



**Smallholder Commercialization and its Implication for Gender
Relations in Tanzania: The Case of Sweet Potatoes Cultivation in
Gairo District in Morogoro Region.**

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Disclaimer:

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

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List of Acronyms:

CCRO's	Certificates of Customary Rights of Occupancy
DAO	District Agriculture Officer
DED	District Executive Director
FAO	Food and Agriculture Organisation
FGD	Focus Group Discussion
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
ISS	International Institute of Social Studies
MAFC	Ministry of Agriculture Food and Cooperatives
MoHSW	Ministry of Health and Social Welfare
NBS	National Bureau of Statistics
NGO's	Non-Governmental Organisations
OFSP	Orange Fleshed Sweet Potatoes
SPVD	Sweet Potatoes Virus Diseases
SUGECO	Sokoine University Graduate Entrepreneurs Cooperatives
URT	United Republic of Tanzania
VICOBA	Village Community Bank
VISTA	Viable Sweet Potatoes Technologies in Africa
WEO	Ward Executive Officer

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Abstract

This study examines the extent and the ways in which women's involvement in sweet potatoes cultivation has been contributing to transforming unequal gender power relations in rural Tanzania. The study used qualitative research methods to observe the perceptions of numerous stakeholders (women, men, NGOs, government officials, agricultural extension officers) on how commercialisation subsistence crops plays out in the study area specifically in transforming unequal gender power relations within household of the smallholder farmers. By employing the concept of intra household gender power relation model and Patriarchy and Gendered Power Relations in Agrarian Setting to guide the study, the findings show that commercialization and women's cultivation of sweet potatoes has led to the increase of women's income and autonomy within smallholder household in rural areas. However, the existing patriarchy system within households prevents women from enjoying the fruits of their effort, particularly unequal distribution of resources, decision making over households' income and daily responsibilities. Also, the findings show that commercialization of subsistence crops, women's empowerment and patriarchy system within household of smallholder farmers together has created complexity in gender relations that has led to the increase of family conflicts and separation. Additionally, findings from the study also disclose that even though women are much involved in sweet potatoes farming, but there are still barriers that hinder women from accessing resources and participating effectively in the market economy. This study recommends that through government support by providing women farmers with subsidies and addressing the patriarchy system within households specifically in income distribution and decision-making power to achieve sustainable rural household welfare and economic development.

Relevance to Development Studies

When women will be given capacity and remove all barriers that prevent them from accessing productive resources and making decision within household, it will facilitate the improvement of welfare of many families and hence reach the sustainable development goal successfully. Thus, both international and local development organisations, the government and policy makers must seriously put into consideration in addressing the challenges that women face in attaining their livelihood by integrating women rights into their policy documents.

Keywords:

Gender power relations, empowerment, smallholder farmers, household, commercialization, sweet potatoes and Gairo.

Chapter 1:

1. Introduction

Women's emancipation is proclaimed in today's development circles as a means that can produce remarkable ends, women are supported as a 'weapon against poverty' (Cornwall and Edwards, 2010: 1 as cited in Chant 2016). Equality of opportunity permits women to make the selections that are best for them, their families and their communities (World Bank 2019).

In many countries, girls and women face blockades that avoid them from translating human capital investments into the same economic opportunities as boys and men. Globally, countries are losing \$160 trillion in wealth due to differences in lifetime incomes between men and women (World Bank 2019). Yet, about 79% of the extreme poor reside in rural areas, with about 500 million smallholder farmers among the world's poorest groups, about one in three people are not eating enough or eating unhealthy food, contributing to food insecurity, anaemia, obesity, and non-communicable diseases (World Bank 2019:49).

Unfortunately, however, most of these heads of smallholder families are men and have more power in resource allocation and decision making within household, women are being seen as passive individuals even though they are involved in strategies with the men who are in control of productive resources in order to pursue their living activities (Agarwal 1997). Therefore, the issue of gender power relation within households is crucial to address because it plays a greater role in the alleviation of poverty in rural areas and lead to development in general.

In many developing countries women constitute more than 50% of the rural population and up to 50%-70% of the agricultural labor force (Sewpaul 2008). But women do not own land due to the traditional and patriarchal system which hinders their access and control of this significant factor of production. Women still hold the subordinate position in comparison to their husbands and they're in-laws in terms of access to land, labor, agricultural inputs and women's labor and time are disvalued even though rural women work longer hours than men (Sewpaul 2008:44).

For centuries women in rural areas have been discriminated against and are mostly poorest in the global with poor access to land, credit, market, education, and health (Sewpaul 2008:44). The studies show that in developing countries women in rural areas make an essential contribution to agriculture and economic activities, their roles are shifting rapidly in various parts of the globe due to social and economic forces that altering the agriculture sector (FAO 2011:7) In sub-Saharan Africa many countries practice smallholder farming in rural areas, their performance is still at a lower scale, due to several factors but among these are marginalization women in terms of access to resources, opportunities they need to make the most productive use of their time (FAO 2011).

Agriculture is the basis of economic livelihood for 66.3% of the population in Tanzania, and most of the small scale farmers in rural areas are still in poverty and so any necessary efforts to transform the livelihoods of the rural poor households should involve small scale farmers (URT 2015 as cited in Kinyondo and Magashi 2017:1). In Tanzania women cover 52 percent of the total population and account for 75 percent of the labor force involved in agriculture production, nearly 98 percent of rural women classified as economically active are engaging in agriculture, and they produce about 60-70 percent of all food consumed by rural households (Kweka 1998a).

Even though women play a potential role in agriculture particularly after shifting from subsistence to commercial farming but still women are facing various challenges and their efforts are not much recognized. Studies have been conducted on women, gender concerning smallholder commercialization within households in Tanzania, Gender implications of agricultural commercialization (Dancer and Sulle 2015), Land Grabbing and Agricultural Commercialization (Sulle 2015). However, no known study has observed changes in gender power relations within rural households of Tanzania as a result of the shift from subsistence to commercial farming. My study intends to link this knowledge gap in the context of sweet potato commercialization.

Crops such as sweet potatoes have been recognized for the nutritional benefits they possess, their ability to enhance food security as well as the potential role they play in income generation (CIP 2008, cited in Mageto 2016). Previous studies have shown that there is a global demand for sweet potatoes with the crop itself ranking high in the list of most important food crops (Mageto 2016). The crop is often essential during famine due to its ability to tolerate drought. As a result, most people plant it for subsistence use to mitigate household food insecurity. At

times, African households sell the excess to earn income which is used to improve their livelihoods. By doing this, they contribute to the growth of the economy.

To perfect the livelihoods of sweet potato growers who are mostly women, there have been needed to shift to the commercialization of the commodity. Nonetheless, such a shift has been noted to have negative implications for women that this research sought to understand in the context of Tanzania

2. Problem Statement and Justification

In Sub Saharan Africa (SSA) the problem of hunger and malnutrition are widespread and common (Bain et al. 2013). So, ensuring food security is a major development priority in the region (Adam et al. 2018). Smallholder farmers in SSA are the main producers of a variety of food crops, and for that sense became the center of attention for development actors seeking to promote food security (Adam et al. 2018). Sweet potato (*Ipomoea batatas*) is one of the crops that has not been given attention in most African countries unlike major crops such as Maize, Coffee, Tea, Cassava, etc. that are being prioritized. Yet, sweet potatoes, if commercialized, have the potential to address social-economic issues such as unemployment, food insecurity, and poverty (Thirtle et al. 2003). Moreover, sweet potatoes have various nutritious benefits, for example, it is rich in vitamins and protein that are obtained from young sweet potatoes leaves, and storage roots are rich in carbohydrates and B- carotene especially Orange Fleshed Sweet Potatoes (OFSP). Also, rich with vitamin A which is potential in combatting diseases such as vitamin A deficiency, cancer, diabetes (Burri 2011; Mwanga et al. 2007 as cited in Kagimbo et al. 2018).

Production of sweet potatoes in East Africa is very high due to short growing seasons leading to high yields (Echodu et al. 2019). For decades, Tanzanian smallholder farmers have been growing sweet potatoes for food security due to its ability to tolerate drought. The government of Tanzania has enacted policies such that any attempt to encourage crop commercialization and improve the welfare of people in rural areas through crop production (Ochieng and Hepelwa 2018a). Despite economic liberalization and various efforts that have made by small farmers of sweet potatoes in the region, the commercialization of sweet potatoes in the country is still at its low scale.

In Tanzania, it has primarily been the role of women to engage in the entire process of farming sweet potatoes (Kapinga et al. 1995). However, now men are involved due to the gradual shift in the commercialization of the crop. In the process of shifting from subsistence farming to market-oriented production, women farmers are increasingly deprived due to persistent gender differences in access to productive resources and declined power such as in productive resources ownership and decision making, leading cash crops farming being male-dominated. Whereas studies have shown that, heightening women's control over resources, decision making, and income can contribute to a positive impact on various outcomes attached to development like child nutrition and education (Quisumbing 2003). Given these facts, in this study, I argued that despite many constraints, the involvement of women in sweet potato cultivation and its commercialization contributes to the process of transforming existing unequal gender power relationships in rural Tanzania. Through a case study of Gairo district in the Morogoro region of Tanzania, the study showed how sweet potato cultivation has been helping rural women gain greater autonomy and bargaining power through earning an independent income.

3. Research Objectives

The main aim of the study was: To examine the extent and how smallholder cultivation and commercialization of sweet potatoes affect existing gender relations in rural Tanzania. The specific objectives of the study were the following:

- To explore the extent of women's participation in sweet potatoes cultivation and commercialization.
- To examine how the participation of women in sweet potatoes cultivation enabling them to earn an independent income and its implications for intra-household gender relations.
- To identify the opportunities and challenges women face in the cultivation and trading of sweet potatoes.

4. Research Questions

The main research question of the study was: How and to what extent does commercialization of sweet potato cultivation affecting intra-household gender relations in rural Tanzania? This question was further explored through the following specific research questions:

- What is the gender-differentiated impact of sweet potatoes cultivation and marketing?
- How does women's involvement in sweet potato cultivation contributing to addressing unequal power relationships between men and women?
- What are the opportunities and challenges that women face in the cultivation and marketing of sweet potatoes?

5. Motivation and Significance of the Study

As one walks/cruises around the farms in rural areas of Tanzania, you see women in farms cultivating crops for their households. This has been the routine since time memorial. Women spend a greater part of the day (almost 6 hours) on the farms. During this time, men are always nowhere to be seen. You can only find them in the market centres indulging in other activities. When harvesting comes, some men take almost all the harvest to the market leaving a little for the household. In a nutshell, men control the marketing of agricultural products while women do the production process. This leads to the conclusion that women have no power in controlling the marketing of agricultural products. With the current need to exercise gender impartiality in all matters, I felt motivated to conduct this study to establish the factors that prevent the effective participation of women in agricultural commercialization. The study would also look at some factors that are likely to enable women to take part in agricultural commercialization. These factors along with recommendations provided at the end of the study would be used to inform policymakers, women groups, and other NGOs concerned with women empowerment about the factors likely to improve the status of women in commercialization activities.

6. Structure of the Study

This research is presented in five chapters. Chapter 1 provides a summary of the research topic which describes the research objectives and questions and significance of the study. Chapter 2 provides the methodology; limitations came across in the research and ethical considerations. Chapter 3 presents a literature review and the theoretical concepts that explain the systematic structure of the paper, which are intrahousehold gender power relations, patriarchy and gender power relations in agrarian setting Chapter 4 presents findings, analysis and arguments and Chapter 5 provides the conclusion and recommendations.

Chapter 2:

Literature Review/The Theoretical Framework

2.1 Introduction

This chapter reviewed the existing literature on sweet potato commercialization and gender. Various sources were used particularly journals, policy documents from government, etc. all obtained from recognized databases such as ISS library, Ebscohost, Google Scholar, and government sites. To achieve accuracy in the sources used, various search terms were employed such as Agricultural commercialization, Sweet potato commercialization, Women and marketing of agricultural products, etc. The chapter is divided into different subsections such as commercialization concerning agriculture, the impact of commercialization, commercialization, and gender, and agricultural commercialization in the context of Tanzania. The chapter then looks at the research gap and then provides the theoretical framework used for the study.

2.2 Commercialization in Relation to Agriculture

This study draws from the work of (Pingali 1997:628) which perceives agricultural commercialization as more than just marketing of products, but rather a process that is achieved when decision affiliated with input utilization and choice of products are made for profit maximization.

