that, like the Department of Cooperatives, they face the challenge of lower budget allocation by the Government, which negatively affects their outreach work to the community for the implementation of their tasks.

My data revealed that, although the government has good policies and objectives for supporting women and agricultural development through farming groups, the objectives are not translated into clear activities that directly focus on supporting women specifically, despite the policies' acknowledgment of the higher contribution of women in the sector and their poorer access to productive resources. The available supporting activities are directed and made available to the general community. However, the majority of poor women might be constrained from accessing information about the support and could have poorer means of accessing the support compared to men. The Ministry of Agriculture has placed a condition for 40% representation of women in a farming group to qualify for support from many projects such as IFAD and PADEP, which seems appealing. However, it could also be quite normal to achieve this proportion given the greater representation of women in the sector. We will see how women in each group benefit from the available support from the Government in the coming sections.

7.2.2 Support from the NGOs

The Government was the sole provider of support and services for agriculture until the 1980s when the Government started to introduce liberalization policies and realized the importance of private sector involvement in agricultural development and service provision, including input supply, extension services, and financial support services. In recognizing NGOs as potential partners for knowledge dissemination and resource mobilization to the rural poor and the community in general, the law for NGO registration was enacted in 1995 to create a conducive environment for their functions (Revolutionary Government of Zanzibar, 2003). However, it is estimated that the support of the private sector in agriculture is still minimal, and the majority of private sector organisations are engaged in supporting other development and health issues (PADEP assessment report 2011). The data also revealed that private sector support appears to be better for livestock and fisheries rather than the crop sector (Ministry of Agriculture Natural Resources and Environment, 2014).

However, I observed the fair participation of NGOs in crop sector development, possibly due to the gradual development of the private sector over time. Various networks and organizations supporting farmers have been developed. Their development has increased, along with the movement of farming groups in the country, which mostly happened during PADEP and IFAD project implementation. For example, during the IFAD project, District Farmers' Fora (DFFs) were developed - one from each of the 10 project districts. The DDFs are supposed to be legally registered and responsible for linking farmers and livestock keepers to other service providers and value chain actors. Generally, they are expected to act as farmers' representatives in consultation with the Government about policy matters in favor of the farmers (Ministry of Agriculture Natural Resources and Environment, 2017).

Various NGOs supporting agricultural development were developed over time; however, the majority are recently established. My study selected three long-established NGOs to identify the outcomes of their support to the farming groups. These are Network of Farmers' Groups in Tanzania (MVIWATA), National Network for Fruit and Vegetable Farmers in Zanzibar (UWAMWIMA) and, Women Empowerment in Zanzibar (WEZA).

MVIWATA is a voluntary non-profit organisation established in 1993 and registered in 1995 to bring smallholder farmers together to defend their interests and address their challenges. Members can be individual farmers or farmers' groups in the form of organisations, associations, networks or ordinary groups, and it operates across the whole of Tanzania. They support farmers to increase and sustain their productivity, to increase access to financial support, to increase market access, and enhance land security for smallholders. They provide

training and technical support through various activities, such as study tours and supporting farmers to attend the national farmers' day exhibition where they share experiences and learn new skills. They implement their activities through support from different international organisations. In explaining the advantages of being in groups, the coordinator said:

> "Being in groups is useful; when you face a problem you get several suggestions; in a group, you can advise each other, exchange and sharing of ideas also occurs. For example, during exchange visits, you get group ideas and views. And it is easy if someone wants to provide support". (Key informant 03)

The NGO formally started in Zanzibar in 2006 and has members on both islands, where every five farming groups make 1 network of members, and the groups may comprise both farmers and livestock keepers. Currently, there are 8 networks, 1 from each district, 7 from Unguja and 1 from Pemba. The NGO works mostly in Unguja rather than in Pemba.

UWAMWIMA was established in 2004, registered in 2005 and initially only worked with fruit and vegetable farmers in Urban districts. Then, they extended their coverage across the entire country; at the time they involved 80 farming groups. They support farmers who join the organisation through membership applications and monthly membership fees. Through support from different national and international agricultural development support organisations, they provide various training programs and expert advice to fruit and vegetable producers in the adoption of modern production techniques. Including the use of organic fertilizers and pesticides, the use of drip irrigation, and the use of improved seeds. Also, they provide training for accessing better markets, loans, and support study tours among farmers to share and exchange ideas. The administrator describes in our interview:

> "We provide them with different training, including the way to access better markets, record keeping and preparation of work plans. Also, we train them on how to prepare and use organic fertilizers and pesticides from simple accessible organic materials such as leaves and ashes". (Key informant 07)

However, their members are individual farmers who belong to different farming groups. The observation is that they support individuals from groups and not the entire groups. However, they undertake some visits to groups and influence them to become members. Also, there may be a problem with women's awareness about the existence of this NGO, depending on the coverage of the NGO in reaching villages. The details will be discussed in farming groups.

WEZA is a project implemented by Tanzania Media Women's Association (TAMWA), an NGO developed in 1987 that became fully operational in Zanzibar in 2004 and registered in

January 2007. It aims to reduce poverty by reducing cultural and political barriers for women to empowerment and economic development throughout Zanzibar. They encourage women to participate in productive and improved income-generating activities and increase their knowledge and information on marketing. They also facilitate women to exercise their rights to join different economic groups and networks (Groverman & Sentamu, 2011). They motivate women to develop groups and work together on their preferred income-generating activities. They also persuade them to make savings to increase their capital and better develop their activities and improve their livelihoods. According to the key informant from the Forest Department, WEZA has made a significant contribution to reducing the long-existing cultural belief of the community that women cannot participate in development activities, and cannot speak in public. She said:

> "Indeed WEZA managed to reduce the difficulty we were facing in involving women in our development project activities. Women were not able even to reply to a simple question in a group of people; now they are much involved in various economic groups and they have gained confidence". (Key informant 08)

Furthermore, they increase women's awareness of the importance of land ownership and support them to carry out procedures to apply for land ownership. Apart from encouraging the establishment of women's groups, they also support available groups to improve their activities through training and awareness-raising activities and support them to make savings and access available financial services. They work with 15-30 members per group and have facilitated the development of about 300 groups in 30 villages in Unguja and 30 villages in Pemba.

The information indicates that UWAMWIMA provides support to vegetable and fruit farmers only and a farmer should have a membership of MVIWATA and UWAMWIMA to receive their support. However, MVIWATA also has groups as its members, unlike UWAMWIMA which only has individuals as members. WEZA is the only NGO that has demonstrated a direct focus on groups and specifically women, although they support various economic groups, not only farming groups. Similar to the Government support, training is the major support provided by the NGOs, although loans are also provided by both the Government and NGOs, the question is, how do these loans reach poor women farmers?

Generally, I have observed increasing productivity among farmers, and the Government and NGOs support has likely contributed to this result since they focus on increasing productivity. As a result, farmers face challenges in accessing better markets and receiving lower prices for some crops due to improved supply. In response to this situation, the Government has developed a MIVARF (Marketing Infrastructure Value Addition and Rural Finance) project to

support farmers, where most of the beneficiaries are those supported by the previous projects of IFAD. The project builds and rehabilitates rural roads, markets, and storage facilities while covering all districts. In terms of value addition, they provide 75% of the total cost of processing machines to farming groups. The project aims to support groups of farmers and livestock keepers with 15–20 members, but there is a question about whether this number of members can afford the 75% capital cost. In terms of rural finance, the project supports groups to improve their eligibility for accessing loans from formal banks. In doing so, they work with the Department of Cooperatives to encourage farmers to develop their savings and credit schemes/cooperatives, commonly known as SACCOS.

The analysis revealed that both government and NGOs focus on the provision of education, skills, and resources to general farmers which of course women are also included. These efforts could lead to only the economic empowerment of women but not empowering women in terms of decision making in their households which could negatively impact their decision on how to spend their incomes. Gender equality cannot be achieved by empowering women-only economically as suggested by Cornwall (2007) that provision of education, skills and economic resources to women is vital, but alone they neither guarantee equality nor empowerment. These place women in a heavy workload of dual roles for earning more incomes to repay their loans, but not more empowered. The Government projects act on achieving the 40% women's participation in their projects as conditioned by the international supporting organisations which do not solve the actual problem of women in regards to their poor access and control over productive resources. As noted by Cornwall (2007) that new policies were expected to tackle the persisting unequal power relations, while many organisations tend to accept donor's conditions of including women in all stages of project implementation by a mechanistic checklist approach which does not solve the actual problem.

Similar to government support, the NGOs' support also has focused on increasing productivity among all farmers in general. None of the efforts were observed focusing on empowering women either personally or politically. Except for WEZA which they have focused their activities on empowering women, not only economically but also socially and politically. As mentioned earlier they have contributed significantly to reducing the long-existing cultural belief that women cannot participate in development activities, and cannot speak in public.

7.2.3 Coordination between Farming Groups and the Supporting Organisations

Awareness and access by women to available support for agriculture requires coordination between farmers and the support organisations, and the study needed to investigate this. The study discovered that there are certain criteria required by both the Government and NGOs for

farmers and livestock keepers to qualify for the given support. For example, a farmer or a group should have a membership of the NGO to receive support. Also, they are required to meet specific criteria for specific types of support, such as a capacity for irrigation farming to receive financial loans. For the Government, one major criterion is group membership. As a result, they support existing groups or they establish new ones. The study observed an average number of not more than 20 members for many farming groups, where the minimum acceptable number according to cooperative policy is 5 members. However, among the 8 studied groups, 4 had more than 20 members. These are Uroa, Mtule AMCOS, Kibokoni SACCOS, and Mtakata AMCOS.

Since group membership is the main condition for farmers to receive government support, I was interested to find out how the Government selects groups to support without exhibiting any bias among the groups. I discovered that the project implementers go into villages to recruit groups with the assistance of village leaders (named Shehas in Swahili), which means that groups do not apply for project support. For example, during the PADEP project in 2003, there were only a few farming groups; therefore, the project had to mobilise the formation of new groups with the assistance of the Shehas. However, some women complained that, when organisations come to the village leaders to ask for groups, the village leaders only mention groups/people of interest to them. As a result, some groups/people miss the opportunity. For example, the Kizimbani 2 group was already established during PADEP implementation but was not included in the project.

There is a problem with the selection process, which means that some existing groups are not selected by involving Shehas in the process. The custom of involving Shehas to recruit participants for various projects is not a policy or a regulation, but it has become a required condition in the country. From my experience, it is based on political factors, and Shehas serve for political interests, while the problem here is that they do not play fairly. An officer from the Coop Department, through our informal chat, told me that, during the process of registering available groups, some Shehas did not mention some groups which are closer to their offices. For example, the Kizimbani 2 group was removed from the Cooperative Department's list in a similar situation, women said:

> "There was a time when the department of coop asked for all registered groups in our village, but the Sheha did not mention our group. Then the department removed our name from their list until we qualified for a loan from an organization where the department was monitoring those loans. Then we had to go through the process for our group to be returned to the list before receiving the loan". (Kizimbani 2 FGD)

> "They just met the Sheha and ask him to collect all groups in the village. The Sheha thought there was money so he just developed his new groups quickly instead of calling the existing ones; this is how they missed us. If you go to the Sheha he feels like it is an opportunity for money that is why he collects his closest relatives and friends, even if they were not registered". (Kizimbani 2 FGD).

The favouritism shown to Shehas may have been enhanced by projects that provided cash to participants, especially HIV awareness projects, as this focused people's attention on monetary gains. Possible some Shehas wanted to direct the opportunity to their closest associates. For example, the recruitment of farmers for ASSP/ASDP-L was challenging in the beginning, through the support of the Shehas they attracted lots of people. However, when it was made clear that they would only provide education and not money things changed, as one project officer recalled:

> "We started with awareness programs and asked farmers to register with their Shehas and their extension officers; the response was excellent and we went to the second stage of establishing groups, but when they realized no money would be provided many people withdrew their participation. Then we had to go again making an additional explanation to be able to pick groups for the first phase, as the project went in phases". (Key informant 02).

From the groups, I discovered that some women are unaware of the government support provided by the Department of Women's Development and Department of Cooperatives. This limits those women in terms of accessing support that could have improved their activities. For example, women from the Wawi and Kizimbanin 1 groups said they did not know anything about the support and instead only seek support from the Ministry of Agriculture, whereas members of the Mtule, Kibokoni, and Uroa groups were well aware of the support. For example, members from Kibokoni and Mtule access support from the Department of Cooperatives and Mtule have received training from the Women's Department. In determining their awareness about places to ask for support through quantitative analysis, the majority of women selected the Ministry of Agriculture and Cooperative Department (42% and 41% respectively) as shown in Table 20 below. And only a few (less than 1%) were aware of the support provided by the Department of Women's Development. Many members are not fully aware of the available organisations that provide support to farmers. The key informant from the department agreed that many women are not aware of their support, and a statement has been released by the State House that 'the role of the department is not well known by the community'.

Table 20: Places where Women Seek Support

Seeking the Support					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ministry of Agriculture	114	38.4	41.9	41.9
	Cooperative Department	113	38.0	41.5	83.5
	Women's Department	1	.3	.4	83.8
	Other	43	14.5	15.8	99.6
	1 & 2	1	.3	.4	100.0
	Total	272	91.6	100.0	
Missing	System	25	8.4		
Total		297	100.0		

Source: SPSS Data analysis, 2018

For the NGOs, women from the Wawi group in Pemba said they have not been reached by UWAMWIMA and MVIWATA. This is because MVIWATA has only 1 network of farming groups in Pemba, as indicated previously, and UWAMWIMA is more strongly based in Unguja than in Pemba. Many well-developed NGOs are based and work in Unguja and the poor transport system between the islands contributes to the situation. There are only a few reliable and safe vessels traveling between the islands, and only a few flights, which are difficult for many people to afford. Thus, the majority of NGOs work on one island and not in both.

Concerning loan provision, the study discovered that, in addition to the lack of awareness by some women about the existence of the loan service from different organisations, many women fear taking out loans due to anxieties about the inability to repay them, and due to interest being charged. However, many poor women are aware that they would not qualify for loans from official banks.

7.2.4 Impact of Support Organisations on the Development of Women in Farming

The study aimed to determine the impact of the support organisations on the better functioning of the farming groups towards achieving better productivity and livelihood conditions specifically for women. Increased productivity was observed by the study and, based on the secondary data, is a possible outcome of the range of services provided by both the government and NGO support. Therefore, in general, we may suggest that the support has resulted in improved performance by farmers. Nevertheless, we cannot be so sure that the situation is the same for the poor rural women involved in farming groups, due to various observations.

First, the discussion from the previous section revealed that, despite the existence of a variety of support for farmers, some women are not even aware of the existence of the support from some organisations. These women miss the opportunity to access and benefit from support. Second, the study detected that there is no special support provided specifically for women due to their higher representation in the sector and their significantly reduced access to productive resources. Instead, women are treated similarly to men despite their lack of asset ownership and lower level of education compared to men. I have discovered that the supporting organisations seem to be satisfied with a large number of women in their programs and activities rather than women's actual achievements. For example, officers from UWAMWIMA and MVIWATA responded similarly: "Women are the majority of members in the farming groups, so we do not need to prioritize them" (Key informant 07).

> "The majority of members in the farming groups are women, it is just like that; I do not know why. You can even find women-only groups; this is why we do not need to provide a special favour for women" (Key informant 03).

The Government insisted on 40% participation by women in farming groups for the PADEP and ASSP/ASDP-L projects. However, the ASSP impact assessment reported 60% participation by women, with improved empowerment in increasing their incomes, taking leadership positions, and increased decision-making power. The projected 40% underestimated participation by women, and their higher participation is so obvious since they are heavily employed in agriculture. This means their higher involvement is not an achievement per se; their achievement can be determined by their outcomes, such as those reported by the assessment. The PADEP assessment reported the empowerment of women by increasing their self-confidence through their active participation. However, most of the reported data are not gender-disaggregated; as a result, it is difficult to identify specific achievements made by women as a result of the project support. The information collected suggests that some women who were involved in the study experienced improved conditions as a result of the support

provided, especially training. However, many poor women still face various challenges such as poorer access to water for irrigation and to financial support, and lower use of improved equipment, as will be discussed in detail in the next section.

7.3 Knowledge and Skill Building in Farming Groups

This section addresses the objective one of the study which intended to analyse the ability of farming groups to build knowledge and abilities of women to improve their activities concerning access to resources, useful information and the support needed. The supporting organisations in the country prefer to support groups of farmers rather than individuals and they mobilise establishments of farming groups. Empowering members to demand and access support and services provided by the public and private sectors is a clearly stated aim in the Agriculture Transformation Initiative 2010-20. Therefore, the study sought to examine whether farming groups have improved knowledge, skills and abilities of women including their ability to access the resources they need to improve their agricultural activities. To achieve this objective, first I had to examine the resources and support received by women in their groups; and second, determine the particular resources and support needed by women to improve their activities and increase their productivity. Finally, I had to analyse the ability of those groups to increase access to the resources needed by women.

The data analysis revealed that, to some extent, rural women have improved their access to various agricultural support services through their involvement in farming groups. Hence, they have increased their access to the resources needed to improve their activities. This support includes access to training and other useful information, access to inputs (seeds, fertilizers, and pesticides), tools, financial support, and land for agricultural activities. However, the range of access to those services and resources varies between the groups visited.

Despite the achievements being made, the study discovered that women request extra support and resources to improve their work to achieve their objectives. Women asked for similar support and resources to what they receive from their groups. It seems the support and resources they receive are insufficient to improve their work and achieve better livelihood outcomes. Surprisingly, this was even the same for training, which is generally well provided to all farmers. Women requested extra training and more support, such as inputs, equipment, land, and financial support. Below is a detailed discussion of the study findings.

7.3.1 Access to Training and Education

The data analysis revealed that the major advantage that women receive in farming groups is access to different training from both the Government and NGOs. All 8 groups visited

acknowledged and appreciated the training being provided which enables them to adopt modern methods of agriculture that have contributed to increasing their productivity and improving their incomes. The quantitative data revealed that all women agreed (92% strongly agreed and 8% agreed) that they have increased their access to training through their farming groups as shown in Table 21. The training includes skills in improved agricultural methods, the use of fertilizers and pesticides, the use of improved seeds, and the provision of useful health-related information, such as nutrition. For example, women in all 8 groups visited have increased use of irrigation, although the irrigation methods vary depending on their affordability, they are all aware of its importance. Women said: "Now everyone uses irrigation farming, resulting in less dependency on seasonal rains" (Interview 101 Umbuji). "Due to irrigation we do not depend on seasons anymore; otherwise we would not have managed to grow watermelons" (FGD 02 Uroa). These findings corroborate those of Schroeder et al. (2013), who discovered the benefit of training for women who belong to rice farming groups in Benin. Also, assessments conducted by the implemented projects reported increased use of inputs such as fertilizers, especially organic fertilizers.

Table 21: Members Increased Access to Training

Increased Access to Training					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	256	86.2	92.4	92.4
	agree	21	7.1	7.6	100.0
	Total	277	93.3	100.0	
Missing	System	20	6.7		
Total		297	100.0		

Source: SPSS Data analysis, 2018

The training includes skills in group management, such as record keeping and financial management. However, group members were more likely to be provided with agricultural training than other kinds of knowledge and information. In appreciation of the training, women from the Umbuji and Kizimbani groups said:

> "We were just farming without appropriate skills; now we keep records for the cost paid for land preparation, amount of yield and the actual benefit" (FGD Umbuji 016).
>
> "I have learned how to separate between production cost and the actual profit; therefore, I spend from the profit and leave the production cost for starting another production cycle" (FGD Umbuji 017).
>
> "Education is the major thing we get and it enables us to increase our production. When they heard about our group they came to us and asked for which crop do we prefer training; we are better after the training" (FGD Kizimbani 021)

Through the training women are now able to keep proper records of their activities; women from all groups have special books for keeping records, which identifies production cost against the income so that they can calculate the actual benefits. However, the books were provided by different supporting organisations, meaning they are similar but not the same. For example, some groups were using record books from UWAMWIMA and others were using books developed under the support of the VSO (Voluntary Service Overseas). Therefore, it has become easy for the women to keep records of their contributions towards their production costs.

It is common for women members to receive training since both the Government and NGOs prefer to work with farming groups. However, the increased knowledge and skills of modern agricultural methods demonstrated by women in the groups have mainly resulted in training provided by the Government. This is because the Government covers larger areas in the implementation of its projects, unlike the NGOs which can only select a few areas due to their limited financial capability. For example, UWAMWIMA was working with only one region until recently when they extended their coverage, whereas the Government conducted two major projects that covered almost the entire country from 2003 to 2015 supporting groups of both farmers and livestock keepers.

The first project (PADEP) started in 2003 and ended in 2010 involving 9 districts out of 10 total districts in the country. The remaining district (Urban district) is not considered to be an agricultural district as it covers the town area. The project covered almost 70% of all villages in each district, supporting groups with an average of 20 members and 40% participation by women in each group (Revolutionary Government of Zanzibar, 2011). However, at the time, there were only a few groups available; thus they had to facilitate the formation of new groups to cover all districts. At the end of the project, the evaluation reported almost 80% had benefited from increased modern technology for agriculture.

The second project had two subprojects; one for crops (ASSP) and one for livestock (ASDP-L). They both started in 2007 and ended in 2014 and 2017, respectively, while covering all districts except one. However, due to the recent division of the West district into two districts, they worked with 10 districts out of a total of 11 districts. The project was entirely about knowledge and skills provision for the adoption of modern agricultural methods by farmers through working with groups of 20 members with the same 40% representation by women in each group. Some groups that had participated in the previous project got another opportunity to continue with this new one. Through their final project assessment in 2017, they reported that more than 70% of the trained farmers had adopted and used their newly acquired knowledge of better production-enhancing technologies (Ministry of Agriculture Natural Resources Livestock and Fisheries, 2017). In addition, they noted 60% active participation by women in groups, which is greater than the targeted 40%.

