

**VALUE CHAIN DEVELOPMENT AND WOMEN EMPOWERMENT IN  
TANZANIA: A CASE OF ONION VALUE CHAIN IN NORTHERN TANZANIA**

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**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF DOCTOR OF PHILOSOPHY OF SOKOINE UNIVERSITY OF  
AGRICULTURE. MOROGORO, TANZANIA.**

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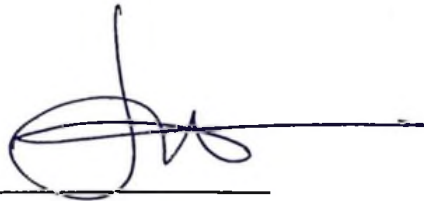
## EXTENDED ABSTRACT

Women play critical roles in agricultural value chains in developing countries. However, their participation in value chain development activities does not always result into their empowerment. The main objective of this study was to examine the impacts of women participation in onion value chain development activities on their empowerment. The study was conducted in Simanjiro District and adopted a cross-sectional research design. Qualitative and quantitative data were collected using focus group discussions, key informant interviews and household surveys whereby 402 women of whom 207 (51.2%) were participants in the onion value chain development activities and 195 (48.5%) were non-participants. Moreover, eight focus group discussions were conducted. Qualitative data were analyzed using ethnographic content analysis technique with constant comparison; quantitative data were analyzed using the Statistical Package for Social Sciences. Descriptive statistics were computed to establish the profiles of research participants; gross margin were calculated to establish profit margins of different chain actors; Cumulative Empowerment Index was constructed to gauge the overall women empowerment. Principle Component Analysis was used to compute wealth quintiles as proxy for household socio-economic status. F-test was used to compare the levels of empowerment by socio-economic status. Ordinal logistic regression model was used to establish the determinants of women empowerment in onion value chain. Changes in gender roles, especially in production, were found. Women's perception on their empowerment was linked to different achievements in their lives in their social and economic contexts and was categorized into medium level of empowerment (CEI = 0.6033). Women participation in decision making was higher and farmer groups were an important source of knowledge for change. The relationship between socio-economic status and women empowerment was statistically significant ( $P < 0.05$ ).

Ordinal logistic regression analysis revealed the predictors of women empowerment in the chain to be: marital status, education level, age at first marriage, land ownership, access to credit and participation in onion value chain ( $P < 0.05$ ). It is recommended to the government and non-governmental organisations to promote men's involvement in women empowerment efforts, to improve women access to resources and strengthen farmer's organisations to competitively participate and get benefits from onion value chain.

**DECLARATION**

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



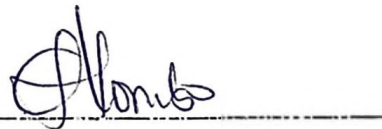
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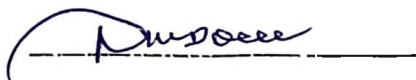


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## DEDICATION

This work is dedicated to my parents, my late father Mr. Jeckoniah K. Mvurungu, my mother Janeth Gwalema and my beloved wife Danty Malamia Urrio, my sons Amos, Nathan, James and my daughter Moureen.



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## LIST OF PAPERS

Paper One: Mapping Gender Roles and Relations along Onion Value Chain in Tanzania: John Jeckoniah<sup>1</sup>, Ntengua Mdoe<sup>2</sup> Carolyne Nombo<sup>1</sup> Published in the *International Journal of Asian Social Science* 3(2), 2012: 523-541

Paper Two: Women empowerment in agricultural value chains: voices from onion growers in northern Tanzania: John Jeckoniah<sup>1</sup>, Carolyne Nombo<sup>1</sup> Ntengua Mdoe<sup>2</sup> Published in the *Journal of Research on Humanities and Social Sciences* 2 (8), 2012: 54-59

Paper Three: Socio-economic Status and Women Empowerment in Rural Tanzania: A Case of Onion Value Chain in Simanjiro District. John Jeckoniah<sup>1</sup>, Carolyne Nombo<sup>1</sup>, Ntengua Mdoe<sup>2</sup>. Accepted for Publication in the *Tanzania Journal of Development Studies* 12 (2), 2012

Paper four: Determinants of Women Empowerment in the Onion Value Chain: A Case of Simanjiro District in Tanzania: John Jeckoniah<sup>1</sup>, Carolyne Nombo<sup>1</sup> Ntengua Mdoe<sup>2</sup>. Published in the *Journal of Economics and Sustainable Development* 3 (10) 2012: 89-99

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## DECLARATION

I, **John Nshimba Jeckoniah**, do hereby declare to the Senate of Sokoine University of Agriculture that the listed papers above that make this thesis summarize my independent efforts, it is my original work and will not be part of another thesis in the “published Papers” format in any other University.