Commercialization in the perceptions of smallholder farmers falls into two categories. (Leavy and Poulton 2007) in their study about smallholder commercialization of agriculture, denote that small-scale farmers may be categorized as commercial or non-commercial farmers. The commercial small-scale farmers are normally market oriented. All their outputs are majorly for marketing purposes and involve high-value agricultural skills. They are also known as small-investor farmers (Leavy and Poulton, 2007). Nonetheless, part of their output may be used for consumption and on the other hand, the non-commercial farmers grow crops primarily for subsistence although they may sell part of it to meet other needs but in rare circumstances. This

study is interested in the former category of commercialization. I am going to focus on small investors who entirely market their farm produce for profit maximization to understand how this has impacted them in different dimensions.

It is worth noting that market participation is normally part of effective commercialization. (Leavy and Poulton 2007) elaborate on three levels of marketing identified by (Pingali and Rosengrant 1995) as subsistence, semi-commercialized, and fully commercialized system. These three levels of marketing participation differ based on the objective of production of a household, its input sources, sources of income and product mix.

Research indicates that Tanzania ranks as one of the highest countries known for sweet potatoes production (Ochieng and Hepelwa 2018). However, it is majorly produced for consumption for smallholder farmers to curb food insecurity and meet the nutritional needs of their families. This implies that there is a dearth of literature discussing smallholder commercialization of sweet potatoes in Tanzania and if there is then the aspects of gender involvement are not well covered. With the gap in the literature, it becomes crucial to investigate the commercialization of sweet potatoes in Tanzania using a case of Gairo district in Morogoro region.

2.3 Impact of Commercialization of Agriculture

Under effective market participation, commercialization is likely to impact the household of small scale-farmers in many ways. (Timmer 1997) in his research about setting new paradigms for farmers and the market, observe that commercialization has a positive impact on the lives of small-scale farmers in that it heightens specialization leading to increased production which later leads to high income. Further, (Timmer 1997) reports that high income can help to fight poverty, enhance food security and facilitate economic growth.

Commercialization can lead to improved allocative efficiency. This is supported in the study of (Bernard et al, 2007) smallholder commercialization in Ethiopia which establishes that efficient markets at Macro-level contribute to the segregation of consumption and production thereby leading to enhanced allocative efficiency and household stability. Nonetheless, the study

notes that under inefficient markets the transaction is likely to be high thereby leading to losses for smallholder farmers practicing commercialization.

The research of Gebreselassie and Sharp (2007) highlights that commercialization can act as a bridge that helps small scale farmers to realize welfare goals. This is in the perception that the income earned from commercialization can be used to meet the other needs of the family such as purchasing high-value foods, accessing medical facilities in case one falls sick, and general household spending. Gebreselassie and Sharp (2007) note that it is important for smallholder farmers to engage in high productivity while practicing commercialization as it is what leads to higher income and later realization of welfare goals.

2.4 Commercialization and Gender

As far as the commercialization of sweet potatoes is concerned, research shows that women end up with limited power in decision making and accessing proper technology-driven methods of production (Quisumbing 2003). Available literature concerning gender and commercialization in smallholder agriculture in SSA focuses on two issues. First constraints to market-oriented production affiliated with gender and secondly, the established impact commercialization has on women. Most of the available literature from my observation explores the constraints that pin women to subsistence farming rather than allowing them to gain access to commercial production. Most of these factors according to Quisumbing (2014) are normally socio-cultural barriers with a few related to technology that ends up limiting the productivity of women thereby creating a gender gap.

A fundamental observation of the literature regarding the impact of agricultural commercialization on men and women relies on the organization of the household products, particularly who is responsible for labor provision, decision-making, and income control. Studies have shown that conflict and tensions are likely to increase between couples when the man dominates the cash cropping activity in a way that suppresses the woman's autonomy regarding accessibility to land and labor control (Stockbridge 2007). The non-unitary nature of such couples can lead to economic inefficiencies due to the notion of decision making involving normative

perception rather than efficient considerations affiliated with labor division from a gendered perspective.

I observed in line with Whitehead's and Kabeer's (2001) perception that most of the available literature has deviated from early analyses attached to the paradigm of women in development as it used to be in the 1980s where men participated in cash crop growing while women took part in food crops. One would find majorly three principal models mentioned in the literature of Whitehead and Kabeer (2001) regarding agricultural commercialization response namely relying on the wife for subsistence, gender conflicts in the intra-households due to male dominance in the cash crop farming and deviated economic conjugal spheres. However, these models fail to reflect in sufficing the realities of African households particularly in the rural areas in the contemporary world of commercialization. As such, I intend to analyse a broad socio-cultural spectrum in the African context while remaining focused on complex factors such as intra-household allocation of resources, ideologies of gender, and differentiation of gender roles on the commercialization of sweet potatoes.

2.5 Commercialization of Sweet potatoes in Tanzania

In Tanzania 80% of the population, their livelihood depends on the agriculture sector and employs over 75% and comprise about 90% of small scale farmers who practicing agricultural production and so it is the main engine of economic growth (URT 2013 as cited in Sulle 2015). In Tanzania commercialization of agricultural products can be traced since the colonial era but in the 1980s after economic liberalization, the agricultural sector was also part of the liberalization process. Some of the agricultural products such as sweet potatoes that were previously produced for subsistence and as food security for households gradually became commercialized.

According to conventional wisdom, the shift from subsistence to commercial farming signifies a crucial component for the economic development of poor countries, through comparative advantage the commercialization of agricultural products is necessary for efficiency and expansion of trade (Carletto et al. 2017). This will eventually lead to economic growth and enhancement at the national, household and individual levels (ibid). Sweet potatoes provide a lot of opportunities to small scale farmers particularly those residing in marginal areas because it can

sustain drought, rich in nutrition, mature earlier than most other tuber and roots crops (Mayanja et al. 2017a). Though at the beginning sweet potatoes farming was considered as women's work but recently due to various factors such as climatic changes, increase in cost of farming inputs of other agricultural cash crops and increase in demand of sweet potatoes especially after the introduction of new variety orange-fleshed sweet potatoes (OFSP), men have become dominant in the production process. Recent studies show that men play a significant role in sweet potatoes production contrary to the notion that it was a women's crop (Ngailo et al. 2016).

Sweet potatoes being a crucial staple food for many Africans, it is easy to grow, tolerant in drought, low requirements of farming inputs and still provides reasonable harvest where other crops would fail during the seasons (Mustafa 2017). But still, the sweet potatoes haven't given priority with the Tanzanian government as a crop that can be more important and useful in household economy and country economic growth in general. The fifth phase government through, National Five Years Development Plan 2016/17- 2020/2021 with its slogan that emphasizes the industrial development for economic transformation and human development, it prioritizes some agricultural products such as maize, rice, sunflower, pulses, floriculture, cotton, sisal, grape and sesame as an intervention in fostering economic growth and industrial development (URT 2016 as cited in Ochieng and Hepelwa 2018).

2.6 The Theoretical Framework

The analytical framework used for this study was enthused by the concepts of intra-household power relations and patriarchy and gendered power relations in an agrarian setting. All these concepts were used to enlighten my study regarding the various strategies that smallholder farmers particularly women need to utilize in the commercialization of agriculture.

2.6.1 Intra Household (Gender) Power Relations

In many parts of SSA, it is common to experience gender division in agriculture based on labor, the crops being grown or both. Mostly, the men dominate cash and export crops as they are mostly perceived to be the breadwinners of the house. On the other hand, women are left to grow subsistence crops (Njuki et al. 2011). The attributes contributing to this gender division can be quite complex and rely on the context of socio-culture. Normally, it is worth noting that gender relations are dynamic and are subject to alteration while responding to commercialization.

Focusing on the impact of commercialization arising from resource allocation, this study adopts the intra-household model developed by Fafchamps (2001). In the model, household members concerned with production allocate their time and labor to income-generating activities, leisure, and labor. As such, a woman may be willing to work on her husband's plot if there is compensation that equates what could be earned in the off farm labor market. Under competitive markets, the household's resources are allocated efficiently. Nonetheless, this only works when every individual is an independent producer. On the other hand, with the increasing returns to scale, the efficiency can be heightened under centralized production. However, this may rely on various factors which in this case I would say the power bestowed on either male or female. When commercialization contributes to an increment in external transactions, purchasing inputs becomes intensified and normally, one would observe an increase in the return to scale (Wiggins et al. 2010). As such, there is a likelihood that production would be centralized among the males as the household heads due to the norms that have placed them at better access to a resource such as land and other productive resources.

Against this background, there is a need to note that sweet potato commercialization is likely to weaken the women's roles the control they have overproduction. On the other hand, while commercialization is associated with high income, there is a likelihood that it may lead to a positive impact on overall consumption under women's control (Quisumbing 2003). This is from the perception that women are likely to spend more on attaining basic needs for the house. However, in the current situation where men take over, there is a likelihood that they will sell all the food and exercise parity in distributing the revenue.

It is worth noting that African women tend to have multiple responsibilities involving working in the farm and addressing the needs of the household. As such, it is observable that they exercise high opportunity cost of time thereby lowering their incentives to effectively participate in the market. Thus, it is essential to add an element of a group that would allow women's access to the market. Nonetheless, the group should be women dominated to avoid male leadership where the group is mixed. The group would bring in collective actions that would help address gender issues and better the position of the women in agricultural commercialization in the long run.

2.6.2 Patriarchy and Gendered Power Relations in Agrarian Setting

Researchers (such as Coetzee 2001) perceive patriarchy in various ways that involve understanding the affiliations of power, a gender system or just a system of ideologies. This thesis perceived patriarchy in the dimension of gender system where MacInnes (1998: 3) advocated that such a system is reproduced through a father's ability to bestow power upon the sons for them to have absolute control over resources while directing labor to their wives and children. In the long run, they would monopolize the control of materials in a public sphere and implement ideologies which seem godly. In a nutshell, patriarchy in the aspect of gender system involves men dominating the women in a way that oppresses and exploits the latter.

An earlier study by Walby (1990) depicted patriarchy as a dynamic system that if subjected to compelling changes then women might benefit since men would be forced to give up some of their status to the women. It is conceptualized that patriarchy manifests in six social categories namely, production mode in patriarchy, paid employment, the power of the government, culture, sexuality, and male violence. Among these, production mode in patriarchy, culture, male violence, and state power seemed relevant to this thesis. Production mode in patriarchy involves the class relations in a household setting where women produce, and men expropriate. Considering patriarchy in the perception of the government's power and culture involves policies and the biased actions that have tended to favour the interest of men.

Elaborating more on power, it is to be realized that power does not manifest itself through associations of gender. Rather, gender is inclusive of power in a way that depicts relations that may not be all about gender utilizing sexual differences language to denote the differentials of power (Kandiyoti 1998 as cited in Kalabamu 2006). Men exercise power from a culturally constructed dimension through the rules established on various rights particularly marriage, inheritance, playing part in political and other social matters. Besides, men also obtain power from other areas involving education, skill acquisition, and income. Kabeer (1999: 441) notes that the choices people make can be used to derive power from deeply, within the rules and norms that guide society. This implies that people make decisions for them to remain relevant to society rather than exercising individuality. As a result, women may tolerate the parities the society subjects them to blend in well with the perceptions of the society regarding them.

This thesis was majorly interested in the patriarchy as a gender system that is constructed in the norms of the society which governs the women's position about men in a household, production sphere (including labor), cultural institutions and politics. Having these factors in mind, this thesis was primarily interested in evaluating how they are likely to affect the involvement of women in sweet potato commercialization.

The current conceptual framework adopted for this study was a modification of Zhou et al's. (2013) framework. Their framework had been used to conduct the gender impact of commercializing agriculture in the context of Southern Africa. For this framework, I removed the aspect of semi-commercial as I wanted to know the effect of women getting involved in the full commercialization of sweet potatoes. In the conceptual framework (Fig.1) the relationship between the driving factors and determinants of agricultural commercialization is illustrated in terms of the effects on smallholder farmers. The conceptual framework shows the ability of commercialization to generate a positive impact on women and the country in general.