As mentioned earlier, women's groups also receive training and seminars from different local and international organisations. For example, Kibokoni SACCOS from Vitongoji village worked with the Ivo de Carneri Foundation of Italy, after winning a participation competition with two other farming groups in Pemba. The foundation supported a three-year research project with the group, from 2014-16 to compare the use of chemical and organic fertilizers for rice production. The research was conducted in collaboration with the Public Health Laboratory on the island. The lab was established following an idea expressed by the late Professor Ivo de Carneri during his visit to the island in 1988 while on a mission for the Italian Ministry of Foreign Affairs to assess a schistosomiasis control program. Through the project, members were able to learn a better way of planting rice in lines with the use of a small number of seeds. A woman from the group said:

> "Only a full cup of rice seeds is enough to plant on a big piece of land. Before this knowledge we were wasting lots of seeds for only small areas of land; currently, we save unnecessary extra use of seeds and return them for our food" (FGD Kibokoni SACCOS 025)

Women from the Kizimbani 2 group benefit from the support of MVIWATA for study tours, invitations to various seminars, and attendance at the national exhibition of Farmers' Day in Morogoro (Tanzania mainland) every year. At the exhibition, they get the opportunity to learn various new production techniques through observations and asking questions. A woman said:

> "During the ASSP project, our group was trained for cassava production and another group was trained for bananas. I went to observe their farm and measured the distance between plants to apply on my farm. Essentially, I have learned the way to plant

bananas correctly from the exhibition; they told us to dig a one-meter hole and apply fertilizer twice". (FGD Kizimbani 021).

Furthermore, members gain skills in better production methods by sharing knowledge with their fellow group members. I observed three ways through which members share knowledge and skills in better farming methods. First, some members have more skills and knowledge about farming than other members of a group and they educate other members. This was observed in Wawi (the selected group consisting of men and women), where their chairman, who also came up with the idea of developing the group, has a better knowledge of farming learned before joining the group. Therefore, he shares his knowledge by providing guidance and advice to his fellow members on how to improve their farming activities. A woman from the group said:

> "Our chairman is the one who came up with the idea of initiating the group. He teaches us and gives us directions and advice for our farming activities because he has more knowledge and skills in agriculture compared to us" (FGD Wawi 022).

Similarly, Uroa, a mixed group that was recommended by the cooperative officers, has a member with extra knowledge and skills; thus he keeps on supporting other members in the implementation of better farming methods. His fellow members consider him to be their internal extension officer. Further analysis revealed that the man also works at the Ministry of Agriculture. Initially, I thought he was an actual extension officer and that explained his higher level of skills. However, my informal chat with him revealed that he works at the ministry as a service provider for livestock keepers, not as a crop production extension officer.

Second, some members are quick learners compared to others. Therefore, when the group receives the training they take on the role to continue educating and encouraging other members to implement the best practices they have learned. This was observed from Kibokoni SACCOS, a recommended group consisting of both men and women. The group has one male member who is a quick learner; his colleagues said that even trainers soon realize his talent. The group members rely on him to remind them about the different skills that they have learned together, and they refer to him as their extension officer. During the implementation of the Ivo de Carneri project, he was selected as a contact person, not only for his quick understanding but also for his higher level of commitment. I thought that he had a higher level of education compared to the others, but further analysis revealed that he only has primary school education. In our discussion, a woman said:

> "He always reminds us about everything we have learned, even after the end of the projects. He masters the training better than any of us; this is why we call him an extension officer" (FGD Kibokoni SACCOS 025).

Also, I discovered that farming groups normally receive seminar invitations for up to three members. Then, those who attended the seminars impart the knowledge, skills, and information they have learned to their colleagues. It is a kind of agreement that was discovered to take place in all groups visited. However, this method is a bit challenging because members differ in their level of understanding of the training. Therefore, its efficiency depends on the intelligence of the person attending the particular training. For example, women from Umbuji, a women-only group, complained during our discussions that, they did not understand information delivered by some of their fellow members who attended some seminars:

> "Our former leaders were attending some training, but when they were trying to teach us back what they have learned we did not understand very well" (FGD Umbuji 017).

Because a quick learner and both members who have extra knowledge from the groups are all men, we could think that this implies gender issues because, in general, women in the country have lower levels of education compared to men. However, the quick learner from the group has a primary level of education, which is similar to some women members in the group. However, the men with extra knowledge in the two groups, the one who works in the Ministry does have a higher level of education compared to his fellow members. The second man learned his skills by traveling from different places and by watching various education programs on television. These two cases do indicate disadvantages for women due to their gender, since they were denied their right to education, and they do not have freedom of movement to places. However, through farming groups, women do travel between the islands and mainland Tanzania to attend various training sessions. This will be discussed in detail in the section on gender.

As indicated earlier, women members also benefit from other knowledge and useful information through their groups, in addition to agricultural knowledge. For example, women from the Mtakata AMCOS group benefit from additional nutrition training and have learned the proper way to cook vegetables from the USAID support project. They meet every Friday for the training supported by the USAID, and during this time they received training supported by MIVARF, VSO, and USAID. In our discussion, a woman said:

> "We get different training from different organisations for better skills in agriculture and other useful information, such as proper ways of cooking vegetables" (FGD Mtakata AMCOS 024).

Also, women members from the Umbuji, Wawi, Kizimbani 1, and Kizimbani 2 groups said they have received information about child protection during the period when issues with child abuse prevailed in the islands. They were advised not to allow young children to go to school and madras (Islamic school) alone, and not to leave them unsupervised at home. This signifies the accessibility of some additional useful information for women in the farming groups. However, women from all 8 groups said they are not aware and have never received training about human rights and policy issues, although an officer from the Department of Women's Development said they provide training to women in their groups about human rights and women's rights. It could be that these groups have not been reached by the department due to government budget limitations, as discussed earlier. This suggests that many rural women are not aware of their rights and the policies that regulate their activities. However, they are aware of gender equality and the importance of participating in development activities. The government effort has contributed to this outcome by raising awareness in the community about gender issues. Because all major Government projects have included gender as an element of implementation, it is a government strategy to include gender in various projects.

On the contrary, women from all 8 groups said they do not receive any prior information about market access; neither did they receive training on better market accessibility. A woman complaining about having no prior information about the market said:

> "We do not get information about the market; if you do not get a good price for your cassava because cassava from Pemba arrived at the market, then you just return it home for your food. This is how we manage seasons". (Interview 011 Kizimbani 1)

The cassava produced in Pemba is better in quality than cassava produced in many parts of Unguja; therefore, many farmers from Unguja cannot compete with the market for cassava from Pemba. Also, many crops from Pemba, such as bananas, mangoes, and cassava, are transferred to Unguja for a better price. Because market competition occurs in Unguja rather than Pemba, it is also estimated that Pemba has higher production rates than Unguja. That is why the women said that if they do not receive prior information that cassava from Pemba has arrived at the central market, then they have to return their cassava home, with extra transportation costs, to be consumed for their food. This means that prior information about the market situation would have prevented the women from experiencing this disadvantage.

The interviews with key informants about the issue revealed that the Government was strongly focused on increasing productivity, but issues of marketing were not involved in the projects. However, after the problem of market access became apparent due to increasing production, a few groups were trained about marketing during the last phase of the ASSP project. Since the MIVARF project was developed through some recommendations from previous projects, it has incorporated a specific component on value addition for attracting market share. However, it was too early to identify the outcomes, as the project ended in 2018.

Generally, the efforts of providing training and improve women's skills and knowledge in various aspects such as health, management, and record-keeping are important to women's ability to reflect, question and act on the circumstances of their lives. "Since educated women are more likely to access a range of important services and to participate in a wider range of decisions compared to those who are uneducated. Education enhances the capacity of women to exert control in their lives through improved skills and self-esteem and increase their ability to deal with various service providers and government leaders" (Kabeer, 2005 p14). However, policymakers perceive the benefit of educating women to improve family welfare not for empowering women in gender equality (Kabeer, 2005). Women should be empowered for equal positions in social, economic and political development not just to improve their abilities to support their family needs.

The Need for Additional Training

Although farming groups have improved access by women to various training opportunities, as discussed above, my discussion with women from all the groups revealed that additional training is needed to improve their performance. Quantitative analysis shows that only 28% of women receive 3-5 training sessions in a year and the majority (60%) receive an average of 1 to 2 training sessions per year, as shown in Table 22. As a result, many women (83%) are not satisfied with the training being provided.

Table 22: Frequency for Receiving Training

Frequency of Receiving Training					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	>10 times a year	1	.3	.3	.3
	6-10 times a year	17	5.7	5.7	6.1
	3-5 times a year	83	27.9	28.0	34.1
	1-2 times a year	180	60.6	60.8	94.9
	0 times	15	5.1	5.1	100.0
	Total	296	99.7	100.0	
Missing	System	1	.3		
Total		297	100.0		

Source: SPSS Data analysis, 2018

In general, women asked for different sorts of training in addition to agriculture, such as group management skills and human rights. Quantitative data revealed that several women (63%) asked for more training on subjects such as group management skills, human rights, health, and nutrition in addition to better farming methods. More than one third (37%) of women opted for at least two or three types of training, but none of them asked for training in agricultural skills only. This demonstrates their awareness of the importance of different kinds of training.

Their need was also supported by the key informants from the Women's Department, the Cooperative Department, and the Ministry of Agriculture. They all recommended different training for women to improve their farming and overall group management activities. This includes cost-benefit analysis, value addition, loan applications, empowerment and preparation of business plans. The key informants from the Women's Department insisted that more training for women is needed due to their generally low levels of education.

> "Normally you find the majority of women with low levels of education or with no education at all, so we need to build their capacities and enable them to see available

opportunities, like where they should start, and how they can access markets" (Key informant 01).

The information from the key informant reveals that they are aware that women need further training to improve their abilities. Because the training is generally focused on farmers, no special preferences have been targeted towards women despite the awareness of the government officers that women have lower levels of education.

Women from all groups asked for extra training and continuation of the training because this normally stops when projects end. For example, the Kizimbani 1 group had an extension officer who used to come regularly for training, but she then disappeared at the end of the project. The training and extension services to farmers are heavily supported by the development partners through the implementation of specific projects. The extension officers from the Ministry of Agriculture face similar problems with budget limitations as the Department of Cooperatives and Women's Development. As a result, they became available to farmers mostly during the project implementation which has a definitive end date. Sometimes women themselves have to pay for the transport costs for the extension officers to receive the service; women from the Umbuji group told me they paid for the transport cost at a particular time.

For the same reason, women asked for additional training, as sometimes a group is given training for only one type of crop production. For example, Women from the Kizimbani 2 group were given training for cassava production, and another group in the village were given training for banana production during the ASSP project. Therefore, women are grateful for the support, but they do ask for more training to achieve the best outcomes from their farming activities.

Since the training is not continuous, women from the Wawi group referred to the training provided as inadequate: "We should receive adequate training and be provided with sufficient proper skills. We need more training programs to learn new skills" (FGD Wawi 22). Furthermore, women from Kizimbani 2 requested training not only for agriculture but also for group management and the importance of working in groups. This is because some members join groups without a clear understanding of the advantages and disadvantages of the farming groups, as well as ways to overcome their disadvantages. They suggested that training during the initial days of group establishment would reduce the number of drop-outs since members will understand from the beginning what they should and should not expect from groups. They further insisted on the continuation of training, because they are still in the process of learning and some joined during the middle, while others have already received some training.

> "More education is needed for groups to do better, as it is still insufficient; most members do not know the importance of groups; they just think if they join they will get money. As a result, when no money comes they become disappointed and leave. Therefore, training is needed in the establishment and management of farming groups" (Kizimbani 2 FGD).

> "We need expertise concerning agriculture and group management, since some members joined in the middle, not during the initiation of the group. We are still learning and have not received enough training; therefore, we need more training to manage further development" (Interview 026 Kizimbani 2).

I have discovered that women join groups without proper knowledge of collective action, including management, the advantages, and disadvantages. This is because many farming groups are established by the Government for the easy delivery of agricultural training. Their registrations are then influenced by the Department of Cooperatives after members themselves decide to continue to work with their training groups. During the process, they are given initial training and information only to facilitate the process of registration. Therefore, many members do not have enough knowledge to improve their group management. This suggests that the Government, through the Department of Cooperatives, should focus on the provision of adequate cooperative knowledge to the group members.

Their request goes beyond the skills for improving agriculture; they requested training on their basic rights and children's rights, clearly suggesting their improved awareness. A woman from the Kizimbani group claimed that poor rural women are left behind for many development issues because the majority of training is provided to urban women:

> "If they could develop a special team to educate rural women about their rights and the rights of children, many women would open their minds. As rural women have different intelligence from those in towns, regardless of their low level of education they can provide reliable suggestions. The problem is we are left behind" (Interview 026 Kizimbani 2).

Understanding and awareness of these rural women on the importance of training is vital for their work and one step towards their success. In the past, women were just farming without realizing the need to apply better methods. Interviews revealed that women were learning agriculture through their parents who were using local knowledge, and they did not use many fertilizers, pesticides or improved seeds. Now, women have realized the differences between local and modern farming methods:

> "Previously we were just farming using experiences inherited from our parents without using fertilizers and pesticides. When pests invade you just wait for them to stop so you can start again" (Interview 011 Umbuji).

> "We were using skills learned from our parents and were getting low produce compared to what we get now. We have managed to increase the number of our crops within the same areas" (FGD Wawi 022).

This suggests that women are ready for the change, but extra training is needed to support their development. It is notable to see that women are asking training about human rights which signifies their awareness about the importance of human rights and also indicates that most women do not know their rights. Women should be aware of their basic rights to claim and negotiate their roles and social expectations in a society (Chant, 2011). Women should be empowered by being aware of human rights and building their capacity for them to stand and claim their rightful positions in the society. A '*power to'* leads to an emphasis on access to decision making, while '*power within*' is about building self-esteem. To acquire such power, it starts with the individual who should change their perceptions about their rights and capabilities (Rowlands, 1995).

Interviews with non-members and drop-outs also revealed a need for more training. Further analysis revealed that most drop-outs leave groups after having received some training. However, the majority of non-members learn by copying from members, or by asking questions from those with knowledge of farming. Surprisingly, some non-members insisted on the provision of training to individual farmers despite their knowledge that support organisations prefer groups. A non-member from Wawi village said:

> "They should also provide training to individuals, not only to groups. They should conduct separate training for us because if they only train groups, those who have no groups will be left behind" (Interview 036 Wawi).

> "They could just come and gather all farmers in our area and train us together, which is possible. It would not be as difficult as training each one separately" (Interview 036 as Wawi).

7.3.2 Access to Support and Services

Findings revealed that being in farming groups has helped women to increase their access to various support and services for agriculture, and some of them believe that being in groups has increased their likelihood of receiving available support. This support includes an input (seeds, fertilizers, and pesticides), tools, and equipment. The quantitative findings revealed that 40%

of women have received various support, including fertilizers, seeds, pesticides, training, tools, and equipment. The support is from various support organisations (government and NGOs), from local leaders, from their representing members of parliament (MPs), and other political leaders. However, these findings have limitations, since they do not show the amount of support or the frequency of receiving this support - it maybe just once in a while for a particular group.

It is common in Zanzibar for political leaders to provide support and aid for election campaigns, through groups they get to reach a large number of people at once. Some economic groups were even established with the ideas of political leaders likely to gain support for their campaign as reported by Magimbi (2010). As a result, some of them collapse when the support ends. However, I did not observe this kind of group, although, members from Umbuji complained that a person used their group for an election campaign while giving them lots of false promises. After he was elected as MP they never saw him again. However, there is no evidence that political leaders also prefer to support groups rather than individuals.

Women from the Umbuji group have received support from their ward leader for a water reserve tank and water pipes to support their irrigation activities. However, due to their inability to acquire other essential equipment, they were not using the tank during the time of the fieldwork. One woman said:

> "We have received a water reserve tank and pipes from our ward leader, but we have not started to use them. Because he gave us some of the equipment while we cannot afford the other required items" (FGD 018 Umbuji).

Mtule AMCOS from Paje village received a fruit processing machine from the MIVARF project which funded 75% of the total cost, and members had to contribute 25%. Kibokoni SACCOS from Vitongoji village received considerable support from the Ivo de Carneri project. The project paid for the construction of new storage to replace their old poorly conditioned storage room. They also received a new pick-up vehicle for transporting their crops to the central market. Moreover, the project funded the construction of their new modern office to replace the old one.

Data revealed that all groups from all villages have managed to increase their access to inputs through collective marketing, which is implemented through individual members' contributions. Through the members' contributions, the groups collectively buy fertilizers, seeds, and pesticides that they could not afford to buy alone. The quantitative results show that several women members (89%) witnessed that they can access inputs through group

purchasing. Some of these seeds and fertilizers are sold in larger packs and at higher prices than the poor women could afford due to their low income. 21% of women said they would never afford to buy individually and 70% said they would afford them only sometimes. Moreover, collective purchasing reduces the burden of transportation costs from the stores to their villages, since the cost is shared by the whole group. Women said collective purchasing of inputs not only reduces their cost burden but also saves their time, especially for women with young babies to look after. Indeed, it demonstrates the advantages of collective action, as presented by several studies (Fischer & Qaim, 2012; Julius, 2015; Ortmann & King, 2007). Women from the Uroa group said:

> "Some seeds and pesticides are very expensive; therefore, we contribute together to the cost to reduce hardship. Otherwise, we would not afford to buy individually" (FGD 019 Uroa).

> "It is difficult to buy inputs individually, for example, one bottle of a pesticide can cost 10,000/- T. sh., yet you do not need to use the whole bottle; therefore, it is easy to share with a group. I would not have managed to buy it alone" (FGD 019 Uroa).

Discussions with women in the interviews and FGDs indicated that the majority of women farmers, both members, and non-members, cannot afford to buy fertilizers and pesticides for their farms. Women from the Umbuji group said that if they were to buy fertilizers and seeds individually, it would take them longer to save enough money to buy one pack of seeds which cost 100,000/- T. sh. Seeds can cost up to 250,000/- T. sh. This would certainly be difficult without collective purchasing. They can share a pack of seeds or a bottle of pesticides because I observed that the majority of women work on smaller farms compared to men.

On the other hand, interviews with non-members revealed that some women who work close to each other on the land in Wawi village also share the cost of pesticides and seeds through contributions. I observed 5 women farmers who exhibit this kind of informal group without being aware because during the interviews they appear to be quite reluctant towards farming groups.

Apart from members being entitled to make prior contributions for buying inputs, groups also support those who do not have money available at that moment. The groups supply members with seeds and fertilizers so that they can pay back later after harvesting and selling their crops. This mode of support was observed in the Wawi group. As a result, poor women need not worry about access to seeds, pesticides, and fertilizers. A woman from the group said:

> "We need fertilizers for better growth of our plants and pesticides for killing pests. Therefore, we make contributions to the purchase, but you do not need to contribute if you do not have money. Contributions are made for those who have money at the time, and others will repay after harvesting and selling their crops" (Interview 031 Wawi).

Alternatively, a group buys the supplies for wholesale from the group's capital and then sells them to members. This mode of support was observed from Mtule AMCOS, the recommended group and the largest of all the 8 groups visited, in terms of members (164). They set a given target for members to contribute in terms of money for a given period. As a result, they have managed to raise a large capital and can afford to buy items wholesale, and sell them to members. This includes pesticides, seeds, fertilizers, and other items for their daily basic needs, such as food and soap. In addition, members can take the items on loan and payback later when they have money.

Further observation during the study revealed that women from the Umbuji group prepare organic fertilizers together, using skills they have learned from their extension officer. They dig a big hole and put in a mixture of different organic materials, such as waste food and fruit, ashes, specific leaves, and water, and then cover it with soil. The process takes three months to complete, but they have to mix it again and add more water each month. They produce large amounts of fertilizer and enough for the use of their group farm and their individual farms. Also, they prepare organic pesticides by mixing several specific leaves, and sometimes hot chillies are included. The mixture is either ground, soaked for several days or boiled depending on the specific pesticide being prepared. Figure 7 shows women in the process of preparing organic fertilizers.

Figure 7: Women at Umbuji Village Preparing Organic Fertilisers

Source: Field Photo, 2017

In general, through farming groups, poor women in Zanzibar have increased their access to resources as discussed above. However, women can collectively increase their access to resources by increasing their control over resources. It is about ending discrimination towards women in access to technology, skills, credit, and land (Longwe, 2000). And this can be achieved by empowering women to participate and having control in various decision-making bodies from households to community levels. We should remember that empowerment implies increased power, not increased access to resources, power is about increased control over resources. Women's empowerment at the national level is about their ability to control government resources and allocate them so that men and women benefit equally. (Longwe, 2000).

Need for Extra Support

The findings show that women from all the groups requested more support, similar to their request for further training. The request was also made by non-members and group drop-outs. Women believe that if they receive enough support they could conduct their work more effectively, increase their productivity, and eventually improve their incomes. They urged experts to pay them visits and identify their needs and their challenges, and then provide useful and professional advice. Also, they suggested that responsible organisations should undertake regular monitoring to make sure they manage their work effectively and solve any existing conflicts and problems identified. They also asked for the training to be provided during the initial days of their groups' establishment; also support visits should be conducted during the initial days of group formation. One woman commented:

> "It would be better if the Government could visit groups once after their establishment for suggesting better ways of doing our work. In that way, we could get more motivation to continue" (Interview 032 Wawi).

Members of Kibokoni SACCOS asked for expert support visits for the provision of advice about additional activities that the group could undertake to increase their income. Women from the group said they have a large area of land which is suitable for growing grasses for cattle food. In their village. They grow lots of grasses naturally which remain unused, possibly due to the absence of many cattle keepers in the village. In some areas, cattle keepers travel considerable distances beyond their villages in search of grasses for their cattle. Members of this group have an intention to initiate livestock keeping, but not without proper advice. They requested visits from experts who can provide appropriate directions. This suggests that farmers have realized the importance of expert advice on their activities for better outcomes.