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### LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
ASDP	Agricultural Sector Development Programme
CBO	Community Based Organisation
CEI	Cumulative/Composite Empowerment Index
CFOs	Commercial Farmers Organisations
COSTEC	Commission for Science and Technology
DALDO	District Agricultural and Livestock Development Officer
DCDO	District Community Development Officer
ECHI	Economic Contribution to Household Index
EDCI	Economic Domestic Consultation Index
FAO	Food and Agriculture Organisation
FFS	Farmers Field Schools
FGDs	Focus Group Discussions
FMI	Freedom of Movement Index
HDI	Human Development Index
HDMI	Household Decision-Making Index
IFAD	International Fund for Agricultural Development
IGAs	Income Generating Activities
IIRR	International Institute of Rural Reconstruction
ILO	International Labour Organisation
KIT	<i>Koninklijk Instituut voor de Tropen</i> (Royal Tropical Institute)
LGA	Local Government Authority
MDGs	Millennium Development Goals
MMA	Match Maker Associates

MVIWATA	<i>“Mtandao wa Vikundi vya Wakulima Tanzania”</i> , Network of Farmer Groups in Tanzania
NBS	National Bureau of Statistics
NGOs	Non-Governmental Organisations
NSGD	National Strategy for Gender Development
NSGRP	National Strategy for Growth and Reduction of Poverty
NTFPs	Non-Timber Forest Products
OFFs	Organized Family Farmers
OVC	Onion Value Chain
PADEP	Participatory Agricultural Development and Empowerment Project
PAI	Person Autonomy Index
PCA	Principal Component Analysis
PoAI	Political Autonomy Index
REPOA	Research on Poverty Alleviation
RRB	Ruvu River Basin
RWECF	Rural Women Employment Creation Project
SIDA	Swedish International Development Cooperation Agency
SIDO	Small Industries Development Organisation
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
SUA	Sokoine University of Agriculture
TASU	Tanzania Agricultural Scale Up
TDV	Tanzania Development Vision
UN	United Nations
UNDP	United Nations Development Programme



UNIDO	United Nations Industrial Development Organisation
URT	United Republic of Tanzania
USAID	United States Agency for International Development
VECO	<i>Vredeseilanden</i> (A Belgian based NGO)
VICOBA	Village Community Bank
VIP	Ventilated Improved Pit
WB	World Bank
WEAI	Women Empowerment in Agriculture Index
WEI	Women Empowerment Index

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

Gender inequality exists almost everywhere in the world. The existing gender inequality in society is recognized as one of the critical challenges impacting on the attainment of sustainable development in the world. In Tanzania, as it is in other developing countries, several efforts including gender mainstreaming in development policies, projects and programmes have been undertaken (URT, 2000; URT, 2005; URT, 2010b). Despite several efforts made by the Governments and Non-Governmental Organisations (NGOs) to mainstream gender, gender disparities still exist in almost all the countries in the world (World Bank, 2003). Gender equality is identified as a development objective in itself; as a means to promote growth, it reduces poverty and promotes better governance (World Bank, 2003). Power imbalance between men and women is said to be the origin of gender inequalities in many countries (Sevefford and Olsson, 2004 cited in KIT *et al.*, 2012); hence many efforts to reduce inequalities focus on empowerment of men, women and other marginalized groups in the society (KIT *et al.*, 2012).

Empowerment, and women empowerment in particular, is one of the momentous issues of contemporary development policies in developing countries (Chaudhry and Nosheen, 2009). Empowerment is a complex concept, which may vary between cultures, persons, sexes, occupations and positions in life. Furthermore, men and women may have different views on empowerment in general and women's empowerment in particular (World Bank, 2002). Empowerment is defined as "a process by which those who have been denied the ability to make strategic life choices acquire the ability to do so" (Kabeer, 1999). While choices entail the possibility of having alternatives, different choices have diverse impacts

on the people's life. Strategic life choices are those that are necessary for one to live the way one wants, such as: choice of livelihood, use of contraceptives, whether and who to marry and whether to have children. Efforts to empower women, especially those involved in agricultural based livelihoods, focus on improving production and productivity as well as linking smallholder farmers to agricultural markets. Such efforts in Tanzania are being implemented through farmers field school approaches, collective action approaches and value chain approaches (URT, 2006; URT, 2010b; Barham and Chitemi, 2009; Mnenwa and Maliti, 2010). Women empowerment in the context of value chains entails change in gender roles and relations in order to enhance women's ability to shape their lives (Laven *et al.*, 2009). Development interventions such as value chain development and changes in economic structures may result into changes in gender roles, relations and empowerment.

The importance of women empowerment in development can not be overemphasized. For example, it is argued that women's empowerment is important for reasons of both principle and pragmatism (Oxfam GB, 2005; Oxfam, 2011; KIT *et al.*, 2012); it's the right thing to do because women have the same rights as men, but it's also a necessary thing because it will make the world a better place where to live and help many countries to attain human development. Empowering and investing in rural women has been shown to significantly increase productivity, reduce hunger and malnutrition as well as improve rural livelihoods, not only for women, but also for everyone (Wallerstein, 2006; KIT *et al.*, 2012). Furthermore, women's empowerment is ranked third in the Millennium Development Goals (MDGs), and it endeavours to promote gender equality and empower women. Nonetheless, many developing countries in the world are yet to achieve this important goal (URT, 2010a).