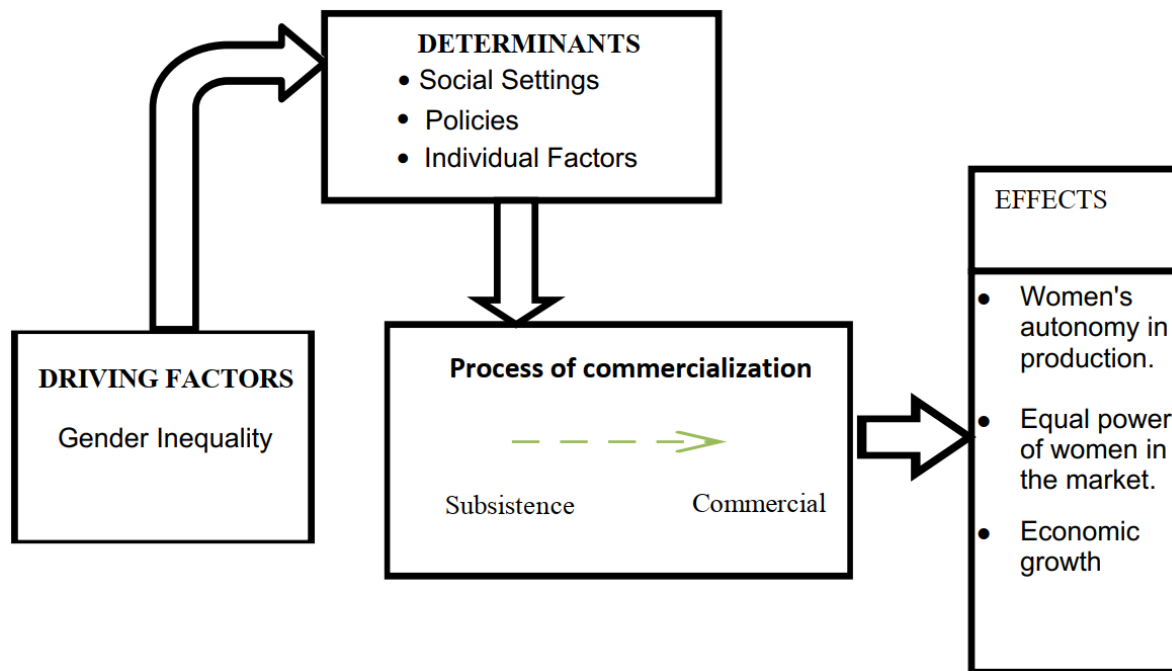


Figure 1. The conceptual framework for understanding the factors affecting the commercialization of Sweet potatoes among women and the impact of commercialization for women (modified from Zhou et al. 2013)

From the conceptual framework, agricultural commercialization among the smallholder farmers can be perceived as a correlation of driving factors, determinants, the process and the impact as shown in Fig.1. Gender inequality due to patriarchal society causes the commercialization process as well the need to have some income. However, successful attainment of commercialization relies on policies, social settings and individual factors such as motivation. The policies form the major driving force as they are the ones that regulate the resources provision along with social settings as far as commercialization is concerned. These two can be determined by environmental attributes that are likely to influence the involvement of a farmer in agricultural commercialization, for instance, access to credit, household size, education, and access to other critical agricultural inputs such as land. When these factors are optimum then chances are that commercialization will be successful and lead to the impacts shown in Fig 1. Otherwise, under optimum circumstances, commercialization is likely to fail.

Chapter 3:

Research Process and Methodology

3.1 Introduction

This section of the study demonstrates different research stages to be engaged during the research study which includes the following – study area, techniques for data collection, selection of respondents, secondary data, data analysis, scope and limitations, ethical consideration.

3.2 Study Area

Gairo district was chosen because the majority are peasant farmers and mostly are cultivating sweet potatoes at a larger scale compared to other districts in the Morogoro region, also most women are much involved in sweet potatoes cultivation and entrepreneurship. Apart from that, I conducted academic research for my bachelor's degree. Gairo district is in Morogoro region located at the center of Tanzania, the region is bordered to the north by Tanga region, to the east by the Pwani and Lindi regions, to the south by Ruvuma region and the west by Iringa and Dodoma regions. The region covers 7 districts which are Gairo, Kilosa, Ulanga, Ulanga, Mvomero, Morogoro urban and Kilombero. There are different ethnic groups in the area Kaguru, Luguru, Nguu, and Kamba the region followed by other tribes from other parts of the countries, but Kaguru is a dominant tribe in the area.

The district has a total population of 193 011 persons (NBS, 2013) with the male population consisting of 48.3 percent and females making up 51.7 percent of the population, 88.1 percent of the population is residing in rural. It is divided into 8 wards which are Gairo, Rubeho, Chakwale, Mandege, Chagongwe, Chanjale, Kibedya and Iyogwe. The district lies between latitude 60 and 160 south and longitudes 360 and 55 east. The area cultivates a variety of crops such as maize, sunflower, cassava, tomatoes, sweet potatoes, beans, lentils, and several others. But compared to other districts in the region this area cultivates and uses sweet potatoes as a staple food in large quantity. Farmers in the area are divided into three groups large, medium and small-scale farmers. The area is located along the highway from Dar es Salaam the port city to northern Tanzania, that makes the area easy access to market and collection points of agricultural products

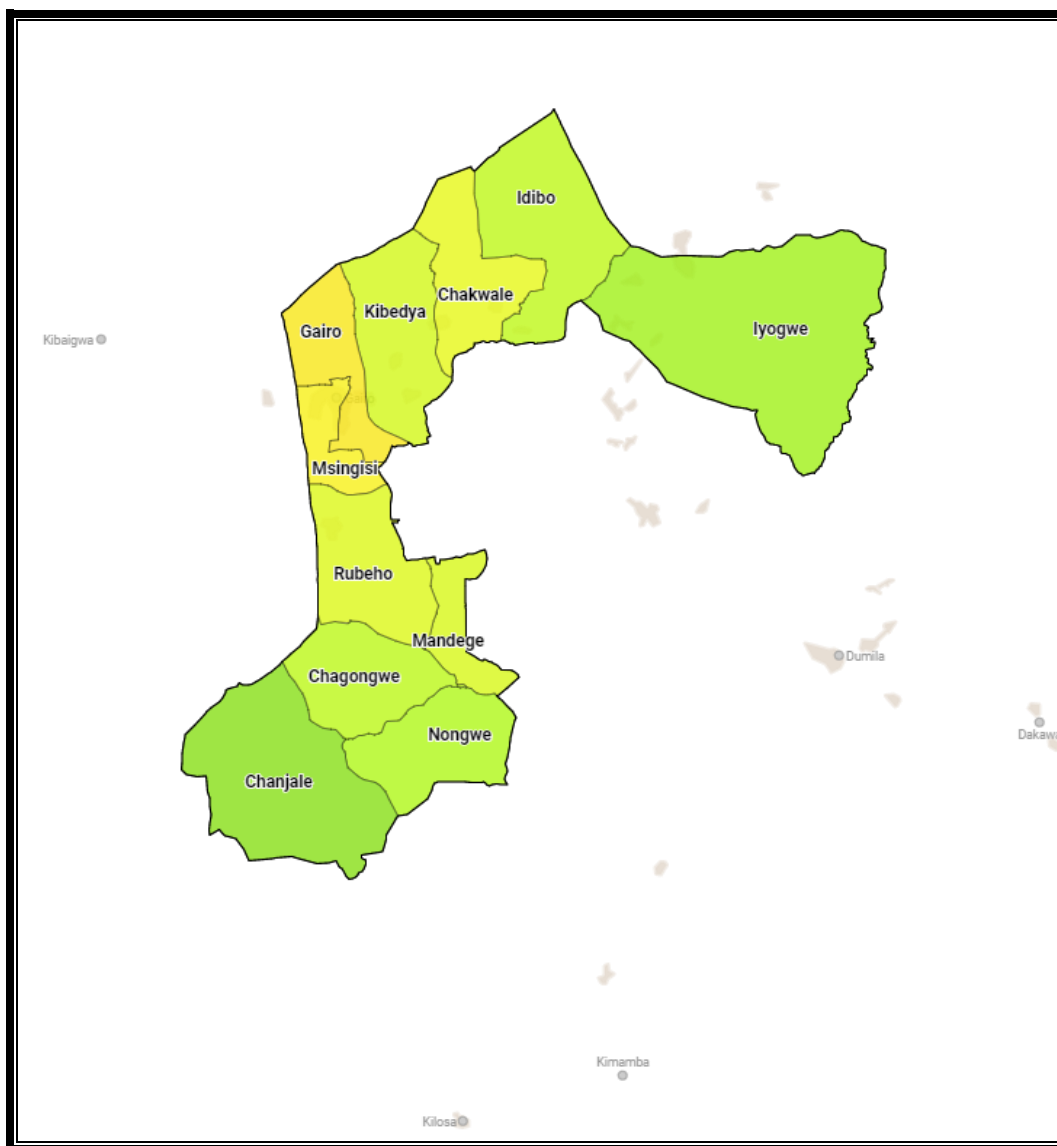


Figure 2. Map of Gairo District in Morogoro Region central Tanzania.

Source: National Bureau Statistics Tanzania, (NBS), 2012

3.3 Selection of Respondents

In this study selection of respondents employed purposive sampling, the aim was to identify the region, district, wards, and villages to be covered in my study. Also, the purposive sampling aimed at obtaining respondents who know the subject matter. I will decide what needs to be known and set out to find respondents who can and willing to provide information by knowledge or experience (Bernard, 2002 as cited in Etikan et al. 2016). This method, therefore, aided the researcher to involve with the respondents who had in-depth knowledge, relevant and rich information on the subject matter.

In the process, I applied the snowball sampling technique which according to (O'Leary 2014: 190) it involves using referrals to build a sample. It is a method that would work best for me if there are non-residents owning lands in Gairo district. Moreover, the study in total involved 26 respondents which were made up of 7 females active peasant farmers, 7 males active peasant farmers, 5 women engage in sweet potatoes entrepreneurship, 6 government officials and 1 stakeholder from an NGO's (SUGECO).

Table 3. Participants List

Data Collection				
Date	Activity	Organization/Person (s)	Gender	Number
30/08/2019	FGD	Sweet Potatoes Farmers	F	7
30/08/2019	FGD	Sweet Potatoes Farmers	M	7
03/09/2019	Interview	Ward Executive Officer	M	2
04/08/2019	Interview	Sweet Potatoes Entrepreneurs	F	2
04/09/2019	Interview	Agriculture Extension Officer	F	2
04/09/2019	Interview	District Agriculture Officer	F	1
05/09/2019	Interview	Sweet Potatoes Entrepreneurs	F	3
06/09/2019	Interview	SUGECO	M	1
07/09/2019	Interview	Ministry of Agriculture	F	1

3.4 Field Data Collection Process

When preparing this research, one of the challenges that I projected as a researcher was getting active sweet potatoes peasant farmers to participate in FGD with considering that each ward among 7 wards required to have a male and female active farmer, the challenge I faced was to get contacts of active farmers from different wards, make an arrangement and organize since each ward is located very far from one another. So initially the plan was to visit all wards and meet local officials from each ward for identification and communicate with peasant farmers. However, after the interaction with government officials at the Gairo district council, I was able to meet District Executive Director (DED) and District Agriculture Officer (DAO), who connected me with Ward Executive Officers (WEO). Through that, I was able to organize and conduct two focus group discussion one group comprise 7 females and another group was 7 males and five in-depth interviews with 5 women engaging in sweet potatoes entrepreneurship without going from their wards.

Based on the needs of the research questions, this study employed a qualitative approach to collect data, the qualitative approach is needed to gain deeper insights into the impacts of commercialization of sweet potatoes on small scale farmers' household. Through a qualitative approach, participants would have a chance to narrate their own experiences as they deem fit (Laws et al. 2013). Considering the theoretical approach to the problem already explained in previous parts, the answers to the research questions will require other data collection techniques such as interviews with local government officials, a key informant from government ministry and an official from NGOs that support sweet potatoes peasant farmers. To enable the provision of essential answers from the respondents regarding the issues perturbing them, their perception, and their thoughts regarding what needs to be done (Laws et al. 2013). Along with this, I utilized informal conversations, participant observations and with the groups involved.

3.5 Tools Used for Data Collection

3.5.1 Focus Groups

The study used two focus groups, one being a male group and the other one female. Focus groups allow the researcher to identify the opportunities and challenges women face in the cultivation and trading sweet potatoes. Also, in the process, I managed to depict the understandings of men concerning the issue of involving women in sweet potato commercialization using flexible discussions and fostered explanations of personal understandings and experiences. It is worth noting that qualitative studies are important when researching about different social institutions that are unknown or have become stereotyped (Rowles and Reinharz 1988). The hallmark of using focus groups in the process of data collection is to gain access to crucial information that would be unavailable without group interaction (Morgan 1988). With the focus group, I engaged the participants in the brainstorming process that led to the generation of ideas, opinions, and issues attached to sweet potato commercialization in Tanzania.