Further, the study observed a problem with pests and diseases facing almost all the villages visited, which appears to be a persistent issue. The problem was also reported by the Ministry of Agriculture in the ASPD-L completion report, 2017, yet there is no reliable solution in place. Farmers try to use one treatment after another without major success, which suggests that it is not known for sure which treatment is suitable for which kind of pest or disease. Thus, despite the Kizimbani women's group having their regular extension officer who visits them weekly, they requested visits from other more skilled staff to identify the kind of diseases in their vegetables and suggest a suitable treatment. Generally, the request for regular visits from women by supporting organisations was presented by all studied groups; also, they requested support for accessing better markets.

Another request presented by women in our discussions was input, tools, and equipment to improve their work. Data analysis revealed that group members asked more for tools and equipment than inputs (pesticides, fertilizers, and seeds). This is because tools and equipment are more expensive compared to pesticides and fertilizers; therefore, members can access inputs through collective purchasing, as discussed before, rather than tools and equipment. Members of all 8 groups managed for fertilizers, seeds, and pesticides to some extent, but they presented a higher need for support for tools and equipment. For example, although the Uroa group performed better in terms of their activities within a short duration compared to other groups, and they manage fertilizers and pesticides, yet they requested support for more tools and equipment. However, they did not ask for the direct provision of those items; they asked for subsidies. One woman said:

> "The ministry of agriculture would take our example; we are encouraged and agreed to work together for seeking development, but it becomes difficult because we do not have enough tools. I would ask the ministry to support groups that have the intention of

working in agriculture; they should support us even for half of the total cost". (FGD I Uroa)

Women from the Wawi group proposed that support to obtain tools would increase their motivation for working in agriculture. It is obvious for women to request support for tools since farming in low-income countries involves difficult tasks that could be simplified if they were supported with improved tools. For example, the Wawi group uses only one water pump for irrigation, and they have to carry and pull the water pipe to their farms manually. The pipe is almost worn out with lots of leaks, yet they cannot afford to replace it. Some women asked for support for the cost of renting a tractor for land preparation. They have the intention to buy more tools when their capital increases; currently they can only manage for some seeds, fertilizers, and pesticides.

On the other hand, findings showed that non-members are more likely to ask for the support of both input (fertilizers, seeds, and pesticides) and equipment compared to members who largely asked for tools and equipment. Certainly, members in groups benefit from the advantage of collective purchasing of inputs, as presented in the literature. While the majority of drop-outs asked mostly for tools rather than inputs, similar to group members, except for only a few drop-outs. The study further discovered that many drop-outs have better access to resources such as land ownership and water for irrigation; however, the low number of drop-outs involved in the study may limit this finding.

Generally, many non-members asked for support for even simple tools such as hand hoes, contrary to members. For example, non-members from Wawi village told me that some women cannot afford hand hoes and they borrow from their neighbors. Some women said sometimes they have to wait for the owners to complete their work before they can allow them to borrow the hand hoes. In comparison, women from the Umbuji group have afforded water reserve barrels and can sprayers for irrigation. It is unlikely they would ask for support for simple tools such as hand hoes.

The data show that women from all 8 groups studied were mostly asking for support of irrigation tools and equipment, which denotes women's understanding of the importance of irrigation farming. They requested water reserve tanks, water pumps, water pipes, sprayers, cans, and assistance for wells construction; in addition, they requested support for drip irrigation, established recently in the country. Uroa is the only group observed using drip irrigation, but they requested extra support because they want to extend their farm size. In expressing their need for irrigation tools, a woman from the Wawi group said:

> "We have good access to water around here but we have only one water pump machine and one supplying pipe; the only problem is tools and equipment to support irrigation" (Interview 033 Wawi).

Another basic request made by women from all groups is support for processing machines for their crops, to resolve problems with market access and lower prices during higher seasons of production. The Vitongoji group asked for support for a rice milling machine while the Wawi group demanded a tomato processing machine. This is because they produce many tomatoes that can be sold for 16,000-25,000/- T. sh. for a full bucket of 20 litres, but the same amount is sold for only 4,000- 5000/-during high season production. They said they would be able to produce tomato paste and other products from their tomatoes for better prices if they had the processing machine. Similarly, women from the Kizimbani 2 group requested a cassava processing machine to produce flour which can be used to bake cakes and prepare other food items. Cassava is the main cash crop for women from both groups in Kizimbani and they do not use irrigation; they use seed specially selected for the area which can resist drought.

> "We have been trained that we can produce cassava flour which can be used to bake cakes and prepare other food items; if we get the machine we can establish our income-generating activities and self-employment. This is our main requirement" (Interview 027 Kizimbani).

As indicated earlier, the supporting organisations focus heavily on increasing production; there were no strategies in place to support farmers to process and preserve their crops. Normally, crops in the country are sold as fresh, soon after harvesting; hence they become ruined after a few days if they are not sold. Some of the NGOs train farmers' in methods for preserving some crops but, as indicated earlier, they do not cover wider areas. Sometimes farmers cannot afford the required equipment; for example, the Kizimbani 2 group said that they have been trained to prepare several food items out of their cassava, as demonstrated by a woman above (interview 027), but they do not have the machine. The Government has developed the MIVARF project to overcome the problem, but it is too early to establish the outcomes. However, some analysis of this support to farming groups will be discussed in the next section.

Generally, many women members suggested that support should be provided during the early establishment of their groups, as they believe in time they would afford to pay for their requirements. It is only difficult during the start when funds are needed to improve their work while activities are not developed enough to increase their earnings. Discussions with women form the Uroa and Kizimbani groups revealed:

> "For the group to succeed it needs to be supported by tools and equipment, such as water reserve tanks and water pumps. Although we could manage these on our own, this ability will come later, not during the initial days" (FGD 018 Uroa).
>
> "There are people here who are intelligent, capable and smart, but they lack tools and equipment; that's our actual problem and there is no way we can resolve this without support from government leaders and other supporting organizations" (Interview 028 Kizimbani).

The women farmers in Zanzibar were observed with similar challenges as women smallholder farmers in Sub-Saharan Africa, as presented in the literature. Low use of improved tools and modern equipment among farmers were also observed in the region (Jayne et al., 2010). As a result, women use more labour than would have been necessary with the use of improved tools and equipment. The hand hoe continues to be the most reliable tool for farming in Zanzibar, and the majority of smallholders cannot afford the cost of renting tractors. The Government subsidizes the cost of tractor services, but only for rice farming (Revolutionary Government of Zanzibar, 2003), as mentioned earlier. The use of animal traction is applied to substitute hand hoes in many developing countries, but the practice is quite uncommon in Zanzibar. Although the majority of farmers would not afford the cost of animal traction since they cannot afford a simple hand hoe.

This finding is supported by the Household and Baseline Survey (HBS) 2014/15, which reported that 67.5% of rural households own hand hoes as the highest agricultural asset owned by people. Only a few (2.8%) own carts pulled by cows mainly used for transportation of crops to the main roads heading to town and the central markets. Only 1.5% and 1.2% own a harrow and plough respectively. However, the data are not gender-disaggregated; thus the situation is highly likely to be far worse for women.

7.3.3 Access to Land

Land ownership continues to be a challenge for many rural women in the country, similar to many Sub-Sahara African countries, as presented earlier in the literature, where men are more likely to own land than women. In Zanzibar, the situation is exacerbated by the existing inheritance guideline, which is regulated by the Islamic belief that a man should inherit twice the share of a woman. As a result, women end up with low-value items. However, the findings revealed that some farming groups have supported women to access land for agriculture. In other words, by being in groups, women have managed to secure land for farming. This was observed in 5 out of the 8 groups visited: The Umbuji and both Kizimbani groups (selected

groups), and the Uroa and Kibokoni AMCOS (recommended groups); however, they differ in terms of methods by which land is accessed by the groups.

Women from the Umbuji group conduct their farming on borrowed land which is bigger than they can afford to utilize. They would have lost it if they had not been working as a group because the owner wanted to take it back. However, he let them continue because he was convinced that the land was being used by a group of women for farming, which is their only source of income. Similarly, the Uroa group work on borrowed land which is owned by their fellow member. Initially, the group activity was only goat-keeping that was supported by a specific project, and then the owner of the land was attracted by their unity and asked them to join him in farming in his land. Also, similar to the Umbuji group, the land is bigger than they could afford to use. It contains a well which simplifies their need for irrigation.

In contrast, both groups from Kizimbani have managed to access land from the Government; however, Group 1 owns the land officially, while Group 2 does not. Group 1 'Ndugu Njooni' obtained official ownership through their tireless efforts in following directions and procedures for application for ownership from the Government. It is quite a big piece of land that they do not manage to utilize; therefore, they have leased a portion of the land to a sugar factory for planting sugar canes. Group 2 'Hatungoji kusukumwa' was able to secure government land soon after the establishment of their group. Originally, the group was initiated for conducting small business, and later they decided to conduct farming after realizing they did not have the right skills for business. They applied for the land to the local authority and their application was approved and granted with the land, which they use mainly for growing cassava, but they do not have official ownership. The Government owns large areas of land in the district which is also used for research activities. Upon application, one can be allowed to use the land for agriculture and even for building accommodation, but not permanent buildings since the land can be taken back when required.

Furthermore, I discovered that it is possible to apply for land ownership of government land, but many people are not aware of this opportunity. Discussion with members of the Mtule AMCOS group in Paje village revealed that many of them own their land which is a coral rag land. The land (coral rag land) is mostly owned by the Government where farmers have to apply and follow the procedures for ownership from the Government. But, the information was not available in other villages. For example, some members of Umbuji use the same kind of government land but do not have ownership. The forest reserve project conducted in Paje for the past few years possibly contributed to the awareness of people in the village.

Normally, people are allowed to use the coral rag areas owned by the Government; they only need to clear and use part of the land. However, this type of land is not fertile, as mentioned earlier. It is called ‘Maweni’ in Swahili meaning ‘stony land’. The women said it is difficult to implement modern agricultural skills on the land, especially due to the lack of access to water, which could be the only limitation because the Uroa group use the same kind of land but with constant use of irrigation and they are doing well in their activities. Also, the key informant from the Department of Forest said the land can be used effectively through the use of irrigation and fertilizers. However, the majority of poor women cannot afford to construct water wells for irrigation, as will be discussed later in the next section.

The Vitongoji group has gone much further in accessing land; from the income from their group activities, they have managed to buy their farming land for 1,700, 000/-T.sh. Moreover, they bought more land for 1,500,000/- T. sh. to build their new office. It is an exceptional achievement compared to all the other groups visited. Their achievement may also be made possible by the collective sale of their crops, which is only conducted by this group. Generally, all groups visited practice collective purchasing of inputs, but not a collective sale of their crops. Vitongoji is involved in the collective sale of peanuts, not only for members but also for other villagers, as it is a cash crop largely grown in the village. Previously, farmers had to sell their peanuts for loans. Currently, the group buys peanuts from farmers and sells them in bulk to the central market in the district. Since they are the main producers they said they can decide the best prices and have never faced market problems.

On the contrary, it is incorrect to say that women from the Wawi group have accessed land through their group, because the group uses government land where anyone can conduct farming, except for the permanent trees. The land is fertile and has an additional advantage that the mainline for public water supply passes through it making it easy for irrigation. Also, there is a river that can be used for irrigation, if other equipment is available, such as water pumps, water pipes, and electricity. The land is comprised of hills and valleys and it is not effectively utilized, as most of the area is not in use. Figure 8 shows the area. Maybe the Government should think about renting some of the unused land to private investors so that people could be employed.

Figure 8: The Government Land at Wawi Village

Source: Field Photo, 2017

Need for Land Ownership

Generally, women in Zanzibar do not lack land for farming, but their challenge is ownership, and this is why women requested support for ownership. Normally, people can borrow land for farming from two major sources; from government land and the local owners. However, they cannot use the borrowed land to grow permanent trees, and borrowed land is not reliable, although for the government land they may use it for a long time. The study observed that many women farm on borrowed land, except for only a few, particularly group drop-outs and a few non-members. Quantitative analysis, as shown in **Error! Reference source not found.**, revealed that 62% of women do not own land; they either borrow locally or from the Government. Similar findings were reported (Porter, 2011) that 70% of women were found borrowing land, with only 20% who own land.

Table 23: Land Ownership by Women

Land Ownership					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	112	37.7	37.7	37.7
	No	185	62.3	62.3	100.0
	Total	297	100.0	100.0	

Source: SPSS Data analysis, 2018

However, I discovered that many women among both members and non-members do not seem to worry about the security of the land they have borrowed; only women from Umbuji and

Kizimbani villages express doubts. For example, women from the Uroa group feel secure using land provided by their fellow members. Similarly, women from the Kizimbani 2 and Wawi groups, while working on the government land, did not show the fear that the land could be taken back. An individual interview with a non-member from the Umbuji village revealed:

> "Not in this area, land does not give us any problem, as you can use a piece of land for farming and leave it for another when you become tired. It is just like that, no, I have never faced any problems from the land I have borrowed". (Interview 011 Umbuji).

In contrast, women from the Umbuji group expressed uncertainty about their borrowed land and asked for the Government to support them to buy the land. They said they have nowhere else to go if the owner decides to take it back. Essentially, women in Umbuji village access land either by borrowing fertile land from local owners or by borrowing the Government's coral rag land but, as mentioned before, this land is not fertile. The non-members from Kizimbani village said they keep on borrowing land from one place to another because the owners only allow them to use it for a certain period.

> "I do not own the land, I have borrowed from someone, and he can allow you for this year and ask it back the next, while you don't have another place to farm. We still borrow lands from one place to another" (Interview 029 Kizimbani).

To summarise, among the 8 villages visited only 3 have official ownership of their land; these are Kizimbani 1 (the selected group), Kibokoni SACCOS, and Mtule AMCOS (recommended groups). While2 groups, Umbuji and Uroa, have borrowed land from local landowners; three groups, Wawi, Kizimbani 2, and Mtakata AMCOS, have borrowed from the Government.

The quantitative analysis went further to examine whether women are satisfied with the small sizes of land they use, as discovered by the qualitative findings. The analysed data show that 54% of women are satisfied with the size of land they use and only 46% of women indicated their need for more land, as shown in **Error! Reference source not found.**. However, this finding has limitations because I did not consider the current actual sizes of land used by those women.

Table 24: Land Size Satisfaction

Land Size Satisfaction					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	160	53.9	54.6	54.6
	No	133	44.8	45.4	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Source: SPSS Data analysis, 2018

All 8 groups visited have demonstration plots for learning purposes called ‘Shamba Darasa’ in Swahili, where the new skills are being learned and applied and then each farmer implements the skills on their individual farms. The existence of Shamba Darasa is a requirement for some supporting projects such as ASSP/ASDP-L. However, some groups use the demonstration plots as their only land for group working; for example, the Kizimbani 2 and Umbuji groups. A few women depend entirely on these plots, as they do not have additional farms. One important observation is about the size of land used by women. The majority of them work on small land areas; for example, the land used by the Umbuji group is only about 0.5 acres. They do have additional individual farms, but they are also smaller in size. This may contribute to their low earnings.

Although many women do not seem to worry about ownership of the land they have borrowed, the situation affects their activity, as indicated by some women. Also, it inhibits them from accessing other support such as financial services. For example, UWAMWIMA provides loans to farmers, but with conditions including the effective use of irrigation farming which can be ascertained by the presence of a permanent well on a farm. Also, farmers should start repaying loans after 6 months and complete the payments within a year. From my observation, many women are limited in accessing loans due to their lack of land ownership. Also, it would be difficult for them to construct water wells on somebody else’s land even if they could afford the cost of the construction. The use of irrigation is a condition for accessing loans from official

banks to guarantee repayment of the money within a fixed short timescale. The key informant from the Ministry of Agriculture said: “Despite the achievements being made by women through the support of various projects their ownership of land is quite a big challenge” (Key informant 02).

In general, agricultural land has started to become a threat that can be far worse for women and a limitation to the general economy of the country if suitable precautions are not taken. The threat is created by 2 major activities: one, agricultural land being replaced by shelters; and two, invasion of seawater onto the land. Housing has occupied agricultural land in all regions, but the West district of Unguja is highly affected, and lots of fertile areas consisting of permanent crops are being replaced by buildings. There are no regulations in place that can prevent the activities and landowners keep on selling the land for building houses.

During my informal chat with farmers, while visiting groups through the process of group recruitment, they complained about the increasing uncontrolled use of fertile land for accommodation. However, no-one is taking control of the activity. One group of women in the district at Kisauni village had to shift their activities to another area to allow construction to take place. When I met them they had no place to work because it had happened again to the second area of land.

The key informant from the Ministry of Agriculture and Cooperative Department explained the seawater invasion. The situation is the result of climate change in the coastal and marine environment. Increased wind speeds, storm surges, rise in sea level, and increased ocean temperatures and acidification have led to coastal erosion, saltwater intrusion, eventually flooding and the loss of the land (Revolutionary Government of Zanzibar, 2014). The report shows that the situation is facilitated by the geographical presentation of the country, specifically the length of coastline around the islands and low lying land areas - about 20% and 30% for Unguja and Pemba, respectively.

7.3.4 Access to Financial Support

The finding revealed that, through their membership of farming groups, women have improved their access to financial support for their farming and their daily needs, although this support is mainly through informal financial schemes. The quantitative data revealed that most of the women farming groups’ members (80%) are also members of savings and credit schemes. Nearly half (49%) of the women are involved in saving schemes that operate inside their farming groups, as can be seen in Table 25. All 8 groups visited, except Umbuji, have their saving schemes for managing the cost of their activities and for providing social support to

their members, including quick loans. However, they differ in the amount of contributions for the savings and sometimes a period for shares division.

Table 25: Existence of Saving Schemes

Saving Scheme Existence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	in their group	118	39.7	49.0	49.0
	outside their group	116	39.1	48.1	97.1
	Both	7	2.4	2.9	100.0
	Total	241	81.1	100.0	
Missing	System	56	18.9		
Total		297	100.0		

Source: SPSS Data analysis, 2018.

For example, members from the Wawi group have two periods to contribute to the group funds, monthly and during harvesting. The collected money is spent on inputs and tools to support their farming, and the purchased inputs (seeds, fertilizers, and pesticides) are supplied to all members regardless of who managed to contribute, as those who did not contribute initially will pay after harvesting as explained previously. They aim to provide loans to members in the future because, at present, their capital is insufficient; they can barely support the purchase of inputs and a few tools.

A recently established (2017) Mtakata AMCOS, the network of farming groups situated in the same district with the Wawi group has a system where members contribute to group capital to provide loans and buy improved equipment in the future. After collecting enough capital they intent to buy all vegetables produced in the district and sell them in bulk for better prices in the future. On the other hand, Mtule AMCOS of Paje village in Unguja has managed to collect enough capital from members to provide loans and to supply inputs to members.

Further, I discovered that Kibokoni SACCOS and the Uroa group work with similar kinds of saving schemes, members from both groups contribute specific amounts of money for a

particular time. Members contribute 2500/- and 3000/- each weekly for Kibokoni and Uroa respectively, and at the end of each year, normally closer to the holy month of Ramadhan, they divide the money according to their contributions. However, this is after deduction of the production costs, since the money is also used to support the farming. However, Uroa cannot afford loan provision at the moment due to low capital and focusing on purchasing equipment first to improve their activities. They provide support for social problems though, such as sickness or the death of family members from a special fund allocation called a 'social fund'.

On the other hand, the saving and credit scheme activity of the Kizimbani groups is conducted through their network comprising 5 farming groups in the village. However, the scheme consists of individual members, not the groups, obviously because savings are based on personal contributions. This also means that not all members of the groups are also members of the saving scheme. Nevertheless, each group has separate internal contributions to cover production costs, such as renting tractors and purchasing inputs. Similar to the Uroa and Kibokoni groups, Kizimbani divides their money annually depending on the individual share of contributions, after deduction of a certain amount that needs to remain in their account. Then, they start a new contribution cycle and loans are available to members after 3 months of each cycle. Kizimbani women were so proud that can get loans any time they want, although the amount of loans depends on individual contributions. They can borrow 3 times their share. For example, if a member has contributed 100,000/- then she can borrow 300,000/-, but also she should have 4 guarantors among the members and those guarantors should have some money in their capital. This is for the security of their scheme to avoid some unforeseen circumstances. Increasing access to credit for women contribute to positive changes in women's perceptions of themselves, and their ability to household decision making (Longwe, 2000). A woman proudly said:

> "Previously I did not have a place to go when I face a problem, our savings and credit scheme helps us. I am so proud I put in my savings and when I get a problem they allow me to borrow 100,000/- to 200,000/- sh. One can even borrow money to start a small business" (FGD 021 Kizimbani).

Umbuji was the only group without a saving scheme, although they provide members with social support through instant contributions when a member faces a problem. However, through our interviews, I discovered that some women in the group are members of other existing savings and credit schemes in the area. Currently, there is increasing development of various savings and credit schemes in the country, commonly named as SACCOS (savings and

credits cooperatives), supported by different financial institutions. Some are under the support of the Cooperative Department through the implementation of the MIVARF project.

Despite the differences in their savings and credit activities, all groups have things in common: first, they put their savings in official bank accounts; and second, they prefer their local savings schemes rather than loans from official banks. They say it is safer to put money in banks to avoid problems that have occurred for other saving groups who put money in saving boxes; where the box and the key were kept under the security of different members, yet some people managed to steal the money. Some non-members have used those incidents as justification for their reluctance to work in farming groups. Through the interviews, members gave two reasons for not applying for loans from banks: firstly, they cannot estimate their crops to repay loans, as farming is unpredictable due to changes in weather, pests, and diseases. Secondly, they cannot afford to repay loans with interest which is normally charged by banks. The first reason is reasonable since they still face lots of challenges as they have said, but the second is a religious reason. Many people in Zanzibar have a fear of taking out loans from banks because they believe the interest is against Islamic laws.

However, the majority of women would not qualify to receive loans from banks based on existing conditions. Banks provide loans if farmers have large plots with an irrigation system, and good production, which is beyond what these poor women can afford. The study further discovered that the MIVARF project promotes higher financial institutions, including banks, to provide loans to the rural poor. To facilitate the process, the project has set up a 'Smallholder Guarantee Fund' as a guarantee for banks if farmers fail to repay their loans, but during the fieldwork, the implementation had not yet started (Revolutionary Government of Zanzibar, 2017). Therefore, it is too early to predict the outcome of the support for poor women farmers.