3.5.2 Semi-structured Interview

The study employed semi-structured interviews to collect qualitative data regarding the research questions. Using semi-structured interviews will provide in-depth information regarding the particulars of the research and reveal knowledge on the issues being studied. The interviews will be administered on the participants namely peasant farmers, an officer from the ministry of agriculture at the national level, local agricultural officer, and an officer from the NGO working in the case area. for them to bring out their experiences regarding commercialization impact on gender.

3.5.3 Secondary Data

This study employed secondary data from various literature reviews of journals, gender reports, published books, government reports, World Bank, FAO, IFAD, and policies from the Ministry of Agriculture, land.

3.6 Ethical Consideration

The research was conducted after the approval from the International Institute of Social Studies (ISS) of Erasmus University Rotterdam. This research was carried out following the ethical standards of research. The research was also approached in a way that guarantees that it is respectful, transparent to the respondents as well as ensure that the discretion of the information they provided, and their identity was protected. The objective of the study was described to each respondent before the interview, respondents were free to reject or pull out from the study at any time. Nevertheless, before starting the data collection process, I had to get permission from the District Executive Director (DED) of the respective district together with a signed official introductory letter to inform all local executives from wards where the research was carried out.

3.7 Scope and Limitations of the Study

The study focused on the factors preventing the effective participation of women in sweet potato commercialization and how this issue would be solved. In general, the study focused on the achievement of gender balance in agricultural matters. The study was limited to smallholder farmers in Tanzania as the main target particularly in Gairo District.

In the process of achieving the answers to the research questions posed in this study, I experienced various challenges. First, my research employed qualitative data collection methods to collect information from sweet potatoes farmers and other stakeholders. The responses were audio recorded in the local language (Swahili). Since all the peasant farmers were uneducated and could not speak English, data received from them during the research had to be interpreted into English, and in the process of transcribing, it was hard to achieve accuracy information with a few misinterpretations occurring. However, I believe that such misinterpretations were not adequate to affect the reliability and validity of the results.

Also, I faced the challenge of getting official permission from the government authority for data collection because of the nature of the current government, so it took me one week to have an official introductory letter. Also, there were some difficulties in obtaining information, especially from government officials due to their frequent absence in office, but I had to ensure that I am flexible enough to have the views of every participant.

Chapter 4:

Research Findings and Discussions

4.1 Introduction

This chapter discusses the data collected from the field through in-depth interviews and focus group discussions with key informants from a government ministry, smallholder farmers, sweet potatoes entrepreneurs, government officials and NGOs working in the Gairo district. The discussions are based on key themes that arose from the study, each under a separate title.

4.2 Gender-differentiated Impact of Sweet Potatoes Cultivation and Marketing

In Gairo within the past five years, the size of the farm has increased but before the commercialization gained momentum most of the farmers were cultivating just a half or one acre of sweet potatoes, but current normal peasants cultivate average 4 acres of sweet potatoes. But even though the size of the farms has increased due to motivation and income resulted from selling sweet potatoes, but the yields have dropped because of various challenges that smallholders are facing and the price of the sweet potatoes has increased particularly OFSP. The time spent on the farm has increased for both men and women but for women, because they are involving much than men in sweet potatoes farming their job is severely increased. Since the commercialization of sweet potatoes, despite men's involvement in the farming of sweet potatoes but still, women involved much than men, and so women have long working hours a day than men. Due to numerous tasks in farms and households, women often have been exposed to long working hours which slowed their ability to participate in markets (Fischer and Qaim 2012a:442).

This was evident during a focus group discussion with women sweet potatoes active farmers. For instance, one woman said during the discussion that;

We are required to wake up at 4 or 5 am every 6 days within a week, we need to wake up that time to fetch water prepare our children for school, do house cleaning and prepare breakfast after that at 8am we supposed to be at farm at 1 pm we go back home to prepare lunch after finished we go back to the farm until 4 pm we return home and start preparing dinner if u have firewood but if you don't you need again to go to collect fire woods (FDG, Chanjale on 30/08/2019).

Another woman in the focus group discussion said that;

Despite that we are doing both domestic works and farm works but our husband doesn't care about domestic works and so we are dealing with house works and in farm work, so it seems that it is distributed equally though it is quite obvious that we have much and more works than men (FDG, Msingisi on 30/08/2019).



Figure 4. Focus Group Discussion with women sweet potatoes farmers from different wards in Gairo District (FDG 30/08/2019).

Intra-household power relations still it shapes how the household is managed. These power relations additional define ‘who does what’ and ‘who does not’ within the household. It is very noticeable in household tasks which are performed by certain group of people or gender. Similarly, in Gairo all household duties such as washing utensils and clothes, cooking, fetching water, collecting fired wood and others are only assigned to women. In the interview conducted with women entrepreneurs who are selling sweet potatoes along highway, it shows that the commercialization of sweet potatoes has doubled women workload.



Figure 5. Focus group discussion with men sweet potatoes farmers from different wards in Gairo District (FDG 30/8/2019).

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commercialization of sweet potatoes has doubled women workload. For instance, the woman interviewed during this research who are sweet potatoes entrepreneur narrated her story;

I required to perform all domestic activities at home and later go to the highway accompanied with my small kids, breastfeeding my child while selling crops in a sunny, and at 12 or 1 pm I have to go back home to prepare lunch for my husband and returning to highway and in the evening continued with dinner preparation. And this is a daily routine schedule from farming up to harvesting season I only rest on Sunday (Interview, Gairo on 04/09/2019).

From these stories, it evidently shows how inter-household power dynamics has an impact in the family and it continue to determine the duties that are performed by different family members based on their gender. “Gender is not an essential category determined by biology but rather a constructed phenomenon that is reproduced in and through practices, policies and actions that shift and change over time”(Harcourt 2010). It turns to be unfairness towards gender as it limits some duties in the home to a gender. However, for single mothers the situation is different in which they claim that most of the domestic work that carried out by women are directed both to their husband and child so if you are divorced means women workload is reduced to some extent. In an interview with another woman who is also sweet potatoes entrepreneur, a single mother said that;

Unlike my colleague me aim a single mother I divorced my husband and started my own life with my child so I always come here to the highway to do business with my child and we stayed here together until evening I don’t have to go back home to prepare lunch because I have no husband at home (Interview, Gairo on 04/09/2019).

Even though women had experienced long working hours since the practice of subsistence farming but with market-oriented farming women jobs have increased and working hours have doubled, but also women's income within households has increased. Increased in women's income

within households has motivated them to put more effort into their daily house and farm work. For instance, in a focus group discussion with women one respondent said that;

Though we are exposed to long working hours and more works but we are motivated because this farming helping us and our family to earn income that helps households, because we are toiling but we assured that during harvesting will have money to buy food, clothes, paying school fees and others just to mention the few (FDG, Rubeho on 30/08/2019).

Traditionally women are not regarded to have their income, so men have a negative perception of the issue of empowering women without understanding that it is for the benefit of the household as a whole and in some places, men are even hinder women's initiative (Kweka 1998b). Most of the time the income households earn in sweet potatoes farming are misallocated by men and do not help to improve family welfare one woman in a focus group discussion said that;

Our husbands always want to control all the household's income that we jointly earned and normally he spends them secretly without consulting us, so we end up knowing how much we earned but how the money should spend remains secret to men, even if you try to save the money from our small business but you can't invest in anything because once your husband finds out you have bought farm or any tangible assets without involving him it will be disaster . (FGD, Chanjale on 30/08/2019).

Empirical studies on intrahousehold gender dynamics in Africa show that within a market-oriented economy woman are always pushed out and men take over all the crops that entered the market and so women do not benefit from market-oriented production. (von Braun, 1988; von Braun et al, 1989 as cited in Njuki et al. 2011a:27). Though women are more involved in the entire process of farming, harvesting and selling sweet potatoes still men are the ones with decision and control of the crops selling within the market and income-generating. For instance, in a focus group discussion with female sweet potatoes farmers, one woman said;

We are the one who plays great role on farming but during the harvesting if it happens to get whole sell customers men are the one who

negotiates alone they don't want even us to know but if it happens there are no whole sell customers then we are the one who sells sweet potatoes in the buckets along the high way, and in the evening men asks you how much did you sell today and take the money we hate this situation but we have nothing to do (FDG, Rubeho on 30/08/2019).

The gendered control of productive resources is a significant indicator of differentiation between men and women. In many agrarian societies, studies have shown that men often have more power than women and control more resources than women , e.g. land, labor, capital (both monetary and social), technologies and skills and also all-important decisions regards household heads, controllers of lineages, communities, workplaces and eventually the state that means nearly all power structures within a society (Dancer and Tsikata 2015a:11).

In a different but related aspect of thinking, which resonated with gender supporters in development agencies like the World Bank and the International Food Policy Research Institute (IFPRI), used microeconomic analytical tools to claim that the structure of male and female arrangement in farm households in sub-Saharan Africa was contributing to 'allocative inefficiencies' and a muted agricultural supply response. It was added that if the distribution of productive resources were not twisted against women farmers, smallholders would be able to produce more, with positive consequences for rural poverty (Razavi 2009a:204).

Though the government has made a huge effort to fight against gender inequality within the household still exist, men have power than women. In focus group discussion conducted with male respondents, they said that there is equality between men and women and all decisions over resources are made together. For instance, one man said during the discussion that;

In our community, we had a patriarchy system but that was a long time ago nowadays people are educated and the government efforts impose laws that protect women's rights so for that sense all the decisions made within household regards the entire process of farming activities are made

together. There is no inequality though still there are few households that practice patriarchy system (FDG, Nongwe on 30/08/2019).

However, in focus group discussion conducted with female respondents shows that still men own family resources and have the power to decide on resources allocation, yields, and income generated from selling crops. For instance, one woman said during discussion that;

No, it is not true that all decision within households are done equally last season I advise my husband to cultivate Orange Fleshed Sweet Potatoes (OFSP) because there were many buyers with good price but he refused but now he is regretting when he sees other farmers are selling their crops at good price (FDG, Mandege on 30/08/2019).

In many cultures, women's role of taking care of family within the household against the men's role of providing cash supplies of the household may affect women's capability to participate in markets (Kaaria and Ashby 2001 as cited in Njuki et al. 2011b). In rural poor women are often omitted from accessing the more well-paid markets, in various instances, women did not benefit from market connections because of men taking over the commodity once it became profitable and women often selected commodities with lower worth, and a lower return, which is not interesting with men (Kaaria and Ashby 2001 as cited in (Njuki et al. 2011b)Also confirming that one woman in a focus group discussion said that;

They say equality but there is no equality still men are the one decides what to buy, what to cultivate and when to sell our yields and how to spend the income earned from selling our crops. They only delegate power to us if they have something that is not beneficial for them, for example, my husband always gives me the freedom to sell those sweet potatoes that are smaller pieces that and rejected from the buyers (FDG, Msingisi on 30/08/2019).

Within intra-household, there are inequalities between men and women in access and distribution of resources and this scenario creates both joint and separate interests, which makes gender struggles so complex (Jackson 2003 as cited in Razavi 2009b:209). Often the intra-house distribution of resources generates specific blockades for women who want to expand their economic activities or livelihoods options. Such barriers create segregation from livelihood

sources or hinder access to livelihoods-supporting assets (Mishra 2007:65). In the commercialization of subsistence crops, these intrahousehold struggles and complexity has gained momentum and has perpetuated the conflicts of interest within peasants' families. In a focus group discussion with women one respondent said that;

Before commercialization of sweet potatoes were busy with subsistence farming of sweet potatoes our husbands never question anything about sweet potatoes they were busy dealing with cash crops but nowadays since the sweet potatoes have become commercialized, they have dominated sweet potatoes farming and despite the fact that we are the one who knows better the crop and carries out almost all the activities but our husbands wants to control all the income generated from the crop. That is why there have been so many complaints from men, but the reason is money from sweet potatoes nothing else (FDG, Magoweko on 30/08/2019).

Confirming this in focus group discussion with men one member said that;

Before the commercialization of sweet potatoes, there were peace and harmony within households, we were practicing other cash crops and our wives were busy with subsistence farming of sweet potatoes. But since subsistence crops were commercialized there has been no peace within the family, women are complaining a lot about money and other issues, in short, there has been family unrest and all its because of increased income generated from sweet potatoes (FDG, Nongwe on 30/08/2019).

Also, in an interview with ward executive officer (WEO) regarding men as the head of the family and decision-maker he said that;

Even though the commercialization of sweet potatoes has increased household income but there is an increased number of complaints about the decision regarding family income-expenditure within households, males being the head of the family sometimes take the decision that affects negatively the family welfare. For example, last year I have received more than 30 cases of women accusing their husbands of misused household

income generated from sweet potatoes farming. There is a recent case that women came here to accuse her husband of buying motorcycle using the money that was saved to buy school requirements for their daughter and buy another farm (Interview, Chanjale on 03/09/2019).

Further, Agricultural commercialization and technology adoption even though it has increased family income within the household the women's income is more likely to be spent on food and other basic household needs (Hoddinott and Haddad 1995; Quisumbing et al 1995 as cited in Fischer and Qaim 2012b:442). The commercialization of sweet potatoes has led to men as households head some time to deny their family responsibilities claiming that women nowadays have money, but they keep it secret they don't want to contribute to the household's income. In focus group discussion with women one member said that;

Men now days are denying their responsibilities to the household saying that they cannot afford alone without women's contribution, but the truth is they want all the money to be given to them and make the decision on the house budget. But if don't give whatever money you have then they will stop contributing anything to the family (FDG, Nongwe on 30/08/2019).

The typical assumption on commercialization within household has increased income and hence contributed to more development and wellbeing benefits to individual household members, these wellbeing benefits can be observed in two ways; increase in purchasing of diversified goods and services and by increasing food consumption of the household members that could improve their health status (Kennedy, 1994 as cited in Njuki et al. 2011c:428). However, there is evidence that households do not function as a single unitary model and that individual household members are likely to have different interests (Chiappori et al, 1993 as cited in Njuki et al. 2011d). Studies also show that sharing of resources by household members does not always occur and neither do all household members appreciate benefits equally (Bruce and Dwyer, 1988; Freidmann, 1992; Moore, 1992 as cited in Njuki et al.2011e). These differences within households regarding income distribution and enjoyments of the welfare benefits among individual members are caused by the

patriarchy system that is still existing within households of smallholder farmers in most of the regions in Tanzania. Women in a focus group discussion said that;

We women we could have given our husbands all the money we earn from our business of sweet potatoes but the problem our husbands are not transparent when you come to the issue of money they don't want to sit together in a table and discuss family earnings and budget together. And they cannot be trusted because most of the time they spend the money on other stuff and not benefiting the family and at the end of the day we women are suffering because we are one take care of the family (FDG, Rubeho on 30/08/2019).

Through field observation and an interview with local government officials, it reveals that though outside the households it seems that there is no patriarchy system but within a household, it still exists. Confirming this, one male ward executive officer in an interview said that;

Even though it seem like there is no longer patriarchy system but within households it still exists it will end if all women will be educated and get exposed, because if you ask the women why your husbands are making decision without involving them what they say is it is because they men and they fear to be divorced by their husbands because they will their marriage status within the community. The government has made huge effort to address the patriarchy system but only in public there no patriarchy because men fear laws and regulation imposed by the government but in private I mean within households the system still exist and it cause many conflicts within families and the rate of practice has increased particularly after commercialization of subsistence crops that were previously dominated by women. (Interview, Chagongwe 3/09/2019).

Moreover, the commercialization of sweet potatoes has led to decrease rate of polygamy within community. Most male heads normally use their power to take advantage of women labour and it is worse in most polygamous societies, these women labours are no considered in economic value (Brown 1996). Though in both polygamous and non-polygamous family there is gender equality within households but in polygamous family gender inequalities are more visible and worse and it is characterized by stiff competition among wives in order to win their husbands. This scenario become like divide and rule approach where husband only provide the piece of land to wives for cultivating and feed their children. But since the commercialization of crops particularly subsistence crops have improved women's lives and gave women confidence in autonomy. In actual sense, women play a potential role in all farming and domestic works so they have gain confidence that they can be self-enough without dependence from men. In a focus group discussion with women one said that;

I will never allow my husband to marry other women that were long time ago when we were only farming and sell maize and depend to our husband but nowadays you can cultivate and sell sweet potatoes and run my life why should I have to stay with him I will just leave the house and start new life with my kids and leave him with his new wife (FDG, Rubeho on 30/08/2019).

In addition to that in an interview with women who engage with sweet potatoes business said that;

This sweet potatoes business even though we do it in a harsh environment, staying in a high way with sunny and rain on us but at least we get something that helps us to run our lives we don't depend on husbands like before and if the husband said I need to marry other women and leave you to me its ok and I will happy because there will be no one to asks me about my earnings from my business (Interview, Gairo on 04/09/2019).

Furthermore, due to long working hours to women as a result of the commercialization of subsistence crops, girls within households are at high risk of misbehaving and end up being pregnant. There were some worries stated that girls were at particular risk of becoming pregnant

if left alone without parental support for a long period (Dancer and Sulle 2015). In a focus group discussion with women one member said that;

we spend many hours in farm and business if I get time to stay with my children in during nighttime, I am not feeling good, but I have no choice, I am the only one who concerns about my girls their father has no time. So whenever am out I don't know what is going on back at home, and you know girls need close protection otherwise you will find yourself with grandkids at home (FDG, Rubeho on 30/08/2019).

The growth of commercialization has weakened a long history of women's independent food production and reduced them to their marital duty to provide family labor (often unpaid) to produce commodities within households, with no control over the income from the activities resulted from commercialization (Dancer and Tsikata 2015b). Even though most of the rural women have been overloaded with their daily activities as a result of the shift from subsistence to commercial farming to the extent they fail full fill their domestic duties but even in the activities such as sweet potatoes farming that are busy with, the income generated is not controlled by them. In focus group discussion with women one woman said that;

Since the shift from subsistence to commercial farming everything has changed in our community, we parent we become too busy we don't enough time to stay and talk to our children. From January until December we don't rest during rainy seasons busy with farming and during dry seasons busy with harvesting and selling crops along the highway. For example, my neighbour last week was called at school and hear that her son is using drugs but when teachers asked the parents did you know your son is using drugs, she said no (FDG, Msingisi on 30/08/2019).

4.3 Women's Involvement in Sweet Potato Cultivation and its Contribution to Addressing Unequal Power Relationships Between Men and Women

In the process of capitalist development in agriculture in southern Africa some women have been able to become commercial farmers and benefit from market-oriented in their own or as wives of successful commercial farmers, and there has been increasing of households that women can take care of their children without significant economic support from the fathers of those children (Razavi 2009c:20). However, there is still a larger number of women in rural households that are deprived of access to resources to meet their needs and forced to seek different kinds of wage work (Razavi 2009c:20). For that sense, there is a need to think about how this shift from subsistence to commercial farming has contributed to household dynamics and how it has led to address unequal relationships between men and women.

Although the commercialization of sweet potatoes has subjected women with the increased working hours, they admit that sweet potatoes cultivation and trading have increased their income compared during subsistence farming and it has empowered women to become self-autonomy. In an interview with women sweet potatoes entrepreneurs who sold their crops along highway one woman who is divorced narrates her story;

I separated with my husband three years ago I left the house with my two sons without any property but through this sweet potatoes business within these three years I was able to save the money to buy a piece of land and build a small house topped with iron sheets for me and my child and I have bought two cows with plow that I use it to cultivate farms and I also use it to pull wagon during harvesting of crops but sometimes I rent it to other farmers. There is nothing to regret separation with my husband (Interview, Magoweko on 05/09/2019).

Moreover, even though the shift from subsistence to market-oriented farming has increased the value on land and increase the marginalization of women in terms of land ownership, but on the other hand, it has allowed women to buy and own land. In an interview with agriculture extension officer said that;

Nowadays due to the opportunity women have on sweet potatoes farming there has been an increase of women ownership of land particularly those women who are divorced, a single mother and those who got an opportunity to get the education and formal jobs. Though the situation is different from those women are in a marriage, it is difficult to own land because all the properties are in the names of their husbands (Interview, Magoweko on 04/09/2019).



Figure 6. Sweet potatoes women entrepreneurs selling crops along the high way in Gairo District (Interview 04/08/2109)



Figure 7. Sweet potatoes selling using buckets by women in Gairo District (Interview 05/ 09/2019).

Not only that, in focus group discussion with the female they admitted that nowadays there is less incidence of domestic violence against women because men have recognized women's contribution to household income and so they afraid if they abuse women there will lose. For instance, one woman in the focus group discussion said that;

My husband respects me, and he cannot abuse me because he knows without me it will be difficult for him to run the family. I play a huge part in generating family income and he knows that and that is why whenever I am sick, he is taking me to the hospital quickly because he knows all activities at home will be stopped (FGD, Msingisi on 30/08/2019).

Confirming this in focus group discussion with males one member said that;

We men now days we don't abuse our wives even though the government has introduced women desk in all police station that deals with issues of violence against women but still you can bribe the police or we can reach agreement and go back home, but we don't abuse women because if you do so then you have to understand that men will lose. To be honest, I can abuse my wife because she is contributing a lot in the family activities and life has changed, we need to cooperate to overcome the difficulties of life (FDG, Mandege on 30/08/2019).

Commercialization subsistence crops have facilitated many families break up because of divorce and separation, this is because women are confident that they can survive without dependency from men. However, women can appreciate and enjoy the autonomy of living on their own without support from their husbands but this should not blind us to fact that women's economic responsibility has increased and become more to vulnerability (O'Laughlin 1998 as cited in Razavi 2009d). Combining both domestic roles and earning income for women has made them more vulnerable compared during subsistence farming particularly this era where everything has been attached to money. The absence of fathers in the family means mothers must play the double role of caregiving and income earning, which is a heavy burden especially in the current situation

where there is a high unemployment rate (Budlender and Lund 2007 as cited in Razavi 2009d). In a focus group discussion with women one respondent said that;

I divorced my husband four years ago because he wanted to marry another woman while I was the one contributing bigger percentage of household income, I refused because I asked myself why should I keep bending my knees to someone who doesn't have any help and I decided to ask divorce because I was confident that I am capable of handling my life alone through this business (FDG, Nongwe on 30/08/2019).

Also, another woman in the focus group discussion said that;

If my husband abuse me I will take my children and leave him alone with his house why should I stay with a person who ignore and abuse me while am capable of rent farm and cultivate and sell sweet potatoes and take care of my kids, even if we are staying with our husband it is because of respect to the society but it is not that we depend on them (FDG, Chagongwe on 30/08/2019).

4.4 Challenges that Women Face in The Cultivation and Marketing of Sweet Potatoes

4.4.1 Soil Exhaustion

Due to the practice of monoculture the soil has become exhausted, farming sweet potatoes for years without mixing up with other crops means crop rotation has led the loss of essential nutrients for the growing sweet potatoes and hence it reduces the production of sweet potatoes. Crop rotation helps the soil to retain nutrients. In focus group discussion with men, one respondent said that;

The action of farming the same crops (sweet potatoes) for years and the action of repetition hinder better crops, will not provide high yields and the crops will decay early, I am saying this because there are better and high yields in those areas where they don't practice sweet potatoes farming regularly (FGD, Nongwe on 30/08/2019).

4.4.2 Lack of Organic Fertilizer

According to sweet potatoes, peasant farmers say that the farming of sweet potatoes does not require chemical fertilizers, organic fertilizers are suitable for farming of sweet potatoes, in some areas organic fertilizer is obtained from grass within the farms. This means after harvesting period the field left uncultivated until the rainy season where there will be grown grasses, this means the presence of decay grass within terraces will be used as organic fertilizer which is potential for sweet potatoes farming. In a focus group discussion with women who are active sweet potatoes farmers one member said that;

The presence of decay grasses within terrace it provides nutrients and conducive space for the crop to grow better but if there are no grasses there will be no space and nutrients for crop to grow big, but now days because of climatic changes that lead to drought, livestock keepers has no enough grazing areas to feed their animals and so they graze it to peasant farms and eat all grasses and leave the farms bare and the presence of animals in the farms make the soil to become harder which is not conducive for growing sweet potatoes (FGD, Msingisi on 30/08/2019).

4.4.3 Climatic Change

Climate change have brought a huge challenge in sweet potatoes cultivation to smallholder farmers, the climate has been unpredictable so during the rainy season it may rain heavily and cause a flood or receive a short period of rain. Due to that factor during the short period of raining farmers are facing confusion which crop to cultivate for the case of Gairo district the competition is between sweet potatoes and maize but most of the time farmers decide to cultivate maize because it is common staple food and thus it affects the sweet potatoes cultivation. Drought and low soil fertility in many parts of the country affect crop production. Genetic erosion enhanced by climate change has been another main problem in the country restraining the genetic diversity for sweet potato development (Helen Keller International 2012). In a focus group discussion with women one member said that;

When we receive short period of rain season we are forced to choose to cultivate maize because it is our favourite staple food but at the same time we can sell it and get income, but sweet potatoes are mostly regarded as a business crop you can't have a stock of sweet potatoes inside and satisfied that you have food inside. But if you receive long rainy season we can cultivate sweet potatoes and then maize, this means we can direct capital and labor force to sweet potatoes and later to maize cultivation compared during short rainy season it's not easy to deal with both because of shortage of capital and labor (FGD, Rubeho on 30/08/ 2019) .