Need for Financial Support

Despite the improved access to financial support shown by women who are involved in farming groups, the data show that women are still in need of support. The majority of women from the villages visited expressed a need for financial support, including non-members. Generally, they requested either loans or grants to support their activities, especially to cover inputs, equipment, and tools. The study observed a low ability for the majority of members to raise their capital for developing their activities. The observation was also made by key informants from both the Government and NGOs. Interviews with the coordinator from MVIWATA and the agricultural project coordinator from Pemba revealed:

> "Currently their ability to increase their capital is very low; however, they are very ambitious. They would have worked better if they got loans and capital for running their activities. Increasing credit schemes could support their development" (Key informant 03).
>
> "Women should be supported by capital since it is a major challenge for farming groups. They have received various training for farming and cattle keeping, but only a few have received training on capital investment" (Key informant 06).

I found that some women were aware of the available financial support and some were not; however, the majority of women showed fear of taking out loans from official banks due to their inability to pay the required interest. Also, some women demonstrated their understanding of bank conditions with which they could not comply. For example, a woman from the Wawi group said:

> "if one wants to take a loan from a bank she/he is required to have a bank account in that particular bank and the account should have some savings before they can ask for the loan" (Interview 034 Wawi).

On the other hand, an individual interview with a woman from the Umbuji group suggested that a few women are afraid of taking loans even if the interest is not included. She said in their savings group, which is external to their farming group, women are allowed to take loans and repay them over a given time, yet some women hesitate. Mainly, women were observed to refrain from taking loans because of a fear of the inability to repay due to unpredictable production, as presented before. The fear was also observed among non-members for the very same reasons. This may be why many women ended up asking for direct support for funds as grants or the provision of loans that do not include interest.

As mentioned at the beginning of the section and revealed by the discussion, the farming groups involved in the study suggest that being in the groups has increased access by women to the resources and support they need to improve agriculture. However, more resources and support are needed to improve their performance for better outcomes from their groups' activities. Empowerment programs are needed for women to increase their control over resources not merely their access to resources. Education programs are useful to improve women's access to resources and their welfare, but we also need programs for supporting women empowerment. We should erase the idea that increasing access to resources to women such as credit, education, or training will essentially result in improved women empowerment (Longwe, 2000). On the other hand, I discovered different abilities of groups to access resources and the

available support services caused by the different abilities of members in individual groups. The next section discusses the findings.

7.4 Farming Groups and Women Empowerment

This section presents the outcome of objective 2 and 4 of the study. Mainly it discusses the economic empowerment and the social empowerment that women have achieved through their participation in the farming groups. The section essentially discusses three themes distributed in the subsections: One discusses how the qualities of some members have influenced changes and empowerment to other women in terms of social and economic. As well as their influence on the performance of the individual groups. Two discusses the livelihood changes experienced by women through their groups. The third discusses the issue of gender and achievement of women in farming groups, concerning community perceptions, local norms, and implementation of the policies towards gender equality in agriculture. The initial two subsections incorporate theme number one, followed by two subsections which discuss the theme number two. The last three subsections present the third theme.

7.4.1 Qualities of Members for Better Performance of the Groups

The study aimed to analyse the contribution of some members' abilities for better achievement and performance of farming groups' activities. As discussed previously in the section on collective action, people work together for achieving specific goals. Groups need good management to fulfill the needs of members. As indicated before, these formations face various challenges including poor management, which can be associated with the lack of proper management skills among leaders. On the other hand, the existence of members with good management skills could contribute to the good performance of farming groups. The study observed differences between members about their basic education, awareness and their abilities to access resources among the studied groups, which influenced differences in their performances.

The aim was to analyse whether the achievements of farming groups can be influenced by certain members' abilities, such as higher levels of education, and the ability to access resources and useful information. However, the detailed analysis was only possible for the selected groups and only one recommended group of Uroa due to time limitations for the study. Background information on the study participants shows a remarkable difference in the levels of education between members across the 5 groups, as shown in Table 26 below.

Table 26: Group Members' Levels of Education

Groups/Villages	Umbuji	Uroa	Kizimbani 1	Kizimbani 2	Wawi
Members	23	30	16	16	18
No education	7	1	5	3	4
Primary education	9	3	5	4	8
Secondary form II	6	8	4	5	4
Secondary form IV	1	16	2	4	2
Six form/Diploma	-	2	-	-	-

Source: Field Data

Table 26 shows the distribution of members' levels of education from the 5 groups. Uroa has many members with form IV secondary education, which is equivalent to the GCSE level in the UK, followed by Kizimbani 2, Kizimbani 1, then Wawi and finally the Umbuji group. On the other hand, Uroa has fewer members (1) with no education compared to 7 members from Umbuji; however, Uroa has more members compared to the other three groups. A similar ranking in terms of performance was observed during the study, I discovered that Uroa leads in terms of using modern agricultural skills, group management, and modern equipment. Then followed Kizimbani 2, Kizimbani 1, Wawi and finally the Umbuji group. Although Uroa was recently established (2015) and formally registered in 2017, it has demonstrated very good performance Figure 9, below, shows their group farms. It is not surprising that officers from the Department of Cooperatives recommended that I visited this group.

Figure 9: Uroa Group Farm

Source: Field Photo, 2017

Discussions with women from Uroa also revealed that the group has many members who are informed about where to seek support such as loans and useful information. They even requested support directly from the Minister of Agriculture who then came to visit and advised them to establish their savings and credit scheme. This may also be why the group became popular with government officers. Through their savings scheme, where every member contributes the same amount of money weekly, they have managed to buy some equipment, fuel for their generator used for irrigation, and to buy inputs. They support each other from the same fund in the case of social issues. Their achievements have likely been enhanced by their ability to seek support, and the higher levels of education among the women also indicate their intelligence, which influences better performance in their overall management.

> "We go to seek support and we get many visitors; we met the Minister of Agriculture to ask his support; then he decided to visit us. He is the one who gave us the idea of the savings scheme and brought to us a teacher to teach us how to establish and manage the scheme. The scheme is really helpful to us" (FGD 019 Uroa).

> "It is our efforts to go and search for support from different people, including MPs; we just do it tirelessly. Also, we went to the Women and Children's Department to see Castiko (Director of women development), and we met Amina Salim Ali (the former Minister and former UN African Union Ambassador) but she did not manage to visit us" (FGD 019 Uroa).

Similarly, Kizimbani 2 has demonstrated good ability in seeking support from the ministry and other related departments. Some women continue to remind others about better farming techniques that they have been trained to do in the past and serve as substitutes for extension officers who are not seen after the completion of projects. They have established their savings scheme, which helps them to pay for renting tractors for land clearance, and tillage. They have managed to influence 4 other groups in the district to develop an extended savings scheme; a Village Community Entrepreneur (VICOE) which is supported by the National Microfinance Bank (NMB). They were allowed to take loans from the bank, but they have not yet done so. As I have mentioned earlier, they have united 5 farming groups to develop a large network called 'Letu cooperative'. They have managed to collect enough money to buy a cassava-processing machine. Moreover, it is the only group with membership to MVIWATA where they get the opportunity for training and attending the annual farmers' exhibition every year.

The study observed 1 woman in the group with a special ability to influence others for better implementation of their activities, and she is very determined to see her group achieve the most to improve their incomes. When I asked her how she became so influential she replied: "I was mobilised by training and visits that I have attended in Tanzania Mainland". She further said:

> "I work hard for our group to remain alive and active without drop-outs. As we hope one day we may be lucky to receive appropriate support, either through the Letu Cooperative, our groups, VICOE, or through MVIWATA" (Interview 022 Kizimbani).

Their group is the oldest (established 1986), and was not established under the influence of the Government for project implementation; rather the idea was from their former leader who was just an ordinary farmer, but a significant woman. The group has only 1 male member; in our discussions women said:

> *"*Our former leader was just an ordinary farmer with only primary school level of education and if she were still around we would have gone much further. Because she was so dedicated and was making a proper follow-up to each of our plans" (FGD 021 Kizimbani).

From the Kizimbani 1 group, I observed an average level of achievement in terms of their

group management and implementation of their activities. Members contribute to the production costs, while individual women benefit from financial support from their membership to VICOE from their groups' network. They also benefit by receiving rents from the part of their land that they have leased to the sugar factory, as mentioned earlier. I think if the group was involved with vegetable production they would have achieved more, but they have a problem in terms of lack of reliable access to water.

For the Wawi group from Pemba, their achievement is more or less the same as the Kizimbani 1 group, where members also contribute to their production costs and have managed to cover some costs, such as fuel for their generator, seeds, and fertilizers. The existence of a fellow member who is more skillful helps the group to conduct their activities in a better way. The group is involved with vegetable production, but they face a challenge of lower prices on the market, especially during higher seasons of production. Otherwise, the group would have performed better than Kizimbani 1, according to my observation. Farmers from Pemba suffer more from the problem of markets compared to farmers from Unguja. As it is estimated that production is higher in Pemba than in Unguja, likely, because Pemba is more fertile than Unguja, as mentioned earlier. I also observed a higher production of tomatoes and watermelons on the island. As a result, some crops are being transferred to Unguja by businessmen, while the poor women cannot afford the transfer.

Finally, comes Umbuji a women-only group that has not achieved much in terms of improving their activities, although it was established in 2012. They have experienced a large number of dropouts, including their former leaders, due to some conflicts. It was initially established with 43 members, of whom 23 remain. Some women asked for repeated training and continuous reminders of useful techniques because they tend to forget quickly. Others complained that those who attend training cannot disseminate the skills and information to their fellow members. This is possibly due to their low levels of education, as revealed by their background information. Moreover, they said they do not know where to ask for assistance or support and they are not aware of the support provided by the Department of Women's Development and the Cooperative Department. Nevertheless, their current leadership seems to be motivated and determined to make changes in their group. Members are enthusiastic to move forward as they have realized the importance of working in groups. They are aware of the achievements of other groups, so they are determined to do the same with their group.

Many women were involved in qualitative data but the analysis was not possible for their individual groups' performance due to the nature of the data collected. 297 women were involved - 85% and 15% from registered and non-registered groups respectively, from 6 out of

a total of 7 districts of Uguja Island. In total, 30% of respondents were from women-only groups, and 70% were from mixed groups of men and women. Table 27 shows the number of participants involved. However, the data show that the majority of women (80%) involved in farming have a lower level of education (33% with no education and 47% with primary education) the same as discussed in the literature. See the analysis tables in Appendix B2. 79% of women involved were in the aged 26-55 years and the majority (78%) were married, only a few divorced, and widows (10% and 8% respectively).

Table 27: Number of Study Participants with their Respective Districts and Regions

Regions	**Number of respondents**	**Percentage (%)**	**Districts**	**Number of respondents**	**Percentage (%)**
North	103	35	North A	50	17
			North B	53	18
South	94	31	Central	44	14
			South	50	17
Urban West	100	34	West A	50	17
			West B	50	17

Source: Field Data, 2017

7.4.2 Farming Groups and Social Empowerment for Women

The study aimed to determine whether there are social empowerment for women resulted from their group participation. The collected information revealed that generally, all women have experienced changes through their groups; however, the changes differ from one group to another - and even from one woman to another. This may be due to the original character/quality of a particular woman and the type of members with whom they interact in a particular group. The study discovered 3 main changes that can be arranged in order of observation: First, increased ability to speak openly in their groups and meetings; second, their ability to assume leadership positions; and third, their increased decision-making ability. Similarly, the order can be arranged with the amount of changes made by individual groups. Although it is quite difficult to measure the amounts of changes, one can observe and compare the differences between the groups. For example, for increased ability in open speaking Uroa is the leader, followed by Kizimbani 2, then Umbuji, Kizimbani 1, and finally the Wawi group.

Increased Ability in Open Speaking

Generally, many women have improved their ability to speak openly through their involvement in groups. Whereas some were influenced by specific members, others have just realized the importance of contributing their ideas. As a result, for those who were talkative before joining, their ability to speak publicly has improved significantly, and for those who were quiet, they can currently respond even for short statements. The quantitative analysis revealed that more than one third (38%) of women admitted their ability to speak openly has increased through working with the groups, and just above half (53%) have experienced slightly increased open speaking ability. Table 28 summarises the results. In responding to how they have experienced the change, many women (70%) said they have realized that they need to contribute their ideas, and more than a quarter (30%) said other women in their groups motivated them.

Table 28: Increased Ability of Women to Speak Openly

Ability to Speak Openly					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly increased	75	25.3	25.9	25.9
	Increased	36	12.1	12.4	38.3
	Slightly increased	154	51.9	53.1	91.4
	Not increased	19	6.4	6.6	97.9
	Don't know	6	2.0	2.1	100.0
	Total	290	97.6	100.0	
Missing	System	7	2.4		
Total		297	100.0		

Source: SPSS Data analysis, 2018

However, the study discovered a notable difference between different groups on the ability of women to speak openly. Uroa women have shown a significant ability; they speak even more than men in their meetings and discussions. When I asked how they gained such confidence, they replied that some of them were fine with open speaking before joining the group, but

others have changed gradually through their membership. Women said: “few women cannot speak in front of the group, but they respond to each other effectively within the discussions” (FGD 018 Urowa).

> “We all support each other to increase our awareness and understanding. If we receive visitors while our leaders are not around, anybody can speak and present in front of them, and the visitors will be satisfied with the given explanation. For those who came here with silent behaviour, they keep on changing and becoming so chatty” (FGD 018 Urowa).

Kizimbani 2 was observed to be the second lead for an increased ability for speaking. During our discussion, they were all responding willingly and openly without hesitation, and women were the main speakers in their meetings. One active woman said: “I am not afraid of speaking; what I am telling you I can even tell the president” (FGD 021 Kizimbani). When I asked how they have learned to speak in an open forum, the leader said she has learned through presenting in MVIWATA meetings in Mainland Tanzania. Others have learned gradually within the group, also through attending various seminars. They told me they have agreed that everyone should contribute ideas, as one may come out with a useful suggestion for all. Others were given abrupt nomination by their leaders to speak in front of visitors, reporters or community forums to improve their speaking abilities.

Women from the Umbuji group have also demonstrated a good ability to speak openly and to contribute their ideas, especially the group leaders and committee members. From my observation, the group takes position 3. Only a few women were unable to speak in our discussions, where more persuasion was needed for them to provide detailed information. In reply to what has brought about these changes, one woman said: “Changes in groups are inevitable, others will tell you so many things that you have to reply, eventually you will learn to speak openly” (Interview 011 Umbuji). Others said they have improved the ability through attending various seminars and they were supposed to provide feedback to their fellow members about those seminars, so they had to speak. One woman said that she has not attended any seminars but she has also changed. She added: “The shyness disappears through group interaction” (Interview 014 Umbuji).

On the other hand, women from Kizimbani 1 observed with average ability to speak in both their meetings and our discussions, so they took position four. In the discussions, some women responded occasionally with short answers; and sometimes I had to encourage them more to provide me with the desired information. However, many women have made some improvement in their ability to speak openly, a woman commented:

> "I have experienced some changes. Before joining the group, I was such a quiet person, but through the group, I can at least speak now somehow. I have also improved my social participation" (Interview 023 Kizimbani).

But, women from the Wawi group did not show much improvement in their ability to speak openly compared to all other groups. This may be due to their lower chances to participate in community forums, such as seminars and training. In our discussions, I had to be more patient and persuasive to make them explain in more detail what information I needed to collect. Nevertheless, changes have happened to a few women, indeed one woman was optimal in speaking and she motivates others too. In our discussion, she was calling upon her colleagues asking them to provide more details about the issues being discussed. During my interview with her, she said she has observed some changes in the other women, whereas initially, the majority were not able to contribute ideas when they established the group, they are gradually improving. During the individual interviews with members, one woman told me:

> "Now I am proud to say that I can speak in a meeting or a group of people, but I was not able to do so previously, although I attended school, I was not talkative. Currently, I can respond in a group, even for some short statements" (Interview 035 Wawi).

Information from the key informants also suggests that women have improved their ability in public speaking following their involvement in farming groups. An officer who was involved in early farming group mobilisation by the Government said:

> "At that time women were not responding; if you ask them a question they just turn around their faces. I tried to motivate and convince them to change. When I expected a visitor I informed them in advance and observe them while they were practicing their speeches" (Key informant 08).

These findings are similar to those of Ferguson and Kepe (2011) who observed women in Uganda who gained confidence in public speaking as a result of their involvement in agricultural cooperative groups. Similar to Zanzibar, their study found that these changes were influenced by various community development projects, which included various training sessions such as on health and hygiene, savings and enhancing agricultural production. Certainly, the involvement of more women in community development projects and farming groups could empower them and improve their social status.

The ability of Women to Assume Leadership Positions

The study discovered improved ability in women to take leadership positions in all 8 farming groups visited. These mainly involved financial roles, such as group treasurers. Similar findings were demonstrated by Schroeder et al., (2013) where women from rice grower groups managed to occupy positions such as secretary, chairperson, and treasurer. Women members in Zanzibar have taken positions such as secretaries and assistance chairs in mixed groups of men and women, and in women-only groups, they take all positions. However, only one women-only group was involved in the study. Table 29 summarises the number of leadership positions by gender in all 8 groups visited.

Table 29: Groups Leadership Positions by Gender

Group	Chairman	Secretary	Deputy Secretary	Treasurer
Umbuji	Female	Female	-	Female
Uroa	Female	Male	Female	Female
Kizimbani 1	Male	Male	-	Female
Kizimbani 2	Female	Female	-	Female
Wawi	Male	Male	-	Female
Kibokoni SACCOS	Male	Male	-	Female
Mtakata AMCOS	Male	Male	Female	Female
Mtule AMCOS	Male	Male	-	Female

Source: Field Data, 2017

Generally, in Zanzibar, there are 3 main leadership positions in farming groups and other cooperative societies. These are; a chairperson, a secretary, and a treasurer; however, in some cases, you may find a deputy secretary. The table above shows that all positions in Umbuji and Kizimbani 2 are taken by women, also in Uroa, except for the secretary position. In the remaining groups, all positions were taken by men, except for the treasurer, and the deputy secretary in Mtakata AMCOS. This finding confirms information provided by the key informants that women hold almost all of the treasurer positions in farming groups. Cheston and Kuhn (2002) estimated that many organisations prefer to work with women as they are more cooperative and have higher repayment rates for loans compared to men. This could be a reason for them to be trusted in the treasurer positions.

It is obvious for Umbuji and Kizimbani 2 that women held all positions since the Umbuji group

only has women members, and Kizimbani 2 has only one man. However, it is interesting to see that women in Uroa take almost all positions as the group has mixed membership. Here, the Uroa group again demonstrated better abilities in group management compared to women in other involved groups. According to my analysis, it is likely that this is enhanced by the individual women's abilities in the group, including their better levels of education. In general, the results suggest the improved ability of women to assume leadership positions regardless of their levels of education, as we have seen from the Umbuji group, and that women in all groups hold the treasurer positions. However, the lower number of groups involved may limit this finding.

Increased Decision-Making Power

The study sought to examine whether women have improved their decision-making power in their groups and their households. The collected information revealed that women have improved their power in household decision making; however, some women are involved in shared decisions with their husbands, as reported by HBS that 33% of women are involved in a shared decision (Chief Government Statistician Zanzibar, 2016). Women stated that they are free to decide on their crops and their incomes without interference from their husbands. However, I discovered that several women spend their incomes on their children and household necessities. One woman said:

> "My husband never asks about my income, I spend my money to pay people to prepare my farm to relieve myself of the hard tasks; And for buying stuff for my children and other needs of our house" (Interview 024 Kizimbani).

Similar findings were observed in Uganda by Ferguson and Kepe (2011), women members of farming groups increased their ability to decide about their crops by allocating the amount for sale, for household consumption, and input. Also, several studies have reported that women spend more of their income on their households (Cheston & Kuhn, 2002; FAO, 2016). The FAO (2016) proposed that when more profitable livelihoods and agricultural activities are directed towards women they also improve the overall households due to women's priorities on food and children's wellbeing. Some women said they have gained power through their access to training, and they now know how to make their plans and can easily reject suggestions from their husbands.

I observed that women are involved in groups' decision-making processes. However, in some cases, their leaders or committee members make proposals where women are included, and then all members to reach a final decision to discuss the issue. Although, in mixed groups, the

involvement of women in the process depends on their levels of active participation, as some plans and decisions come from discussions among members. Therefore, the abilities of women in open speaking may go together with their involvement and participation in decision making within a particular group. I observed good participation by women from Uroa in discussions on their activities. However, unfortunately, I did not get the opportunity to observe a meeting for the Wawi group, which demonstrated a lower ability of women in open speaking, where I could have made a comparison. A woman from Uroa commented:

> "In our group, there is a fair decision-making process for all, it might happen a woman came out with a better proposal than men. We do participate in the decision making for our group and sometimes men suggest things which can be disapproved by all women" (FGD 019 Urowa).

All 8 groups conduct meetings to discuss their progress, plans, and any other issues. The meetings can be formal or informal where every member has the opportunity to contribute their ideas. The meetings can be weekly, monthly or quarterly, depending on the arrangement of a particular group, where attendance of each member is compulsory, unless for acceptable reasons. For example, Uroa, Umbuji, Kizimbani 2, and Mtule AMCOS groups conduct weekly meetings, while Wawi and Kizimbani 1 conduct monthly meetings.

The finding suggests that through their participation in farming groups women have improved their social empowerment in terms of personal, and their ability to bargain their relationship and collaboration within their groups for achieving better outcomes. These were an outcome of training, encouragement from their fellow members and their social interactions. As noted by Rowlands (1995) that empowerment is a process involving personal development, and moving from understanding to action. It can occur by organising people in a similar context to small self-help groups, associations, and networks with the provision of education and support. In a wider picture, empowerment shows 3 dimensions. One is about self-confidence, capacity, and ability to defeat the impacts of internalized oppression, therefore it is personal. Two is about a close relationship where one develops the ability to bargain and control the relationship. Three is a collective where people work together to achieve a higher outcome which can be in a village, district, national and international levels of networks (Rowlands, 1995**)**.