Furthermore In an interview with ward executive officer (WEO) of Magoweko ward said that sweet potatoes farmers really need the government to support them by building wells that will ensure the availability of rainwater for the entire year, this will help them to practice irrigation farming and increase the scale of production but also will reduce the problem of water for domestic consumption and reduce the long hours spent by women in fetching water. Confirming this in focus group discussion with women as a response to the challenge of climatic changes one member said that;

We need the government support by digging wells to each ward that can be used to collect water during the rainy seasons and will help us to cultivate sweet potatoes throughout the year and use it for domestic purposes because we are the one who suffered a lot with water (FGD, Msingisi on 30/09/2109).

However, in a focus group discussion with men, they agree with the government support in providing them with water supply, but they disagree with the water tap and they wanted local dams' construction because it can be used with irrigation and livestock uses. But in my observation, the collision of interest between men and women over water is that women want the government to build well because are the one who buys or fetch water for household usage but men insisted on building dams because they wanted it for livestock usage and irrigation only.

4.4.4 Absence of Reliable Market

Most of the farmers are struggling to sell their crops through different channels often with tiny benefits and all actors and traders within the value chain are unsatisfied, as they must deal with transaction costs in their mission to serve as a connection between producers and consumers (Mayanja et al. 2017b). Even though the urban trading of sweet potatoes is growing but the most common business channel is characterized by women who sell at low volume in rural markets (Bashaasha et al. 1995a). Sweet potatoes are normally carried out by a small- scale sellers and functioning privately on an individual basis, farmers sell sweet potatoes directly to consumers within the villages. Its marketing chain comprises farmers, traders, transporters, middlemen and final consumers (Helen Keller International 2012).

Women sweet potatoes farmers face a big challenge of the market for their crops, the currently existing market is unreliable because farmers depend on middlemen to sell their crops and they sell by chances. In East and Central Africa marketing of agricultural commodities is mostly informal and many are disorganized by (KIT 2008). Since there is no pace for farming and harvesting seasons between farmers, so most of the time the farmers are harvesting at once and lead to plenty yields of sweet potatoes that exceeds the demand at the moment and because there is no good storage of the products farmers are forced to sell their crops at lower price and that the reasons middlemen take the advantage of it to exploit farmers by choosing the price of their crops instead of farmers.

In Tanzania and other parts of East Africa are constrained by the huge and fresh nature of the crop, high transport costs, inadequate market intelligence services and limited processing storage facilities (Bashaasha et al. 1995b). In a focus group discussion with women active farmers one member said that;

We cultivate sweet potatoes but the market is unreliable we as farmers instead of setting one price to our crops but the middlemen are the one who set price and most of the time farmers pursue middlemen to buy their

crops by promising to give extra sweet potatoes for free because if you don't do that your crops will decay and end up with more damage (FGD, Magoweko on 30/09/2019).

Confirming this in an interview with women entrepreneurs one women said that;

We required to walk up early morning every day and go to the highway and wait for travelers to pass and sell them, but it would have like a company to buy our sweet potatoes would have not been here waiting for unpredictable buyers (Interview, Magoweko on 05/08/2019).

4.4.5 Crop Pests

Sweet potato productivity in Tanzania is very low equated to international standards despite its significance. Low productivity is since farmers use local landraces that are low harvests and prone to disease and insect pests. The absence of high-quality planting material of improved varieties, especially during critical periods of planting sweet potato has led to these problems (Mukasa et al. 2003).

In almost five years there has been an invasion of pests that were not there before, some of the pests (weevil) do not have even pesticides to stop them. Pests attack sweet potatoes stems (roots) and crop itself. Sweet potato virus disease (SPVD) is another problem, which is debatably the most shocking disease affecting sweet potato production in Tanzania. The disease can reduce the harvest of crops up to 50% of the total production. Sweet potato weevils *Cylas* spp and *Blocyrus* spp are the most significant insect pests of sweet potato, affect the crop by digging in the root flesh rendering the roots inedible (Kapinga et al. 1995). In a focus group discussion with women one member said that;

In recent days we have seen the invasion of new pests that that has no names or even pesticides to stop them, once the pest attack sweet potatoes seed will not grow, the agricultural extension officers know the situation and the agricultural professionals from the ministry of agriculture they have information but when we ask they say they still doing research to find out the cure. So, once you see those pests in your farm

you need to go stem by stem to pick the pests and destroy it's a boring and time-consuming job (FGD, Chanjale on 30/08/2019).

Some of the pests have pesticides but the problem is those pesticides are expensive to buy and for a smaller holder farmer it is unaffordable.

In an interview with the district agriculture officer (DAO) she confirms that it is true there is the problem of new and destructive crop pests that still the government through research centers are working on it but currently there is no solution yet (Interview, Gairo on 04/09/2019).

4.4.6 Unavailability and Cost of Sweet Potatoes Seeds (Vine Cuttings)

In sub-Saharan Africa, even though women farmers seem to be contributed much less than women do but this is not always because women are prohibited from accessing land; it is because they lack the capital to invest in farming inputs and accessing marketing channels (Razavi 2007a).

Gairo area is difficult and expensive to get sweet potatoes seeds, so the farmers need to travel a long distance to find it for instance farmers are forced to travel to another district to buy seeds. The price of seeds for normal sweet potatoes is 100,000 Tz shillings and for orange-fleshed sweet potatoes (OFSP) is 160,000 per acre transport cost not included. For instance, in focus group discussion with women one woman said that;

The price for sweet potatoes seeds (vine cuttings) is too expensive for the small peasant to afford, particularly this newly introduced OFSP vine cuttings each season we are required to travel to kilos district to buy it (FDG, Chanjale on 30/08/2019).

The area has unavailability of sweet potatoes seeds it is because, sweet potatoes seeds need to be stored in soil with water most of the time during the dry season all the vine cuttings become dry and only place that can be available is at river valley areas where there is water for irrigating the vine cuttings even during dry seasons. But unfortunately, Gairo district most of the

area is dry and flat land so during the dry seasons there is no way to store the vine cuttings until the rainy season.

The absence of high-quality planting material of better-quality varieties is another main constraint in increasing OFSP production. The condition has been intensified by the lack of an organized seed system of clonally propagated crops in the seed sector in Tanzania, the necessity for fast-tracking the assessment of advanced breeding lines through participatory variety selection and the release of greater clones, with high beta-carotene content cannot be overstated. Varieties that are released need to be reproduced in association with key institutions and partners for change to meet farmer needs using the Community Seed Production Model (Helen Keller International 2012).

Also, in Gairo district there are only two man-made dams, but they are small not enough for the entire district and they only serve the farmers around the nearby area for horticulture farming. Also, there is tap water but its only for the public but individuals are strictly not allowed to own tap water because the water infrastructures are not enough to supply enough water to the people so most of the place they still buy water in galloons that cost 1000 Tanzanian shillings per gallon. Some individuals who have a bit of money they dig wells but for water business-oriented, so in short, the problem of water hinders the availability of sweet potatoes seeds and cultivation of sweet potatoes in general. For instance, in a focus group discussion with men one man said that;

In Ibuti village the entire population depends on single well that is owned by an individual and he sells 200 Tz shillings per gallon, how could you afford to buy enough water for irrigating sweet potatoes seeds for the whole dry season (FGD, Chanjale on 30/08/2019).

4.4.7 Lack of Capital to Invest

Most women farmers have inadequate access to micro-credit which has prevented their productivity and income (UNDP, 1998). Expanding access of women farmers to farm credit is essential to rural development since it allows women to invest in and increase production in farming, small businesses and small-scale manufacturing all of which improve their wellbeing

standard. Microcredit to women farmers allows them to invest in agriculture and permit women to practice sustainable farming (Mmasa and Msuya 2012).

Anti-poverty agendas, whether in the form of micro-credit or conditional cash transfers, progressively target women on the grounds that they will spend the resources under their control in ways that will improve family and child wellbeing, and policy documents on land tenure institutions and their restructuring often refer to gender-based limitations on women's ownership and access to land as an obstruction to market efficiency and poverty reduction (World Bank 2003 as cited in (Razavi 2009e).

The implication was to understand that male ownership and access to land within household production effectively expanded the exploitation of women's labor through heavier workloads in form of domestic works which is normally unpaid and unrecognized family labor (Jackson 1996 as cited in (Razavi 2009f).

In a focus group, discussion (FGD) shows that women who are involved in sweet potatoes entrepreneurship said they are not able to expand their business because they lack enough capital to invest in their business. The women who engage in the sweet potatoes business are categorized into two groups, those who are selling fresh sweet potatoes in the bucket along the highway and those who are involved in selling the products of Orange Fleshed Sweet Potatoes (OFSP) flour. Both they face difficulties in getting credits from financial institutions because they lack essential criteria (bond) to get the loan, all property rights and title deeds documents such as land and houses are written in their husband's name. For instance, in focus group discussion with women one member said that;

we are facing difficulties to get credits because the banks need documents that are used as collateral, so to get credits there must be consent between husband and wife and most of the time they don't agree with our plans on how will use the credits. But they can decide on their own and take the loan without involving us (FGD, Msingisi on 30/08/2019).

In many developing countries gender analyses of land tenure institutions have uncovered the complex of laws, customs, social norms, social relations and practices that combine to

eliminate women from the ownership and control of property (especially fixed property like arable land) (Agarwal and Bina 1994).

In sub-Saharan Africa land distribution and land access are administered by locally arranged systems of 'customary' rights, in the 1980s the international financial institutions announced the unavailability of private property rights in land as a blockade to agricultural growth, and gave full support to privatization, titling, and registration of land. Yet succeeding research carried out by the World Bank and the Land Tenure Centre at the University of Wisconsin exhibited unclear discrepancy in the output and investment of lands held in ownership title equated with those held under customary tenure (Razavi 2007b).

It is claimed that the conservancy of customary law would be at odds with women's rights because it would eliminate women from inheriting clan lands as well as violating the shared property provision of the 1971 Marriage Act. A study commissioned by the Ministry of Community Development, Women's Affairs and Children, jointly with the World Bank, found that female-headed households were being omitted from access to clan lands and the procuring land was a likelihood seldom practiced because of the lack of resources (Razavi 2007c:1491). In an interview with the agricultural extension officer said that;

Those women who are widows and own properties like land and houses they lack title deeds commonly known as Certificates of Customary Rights of Occupancy (CCROs) to be used as collateral to access loans, this is due to fact that most of the land in villages are not formalized because of high bureaucracy on the formalization procedures. The only solution for them is to involve in Village Community Banks (VICOBA) which according to respondents they get just small credits which are not enough to invest in sweet potatoes farming and entrepreneurship (Interview, Gairo on 04/09/2019).

There is slight agreement among gender specialists as to whether individual or joint titles would assist women's interests better. Agarwal, for example, reflects joint titles to be challenging (in the Indian context at least): It is hard for women to gain control over the yield, to bestow the land as they want, and to claim their share in case of conjugal conflict. She sees individual titles as

improved ability to provide women with flexibility in following their plans. However, given some of the difficulties that resource stressed women smallholders with individual titles might oppose—for example, their lack of necessary funds, and the challenges of investing in capital equipment if the farm is small—the finest institutional arrangement would be some joint form of investment and farming that would bring women smallholders together (Razavi 2007c:1491).

4.4.8 Poor Support from the Government

Support to women farmers is increasing arguments for some time now in most developing countries as an approach to connect the gender inequalities between men and women by improving women income activities to succeed sustainable development. Supporting women in farming has been one of the most important solutions to overcome poverty and hunger. This is so because women will at least be able to nurture their children through their farm produce once they are provided with capacity. At First, empowering on farm supervision, best methods and extension were fully arranged for men since they are believed as family heads and owners of the farm and women were regarded as people who are working on the farms of their husbands.

It also confirms a shift from a development process that only transfer women to welfare sector and that guarantees equity by building women capability to involve in productive activities that assist them contest with their male counterparts as most women were affected by technology as well as skills in the development process (Kabeer 1994). However, in Gairo compared to other crops such as maize there has never been any support from the government to promote sweet potatoes farmers except the professional advisory support from agriculture extension officers. In focus group discussion with women, for instance, one woman said;

At least for maize farmers during the rule of President Jakaya Mrisho Kikwete with initiated policy of "Kilimo Kwanza" the government were provided subsidies to small farmers but with the current policy of "industrial economy" initiated by the current President John Magufuli there is no any subsidies or support from the Government particularly sweet potatoes, the only support from the government was just helping us

to get a chance to advertise our products made from the orange-fleshed sweet potatoes flour in world farmers day (FGD, Rubeho on 30/08/2019).