The findings suggest that the individual abilities of members contribute to better implementation of the groups' activities for the particular groups. However, we may also think that the representation of both men and women in a particular group may enhance competition and contribute to women's empowerment in that particular group. My observations suggested that the mixed groups of men and women perform better than women-only groups. Therefore,

I decided to seek women's views about this. The outcome of the analysis for this issue is discussed in the section on gender and women's development in farming groups.

7.4.3 Farming Groups and Livelihood Outcomes for Women

The main purpose of the study was to determine whether farming groups have improved outcomes for women smallholder farmers' livelihoods. As discussed before, the study aims to establish changes made by the groups through women's perceptions of a better livelihood understanding; also through the determination of achievement of their objectives. Also, I wanted to collect available evidence of livelihood improvement for women from the support organisations for farming groups. I assumed, since the Government and NGOs have provided support to the farming groups in the country for a long time, they have conducted an assessment on how their support has improved poor women's livelihood conditions. Finally, I wanted to observe and make comparisons between the livelihood outcomes achieved by women in the different groups involved in the study. Below is a detailed discussion of the findings.

In general, information collected from the key informants from both the Government and NGOs indicates an improvement in livelihood outcomes for women farmers who are involved in farming groups. They all observed and witnessed changes in life conditions made by women through various projects supporting farming groups. The main justification for the improved livelihood provided was related to the increased application of improved farming methods among women. This eventually increased their productivity and incomes. As a result, women have improved their livelihoods.

Surveys conducted by the Ministry of Agriculture show that farmers have improved their production with remarkable increases in food production (72% for members and 64% for non-members). Members also reported increased food consumption, incomes, household assets, self-confidence and enhanced capacity for decision making (Ministry of Agriculture Natural Resources and Environment, 2017). When I asked farmers reasons for their increased productivity 52% opted for improved knowledge and skills, 23% for increased use of fertilizers, and 4% better access to markets. These indicate improved performance among farmers by applying improved agricultural methods, which also suggests improved livelihoods indicated by an increased income, household assets, and food consumption, as mentioned in the report. However, these data are not gender-disaggregated; therefore, they do not show particular achievements made by women. However, there are some documented success stories, particularly from women through the implementation of the projects.

For the NGOs, I did not find any assessments showing evidence of improved income among

farming group members. They told me they have not conducted any assessments recently, they have discovered changes through observation. A key informant from MVIWATA said:

> "No we have not done any assessment, we just observe through our visits and have realized that the production has increased. For example, we visited Kitogani group during their harvesting, we witnessed that their production has increased in comparison with the previous seasons. Photos were taken for evidence of the success" (Key informant 03).

> "Women's purchasing power has improved and they manage to buy some assets for their houses such as kitchen appliances, freezers, and they also store some of their crops for future need. They manage to pay school fees and give their husbands some cash for the family needs when they do not have money. This wasn't there before, we had a low production" (Key informant 03).

The key informant further added that all these are the outcomes of women being in groups and the changes can be observed physically, and their household spend has improved. He insisted that: "Their life has changed; however, there is no study but I have personally observed those changes" (Key informant 03).

I received a similar response from the key informant from UWAMWIMA, that although they did not conduct any assessment to confirm the livelihood changes of women through farming groups, the changes can be easily observed and that the application of the improved methods they have learned has contributed to these changes. She added that it is difficult to assess the contribution of a particular organisation to the changes made by a particular group. Because "Farmers are opportunistic; they grab any support that comes around" (Key informant 07), so the outcomes are based on their observations of changes made by farmers. She also said:

> "Women belonging to farming groups have improved their habits, their incomes, and the general living conditions of their families. Because they have shifted from local farming methods to improved methods and they use irrigation. They have increased their asset ownership, such as cattle, brick houses, and they can support their children's education" (Key informant 03).

The findings indicate that both the government institutions and the NGOs consider livelihood improvement of women with economic development, not any other aspects of social relations that could hinder the efforts of gender equality. As a result, the study did not observe much effort in addressing gender inequality concerning women's rights and their ability to decision making. The Agriculture policy aims to increase women's access and control over resources

but there are no special activities conducted to empower women in terms of social and political. "Poverty is not just resourced poverty; it comprises silencing, denial of personhood, marginalization, violence, denial of choices and freedoms" (Win, 2007 p 64). The focus is on increased productivity, without considering social and political issues that influence the ability of social groups to achieve their objectives (Okali, 2012).

7.4.4 Women's Perceptions of their Livelihood Outcomes

In my discussion with women to discover livelihood outcomes they have made through their group participation, I had to start by seeking their opinions on the meaning of better livelihoods. Our discussions revealed that many women perceive better livelihood as one's ability to support family needs such as food, health needs, clothes, children's education, and better houses. Some women added that this does not necessarily involve large amounts of money, but at least enough for the basic needs. They included the availability of community services such as schools, clean water, and health centers in their areas/villages. Women were not aware that their freedom of choice is part of their wellbeing.

In general, women from all groups believe that they have experienced changes in the conditions of their life. Some women were so proud that they no longer have to wait for their husbands to provide food and other needs for their families. Similar to the support organisations, they believe the changes are the outcomes of the improved farming methods applied. Through irrigation, use of inputs, and their involvement in more vegetable farming, they have eventually increased their productivity and incomes. Quantitative findings revealed that several women (74%) have experienced highly increased productivity for their crops. All (94%) the women said the increased productivity was a result of using better farming methods, including irrigation, fertilizers, and pesticides. Table 30 summarises the results. Hence, their abilities to support their families have improved. Similar findings were reported by Schroeder et al. (2013) who observed the improved ability of women to support their families through their membership of farming groups. Indicating their livelihood improvement, one woman said:

> "We have experienced some livelihood changes such as our increased ability to pay for school contributions and uniforms. If the father is not around, I buy rice for food for my children. My ability to support my family needs has improved" (interview 012 Umbuji).

Due to their perception of the meaning of better livelihoods, all women interviewed related their livelihood achievements to their increased ability to support their family necessities. For example, women from the Kizimbani groups said:

"I did not know how to grow cassava appropriately, but now I do. I use some cassava for food, and I sell some to get money for buying school uniforms for my children. I do not have to wait for their father any more when I get the money I just go to town and do the shopping. I also pay for our water bill" (Interview 015 Kizimbani).

Table 30: Women's Increasing Productivity

Increasing Productivity					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly increased	206	69.4	74.1	74.1
	Increased	34	11.4	12.2	86.3
	Slightly increased	38	12.8	13.7	100.0
	Total	278	93.6	100.0	
Missing	System	19	6.4		
Total		297	100.0		
Reason for Increasing Productivity					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Better methods, irrigation, fertilisers, pesticides	279	93.9	97.6	97.6
	Better methods, pesticides	7	2.4	2.4	100.0
	Total	286	96.3	100.0	
Missing	System	11	3.7		
Total		297	100.0		

Source: SPSS Data analysis, 2018

When I asked the women how certain they are that those changes have resulted from their group participation, almost all said they could easily observe the changes since they know

where they are coming from. This means they can compare their situations before joining groups and their current state. I observed two main changes; their increased ability to provide food, and their ability to support some family needs. As revealed by women:

> "There is a change since we manage to get income to support some of our daily needs. Although I do not get much money, I can manage to support some of my family needs such as food and school contributions, not like the past days" (Interview 033 Wawi).

Similar findings were revealed by the quantitative data where almost half (49.5%) of the women indicated improved abilities to support their families, and a half (50.2%) of the women have experienced slightly increased ability to support their family needs as summarised below in Table 31.

Table 31: Women's Ability to Support their Family Needs

Ability to Support Family Needs					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly improved	74	24.9	25.8	25.8
	Improved	68	22.9	23.7	49.5
	Slightly improved	144	48.5	50.2	99.7
	Not improved	1	.3	.3	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Source: SPSS Data analysis, 2018

As I have said before, analysis of the livelihood outcomes of women from farming groups was also made by examining the achievement of women's objectives and by analysing their improved ability for asset ownership. To start with their ability for asset ownership, the majority of women said they have not managed to own assets through their work with the groups, except for a few women from the Kizimbani 2 group who have managed to buy small items such as mobile phones, sewing machines, televisions, radios, and refrigerators. This is impressive compared to women from other groups, which indicates better outcomes. In terms

of performance, the group took position two in comparison with other groups, as discussed in the previous section.

According to my observation and further analysis of the collected information, I discovered that women did manage to improve their livelihoods through their participation in farming groups but not to a considerable extent. As can be understood from the women's statements; for example, 'interview 033 Wawi' above, "… although I do not get much money, but …." Also, women, from Kizimbani 1 and Umbuji who said:

> "There are some changes, not like the previous days, but not great changes due to the situation of the existing economy and the situation of markets" (Interview 025 Kizimbani).
>
> "We have not yet managed to own big assets such as houses. It is only for small items such as clothes, utensils and supporting our children for schools in terms of their uniforms and small contributions. We also manage to pay for some health service costs" (Interview 013 Umbuji).

Two reasons are behind this outcome for women; first, although women in the groups have increased their access to support and various resources, they still requested further support to improve their activities; second, although they have increased their productivity, they face the problem of lower prices and they do not have the means to preserve their crops for future use. However, the majority have much hope and a strong belief that their life will improve in time through their continued work with their groups. The quantitative data revealed the same that many women (87.8%) said their living conditions have improved. In addition, almost all the women (97%) expressed their hope that their life will improve in the future through their continued work with their farming groups, as shown in Table 32

Table 32: Women's Improved Life Conditions

Hope for Future life improvement					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	207	69.7	70.6	70.6
	Agree	79	26.6	27.0	97.6
	Neither agree nor disagree	6	2.0	2.0	99.7
	Disagree	1	.3	.3	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Source: SPSS Data analysis, 2018.

To determine the achievement of the women's objectives I discovered that women have not reached their objectives significantly, the same, as they have not considerably improved their living conditions. Many women said their groups have not achieved their objectives, except for the minor ones. For example, a woman from the Umbuji group said:

> "I joined the group with my objectives but they are not well achieved; for example, I intended to get money for building my house and to own some assets. I have not yet managed to achieve any of those. Therefore, my objectives have not been much achieved" (Interview 012 Umbuji).

However, they hope to realize their objectives as long as they strive to improve their activities. Interviews from Wawi revealed that women believe they will achieve their objectives in the future since their group is growing; the same with women from Uroa and Mtule AMCOS which were recently established. Women from Umbuji believe that they have not achieved their objectives despite their long time working, because they have recently received training to improve their farming. Similar hope was shown by women from the Kizimbani 2 group, which was long established, a woman said:

> "We have started a long time ago; that is why we do not get disappointed. We do hope that one day we will manage to achieve all of our objectives. It is nearly there, although

we are not yet there. Since there is a difference from where I was and where I am, so it's almost there" (Interview 021 Kizimbani).

Similarly, quantitative analysis revealed that many (83%) of the women have a great hope that their groups will be able to achieve their objectives in the future as shown in Table 33. With only a few (16%) who have a lower hope for their groups

Table 33: Women's Improved Life Conditions

The ability of Groups to Achieve Objectives					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	lowest	48	16.2	16.4	16.4
	low	1	.3	.3	16.7
	higher	30	10.1	10.2	27.0
	highest	214	72.1	73.0	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Source: SPSS Data analysis, 2018.

The study did not discover differences between groups visited about the livelihood changes of their members. For example, Uroa demonstrated good achievements in terms of better implementation of their activities compared to other groups, as discussed earlier in the previous section. However, our discussions revealed that women have not achieved much change in their living conditions, possibly because the group is recently established. Similar to Kizimbani 2, regardless of its good organisation, the study did not observe significant changes. This could be because they are only involved in cassava farming where harvesting is annual and depends on seasonal rain. On top of that, the study discovered a general problem facing all groups, which is access to markets. This is why some women were asking for support for processing machines to save their crops from lower prices.

Additionally, I observed different outcomes for individual women who belong to the same groups. For example, Mtule AMCOS was observed with improved performance in their activities compared to other groups. They have managed to build their own new office and they

access loans from various sources. They also benefit from various projects and their performance made them popular with the Government and NGOs. However, my discussion with women members of this group revealed that achievements are mainly in terms of individuals not as a group. The majority of men members work on considerable areas of land with drip irrigation, while the poor women work on small land sizes and hardly access water for irrigation, they said:

> "We do not practice group farming since everyone works on his/her land according to his/her affordability. Some members, especially men, have big plots with water wells and drip irrigation systems, while others use cans for irrigation. We poor women have to carry buckets of water over our heads for irrigation, and others do not irrigate at all due to lack of nearby access to water or wells". (FGD 026 Mtule)

> "If you see a large flourishing farm with an irrigation system then it is owned by a man or a man who works together with his wife but not owned by a poor woman like us. We do not afford proper irrigation" (FGD 026 Mtule)

Members of the group make equal contributions from their incomes over a given deadline to repay their loans taken by the group to support their activities. Therefore, some of them pay the amount at once while others take longer. However, in general, women are happy with their group as it provides individual loans for inputs and other food items to support their farming and their everyday life, as presented earlier. Further, the study observed that for those who conduct their activities better they use other non-farm income to improve their farming. This is not the case for the majority of poor women who depend entirely on agriculture.

In general, the findings agree with the conceptual framework developed for the study, but the link and the outcomes are not similar for all groups visited. This means that the link between boxes and outcomes for farming groups suggested in the framework is not the same across the visited groups. To some extent, women members have increased their access to productive resources, have improved their activities, and have improved their livelihood outcomes. The support organisations (government and non-government) coordinate with the groups for the provision of various support. As a result, the abilities of women for better implementation of their activities in their groups have improved. In the groups, collective purchasing and individual members' existing abilities have contributed to social empowerment and economic benefits for members. As a result, women have improved their livelihood outcomes as indicated by their increased ability to provide better food and to support the needs of their families. On the other hand, different abilities of members in different groups, as well as coordination and different support provided to different groups have contributed to different

achievements made by individual groups. This includes social changes made by women, the use of improved equipment and better implementation of their activities.

Regarding the institutional analysis, the study has discovered that both government and NGOs have focuses their support on capacity building to farming groups in general in terms of increasing their knowledge and skills on better farming methods and group management. Certainly the focus in to improve economic situations of women without considering the social roles of women which could limit their achievements in this kind of farming organisations. It is like they are addressing immediate inequality issues by just advocating women's participation in the economy without addressing the basis of the inequality which is related to the patriarchal structures in the country. Kabeer (2005 p14) urged "we are concerned in transformative forms of agency used to introduce longer-term processes of change in the structures of patriarchy, not simply address immediate inequalities". The government through their gender awareness programs only contributed to an increased number of women in the economic activities without considering that they are increasing the burden of women by having both productive and reproductive roles. The reproductive role of women is not acknowledged by either the government or the NGOs, the policies are completely blind about this.

On the other hand, women in groups have improved their social capital through their coordination with different organisations and other groups, as well as through sharing their experiences. As a result, some women have managed to improve their access to the required resources such as land and financial support to improve their activities, and eventually, their activities have led to better livelihood outcomes. However, the extent of the support provided determined the level of achievements and the livelihood outcomes that individual women can make. For example, if the Government was providing subsidies to these groups, more women would have improved their productivity.

Women members of the farming groups have not demonstrated similar achievements by being involved in the same livelihood strategies within a similar context. This was also influenced by the different abilities of members involved in different groups. As suggested by Levine (2014), different abilities of people can result in different outcomes, even if they are involved in the same livelihood strategy in a similar context. The outcome of the existing policies on the livelihoods of women is discussed in the next section since it is related to the issue of gender in agricultural development.

7.4.5 Gender and Participation of Women in Farming Groups

Finally, the study intended to examine existing gender constraints that could prevent the participation and achievement of women in farming groups. In doing so, firstly the study had to analyse how the existing culture and norms that facilitate gender inequalities could affect the participation of women in farming groups. Second, to explore community perceptions on women's involvement in farming groups and to examine the performance of women in farming groups compared to men. Third, to analyse formations, structures, and functions of the groups towards women's involvement, as well as supporting policies towards women's participation in farming groups.

As discussed earlier, women in the country were mainly considered as mothers and housewives and were denied their basic right to education. As a result, a lower number of women are employed by formal sectors, while the majority are involved in agricultural activities. Essentially, the study needed to find out whether women can freely join and work with the farming groups. Through the analysis, I discovered a significant change in this cultural belief towards women; the majority of women are free to join and work with farming groups without much restriction from men/their husbands. The qualitative interviews with the key informants, women group members, non-members, and dropouts suggest that the majority of women are free to participate in farming groups apart from only a few. However, they have to ask permission from their husbands, since for many Sub-Saharan African countries men continue to have control over women's decisions.

The key informants witnessed that they have experienced changes in the cultural beliefs among the community that women were obliged to stay at home to undertake household tasks including taking care of their children. They said, now the situation has changed, women are so much more involved in various economic activities, and their ability to earn their income has increased. As a result, women are financially empowered. An officer from the Cooperative Department said:

> "It is the effect of our culture, whenever you mention a woman you get a picture of a mother who takes care of her children. Currently, women have been taking several roles in addition to their household roles; they get an education, graduate from universities, are employed and support their families. They do not depend entirely on their husbands as it was before" *(*Key informant 05).

The majority of women from all the villages visited said they are free to decide whether to work with farming groups or not; they do not face restrictions from their husbands. The few girls who are not married also said they are not inhibited from working with the groups by their

fathers/parents. Quantitative analysis revealed that many (98.6%) women members strongly agreed that they are free to join farming groups as can be seen in Table 34. Non-members provided similar responses, most of whom said they did not join the groups only because they do not want to for personal reasons, not because they are limited by their husbands. Examples cited included lack of trust in the groups and fear of losing their power to decide on their crops since in a group there is a shared decision.

Table 34: Freedom of Women to Join Farming Groups

Freedom to Participate					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	290	97.6	98.6	98.6
	Agree	1	.3	.3	99.0
	Neither agree nor disagree	3	1.0	1.0	100.0
	Total	294	99.0	100.0	
Missing	System	3	1.0		
Total		297	100.0		

Source: SPSS Data analysis, 2018

By observing similar findings for the majority of women involved in the study, I thought about what has influenced the changes to the general community and decided to find answers from the participants. Their responses based on two things: first, the existence of gender awareness programs in the community; and second, men have realized the value of women's contributions to their family needs. The quantitative analysis revealed the same findings, 98% of the women strongly agreed that increased awareness programs brought changes and 98% agreed that changes were contributed by increasing understanding of their families on the value of women's contributions to their family needs. See the SPSS analysis tables in Appendix B2.

The key informant with 10 years' experience of supporting farming groups told me that gender awareness is among the components for most of the projects implemented by the Government.

This, he thinks, has greatly contributed to raising awareness, not only for women but also for men. He added that:

> "Even the mind-set of men towards women working with groups has changed since they see the benefit. We have seen in our surveys, women are financially empowered and manage to contribute to their household needs. When women manage to contribute to the household needs the mind-set of men should change" (Key informant 02)

Most women said men have no problem with their involvement in farming groups as long as they see the benefits. They feel relieved by the contributions of women to their families. Some women said men are more than happy for women to contribute to their family needs since living conditions have become difficult due to changes in the general economy in the country. The study also discovered that many women spend their income supporting the needs of their families, and this could be why they do not own many assets compared to men. However, a few key informants claimed that women do not own many assets because they prefer buying jewels and things like expensive dresses.

In contrast, a few women said they have heard about some cases of women who are denied the opportunity to join farming groups by their husbands. For example, a non-member from Wawi village said her neighbour is forbidden by her husband to participate in farming groups and other community events.

7.4.6 Perceptions about Farming Groups and the Performance of Women in Agriculture

The study needed to inspect community perceptions about farming groups and the performance of women in agriculture and to discover any differences in terms of performance between men and women farmers in those groups. Information collected from the respondents revealed that, in general, the general community accepts the idea of women working in farming groups due to the benefits demonstrated by these groups. This includes access to support services and social support. Women said that in groups they get to share ideas, opinions, and get solutions for their family problems. The same was observed by Schroeder et al. (2013) that women in groups get to share ideas, not only for agriculture but also for their private lives.

I discovered similar opinions from non-members, many of whom agreed that the idea of working in farming groups is good and is beneficial for women. For example, a non-member from Umbuji village said:

> "They are good, but I have not participated. This is because in groups you work together and the trainers come to provide training, then you know exactly what to do. As

agriculture nowadays if you don't use modern methods, you are only wasting your energy" (Interview 016 Umbuji).

When I asked them then why they were not involved in these groups, their information revealed that some women are not aware of the group work. They have never received information about their management and they were never asked to join. One woman revealed a lack of awareness about the groups by saying:

> "We have not been involved and we are not aware of their achievements; when we know we will join them. We have not been involved to realize what benefits we can get or their importance; no one ever asked me to join" (Interview 029 Kizimbani).

However, some non-members did not join because they have negative opinions about the farming groups, and not because their husbands did restrict them. This, according to my observation, was also contributing to their lack of awareness about the management of farming groups. For example, a non-member from Wawi village said she do not want to join groups because she will lose her freedom to decide on her crops since in groups there is shared decision making. Due to lack of trust, they think some members would run away with money contributed by the group, which does happen in other savings groups, but not in farming groups, according to the available evidence. As indicated earlier, many farming groups keep their savings in the official banks; therefore, it is not easy for one member to steal the money. Even conflicts rarely happen in farming groups. The officer from the Cooperative Department confirmed that they receive fewer cases of conflicts from farming groups compared to other cooperative groups.

I then sought women's views concerning the level of performance between women-only groups and mixed groups of men and women. The analysis of the information suggested that mixed groups have better performance and manage their activities better compared to women-only groups. There are 3 key reasons for this, as discovered by the study: one, men have higher leadership and group management skills; two, men have higher ability to make follow-ups and have better access to support and useful information; and three, they are stronger to manage difficult tasks in agriculture such as tillage and land clearance compared to women. Similarly, the quantitative analysis revealed that 93% of women agreed that mixed groups perform better due to men's higher group management skills, and 97% strongly agreed that mixed groups perform better due to men's greater access to resources (see the analysis tables Appendix B2). As a result, mixed groups manage their activities better and women get support from men in their groups for undertaking difficult tasks. I observed this in the Uroa, Kizimbani 1 and Wawi

groups. Even non-members said they are better off when supported by their husbands for the difficult tasks. FGD with women in Uroa revealed:

> "We would not have achieved all this without men. The size I can manage to plough is not the same as that of a man; we cannot deny they are stronger. We try our best and they also help us; if we were women only in the group we would not have managed to clear all this land" (FGD 019 Uroa).

On the contrary, some women estimated that women-only groups perform better than mixed groups mainly for 2 reasons: women have a greater commitment to their work, and they are more mobilised to work in groups compared to men. For example, Kizimbani 2 believes they achieve better than mixed groups because they made their plans and they have commitments to achieve those plans; and, while women have extra household tasks, men spend their extra time on leisure activities. The quantitative findings show that 62% of participants agreed that women-only groups perform better due to women's greater commitment to working in groups compared to men. Further analysis of the study revealed that they base their argument on the higher number of women in the farming groups. In addition, 90% of women strongly agreed that both groups could perform better if they had similar access to resources and support, the same was noted by Momsen (2019 p172) "there is no evidence that either sex is more efficient than the other when both men and women have equal access to modern methods and inputs". Then, I decided to verify the hypothesis that 'mixed groups of men and women perform better than women-only groups' through further statistical tests. However, since most of the collected data were categorical, only Cross-tabulation and use of the Chi-square test for dependence was possible.

Cross-tabulation and Chi-square Test

In conducting the test, five outcomes were used to compare performance between the two groups: increasing production, support received, ability to support their family, their improved life, and the ability of the groups to achieve members' objectives. The null hypothesis of 'no relationship between group types and each of the outcomes' was used with the alternative hypothesis of 'there is some relationship between the outcomes and the group types'. All outcomes showed a statistical significance of less than 0.05, except for the ability to support family (see the analysis tables in Appendix B3), which indicates the existence of dependence, except for this outcome. Table 35 summarises the results

Table 35: Summary of the Chi-square Test Results

No.	Factors	Chi-square	Degree of freedom (df)	Level of significance	% of cells expected count less than 5
1	Increasing productivity	15.103	2	0.001	0%
2	Support received	35.840	6	0.000	42.9%
3	Ability to support family	5.025	3	0.170	25%
4	Their improved life	17.700	2	0.000	0%
5	Ability to achieve objectives	29.955	3	0.000	25%

Source: SPSS Field Data Analysis.

However, an important rule that no more than 20% of cells should have less than 5 expected cases was violated by other outcomes except for increasing productivity and improved living conditions. As a result, only these two outcomes show a statistical significance for rejecting the null hypothesis, suggesting the existence of dependence between group types to increasing productivity and improved life for members. However, the results are in favour of women-only groups, rather than mixed groups, because an average of 95% of women from women-only groups responded that their productivity has increased, while 82% of women from mixed groups admitted increased productivity. Moreover, 95% of women from women-only groups agreed that they have improved their living conditions compared to 85% of women from mixed groups (see the tables in Appendix B2). This could be because most women from mixed groups were focusing on higher levels of improved living conditions compared to women from women-only groups.

Then I decided to merge the cells to reduce the number of expected cases for the two outcomes; the support received and the ability of groups to achieve members' objectives, and then to repeat the Chi-square test. In doing so, I had to merge the responses, where response 1 for the type of support received by women represents tools, equipment, inputs (fertilizers, seeds, and pesticides), funds, and training; response 2 represents other, response 3 represents none, and response 4 represents training and advice. Also, for the ability of the groups to achieve the objectives, the lowest and low were merged to form lower (represented by 1); high is represented by 2, where higher and highest were merged to represent highly (represented by 3) in the table (see Appendix B3).

The repeated Chi-square tests show a statistical significance of less than 0.05 for both outcomes, which indicates a dependency between the outcomes and the types of the group. However, both tables were computed using a 2 by 2 contingency table, which indicates the absence of responses for other options. Both outcomes were in favour of mixed groups, whereas for the ability of groups to achieve members' objectives, 89% of women from mixed groups agreed that their objectives were highly achieved compared to 68% of women from women-only groups, (seen the cross tables in the Appendix B3). Many women from mixed groups received both kinds of support - 90% for training and 10% for input, funds, and equipment, while all women (100%) from women-only groups only received training and useful advice. However, extra quantitative data need to be collected to allow the application of further statistical tests. Therefore, further studies need to be conducted to measure performances between the two types of groups.

As discussed in the literature, time is one of the gender constraints limiting women's achievements in agriculture because women have dual responsibilities - the household roles and farm work. Therefore, I was interested to find out how women in Zanzibar cope with the issue of time to manage their farm tasks effectively. Surprisingly, many women claimed that they do not have a problem with time, and they can appropriately plan to undertake both roles without affecting either of them. Through quantitative analysis, 99% of women agreed that they have enough time to work for their farms as shown in Table 36. Women insisted they only need a better plan to time for conducting each of these tasks. Some women said they work on their farm early in the mornings and come back home during the afternoons to do their household chores. Others said they have to prepare food for their children before leaving for the farm work, while some of them have older children who support them in the household tasks. Those who have small babies said it is not an excuse since women carry their children to their farms, I did observe that women took their children during group work. They were proud that they manage time effectively to perform both of their roles. In addition, a few women insisted that they can outperform men since men spend their extra time on leisure.

Table 36: Women's Time for Work

Enough Time for Work					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	282	94.9	97.6	97.6
	Agree	4	1.3	1.4	99.0
	Neither agree nor disagree	2	.7	.7	99.7
	Disagree	1	.3	.3	100.0
	Total	289	97.3	100.0	
Missing	System	8	2.7		
Total		297	100.0		

Source: SPSS Data analysis, 2018

Only a few women admitted that time is a limitation for them to achieve better in farming due to their household tasks compared to men. However, according to my observation, I think they can manage both tasks as they have said because the majority of women farm on small sizes of land. One woman told me that she only works on an area of land that she can effectively manage: “it is better to work on an area that you can manage than working on a large area and then fail to manage later in the process” (Interview 0113 Umbuji).

Further, I wanted to discover any existing gender differences in terms of market access between men and women. The study revealed that, generally, there is no gender difference for market accessibility in the country. Men and women face similar challenges, including transportation costs to the central markets, market charges, and lower prices during higher seasons of production. Women from all groups visited witnessed that they do not face any gender-related restrictions in terms of access to markets. Some women said they can even be better than men at bargaining for prices for their crops. A man from Uroa (a mixed group) said they send a woman from their group to sell their peppers at the central market. Moreover, a few men said they trust their wives to sell their produce at the markets.

The notable finding of markets is the absence of collective selling of their crops by all the groups visited, except the Kibokoni SACCOS. This is quite surprising, since collective selling is a common benefit of collective action, as presented by the literature. It could have relieved them from market problems by reducing their transaction costs and increasing their bargaining power for better prices. Suggesting that members of farming groups in the country do not have a clear understanding of cooperative knowledge. The majority of members suggested the establishment of a roster where every district should have their specific day to sell their crops at the central market to avoid lower prices from excessive availability of a particular product at one time.

7.4.7 Structure of Farming Groups and Determinants of Women's Involvement

Finally, the study intended to analyse the structures and functions of farming groups whether they encourage the involvement and full participation of women. To achieve this, the study had to examine the origin of these groups, the development of their structures, and finally the legal framework of these entities, including the policies governing them.

Information collected from the key informants suggests that farming groups started before the 1970s. However, the majority of groups were established with the support of the international organisations for project implementation, such as FINIDA, FAO, and IFAD. Although some groups were established by people with different objectives. The surge in farming groups appeared during the support of the PADEP and IFAD projects, as presented earlier. The key informant from the Ministry of Agriculture reported that these groups were mainly developed for learning purposes; then the Cooperative Department contacts the groups and supports them to register as cooperatives. As a result, many farming groups in the country are registered as supported by the qualitative findings where 85% of the groups involved were registered with only 15% non-registered groups (see the analysis table in Appendix B2).

Among the 8 groups visited, 3 groups admitted that their establishment was influenced by the Department of Cooperatives. These are Mtule AMCOS, Mtakata AMCOS, and Kibokoni SACCOS. Further analysis of the information revealed that the two AMCOS (Mtule and Mtakata) groups were established by the Department of Cooperatives for having many members who can manage greater savings to achieve a larger capital. The groups were established following the implementation of the MIVARF project, which provides 75% of grants for the cost of processing machines to farming groups. The Cooperative Department implemented the project, and after realizing many of the existing groups with an average of 20 members could not manage the remaining 25% contribution. Therefore, they facilitated the formation of Mtule and Mtakata AMCOS for Unguja and Pemba respectively who secured the

support together with Kibokoni SACCOS. However, Kizimbani 2 (a mixed group, but with only 1 man) who were self-mobilised to develop a big network were not approached for this support, while according to our discussion they could afford the amount.

The Kibokoni group was established as a savings and credit cooperative, but members later decided to work on farming activities. In contrast, the remaining 5 groups; Umbuji, Wawi, Uroa, Kizimbani 1, and Kizimbani 2 were all established through the ideas of members themselves. These groups, except Uroa, are the ones selected purposely by the study. The study discovered that the majority of farming groups have similar structures because, their registrations are supported by the same department (the Coop Department), starting from the development of their constitutions, bylaws, and throughout the whole process. The average of 20 members per group is a result of the conditions of various projects, including MIFARF, IFAD, and PADEP which is15-20 members.

Both qualitative and quantitative analysis shows that the majority of farmers are involved in farming activities with only a few who are involved in both farming and cattle keeping the same as the literature revealed. All 8 groups visited were involved in farming with only a few members who were keeping cattle as their individual activities. The Quantitative analysis shows that 84% of the participants were involved only in farming with only 16% who were involved in both farming and cattle keeping. Some of the groups work together in the same plot for learning and then members implement the skills on their individual farms. This means that they have individual farms in addition to their group farms; for example, Umbuji and Kizimbani 2. Uroa and Kizimbani 1 work under the same land divided into individual portions. Mtule AMCOS and Mtakata AMCOS members have their individual farms in different areas, and they meet for learning and other group matters. In contrast, the Wawi group works together on the same farm and if one member does not attend for the work, they just give him/her an alternative task to do.

The study further revealed that each group has developed some kind of protocol to manage their group work and each member should comply. This includes specific working hours, accepted excuses for non-attendance, and compensation in case of unacceptable absence. The protocols are not the same among the groups visited, but they are similar, for example, they all have compensation fees, contributions for production costs, and accepted excuses for absences. Generally, women from both types of groups (women only and mixed groups of men and women) seemed happy and capable of meeting these conditions. They said without observing the conditions the groups could fall apart.

As demonstrated earlier, farming groups are in the Government's interest in the easy provision of support and services to farmers. Essentially, two policies are involved in supporting the formation and functions of farming groups. They both acknowledge the higher contribution of women in agriculture. These are the Agriculture Sector Policy 2003 and the Cooperative Development Policy 2014. However, the Cooperative Policy does not seem to have many clear strategies in favour of women; it mainly talks about equal treatment and provision of support to cooperatives in general. Except for the empowerment of women to take leadership positions, the strategy is 'to incorporate affirmative actions in the coop's bylaws to ensure their greater participation in those positions'. Maybe this has contributed women to hold some leadership positions, as findings revealed.

On the other hand, the Agriculture Policy's aim to promote gender equality in the access and control of productive resources by women is stated along with the promotion of developing farmers' associations. Among the strategies for promoting farmers' associations is to encourage and facilitate the active participation of women in those associations. However, the study did not observe specific strategies and activities targeted specifically at women to improve their work, although the gender awareness programs seem to have made considerable changes in the community's perceptions for women. The policies do not address specific problems facing women such as their lack of ownership to land, their inability to access loans, and their lack of awareness of their basic rights. For example, the study did not observe any strategy/activity that promotes women increasing control over resources. The activities conducted for increasing access to the resources are targeted to the general community, not specifically at women. It is urged that the economic and political development agenda should focus directly on problems facing women to reduce poverty and to tackle constraints of development (Cornwall et al. 2007). Economic development and change affect men and women differently, thus effective policies should be in place to close the gap (Momsen, J. 2010).

7.5 Summary

The chapter started with an introduction with a short outline of the arrangement of the chapter and then discussed, in detail, the support provided to women and farmers in general by the government and NGOs. Then the chapter discusses the skills, knowledge and other capacity building through their groups from the supporting organisations, and how the support has influenced their achievement in agriculture and their wellbeing. The last section discusses how women have been empowered through their participation in farming groups to improve their

livelihoods. The impact of the policies, norms, and community beliefs on gender equality and women development is also included.

Chapter 8 Conclusion and Recommendations

8.1 Introduction

The chapter concludes the study findings by providing recommendations. It starts by presenting the summary of the overall study findings and concludes by giving suggestions on how the farming groups could be improved to support women's development. This is followed by the contribution of the study to the existing knowledge relating to the study topic. Subsequently, the chapter provides recommendations to the policymakers in the study area for better implementation of gender equality in agriculture development programmes. The chapter ends by discussing the limitations of the study and suggestions for future studies.

8.2 Summary and Conclusion

The findings of this study have revealed that farming groups have improved access by poor women to agricultural resources, such as inputs, tools and financial support, which they require to improve their activities. However, the main benefit for women who belong to farming groups is their improved access to training in modern farming methods, which has contributed to their increased productivity and improved their incomes. Through their networks and groups, women benefit from various training sessions, seminars, social events and the sharing of ideas, knowledge, skills and experiences. In turn, these have contributed to their improved confidence in public speaking, enable them to assume leadership positions and have increased their decision-making power in both their groups and within their households. Undoubtedly, farming groups have contributed to the economic and social empowerment of poor women farmers in Zanzibar to some extent. Additionally, their coordination with existing agricultural support organisations (government and NGOs) has improved and they now understand who to contact if they have difficulties.

However, the resources and the support that women receive through their groups are not enough to meet their needs sufficiently and for this reason, women have requested extra support. Similarly, the support and services that women receive from their farming groups differ, certain groups receive more support while others are given less compared to others. This indicates there is a problem in the allocation of the support and services of agriculture provided by the organisations supporting the farming groups. Neither the NGOs nor the government has prioritised special support for women due to their extreme lack of access and control over productive resources. Conversely, farming groups have demonstrated different abilities to achieve the resource needs of their members due to the different capabilities of members in individual groups in terms of their knowledge of better farming methods, their levels of education, their awareness of available support and their access to valuable information.

Consequently, particular groups have better access to available support services and have achieved better implementation and management of their activities compared to others. Hence, the aim of the Agricultural Policy 2003 - to increase access by women to agricultural resources has been partially achieved.

Generally, women have recognised some improvement in their livelihood outcomes by working in farming groups and can provide for some of their families' needs, such as food, clothes, school contributions and healthcare. However, these findings are based on women's perceptions of what a better livelihood outcome means. Many women from farming groups are now confident that they can meet some of their families' requirements and they are no longer entirely dependent on their husbands. However, they do not earn enough to improve their livelihoods according to their objectives; nor do they own many assets. This could be because the majority of women work on small areas of land and make less use of inputs and improved equipment. Moreover, each group member faces similar problems over access to better markets, including lower prices for their crops during the months of higher production**.** However, they hope that their life will improve in the future and that they will achieve their objectives by continuing to work with their farming groups.

Through various gender awareness programmes, the country has experienced various changes in cultural beliefs and norms concerning women. Many parents now send their daughters to school and the number of women in non-agricultural employment has increased. Moreover, men appreciate the contribution of women to their family needs. Hence, women are allowed to participate in various development activities and they are no longer seen only as full-time mothers. The majority of women farmers are free to join and work with farming groups without much restriction from their husbands or other members of their families. However, the gender awareness programmes appeared to focus on increasing women's participation in economic activities similar to the WID approach without discussing the underlying course of poor access and ownership of women to resources. The focus is on increasing women's participation in the productive economy without acknowledging their reproductive tasks and/or how their reproductive roles could limit their productive abilities and performances. The community generally supports the development of farming groups as these enable farmers to increase their access to various types of support due to support organisations' preferences for working with groups rather than with individuals. However, I discovered that those with poorer access to resources are more likely to join the groups rather than those with good access to resources such as land, water for irrigation and improved equipment. However, some women do not join farming groups due to their lack of awareness of their benefits.

While the main aim of the government's agricultural support projects for farmer groups has been to enable the easy provision of training and support to farmers, the majority of farmers have achieved additional collective benefits through their membership. Therefore, many farmers have decided to continue working with their groups to improve their farming activities. Therefore, the Cooperative Department has begun a process of registering those groups officially. This was also recommended by the International Fund for Agricultural Development (IFAD, 2015), which was involved in the support and establishment of the training groups. Nevertheless, members need additional training and skills to manage the functions and development of their groups effectively, so as to achieve their objectives, seeing as the majority of farmers, notably women, join groups with little or no awareness of how agricultural cooperative groups work.

Therefore, more support needs to be provided to enable these groups to flourish and become viable for members, particularly women. Concerning the study findings, I would strongly urge that this support should target women who have poorer access and control over agricultural resources. Special emphasis is needed to increase their access to available support services to improve their performance in farming groups. This includes increasing their awareness of the support available from the Department of Women's Development, the Cooperative Department and other supporting NGOs, since the study has discovered that many women farmers are not fully aware of the opportunities for support that exist from these sources. The efforts should also include increasing control of women over resources as stated in Agriculture Policy 2003. This should be through special programmes to empower women, including increasing their awareness of their basic rights and their rights to decide on their individual life.

Finally, I suggest that collective action could be a suitable starting strategy for poor smallholders to solve their challenges in agriculture. This is particularly the case for poor women farmers who are severely affected by the lack of agricultural resources compared to men. Governments, development partners and other supporting organisations should focus their support on building women's skills and abilities to improved farming methods, group management skills and awareness of their basic rights. This would empower women to achieve better functioning and management of their farming group activities, improve their household relations by making more decisions and eventually, result in better livelihood outcomes. Specifically, the government should develop a special programme for improving women's skills both in managing their groups and improving their farming activities, including adding value to their crops to improve access to markets. Awareness-raising for women concerning their basic rights and the importance of agricultural cooperatives should also include women

who are not involved in farming groups to enable them to make more-informed choices about whether or not to participate in these groups.

8.3 Contribution of the Thesis

To date, only a few studies have been conducted in Zanzibar on agricultural cooperatives and farming groups in particular (Hassan, 2015), and moreover, no study has been conducted specifically on women in farming groups. Conversely, several studies have been performed on agricultural cooperatives and farming groups in Sub-Saharan Africa, although only a few (Ferguson and Kepe, 2011; Schroeder et al., 2013) have specifically focused on women. None of the studies was conducted to establish women's livelihood outcomes from these types of farmers' organisations. Hassan (2015), measured the general success and failure of agriculture cooperatives in Zanzibar regardless of whether they were women-only or mixed groups of men and women. He established that there was no evidence of women who participated in these organisations being successful. Ferguson and Kepe (2011), established that the social and economic benefits of women in Uganda resulted from their participation in farming groups, however they did not demonstrate how members' ability contributed towards better achievements concerning individual groups' activities.

This study aimed to fill that gap by establishing the livelihood outcomes of rural women smallholder farmers involved in these groups by analysing the existing support institutions with reference to their efforts on closing the gender gap in agricultural development concerning women's empowerment and gender equality. The study also demonstrates how some members can influence changes in other members concerning social and economic empowerment in their groups as a result of particular improved abilities compared to other members. This includes a higher level of education, good skills in improved farming methods, increased awareness and access to useful information, besides greater ability to access resources and support for their activities. Thereby, the study aimed to work with women-only groups or groups with a higher number of women, while involving only women members as the study participants to seek their views about the topic. However, due to the higher number of mixed groups (men and women) in the study area, the majority of the selected groups were mixed groups. Nevertheless, this did not interfere with the aim of the study which was to examine the role of farming groups in improving the livelihoods of smallholder women farmers.

This work contributes to the existing knowledge on the outcomes of collective action in agriculture for poor smallholder farmers by providing evidence on how these organisations specifically benefit women. The study has shown that farming groups have demonstrated notable advantages for women by increasing their access to the resources needed to improve

their activities. Thus, women have improved their incomes and gained the ability to support their families. However, additional efforts should be in place to empower women and increase their skills in the farming groups' management and functioning, including increasing their awareness of the available support services for agriculture. The focus should be on increasing their power and control over productive resources and not only increasing their access to essential resources. Coordination between the support organisations and women in farming groups should also be improved to ensure that women receive the necessary support.

The current findings add substantially to our understanding of farming groups in the country, including their establishment, formation and the extent to which they involve women. I explore community perceptions about the general acceptance and performance of these groups. This knowledge will make the government and other support organisations aware of the status of farming groups in the country, including the challenges they face. This helps identify the kind of support that the groups need to improve their performance. For example, the government should realise that they also need to provide subsidies for vegetable production in which the majority of farmers and groups are involved and not just for rice production.

The most significant contribution of this study is the observation of the importance of the contribution of some individuals to increase the capabilities of other group members. The study has revealed that members with higher levels of education, improved awareness, skills and self-esteem make an important contribution to the improved performance of other women in their farming groups. The presence of such individuals has allowed these groups to improve access to information and support compared to other groups that lack members with these improved abilities. This suggests that providing essential knowledge and skills to individuals can improve their ability to manage their groups and improve their activities, indicating that governments and organisations that support collective action in agriculture should consider improving individuals' capabilities and skills to achieve better livelihood outcomes for other members. This is particularly the case for groups with women members who are characterised by their low levels of education, poor management skills and lower access to beneficial information. However, the capacity building should be in agreement with the programme of empowering women and building their self-esteem and self-confidence to avoid domination of other powerful and influential leaders (Luttrell, 2009).