Additionally, for women smallholder farmers to make progress in their practice that would lead to improve their income and make significant contribution to reach sustainable rural development, the government support to the small farmers is highly required in terms of farming inputs such as fertilizers, technology, credits, seeds and others. Also, government should play part in controlling prices for their crops and markets. OECD countries use a complicated range of policies to boost their agricultural sectors, by providing four different agriculture support in import tariffs, export subsidies, production subsidies and input subsidies. The OECD governments provide aid to their farmers that are direct income payments that are not directly connected to prices or output (Tokarick 2005). In Tanzania since independence there has various national agriculture policies and slogans that intended to support small peasants but there has been inadequate investment and implementation of the policies.

4.4.9 Poor Coordination and Implementation of Government Policy

It is quite clear that malnutrition is still a serious problem affecting infants, children, and pregnant women not only in Tanzania but also in most of the countries in sub-Saharan Africa. The Tanzanian government has incurred a huge cost in terms of financial and other consequences related to malnutrition including poverty. Seeing that problem, the government came up with policies that intend to address the malnutrition problems national wide.

In Tanzania, the main ministries implementing the Food and Nutritional Policy and the Nutritional Strategy are the Ministry of Health and Social Welfare (MoHSW) and the Ministry of Agriculture, Food Security and Cooperatives (MAFC). The MoHSW has the duty of evaluating the health status (including Vitamin A status) and encouraging the feeding of orange-fleshed sweet potatoes (OFSP) through the present health education programs in health services and communities (Helen Keller International 2012).

However, much has not yet been done on investment that will lead to the rise of awareness of the benefits of OFSP, thus the abundant nutritional benefits are generally unknown by potential consumers (Helen Keller International 2012).

Furthermore, though Tanzanian government has a policy through its ministries concern that emphasis on consumption of sweet potatoes particularly OFSP but no policy from the ministry of agriculture supports the smallholder farmers with a conducive environment to grow and market their crops. In focus group discussion conducted with active peasants, they responded that they are not much aware of the policies or programs initiated by the Tanzanian government regarding sweet potatoes, but they are aware that sweet potatoes (OFSP) have potential nutrients for the human being.

In an interview with an official from the ministry of agriculture the data reveals that some national policies and programs emphasize the cultivation and consumption of OFSP particularly mother and child aged under five years to address the malnutrition and vitamin A deficiency because OFSP varieties have extremely high levels of bio-available beta-carotene. But despite national policies and programs regarding OFSP and its significance combat poverty and malnutrition but the government effort was only to inform households that OFSP has potential on the child health, but nothing has been done to improve or benefits sweet potatoes farmers, for instance, providing farmers with farming inputs subsidies, reliable markets, processing industries and help farmers to establish cooperative society that will be a platform of all farmers activities (Interview, Dodoma on 07/09/2019)

4.5 Opportunities for Women Cultivating and Marketing Sweet Potatoes

In Giro district was among district in Morogoro region that had an opportunity to work with Some of the Non-Governmental Organization (NGO's) such as Sokoine University Graduate Entrepreneurs Cooperative (SUGECO). SUGECO initiated a project which focused on promoting the consumption of nutritious food (Orange Fleshed Sweet Potatoes) which is a newly

introduced sweet potatoes seeds variety and Vitamin A-rich. The OFSP was introduced purposely aimed at addressing issues of household poverty and malnutrition to smallholder farmers, they were given training regarding farming and selling high-quality cash crops to play an active role in harvest and market processes. The NGO also built a big dryer that used to dry sweet potatoes ready for milling sweet potatoes and get flour. In an interview with SUGECO official said that;

SUGECO work with 3,000 smallholder farmers in Kilosa and Gairo districts, sponsoring good agricultural practices for Orange Fleshed Sweet Potatoes (OFSP) and its nutritional advantages to community Support formalization of market activities for high performing smallholders and farmer groups to rise predictability for both them and processors, construct good business practices and profitability at the same time in Promoting the nutritional benefits of OFSP and how to cook so is an opportunity for smallholder farmers (Interview, Gairo on 06/09/2019).

Also Viable Sweet potatoes Technologies in Africa (VISTA), it trained the farmers on how to increase value of the sweet potatoes by introducing new ways of storing sweet potatoes and how to convert OFSP into flour that will be used to make different variety of products such as spaghetti, pancakes, juice and crisps However, in a focus group discussion with women one member said that;

VISTA trained us on how to cultivate OFSP and their advantage on addressing poverty and malnutrition honestly it is a big deal but the problem they did not bring to us enough seeds so it forced us to travel long distance to buy them at expensive price but also in training we told them in this area we have the problem of water so we cannot keep these seeds for multiplication, they responded positively but in vain (FGD, Chanjale on 30/08/2109).

4.5.1 Presence of Information and Communication Technology (ICT)

It is argued that an increase in transaction costs discourages the participation of small farmers into the market and so it is crucially important to have a clear discussion on it (Pingali et al. 2005). The interventions that intend at reducing transaction costs would allow the small farmers to have effective and efficient participation in competitive markets and enabling them better and more cheap communication in a limited section of the value chain (De Silva and Ratnadiwakara 2008).

In the Gairo district, all wards have internet service, in both interviews and focus group discussions almost, all respondents had smartphones that they are using for communication between farmers and their customers. But they never used smartphones to advertise their sweet potato products particularly Orange Fleshed Sweet Potatoes products which have nutritious benefits through social networks which can be a convenient way to advertise and information will be able to reach the customers at a larger number. For instance, in FGD with women one respondent said that;

I have smartphone but I only used to make normal call WhatsApp chats, Instagram and taking photos but I have never try to use it for advertising my OFSP products because I don't know how to use it and am not so sure if it works.

Chapter 5:

Conclusion

Commercialization of subsistence crops has increased value of crops for smallholder farmers and women who were previously practice subsistence farming has also integrated into market-oriented farming. Increasing commercialization of subsistence crops through connecting farmers to markets has increased farmers' incomes to the extent men have been attracted and gradually has started to involve and dominate the farming.

Even though now men dominate all cash and subsistence crops but still women are participating more than men in the entire farming activities, men's dominance is on controlling and making the decision over resources and income generated from joint effort within the household. The study shows that even though women still facing various challenges in commercialization specifically in access to resources, markets and decision making over the income generated by their effort and joint effort with their husband but the shift from subsistence to commercial farming not only have increased their income but also a sense of autonomy. Women empowerment as a result of the commercialization of crops and the existing patriarchy within smallholder farmers household together has created gender dynamics and complexity related to allocation, access to resources and markets. So, the study thought to understand the dynamics of gender relationships as a result of the shift from subsistence to commercial farming. This was guided by the main research question; how and to what extent does commercialization of sweet potato cultivation affecting intra-household gender relations in rural Tanzania? To achieve the main research question, three specific questions were derived. The specific research questions of the study were to 1) What is the gender-differentiated impact of sweet potatoes cultivation and marketing? 2) How does women's involvement in sweet potato cultivation contributing to addressing unequal power relationships between men and women? And 3) What are the opportunities and challenges that women face in the cultivation and marketing of sweet potatoes? To answer these questions, this research employed a qualitative research design where descriptive data was gathered from 26 respondents using focus groups and semi-structured interviews.

Regarding the specific research question about gendered-differentiated impact of sweet potatoes cultivation and marketing, the findings of this study found that women are exposed to

long working hours which reduce their ability to take part in the marketing of the sweet potatoes. Concerning the specific research question about how women's involvement in the farming and marketing contribute to addressing unequal power relations, this study made several findings. One of these findings is that some women's independent income has increased but intra-house gender relations have been both negatively (separation of spouses) and positively (reduced domestic violence) affected. Regarding the research question about the opportunities and challenges women face in cultivation and trading of sweet potatoes, this study identified several challenges and opportunities. The challenges included soil exhaustion, lack of organic fertilizer, climate change, lack of reliable market, crop pests, unavailability of seeds and lack of capital. The opportunities available included joining of cooperatives that train and help the women to effectively farm and market their sweet potatoes.

In responding to the main research question, the findings of this study imply that intrahousehold gender relations should be observed in commercialization. Commercialization of subsistence crops has led to some changes in gender-related aspects within households of smallholder farmers, the sense of autonomy that women gained as a result of commercial cultivation has made them challenge the existing patriarchy system within family. The findings show that different interest between women and husband in decision making over how to spend the income made from joint effort has contributed to struggles within the household. Apart from the fact that commercialization of subsistence crops has contributed to the increase the use of money within household but also it has led to men struggle to control the income generated from commercialised subsistence crops and in which women's resist as they consider as their crop, this dynamics has facilitated the rise of conflicts, increase of family separation, decrease of domestic violence against women and polygamy rate in rural areas. Even the low income that women earn from a joint effort with their husband but still women largely spend most of their money on buying food to feed the family.

Results from analysing this study's findings demonstrate that even though still at a low rate but commercialization of subsistence crops has enabled women to own and access land compared to previous days though mostly are for the divorced women and single mothers, income generated from selling crops support them to buy land and practice farming. For married women still, are not able to own land because of the patriarchy system that gives men privileges and so all family properties a titled to the husband. Despite all the women's struggles towards self-reliance and

empowerment through farming and selling crops but still are facing many challenges in competing and accessing high price markets that are mostly dominated by men. Providing women with skills-building and using gender transformative approaches can guarantee women to access and compete in the market arena.

Addressing gender equality within the household will contribute effective commercialization of crops of smallholder farmers and increase of income within the family that will facilitate improved welfare and food security. Women will have enough time to take care of the families which currently they don't have due to the increase of working hours to both domestic and farm. Women play important roles in commercialization and all the challenges that are facing should be taken as seriously for the attainment of sustainable rural and national development.

References

- Adam, R.I., L. Badstue and K. Sindi (2018) 'The Dynamics of Smallholder Farmers' Acquisition and Distribution of Sweetpotato Vines in the Lake Victoria Zone Region, Tanzania', *Food security* 10(2): 339-350.
- Agarwal, B. (1997) "Bargaining" and Gender Relations: Within and Beyond the Household', *Feminist economics* 3(1): 1-51.
- Agarwal, B. and A. Bina (1994) *A Field of One's Own: Gender and Land Rights in South Asia*. Vol. 58. Cambridge University Press.
- Bain, L.E., Awah, P.K., Geraldine, N., Kindong, N.P., Siga, Y., Bernard, N. and Tanjeko, A.T., (2013). Malnutrition in Sub-Saharan Africa: burden, causes and prospects. *Pan African Medical Journal*, 15(1).
- Bashaasha, B., R. Mwanga, C. Ocitti p'Obwoya and P. Ewell (1995a) 'Sweetpotato in the Farming and Food Systems of Uganda: A Farm Survey Report', *International Potato Center (CIP), Nairobi, Kenya and National Agricultural Research Organization (NARO), Kampala, Uganda* 63.
- Bashaasha, B., R. Mwanga, C. Ocitti p'Obwoya and P. Ewell (1995b) 'Sweetpotato in the Farming and Food Systems of Uganda: A Farm Survey Report', *International Potato Center (CIP), Nairobi, Kenya and National Agricultural Research Organization (NARO), Kampala, Uganda* 63.
- Brown, C.K. (1996). Gender roles in household allocation of resources and decision-making in Ghana. *The changing family in Ghana*, pp.21-41.
- Bernard, T., Gabre-Madhin, E.Z. and Taffesse, A.S., (2007). *Smallholders' commercialization through cooperatives: A diagnostic for Ethiopia* (No. 589-2016-39794).