The study established a basic understanding of livelihood outcomes for women who are involved in farming groups in the country and contributes to information on collective action for women involved in agriculture in Sub-Saharan Africa. The study contributes evidence regarding the social empowerment of women by farming groups, in addition to their well-

known economic benefits. Women in the groups have demonstrated increased abilities in public speaking, leadership and self-confidence, which is similar to the observations made by Ferguson and Kepe (2011), for female farming group members in Uganda. This demonstrates that while women join farming groups principally to improve their productivity and increase their income, they also become socially empowered. This suggests that these groups can be used as an agent of change for empowering women and reduce the existing gender gap for women in agriculture to achieve gender equality. Nevertheless, the supporting organisations should commit their efforts to end the discrimination of women and the domination of men over women in all aspects of women's lives.

8.4 Suggestions and Policy Recommendations

The findings that I have presented suggest that farming groups could be an effective mechanism for supporting poor rural smallholder women farmers to improve their performance in agriculture, seeing that these organisations have improved women's access to agricultural resources which contributed to their increased productivity and improved incomes. The findings also suggest that these organisations have empowered women by expanding their social networks and increasing their social power by improving their self-confidence and their ability to assume leadership positions and make decisions. However, further important actions are required by prescribing what is essential to advance women's equality and not only focusing on educating women and girls for economic development (Cornwall et al., 2007). For example, the government and the NGOs should increase awareness of women as regards the laws and opportunities for land ownership. The majority of women are not aware that they can apply for land ownership via a government grant. The gender awareness programmes should include discussion of social relations to eliminate norms that discriminate against women and undermine their rights in the community.

Findings suggest that most women in farming groups focused on selling their crops rather than just using them to feed their families. Many of these women seek support to obtain processing machines to increase the value of their crops and better commercialise their farming activities. The government and other support organisations should be aware of this and extend their support towards helping women add value to their crops and achieve higher returns. For example, the Department of Women's Development could target support for women in farming groups to enable them to invest in small businesses to market their crops. The Ministry of Agriculture could coordinate links between women in farming groups and the NGOs that can support them in adding value to their crops. For instance, processing crops to increase their

shelf life will allow women to avoid accepting lower prices for fresh produce during times of high production and will motivate them to increase productivity.

The findings also suggest that agricultural cooperative knowledge among members in farming groups is not well understood because most groups were established for the dissemination of modern agricultural skills. The majority of groups were registered as cooperatives through members' intentions to continue working as groups. Furthermore, poor understanding of cooperative knowledge among members is exacerbated by the absence of a Cooperative Policy, which governed cooperative management and development in the country until recently (2014). The department implementing the policy has recently started to register the groups and to provide basic cooperative knowledge to the group members. This includes management, functions, regulations, development and the advantages of cooperative groups in general, besides the challenges that members may face, as well as ways to reduce conflict among group members. Therefore, it is evident the department has not reached many members to provide this basic knowledge.

These findings suggest several courses of action be targeted at different departments that support women and agricultural development in the country with similar aims but different roles and strategies. A key policy priority for the Department of Cooperatives should be the provision of cooperative knowledge to farming groups, particularly for women members to increase their group management skills and understanding of the groups' functions and to enable them to decide which group formations are better at achieving the best livelihood outcomes. Understanding of cooperative knowledge will enable members to recognise further collective benefits, such as raising their voices and the collective sale of their crops, which could improve their access to better markets. Cooperative knowledge should be available to all farmers in general not only to farming group members. Thus, female non-members will be able to make an informed choice on whether or not to join the farming groups.

The government have done much to help farmers to increase the amount of crops they produce. Nevertheless, now is the time to focus on helping farmers to access better markets because farmers do not have access to enough markets to sell their crops and hence, they have to sell their crops at lower prices due to oversupply, particularly in the seasons where production is higher. This can be accomplished by supporting farmers to achieve value addition through the farming groups. Women have shown interest and determination to work in farming groups, which is an additional advantage for the support organisations given their preferences for groups. Therefore, policy objectives should be translated into clear strategies and activities that will focus on poor women directly so as to support their activities for improving their general

wellbeing. For example, the support organisations should provide loans to women for inputs and tools and processing machines for the groups with good capital. The government and NGOs could establish food-processing activities where women from the groups who cannot afford higher capital could sell their crops for processing. Both of these options would reduce the problem of markets for women in their farming groups.

Continued efforts are necessary to ensure that rural women are more informed about the support services available for farmers to make this support more accessible to women. I would like to recommend that the Department of Women's Development extend their support to women's farming groups, as the current support focuses primarily on economic groups which are involved in small businesses. They should be aware that farming activities, in which the majority of women are involved, could be improved by including small business through value addition and the processing of the crops. Moreover, information on basic human rights and the rights of children should be made available to all women and be incorporated with general knowledge on improving income-generating activities provided to the economic groups, in the same way that the gender awareness programme was incorporated into agricultural development projects.

In taking this study seriously, policymakers should seek to understand the real picture of a poor rural smallholder woman farmer before designing any development projects. This includes their low levels of education, poor access to resources and beneficial information, together with their lack of freedom to bargain and decide on their welfare. Thus, they could produce better ways to support women and not just be pleased by the numbers of women involved in various projects. I would recommend that policymakers provide special support in favour of these poor women who are involved in farming groups. It will be easier to empower them in groups in the same way that it was easy to train them to apply enhanced farming methods. Even the follow-up and evaluation of the outcome of the support provided would be easy. The government should allocate a special fund to support these women by providing them with loans in the form of seeds, fertilisers, pesticides, along with tools and equipment, rather than direct funds. This will encourage motivation and increase women's commitment to working in farming. Ultimately, they will manage to support their activities from their incomes.

An important observation of the policies supporting women in Zanzibar is about the implementation of those policies - the aims are quite promising although the study did not observe clear activities targeted at achieving those aims, which is possibly why Gender Policy 2001 did not achieve its objectives and Gender Policy 2016 must be developed. I strongly recommend that if the policymakers, government officials and development implementers.

want to eliminate the existing values, norms and cultures that hinder gender equity, equality and the empowerment of women, they should move away from simple solutions such as income-generating activities and awareness-raising campaigns they consider suitable for women (Win, 2007). They should be willing and committed to eliminating cultural practice and patriarchal attitudes towards women, which also inhibit the application of laws and policies towards gender equality. The mobilisation campaign, gender sensitisation, training and public debates should focus on a clear gender discrimination issue connected to the violation of women's human rights and the legal framework should be there to support the action (Longwe, 2000). Likewise, women's power to negotiate their burdens and their role in decision-making should be addressed (Chant, 2011).

The community has responded well to various development projects. We have seen changes in attitudes towards women's participation in development activities, as demonstrated by the study. For example, the achievement of reducing malaria cases in the country is the result of both government commitment and good responses by the community. Therefore, policymakers and development partners should perceive people's attitude as an advantage to facilitate activities supporting women's development and the elimination of local norms and beliefs that hinder the full participation and achievement of women in economic, social and political empowerment. A key policy priority should be to plan to develop the agricultural sector's contribution to the general economy by providing direct and specific support to women farmers by empowering women in terms of social, economic and political factors. By doing so, they would have an equal voice with men and freedom of choice regarding their wellbeing and not just be there to support their families and the general economy of their country.

8.5 Limitations and Future Studies

Finally, certain important limitations need to be considered concerning the study. The first involves the selection of farming groups. Since the sampling of qualitative methods was purposive sampling, the plan was to use the list of all registered groups from the Cooperative Department to select the desired groups according to the desired selection criteria. However, the data record from the department was not available at the time due to technical issues. Consequently, the groups were selected with the assistance of agriculture and cooperative officers in the districts. This means that we may have missed groups that were established longer or those comprising women with greater experience, which would provide different results. The absence of the record also affected the sampling for the quantitative data collection. Thus, the sampling was not actual random sampling due to the absence of the sample frame. Due to time limitations relating to the fieldwork, only 300 respondents were selected for the

questionnaire instead of the 400 calculated sample size. Second, evidence of the increased productivity and improved income for women was not measured in terms of an estimated quantity or compared over a given time. Only the women's perceptions were used to determine whether the farming groups have improved their livelihoods. Specifically, evidence of increased productivity and income for women was not measured quantitatively.

Further work is essential to measure the increased productivity of women who are involved in farming groups and to establish evidence of their increased income. More research needs to be completed to establish women's achievements through farming groups by comparing women-only groups to mixed groups of men and women. Additional research should be undertaken to measure women's empowerment via farming groups. The study has observed some improved abilities in women who participate in farming groups, such as the increased ability to assume leadership positions and participate in public speaking. To develop a broader picture of women's involvement in farming groups in Zanzibar, further studies will be necessary to provide the exact number of farming groups and their composition via women-only and mixed groups of men and women with the exact number of women members in each group and their main agricultural activities. Obtaining the actual number of women involved in farming groups will facilitate better planning for any project that aims to support women in farming groups.

8.6 Summary

The chapter summarises the overall findings of the study by providing suggestions and recommendations to improve the management of farming groups as regards better livelihood outcomes for poor women farmers in the country. Additionally, study limitations and suggestions for future studies are also provided.

Appendix A: Qualitative Phase Supplementary Materials.

A1. Interview Guides for Members

The Individual Farmers Interview Guide: Members

Background information of participants

District: ……. Village: …… Member ( ) Non-member ( ) Drop out ( )

If member name of the group: …… Main livelihood activities: …..…….……

Experience in agriculture (years): ……. Level of education: None ( ) Primary ( ) Secondary ( ) Other (specify)……

Age group: 18-25 ( ) 26-35 year ( ) 36-45 years ( ) 46-55 ( ) 56-above ( )

Name: …… Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To find out how groups function	
1. What is your opinion about the performances of the farming groups? 2. How farming groups can achieve better?	- About the general idea - Benefits - Challenges
Objective 2: To determine livelihood changes as a result of a group membership	
3. What are the main changes that have occurred in your day to day life during your membership time differently when you were not a member? 4. How your ability to support the needs of your family has changed throughout your group membership? 5. How the group has been able to make you achieve your objectives? 6. What is a better livelihood/life from your own opinion? 7. How the group has improved your life?	- Increase of income, ownership of assets, better food, and improved shelter - Ability to access services such as health, education, electricity, and clean water.
Objective 3: To understand the building of human and social capital among members	
8. How do you learn about agriculture? 9. How the group influences your agricultural methods?	- Origin of your knowledge of agriculture - Changes in agricultural methods

10. How the group has influenced your access to useful information, support, and services? 11. What personal changes have you experienced as a result of being in the group? 12. How the group has influenced those changes?	- Training and capacity buildings programs - Awareness of the available support, your rights, and existing policies. - Changes of attitude and personal characters, power of household decision, a decision on expenditure own income, community involvement, open speaking, and speaking for your rights.
Objective 4: To discover gender constraints limiting women achievements	
13. What prevents you from effectively work and benefit in groups as women? 14. What are the differences between men and women groups regarding performance and achievements? 15. How can you work and benefit in groups similar to men?	- the decision to joining a group - Enough time to undertake the group activities - Ability to take leadership positions and participate in the planning and decision-making process - Access to resources, support, information and skills - Ability to decide for crops types or particular activities - Ability to decide on your produce and income

A2. Interview Guides for Non-members

The Individual Farmers Interview Guide: Non-members

Background information of participants

District: ……. Village: …… Member ( ) Non-member ( ) Drop out ( )

If member name of the group: ……. Main livelihood activities: …….

Experience in agriculture (years): ……. Level of education: None ( ) Primary ( ) Secondary ( ) Other (specify)……

Age group: 18-25 ( ) 26-35 year ( ) 36-45 years ( ) 46-55 ( ) 56-above ( )

Name: …… Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To find out opinions of non-members on groups achievements	
1. What is your opinion on the performance of the farming groups? 2. What aspects may contribute to better achievements of the farming groups? 3. What aspects may contribute to the failure of the farming groups? 4. Why have you left the group? (for dropouts) 5. Why you are not involved in these formations? (non-members) 6. How farming groups can achieve better?	- Regarding the general idea of group establishment - Benefits - Challenges
Objective 2: To determine non-members opinions on farming groups and livelihood outcomes	
7. What major changes have you observed from women belongs to farming groups? 8. How farming groups impact the livelihoods of women?	

9. How the livelihood of women farmers can be improved?	
Objective 3: To discover associated gender issues of the farming groups	
10. What is the perception of the community about women's involvement in the farming groups? 11. What differences have you observed between men and women groups? 12. Can a woman freely decide to join, work and benefits in groups similar to men? How?	- Access to productive resources, skills, experiences, and general achievements. - The average time of women spends in group activities (hours, days).

A3. Key informant interview guides

The Key Informants Interview Guide: The Ministry of Agriculture

Background information of the department

Department: ……. Region: …… District: ……..
Name of interviewee: …….. Position: ……..

His/her main role: …… Gender: Male ( ); Female ( )

Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To understand the need for farming groups establishment	
1. Why do we need farming groups? 2. How they are established? 3. How do you find farming groups significant? 4. Why do we have formal and informal groups?	- How did they originate in the country? - Observed differences between individual farmers and groups - What is the role of cooperative policy in the formation of groups?
Objective 2: To find out the contribution of groups to the livelihood outcomes of women	
5. How can farming groups improve women's life? 6. What changes have you noticed from women's livelihood?	- Any assessment done in terms of their production, income and other aspects of life - Observed changes of women resulting from their group participation
Objective 3: To understand the impact of government and NGOs to groups achievements	
7. What support do you provide to farming groups? 8. How do you decide for a group to support? 9. How can you assess if the group works? 10. What works well and what don't?	- What are other supporting organisations work with you? - Kind of support such as extension services, inputs, improved tools, and seeds. - How often do you provide support? - Support provided in case of difficult situations such as droughts floods paste, and diseases. - How does the group qualify to receive your support? - Do you provide special support for women groups?

11. How can the group's performances improve?	
Objective 4: To find out gender issues that can prevent women achievements in groups	
12. What differences have you noticed between men and women groups? 13. From your experience what gender issues have you observed preventing women to work effectively in the farming groups? 14. How can women achieve better in farming groups?	- What can be the explanation for the differences?

The Key Informants Interview Guide: The Department of Cooperative

Background information of the department

Name of the ministry: …… Department: …… Region: ……...
District: …… Name of interviewee: …… Position: ……

His/her main role: …… Gender: Male ( ); Female ( )

Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To understand the need for farming groups establishment	
1. Why do we need farming groups? 2. How they are established? 3. How do you find farming groups significant? 4. Why do we have formal and informal groups?	- How did they originate in the country? - Observed differences between individual farmers and groups - What is the role of cooperative policy to the farming groups?
Objective 2: To find out the contribution of groups to the livelihood outcomes of women	
5. How can farming groups improve women's life? 6. What changes have you noticed from women's livelihood?	- Any assessment done in terms of their production, income and other aspects of life - Observed changes of women resulting from their group participation
Objective 3: To understand the impact of government and NGOs to groups achievements	
7. What support do you provide to farming groups? 8. How do you decide which group to be supported? 9. How can you assess if the group works? 10. What works well and what does not? 11. How can the groups' performances improve?	- What are other supporting organisations work with you? - Kind of support provided (Capacity building, financial support, awareness-raising). - How often do you provide support? - How does the group qualify to receive support? - Do you provide special support for women groups?

Objective 4: To find out gender issues that can prevent women achievement in the groups	
12. What differences have you noticed between men and women groups? 13. What is the presentation of women in farming groups compared to men? 14. From your experience what gender issues have you observed preventing women to work effectively from the groups? 15. How women can achieve better in groups?	- Their number in groups, number of women groups, their presentation in management positions - What can be the explanation for the existing presentation? - Do the existing requirements for the establishment of farming groups provide a fair opportunity for women involvement? How?

The Key Informants Interview Guide: The Department of Women Development

Background information of the department

Name of the ministry: …….. Department: …… Region: ……
District: …… Name of interviewee: …… Position: ……

His/her main role: ……. Gender: Male ( ); Female ( )

Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To find out the support being provided to women farming groups	
1. What support do you provide to women farming groups? 2. How can women access your support? 3. What changes have you observed from women as a result of your support?	- Kind of support such as capacity building, loans, and awareness-raising on women's rights and gender issues. - Whether the support is targeted to the farming groups or individual women farmers - Other supporting organisations who work with you - How do women know about the existence of your support? - Such as skills, increased awareness on their basic rights and improved life (evaluations, reports, assessments)
Objective 2: To find out gender issues that can prevent women achievements in the groups	
4. From your experience what gender issues can prevent women to work in groups and benefit from agricultural activities? 5. Do you think women can work and benefit in farming groups/agriculture similar to men? 6. What differences have you observed between men and women farming groups/activities?	- Existing cultural norms and beliefs that you have identified preventing women to work and benefit in agriculture and other development activities?

7. How can women achieve better in agriculture and groups?	- How?

The Key Informants Interview Guide: The Non-government Organisations (NGOs)

Background information of the NGO

Name of the organisation: …… Type: …… Main function: …….. Region: …… District: …… Name of interviewee: …….. Position: …….. His/her main role: …… Gender: Male ( ); Female ( )

Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To understand the necessity of farming groups in general and to the livelihood of women	
1. What is the importance of farming groups? 2. What changes have you observed from women within farming groups? 3. What changes have you noticed from women's livelihood within farming groups? 4. How those changes have occurred?	- Why NGOs prefer to work with groups rather than individual farmers? - How do you find groups significant? - Observed changes and/or benefits from evaluations and assessments - Reports show women increased production, income, participation, power of decision making, community involvement and other related social improvements
Objective 2: To discover the contribution of NGOs to the farming groups	
5. What support do you provide to farming groups? 6. How do you select groups to support? 7. How can you assess if the group works through your support? 8. What works well and what don't? 9. How can the group's performances improve?	- Kind of support such as funds, inputs, loans, training and supporting visits. - How do you manage to provide support? - How does the group qualify to receive your support? - Do you provide special support for women groups?
Objective 3: To find out gender issues that can prevent women achievements in the groups	

10. What differences have you observed between men and women groups? 11. From your experience what gender issues have you witnessed preventing women to work effectively in the farming groups? 12. How can women achieve better in farming groups?	- What is the explanation for the differences? - What cultural norms and beliefs you have identified preventing women to benefit in agriculture/development activities? - Do you provide special support in favour of women groups? - Do you provide a community awareness program on gender issues?

A4. Respondents Consent Form

The Participants Informed Consent and Introduction to the Research:

Good morning/afternoon, my name is …… I am a PhD student at Newcastle University from the United Kingdom.

I would like to invite you to participate in the discussion of the study which is about the role of the farming groups in the livelihood improvement of women smallholder rural farmers in Zanzibar. The study is the requirement for the fulfillment of the Doctoral Program at the university.

The information provided will be treated as confidential and will only be used for the purpose of the study and the results of the study will be available for academic use. I would like to declare that your participation is completely optional which means that you can decide whether to participate or not, also you can decide to withdraw your participation at any point in the process. Your contribution is highly valued for the success of the study and your participation will be so much appreciated, I hope you will have a nice opportunity to share your experiences and opinions on this important topic. No one will be personally identified in a written report of the research and all the information you provide will be confidential within the group.

I agree to participate in the discussion

Name: …….. Gender: Male ( ); Female ( )

Age group: 18-25 ( ); 26- 35 ( ); 36-45 ( ); 46-55 ( ); above 55 years ( )

Level of education: Primary ( ); Secondary up to form II ( ); Secondary up to form IV ( )

Advanced level ( ); Certificate ( ); Diploma ( ); Undergraduate ( ); Masters ( )

Occupation: …….. Other activities: ….……..

The year joined the group: ……../membership duration: ……...

Village: …….. District: …….. Region: ……

Group's name: …… Signature: …….. Date: …../…. /…….

A5. FGD guide

The Focus Group Discussion Interview Guide

Background information of the groups

District: …… Village: …… Group name: ……

Group main activities: …… Is the group Registered: YES ( ), NO ( )

Group type: Formal ( ); Informal ( ); Cooperative ( ); Other (specify)……

Year of establishment: …….. Period of establishment: Less than 3 years ( );

Between 3-5 years ( ); Between 5-7 years ( ); More than 7 years ( )

The total number of members: …… Men ……. Women ……

Date: …./…../2017 Time: ……

Main questions:	**Additional questions** and/or prompts
Objective 1: To find out how the group function	
1. What are the strengths and weaknesses of this group? 2. How you could improve it? 3. What resources do you need to support your activities? 4. How do you access the resources and services?	- Regarding group activities, and - group achievements - Types of resources - Support and services - Land, inputs, credits, extension services, useful information, and market access.
Objective 2: To determine livelihood changes within the group	
5. What changes the group has made to your life condition? 6. What is a better livelihood/life? 7. How the group has made your life better?	- Ability to achieve your objectives. - Increase of income and/or ability to support household needs. - The ability of the family to access services such as health, education, electricity, and clean water. - Increase of assets ownership. - Differences before and during the group
Objective 3: To understand the building of human and social capital among members	
8. How do you learn about agriculture?	- Origin of knowledge of agriculture - Changes in agricultural methods

9. How the group influences your agricultural methods? 10. How the group influences your behaviour? 11. What changes have you experienced through the group?	- Training and capacity buildings programs - Changes in attitude, personal characters, and household relations - Awareness of your rights and existing policies - What sort of things that you are now doing differently from when you were not in the group?
Objective 4: To find out the impact of supporting agencies to members outcomes	
12. What support and services do you receive? 13. How do you access the support? 14. What changes have you experienced through the support?	- List of supporting government and NGOs - Capacity building, extension services, financial support, inputs, awareness-raising - How often do you receive support? - How do you know the existence of these organisations? - How do you present your needs/proposal? And how often? - Awareness, skills, group management, community involvement, and participation - Greater group achievement increased production and better livelihood.
Objective 5: To discover associated gender issues within groups	
15. What can prevent you from working effectively in groups as a woman? 16. What are the differences between men and women groups concerning performance and achievements? 17. How can you work and benefit in groups similar to men? 18. How does the group structure allow for your full involvement and participation?	- Ability to decide for joining a group - Enough time to undertake group activities and achieve your objectives - Ability to take leadership positions and participate in the planning and decision-making process - Access to productive resources, skills, and experiences - Ability to decide for crops types or particular activities - Ability to decide on your produce and how to spend your income - Average time spent in group activities (hours, days)

	- How did you come out with the idea of establishing the group? - What is the governing structure of the group? - How the group structure was developed? (yourself, government, NGOs) - What is the presentation of women in the management body? - How do you come out with your plans and decisions?