- Carletto, C., P. Corral and A. Guelfi (2017) 'Revisiting the Gains from Agricultural Commercialization', 'Revisiting the Gains from Agricultural Commercialization',
- Chant, S. (2016) 'Women, Girls and World Poverty: Empowerment, Equality or Essentialism?', *International Development Planning Review* 38(1): 1-24.
- Dancer, H. and E. Sulle (2015) 'Gender Implications of Agricultural Commercialisation: The Case of Sugarcane Production in Kilombero District, Tanzania'.
- Dancer, H. and D. Tsikata (2015a) 'Researching Land and Commercial Agriculture in Sub-Saharan Africa with a Gender Perspective: Concepts, Issues and Methods'.
- Dancer, H. and D. Tsikata (2015b) 'Researching Land and Commercial Agriculture in Sub-Saharan Africa with a Gender Perspective: Concepts, Issues and Methods'.
- De Silva, H. and D. Ratnadiwakara (2008) 'Using ICT to Reduce Transaction Costs in Agriculture through Better Communication: A Case-Study from Sri Lanka', *LIRNEasia, Colombo, Sri Lanka, Nov* .
- Echodu, R., H. Edema, G. Wokorach, C. Zawedde, G. Otim, N. Luambano et al. (2019) 'Farmers' Practices and their Knowledge of Biotic Constraints to Sweetpotato Production in East Africa', *Physiological and Molecular Plant Pathology* 105: 3-16.
- Etikan, I., S.A. Musa and R.S. Alkassim (2016) 'Comparison of Convenience Sampling and Purposive Sampling', *American journal of theoretical and applied statistics* 5(1): 1-4.
- Fafchamps, M. 2001. Intrahousehold access to land and sources of inefficiency: Theory and concepts. *Access to Land, Rural Poverty and Public Action*, pp.68-96.
- FAO (2011) 'The State of Food Agriculture', pp. 3-7. Viale delle Terme di Caracalla, 00153 Rome, Italy: FAO.
- Fischer, E. and M. Qaim (2012a) 'Gender, Agricultural Commercialization, and Collective Action in Kenya', *Food Security* 4(3): 441-453.

- Fischer, E. and M. Qaim (2012b) 'Gender, Agricultural Commercialization, and Collective Action in Kenya', *Food Security* 4(3): 441-453.
- Harcourt, W. (2010) 'Development as if Gender Matters', *Development* 53(2): 210-214.
- Gebreselassie, S. and Sharp, K., (2007). Commercialisation of smallholder agriculture in selected Tef-growing areas of Ethiopia. *Ethiopian Journal of Economics*, 16(1), pp.55-86.
- Helen Keller International (2012) 'Orange-Fleshed Sweet Potato Situation Analysis and Needs Assessment Tanzania Report '. Hellen Keller Tanzania: International Potato Center.
- Kagimbo, F., H. Shimelis and J. Sibiya (2018) 'Sweet Potato Weevil Damage, Production Constraints, and Variety Preferences in Western Tanzania: Farmers' Perception', *Journal of Crop Improvement* 32(1): 107-123.
- Kalabamu, F. (2006) 'Patriarchy and Women's Land Rights in Botswana', *Land Use Policy* 23(3): 237-246.
- Kapinga, R.E., P.T. Ewell, S.C. Jeremiah and R. Kileo (1995) 'Sweetpotato in Tanzanian Farming and Food Systems: Implications for Research', *International Potato Center, Tanzanian Ministry of Agriculture, Nairobi and Dar-Es-Salaam* .
- Kinyondo, A. and J. Magashi (2017) 'Enhancing Rural Livelihoods in Tanzania: A Small-Holder Farmers' Perspective', *International Journal of Accounting and Economics Studies* 5(2): 68-79.
- KIT, I. (2008) 'Trading Up: Building Cooperation between Farmers and Traders in Africa', *Amsterdam (The Netherlands): KIT—Royal Tropical Institute/Nairobi (Kenya): IIRR—International Institute of Rural Reconstruction* .
- Kabeer, N. (1994). *Reversed realities: Gender hierarchies in development thought*. Verso.
- Kabeer, N., 1999. Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and change*, 30(3), pp.435-464.
- Kweka, R. (1998a) 'Women in Smallholder Irrigation in Tanzania', *Gender Analysis and Reform of Irrigation Management, Concepts, Cases and Gaps in Knowledge*.

- Kweka, R. (1998b) 'Women in Smallholder Irrigation in Tanzania', *Gender Analysis and Reform of Irrigation Management, Concepts, Cases and Gaps in Knowledge*
- Laws, S., C. Harper, N. Jones and R. Marcus (2013) *Research for Development: A Practical Guide*. Sage.
- Leavy, J. and Poulton, C., (2007). Commercialisations in agriculture. *Ethiopian Journal of Economics*, 16(1), pp.1-37.
- Mayanja, S., F.K. Grant, R. Kakuhenzire and H. Okuku (2017a) 'Technical Report. Rapid Market Assessment: Viable Sweetpotato Technologies in Africa-Tanzania.'
- Mayanja, S., F.K. Grant, R. Kakuhenzire and H. Okuku (2017b) 'Technical Report. Rapid Market Assessment: Viable Sweetpotato Technologies in Africa-Tanzania.'
- Mishra, D.K. (2007) 'Gender, Forests and Livelihoods: A Note on the Political Economy of Transition in North-East India', *Social change* 37(4): 65-90.
- Mmasa, J.J. and E.E. Msuya (2012) 'Mapping of the Sweet Potato Value Chain Linkages between Actors, Processes and Activities in the Value Chain: A Case of" Michembe" and" Matobolwa" Products', *Sustainable Agriculture Research* 1(1): 130.
- Mukasa, S.B., P.R. Rubaihayo and J.P. Valkonen (2003) 'Incidence of Viruses and Virus Like Diseases of Sweetpotato in Uganda', *Plant Disease* 87(4): 329-335.
- Mustafa, S.M. (2017), *Orange fleshed sweet potato consumption for improved nutrition in Gairo* .
- MacInnes, J., 1998. Analysing patriarchy capitalism and women's employment in Europe. *Innovation: The European Journal of Social Science Research*, 11(2), pp.227-248.
- Mageto, W., 2016. *Factors Affecting Commercialization of Sweet Potatoes in Kenya a Case Study of Mosoch Division, Kisii County* (Doctoral dissertation, University of Nairobi).
- Mayanja, S., F.K. Grant, R. Kakuhenzire and H. Okuku (2017) 'Technical Report. Rapid Market Assessment: Viable Sweet potato Technologies in Africa-Tanzania.'

- Morgan, D.L. (1988). *Focus groups as qualitative research* (Sage University Paper Series on Qualitative Research Methods, Vol. 16). Beverly Hills: Sage Publications.
- Mustafa, S.M., (2017). *Orange fleshed sweet potato consumption for improved nutrition in Gairo* (Doctoral dissertation, Sokoine University of Agriculture).
- National Bureau of Statistics (2013). *Population and Housing Census for United Republic of Tanzania 2012*: National Bureau of Statistics, Dar es Salaam, Tanzania. 76pp.
- Ngailo, S., H.A. Shimelis, J. Sibiya and K. Mtunda (2016) 'Assessment of Sweet potato Farming Systems, Production Constraints and Breeding Priorities in Eastern Tanzania', *South African Journal of Plant and Soil* 33(2): 105-112.
- Njuki, J., Kaaria, S., Chamunorwa, A. and Chiuri, W., (2011). Linking smallholder farmers to markets, gender and intra-household dynamics: does the choice of commodity matter? *The European Journal of Development Research*, 23(3), pp.426-443.
- Ngailo, S., H.A. Shimelis, J. Sibiya and K. Mtunda (2016) 'Assessment of Sweetpotato Farming Systems, Production Constraints and Breeding Priorities in Eastern Tanzania', *South African Journal of Plant and Soil* 33(2): 105-112.
- Njuki, J., S. Kaaria, A. Chamunorwa and W. Chiuri (2011a) 'Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?', *The European Journal of Development Research* 23(3): 426-443.
- Njuki, J., S. Kaaria, A. Chamunorwa and W. Chiuri (2011b) 'Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?', *The European Journal of Development Research* 23(3): 426-443.
- Njuki, J., S. Kaaria, A. Chamunorwa and W. Chiuri (2011c) 'Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?', *The European Journal of Development Research* 23(3): 426-443.

- Njuki, J., S. Kaaria, A. Chamunorwa and W. Chiuri (2011d) 'Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?', *The European Journal of Development Research* 23(3): 426-443.
- Ochieng, N. and A. Hepelwa (2018) 'Effects of Small-Scale Agricultural Crop Commercialisation on Rural Household Welfare in Tanzania: A Case Study of Liwale District, Lindi Region', *International Journal of Agricultural Economics* 3(5): 103.
- O'Leary, Z. (2014). The essential guide to doing your research project. Sage. Oxford Learner's Dictionary. accessed on 4th September 2017 <http://www.oxfordlearnersdictionaries.com/>
- Pingali, P.L. and Rosegrant, M.W., (1995). Agricultural commercialization and diversification: processes and policies. *Food policy*, 20(3), pp.171-185.
- Pingali, P.L., (1997). From subsistence to commercial production systems: The transformation of Asian agriculture. *American Journal of Agricultural Economics*, 79(2), pp.628-634.
- Ochieng, N. and A. Hepelwa (2018) 'Effects of Small-Scale Agricultural Crop Commercialisation on Rural Household Welfare in Tanzania: A Case Study of Liwale District, Lindi Region', *International Journal of Agricultural Economics* 3(5): 103.
- Pingali, P., Y. Khwaja and M. Meijer (2005) 'Commercializing Small Farms: Reducing Transaction Cost'.
- Pingali, P.L. and Rosegrant, M.W., (1995). Agricultural commercialization and diversification: processes and policies. *Food policy*, 20(3), pp.171-185.
- Quisumbing, A., Meinzen-Dick, R., Raney, T., Croppenstedt, A., Behrman, J. and Peterman, A. (2014). *Gender in Agriculture: Closing the Knowledge Gap*. Dordrecht: Springer Netherlands.
- Quisumbing, M. (2003). *Household decisions, gender, and development*. Washington, D.C.: International Food Policy Research Institute.
- Rowles, G.D., and Reinharz, S. (1988). Qualitative gerontology: Themes and challenges. In S. Reinharz, & G.D. Rowles (Eds.), *Qualitative gerontology* (pp.3-33). New York: Springer Publishing Company.

- Razavi, S. (2009a) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2009b) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2009c) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2009d) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2009e) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2009f) 'Engendering the Political Economy of Agrarian Change', *The Journal of Peasant Studies* 36(1): 197-226.
- Razavi, S. (2007a) 'Liberalisation and the Debates on Women's Access to Land', *Third World Quarterly* 28(8): 1479-1500.
- Razavi, S. (2007b) 'Liberalisation and the Debates on Women's Access to Land', *Third World Quarterly* 28(8): 1479-1500.
- Razavi, S. (2007c) 'Liberalisation and the Debates on Women's Access to Land', *Third World Quarterly* 28(8): 1479-1500.
- Sewpaul, V. (2008) 'Transforming Gendered Relationships: Rural Women in Africa', *Agenda* 22(78): 43-54.
- Sulle, E. (2015) 'Land Grabbing and Agricultural Commercialization Duality: Insights from Tanzania's Transformation Agenda', *Afriche e Orientali* 17(3): 109-128.
- Sewpaul, V. (2008) 'Transforming Gendered Relationships: Rural Women in Africa', *Agenda* 22(78): 43-54.

- Stockbridge, M. (2007) 'All-Africa review of experiences with commercial agriculture-Social Impacts', Background paper for the Competitive Commercial Agriculture in Sub-Saharan Africa (CCAA) Study. Washington DC: World Bank.
- Thirtle, C., Lin, L. and Piesse, J., (2003). The impact of research-led agricultural productivity growth on poverty reduction in Africa, Asia and Latin America. *World Development*, 31(12), pp.1959-1975.
- Timmer, C.P., (1997). Farmers and markets: the political economy of new paradigms. *American journal of agricultural economics*, 79(2), pp.621-627.
- UNDP (1998) Innovative approaches to promoting women's economic empowerment New York: UNDP
- World Bank (2019) 'Ending Poverty, Investing in Opportunity'. 1818 H Street NW, Washington, DC 20433: World Bank.
- Walby, S. (1990). *Theorizing patriarchy*. 1st ed. Oxford u.a.: Blackwell.
- Whitehead, A. and Kabeer, N., (2001). Living with uncertainty: Gender, livelihoods and pro poor growth in rural sub-Saharan Africa, *IDS Working Paper 132*. Brighton: Institute of Development Studies.
- Wiggins, S., Kirsten, J. and Llambí, L., (2010). The future of small farms. *World development*, 38(10), pp.1341-1348.
- Tokarick, S. (2005) 'Who Bears the Cost of Agricultural Support in OECD Countries?', *World Economy* 28(4): 573-593.
- World Bank (2019) 'Ending Poverty, Investing in Opportunity'. 1818 H Street NW, Washington, DC 20433: World Bank.
- Zhou, S., Minde, I. J. and Mtigwe, B., (2013). Smallholder agricultural commercialization for income growth and poverty alleviation in southern Africa: A review *African Journal of Agricultural Research*. 8(22), pp. 2599-2608