A6. Observation guide

The Observation Guide

Background information of the group

Region: ……. District: …….
Group name: ……. Main activities: ……
Is the group Registered: YES ( ), NO ( )

Group type: Formal ( ); Informal ( ); Cooperative ( ); Other: .....

Date: …./…../2017 Time: …….

During their farming activities:

1. Kind of agricultural activities
2. Types of crops
3. How activities are implemented
4. Other group activities

During their meetings:

1. Their numbers/attendances
2. Women's contributions
3. Their participations
4. Confidence
5. The way they reach conclusions
6. Women involvement in planning and decision making

Appendix B: Quantitative Phase Supplementary Materials

B1. The questionnaire

Questionnaire

The Participant's Informed Consent and Introduction to the Research:

Good morning/afternoon, my name is …… I am a PhD student at Newcastle University in the United Kingdom.

I would like to invite you to participate in the interview of the study which is about the role of the farming groups in improving the livelihood of smallholder women farmers in Zanzibar. The study is the requirement for the fulfillment of the Doctoral Program at the university.

The information provided will be treated as confidential and used only for the purpose of the study and the results of the study will be available for academic use and no one will be personally identified in a written report. I would like to declare that your participation is completely optional which means that you can decide whether to participate or not, also you can decide to withdraw your participation at any point in the process. Your contribution is highly valued for the success of the study and your participation will be so much appreciated, I hope you will have a nice opportunity to share your thoughts and experiences on this topic.

I agree to participate in the interview

Given name: ……. Gender: Male ( ); Female ( )

The Background information

Marital Status: Married ( ) Single ( ) Widow ( ) Divorcee ( )

Region: …… District: ……. Village: ……

Group name…… Group type: Women only ( ) Men and women group ( )

Registered ( ) Non-registered ( ) Year of establishment …… Year of registration ……

Year joined the group …… Total members ……. Men ( ) Women ( )

Group activities: Farming only ( ) Farming and cattle keeping ( ) Other (specify) ……

Types of crops: Vegetables only ( ) Fruits and vegetables ( ) Others ……

Years in agriculture: ……. Level of education: None ( ) Primary ( ) Secondary form II ( )

Secondary form IV ( ) Others (including prefer not to say)……

Age group: 18-25 ( ) 26-35 ( ) 36-45 ( ) 46-55 ( ) 56-above ( ) Date: …./…../2018

Part one: Resources, support and services that women need to improve agriculture	
1	Do you own your farmland? Yes ☐ No ☐ Don't know ☐
2	If 'no' how do you access the land?

	Have borrowed from local owners ☐ Borrowed from the government ☐ Other …….
3	Do you have enough land? Yes ☐ No ☐ Don't know ☐
4	Would you like to farm more land? Yes ☐ No ☐ Don't know ☐
5	What support have you received through the group? (tick all that apply) Tools & equipment ☐ Inputs (seeds, fertilizers, pesticides) ☐ Funds ☐ Advices ☐ Training ☐ Other (mention)…… None ☐
6	Who provides you with the above support? Government ☐ Political leaders ☐ NGO's ☐ Others (mention)……. Private support ☐
7	How often do you receive training in your group? >10 times a year ☐ 6-10 times a year ☐ 3-5 times a year ☐ 1-2 times a year ☐ 0 ☐
8	In general how satisfied are you with those training? Highly satisfactory ☐ Satisfactory ☐ Less satisfactory ☐ Not satisfactory ☐ Don't know ☐
9	What kind of training do you prefer to be provided? (tick all that apply) Agriculture ☐ Group management ☐ Human rights ☐ Health and nutrition ☐ Other (mention)……
10	Do you think the group has increased your access to training? Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐

11	If this support were not available from the group where else could you go for it? Ministry of agriculture ☐ Coop department ☐ Women department NGO ☐ (Name)……..…… Other……. Don't know ☐
12	How do you access seeds, fertilizers, and pesticides? Purchasing through group contributions ☐ Individual purchasing ☐ Others (mention)……..
13	If you buy through a group, could you afford to buy on your own? Always ☐ Sometimes ☐ Never ☐
14	Are you a member of any savings and credit scheme? Yes ☐ No ☐ Don't know ☐
15	If yes is the saving scheme within or outside your farming group? Within the group ☐ Outside the group ☐
16	What type of saving scheme do you have? SACCOS ☐ VICOBA ☐ VICOE ☐ ROSCA ☐ JECA ☐ Other……
17	If none of the above, how do you access financial support? A loan from banks ☐ Loan from family and friends ☐ Other specify……. Don't receive the support ☐
	Part two: Gender constraints preventing women's full achievement in the farming groups

18	How much do you agree or disagree with each of the following statements? a) My husband/father/brothers/uncles are happy for me to participate in the farming group? Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ b) Gender awareness programs have made it easier for me to work with farming groups. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ c) My family now has a better understanding of my contribution to the family needs. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ d) I have enough time to do all my agricultural work. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ e) Women only groups perform better because women are more committed to working in groups than men. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ f) Mixed groups of men and women perform better because men have higher group management skills. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ g) Mixed groups of men and women perform better because men have better access to available support and services. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐ h) Both types of groups perform similarly if they have similar access to resources, support, and services. Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐
	Part three: Group performance towards social and economic changes of women
19	How much have you improved your ability to speak openly through group participation? Highly Increased ☐ Increased ☐ Slightly increased ☐ Not increased ☐ Don't know ☐
20	What has contributed to those changes? Influenced by a specific member of the group ☐ Motivated by others in the group ☐ Have realised the need to contribute ideas ☐
21	What specific support do you receive from the group? (tick all that apply) Support for my family problems ☐ Advices about my business ☐ Support for my farm tasks ☐ Other……

22	How much have you managed to increase the amount of your production by working with the group? Highly increased ☐ Increased ☐ Slightly increased ☐ Not increased ☐ Don't know ☐
23	What has contributed to increased production? (tick all that apply) Use of better farming methods ☐ Use of irrigation ☐ Use of fertilizers ☐ Use of pesticides ☐ Other……
24	How much you have improved your ability to support your family through group participation? Highly improved ☐ Improved ☐ Slightly improved ☐ Not improved ☐ Don't know ☐
25	How much do you think your general life condition has improved through working with the group? Highly improved ☐ Improved ☐ Slightly improved ☐ Not improved ☐ Don't know ☐
26	How much do you agree or disagree with the following statement: I believe that my general life condition will improve in the future through working with the group? Strongly agree ☐ Agree ☐ Neither agree nor disagree ☐ Disagree ☐ Strongly disagree ☐
27	From the scale of 1 – 5 how useful has being in the group been to help you achieve your personal objectives such as increasing your income and increased ability to support your family needs? (5 = highest score and 1 = lowest score) ☐
28	Is there anything else you would like to tell me about your experience with agricultural groups? …… …… …… Thank you!

B2. The SPSS analysis tables

The SPSS Analysis Tables

Group type					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	women only	90	30.3	30.3	30.3
	mixed group	207	69.7	69.7	100.0
	Total	297	100.0	100.0	

Age of participant					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	14	4.7	4.8	4.8
	26-35	57	19.2	19.5	24.2
	36-45	83	27.9	28.3	52.6
	46-55	92	31.0	31.4	84.0
	more than 56	47	15.8	16.0	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Group status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Registered	254	85.5	85.5	85.5
	Non-registered	43	14.5	14.5	100.0
	Total	297	100.0	100.0	

Group activities					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farming only	244	82.2	83.8	83.8
	Farming and cattle	47	15.8	16.2	100.0
	Total	291	98.0	100.0	
Missing	System	6	2.0		
Total		297	100.0		

Level of education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	96	32.3	32.8	32.8
	Primary	56	18.9	19.1	51.9
	Secondary form 2	81	27.3	27.6	79.5
	Secondary form 4	60	20.2	20.5	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Marital status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	225	75.8	78.4	78.4
	Single	10	3.4	3.5	81.9
	Widow	23	7.7	8.0	89.9
	Divorcee	29	9.8	10.1	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Land ownership					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	112	37.7	37.7	37.7
	no	185	62.3	62.3	100.0
	Total	297	100.0	100.0	

Land size satisfaction					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	160	53.9	54.6	54.6
	No	133	44.8	45.4	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Need to farm more land					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	154	51.9	52.9	52.9
	No	137	46.1	47.1	100.0
	Total	291	98.0	100.0	
Missing	System	6	2.0		
Total		297	100.0		

Access to training					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	256	86.2	92.4	92.4
	Agree	21	7.1	7.6	100.0
	Total	277	93.3	100.0	
Missing	System	20	6.7		
Total		297	100.0		

Frequency of training					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	>10 times a year	1	.3	.3	.3
	6-10 times a year	17	5.7	5.7	6.1
	3-5 times a year	83	27.9	28.0	34.1
	1-2 times a year	180	60.6	60.8	94.9
	0 times	15	5.1	5.1	100.0
	Total	296	99.7	100.0	
Missing	System	1	.3		
Total		297	100.0		

Training Satisfaction					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly satisfactory	14	4.7	4.8	4.8
	satisfactory	6	2.0	2.1	6.9
	less satisfactory	24	8.1	8.3	15.2
	not satisfactory	241	81.1	83.1	98.3
	don't know	5	1.7	1.7	100.0
	Total	290	97.6	100.0	
Missing	System	7	2.4		
Total		297	100.0		

Training preferred					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	9	3.0	3.1	3.1
	1&2	18	6.1	6.2	9.2
	1-3	26	8.8	8.9	18.2
	1-4	187	63.0	64.0	82.2
	1,3 & 4	15	5.1	5.1	87.3
	1 & 4	1	.3	.3	87.7
	1 & 3	30	10.1	10.3	97.9
	1-3	5	1.7	1.7	99.7
	1,2 & 4	1	.3	.3	100.0
	Total	292	98.3	100.0	
Missing	System	5	1.7		
Total		297	100.0		

Access to fertilizer and pesticides					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	group purchasing	265	89.2	94.3	94.3
	individual purchasing	16	5.4	5.7	100.0
	Total	281	94.6	100.0	
Missing	System	16	5.4		
Total		297	100.0		

Affordability to buy					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	6	2.0	2.2	2.2
	Sometimes	207	69.7	75.3	77.5
	Never	62	20.9	22.5	100.0
	Total	275	92.6	100.0	
Missing	System	22	7.4		
Total		297	100.0		

Saving scheme membership					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	239	80.5	85.1	85.1
	No	42	14.1	14.9	100.0
	Total	281	94.6	100.0	
Missing	System	16	5.4		
Total		297	100.0		

Saving scheme existence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	in the group	118	39.7	49.0	49.0
	outside the group	116	39.1	48.1	97.1
	Both	7	2.4	2.9	100.0
	Total	241	81.1	100.0	
Missing	System	56	18.9		
Total		297	100.0		

Who provides the support					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government	8	2.7	3.6	3.6
	Political leaders	191	64.3	85.3	88.8
	NGOs	1	.3	.4	89.3
	Private support	15	5.1	6.7	96.0
	Government & Political leaders	6	2.0	2.7	98.7
	1 & 4	3	1.0	1.3	100.0
	Total	224	75.4	100.0	
Missing	System	73	24.6		
Total		297	100.0		

Support received					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inputs	1	.3	.3	.3
	Training	1	.3	.3	.7
	1 to 5	19	6.4	6.4	7.1
	1,2,4,5	118	39.7	40.0	47.1
	2, 4 & 5	93	31.3	31.5	78.6
	2,3,4 5 &	2	.7	.7	79.3
	4 & 5	61	20.5	20.7	100.0
	Total	295	99.3	100.0	
Missing	System	2	.7		
Total		297	100.0		

Seeking the support					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ministry of agriculture	114	38.4	41.9	41.9
	Coop department	113	38.0	41.5	83.5
	Women department	1	.3	.4	83.8
	Other	43	14.5	15.8	99.6
	1 & 2	1	.3	.4	100.0
	Total	272	91.6	100.0	
Missing	System	25	8.4		
Total		297	100.0		

Ability to open speaking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly increased	75	25.3	25.9	25.9
	Increased	36	12.1	12.4	38.3
	slightly increased	154	51.9	53.1	91.4
	not increased	19	6.4	6.6	97.9
	Don't know	6	2.0	2.1	100.0
	Total	290	97.6	100.0	
Missing	System	7	2.4		
Total		297	100.0		

Reason for change					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	influenced by a specific member	8	2.7	3.0	3.0
	motivated by others	72	24.2	26.6	29.5
	realised need to contribute ideas	191	64.3	70.5	100.0
	Total	271	91.2	100.0	
Missing	System	26	8.8		
Total		297	100.0		

Increasing production					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly increased	206	69.4	74.1	74.1
	Increased	34	11.4	12.2	86.3
	slightly increased	38	12.8	13.7	100.0
	Total	278	93.6	100.0	
Missing	System	19	6.4		
Total		297	100.0		

Reason for increasing					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-4	279	93.9	97.6	97.6
	1 & 4	7	2.4	2.4	100.0
	Total	286	96.3	100.0	
Missing	System	11	3.7		
Total		297	100.0		

Ability to support the family					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly improved	74	24.9	25.8	25.8
	Improved	68	22.9	23.7	49.5
	slightly improved	144	48.5	50.2	99.7
	not improved	1	.3	.3	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Improved life condition					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly improved	131	44.1	44.6	44.6
	Improved	127	42.8	43.2	87.8
	slightly improved	36	12.1	12.2	100.0
	Total	294	99.0	100.0	
Missing	System	3	1.0		
Total		297	100.0		

Future life improvement					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	207	69.7	70.6	70.6
	Agree	79	26.6	27.0	97.6
	neither agree nor disagree	6	2.0	2.0	99.7
	Disagree	1	.3	.3	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

The ability of Groups to Achieve Objectives					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	lowest	48	16.2	16.4	16.4
	low	1	.3	.3	16.7
	higher	30	10.1	10.2	27.0
	highest	214	72.1	73.0	100.0
	Total	293	98.7	100.0	
Missing	System	4	1.3		
Total		297	100.0		

Permission to participate					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	290	97.6	98.6	98.6
	Agree	1	.3	.3	99.0
	Neither agree nor disagree	3	1.0	1.0	100.0
	Total	294	99.0	100.0	
Missing	System	3	1.0		
Total		297	100.0		

Awareness reason					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	286	96.3	96.9	96.9
	agree	9	3.0	3.1	100.0
	Total	295	99.3	100.0	
Missing	System	2	.7		
Total		297	100.0		

My family understanding					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	284	95.6	96.3	96.3
	Agree	6	2.0	2.0	98.3
	neither agree nor disagree	5	1.7	1.7	100.0
	Total	295	99.3	100.0	
Missing	System	2	.7		
Total		297	100.0		

Enough time for work					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	282	94.9	97.6	97.6
	Agree	4	1.3	1.4	99.0
	neither agree nor disagree	2	.7	.7	99.7
	Disagree	1	.3	.3	100.0
	Total	289	97.3	100.0	
Missing	System	8	2.7		
Total		297	100.0		

The commitment of women in groups					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	154	51.9	53.7	53.7
	Agree	24	8.1	8.4	62.0
	neither agree nor disagree	19	6.4	6.6	68.6
	Disagree	71	23.9	24.7	93.4
	strongly disagree	19	6.4	6.6	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Men management skills					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	254	85.5	88.5	88.5
	Agree	14	4.7	4.9	93.4
	neither agree nor disagree	13	4.4	4.5	97.9
	Disagree	5	1.7	1.7	99.7
	strongly disagree	1	.3	.3	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Men access to resources					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	279	93.9	97.2	97.2
	Agree	1	.3	.3	97.6
	neither agree nor disagree	5	1.7	1.7	99.3
	Disagree	2	.7	.7	100.0
	Total	287	96.6	100.0	
Missing	System	10	3.4		
Total		297	100.0		

Both perform better					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	261	87.9	90.3	90.3
	Agree	23	7.7	8.0	98.3
	neither agree nor disagree	4	1.3	1.4	99.7
	strongly disagree	1	.3	.3	100.0
	Total	289	97.3	100.0	
Missing	System	8	2.7		
Total		297	100.0		

B3. Cross Tables and the Chi-square Test analysis tables

B3: Cross Tables and Chi-square Test

Group type * Increasing production Cross tabulation						
			Increasing production			Total
			highly increased	increased	slightly increased	
Group type	women only	Count	76	5	4	85
		% within Group type	89.4%	5.9%	4.7%	100.0%
	mixed group	Count	130	29	34	193
		% within Group type	67.4%	15.0%	17.6%	100.0%
Total		Count	206	34	38	278
		% within Group type	74.1%	12.2%	13.7%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.103[a]	2	.001
Likelihood Ratio	17.085	2	.000
Linear-by-Linear Association	14.026	1	.000
N of Valid Cases	278		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.40.

Group type * Support received Cross tabulation										
			Support received							Total
			Inputs	Training	1 to 5	1,2,4, 5	2, 4 & 5	2,3, 4 & 5	4 & 5	
Group type	women only	Count	0	0	0	25	30	0	35	90
		% within Group type	0.0%	0.0 %	0.0 %	27.8 %	33.3 %	0.0 %	38.9 %	100.0 %
	mixed group	Count	1	1	19	93	63	2	26	205
		% within Group type	0.5%	0.5 %	9.3 %	45.4 %	30.7 %	1.0 %	12.7 %	100.0 %
Total		Count	1	1	19	118	93	2	61	295
		% within Group type	0.3%	0.3 %	6.4 %	40.0 %	31.5 %	0.7 %	20.7 %	100.0 %

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.840[a]	6	.000
Likelihood Ratio	40.853	6	.000
Linear-by-Linear Association	30.404	1	.000
N of Valid Cases	295		
a. 6 cells (42.9%) have expected count less than 5. The minimum expected count is .31.			

Group type * Ability to support family Cross tabulation							
			Ability to support the family				Total
			highly improved	improved	slightly improved	not improved	
Group type	women only	Count	25	13	46	0	84
		% within Group type	29.8%	15.5%	54.8%	0.0%	100.0 %
	mixed group	Count	49	55	98	1	203
		% within Group type	24.1%	27.1%	48.3%	0.5%	100.0 %
Total		Count	74	68	144	1	287
		% within Group type	25.8%	23.7%	50.2%	0.3%	100.0 %

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.025[a]	3	.170
Likelihood Ratio	5.569	3	.135
Linear-by-Linear Association	.000	1	.991
N of Valid Cases	287		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .29.

Group type * Improved life condition Cross tabulation

			Improved life condition			Total
			highly improved	improved	slightly improved	
Group type	women only	Count	30	53	4	87
		% within Group type	34.5%	60.9%	4.6%	100.0 %
	mixed group	Count	101	74	32	207
		% within Group type	48.8%	35.7%	15.5%	100.0 %
Total		Count	131	127	36	294
		% within Group type	44.6%	43.2%	12.2%	100.0 %

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.700[a]	2	.000
Likelihood Ratio	18.469	2	.000
Linear-by-Linear Association	.157	1	.692
N of Valid Cases	294		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.65.

Group type * Ability of group to achieve objectives Cross tabulation

			The ability of a group to achieve objectives				Total
			lowest	low	higher	highest	
Group type	women only	Count	27	0	0	59	86
		% within Group type	31.4%	0.0 %	0.0%	68.6%	100.0 %
	mixed group	Count	21	1	30	155	207
		% within Group type	10.1%	0.5 %	14.5%	74.9%	100.0 %
Total		Count	48	1	30	214	293
		% within Group type	16.4%	0.3 %	10.2%	73.0%	100.0 %

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.955[a]	3	.000
Likelihood Ratio	36.871	3	.000
Linear-by-Linear Association	13.341	1	.000
N of Valid Cases	293		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .29.

Group type * groupabil2 Cross tabulation					
			groupabil2		Total
			1.00	3.00	
Group type	women only	Count	27	59	86
		Expected Count	14.4	71.6	86.0
		% within Group type	31.4%	68.6%	100.0%
		% within groupabil2	55.1%	24.2%	29.4%
	mixed group	Count	22	185	207
		Expected Count	34.6	172.4	207.0
		% within Group type	10.6%	89.4%	100.0%
		% within groupabil2	44.9%	75.8%	70.6%
Total		Count	49	244	293
		Expected Count	49.0	244.0	293.0
		% within Group type	16.7%	83.3%	100.0%
		% within groupabil2	100.0%	100.0%	100.0%

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	18.815[a]	1	.000		
Continuity Correction[b]	17.354	1	.000		
Likelihood Ratio	17.333	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	18.751	1	.000		

N of Valid Cases	293				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.38.					
b. Computed only for a 2x2 table					

Group type * suptreceived2 Cross tabulation

			suptreceived2		Total
			1.00	4.00	
Group type	women only	Count	0	90	90
		Expected Count	6.4	83.6	90.0
		% within Group type	0.0%	100.0%	100.0%
		% within suptreceived2	0.0%	32.8%	30.5%
	mixed group	Count	21	184	205
		Expected Count	14.6	190.4	205.0
		% within Group type	10.2%	89.8%	100.0%
		% within suptreceived2	100.0%	67.2%	69.5%
Total		Count	21	274	295
		Expected Count	21.0	274.0	295.0
		% within Group type	7.1%	92.9%	100.0%
		% within suptreceived2	100.0%	100.0%	100.0%

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.926[a]	1	.002		
Continuity Correction[b]	8.437	1	.004		
Likelihood Ratio	15.984	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	9.892	1	.002		
N of Valid Cases	295				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.41.					
b. Computed only for a 2x2 table					

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