According to Basu and Basu (2001), women are less empowered compared to men in many aspects such as: education attainment, income, control over own income, bargaining power in selling their own produce and labour, participation in decision making bodies, and access to production inputs and employment opportunities. Throughout the world, Governments, NGOs and development organisations are concerned with women empowerment, and different strategies such as gender mainstreaming in development projects have been tried to enable women to challenge their subordinate position and oppressive situation in their families and societies. Tanzanian women, especially those from rural farming communities' households, have less access to and control over assets and resources, information and decision making than men (URT, 2010b). Therefore, to empower them, various measures should be taken to address gender inequalities, especially in areas where most of them derive their livelihoods.

In Tanzania women are deprived socially and economically compared to men. Disparities in men and women prevail in education, health, employment opportunities, control over assets and income, and participation in political process that make women disadvantaged and less empowered; this limits the country's ability to achieve its full potential (URT, 2010b). To improve the status of women, the Government has taken various measures to address gender inequalities by incorporating gender perspectives in policies, strategies and programmes as reflected in national policies and institutional frameworks like Tanzania Development Vision (TDV) 2025, National Strategy for Growth and Reduction of Poverty (NSGRP I and II); National Women and Gender Development Policy (2000), and National Strategy for Gender Development (NSGD) (2005). Generally, women empowerment in Tanzania has improved in terms of parity and access to education whereby (the net enrolment at primary school is 95.9%) and in political participation. The proportion of women representatives in the parliament has reached the NSGRP target

of 30% (URT, 2010a). Women empowerment has also been found to improve through participation in micro-credit schemes and small and medium enterprises (SMEs), for example in the food processing sectors (Makombe, 2006) and in small agricultural projects under the Participatory Agricultural Development and Empowerment Projects (PADEP) (URT, 2010c).

Many efforts to empower women at household and community levels have focused on raising women status through education, training, access to health, and family planning services as well as legal counseling. Politically, efforts have been made to increase women's representation in decision making organs such as setting quota for women political posts (URT, 2010a). Economically, the most popular strategy, especially since the 1990s, has been to involve women in microfinance programmes and help them acquire capital needed in production (Malhotra, 2002). In recent years there has been renewed attention on efforts to empower women involved in the agricultural sector, which employs the majority of rural people. The efforts include mobilizing rural women in producer and marketing groups for easy access to production inputs, extension services, training on increasing production per unit area as well as facilitating market access by smallholder farmers, men and women (URT, 2006). In order to improve market access by smallholder farmers, the Government and NGOs in Tanzania, as it is in many other developing countries, have adopted value chain approach as a holistic pro-poor approach to address constraints that smallholder farmers encounter.

Value chain has been defined differently by many authors; for example, Kaplinsky and Morris (2001) define a value chain as: "the full range of activities which are required to bring a product or service from conception, through different phases of production (involving a combination of physical transformation and the input of various producer

services), delivery to final consumers, and final disposal after use". This is sometimes referred to as commodity chain, channel of distribution, trade channel, or supply chain. A value chain is made up of a series of actors (or stakeholders) from input suppliers, producers and processors, to exporters and buyers engaged in the activities required to bring agricultural product from its conception to its end use. Value chain development is a multiple and participatory process that leads to coordinated interventions; it is a deliberate development initiative to promote potential value chains in order to improve effective participation and benefits of the involved actors. Hobbs *et al.* (2000) define value chain as "a vertical or strategic network of independence between a number of independent business organisations within a supply chain". The supply chain refers to the entire vertical chain of activities from production, through processing, distribution, and retailing to the consumer i.e. from gate to plate. A value chain is a network of strategic alliances between independent companies that together manage the flow of goods and services along the entire value-added chain (Holmlund and Fulton, 1999 cited in Hobbs *et al.*, 2000). The term "strategic" implies that the partnership is entered into deliberately by a group of people who jointly undertake activities that they could not do by themselves. In such alliances information that could not be accessed independently is gathered and shared.

In recent years the value chain approach has become one of such commonly used interventions by development organisations and government agencies to bring about women empowerment and reduce poverty (USAID, 2009). However, evidence from literature in relation to whether women's involvement in agricultural value chains increases their decision making at household and community levels lacks consistency (Lastarria, 2006). And relatively less attention is paid to how gender issues affect value chain development. According to USAID (2009), gender issues affect and shape the



totality of production, distribution, and consumption within an economy, but have often been overlooked in value chain development. In the value chain, all activities from production, processing to disposal reflect gendered patterns of behaviour that condition men's and women's jobs and tasks. The resulting gender roles and relations affect the distribution of resources and benefits derived from income generating activities especially in the activities that women engage in.

Generally, value chain research and analysis deal with four important theoretical concepts that describe and analyse the vertical integration and disintegration of production and distribution processes: (i) "Filiere" concept, which is a static model describing the linear flow of physical inputs and services. The approach assumes static character/actors, and shows relation at a certain point in time; and (ii) Modern Value Chain Analysis concept (VCA) is an approach which describes how firms create values at different stages and emphasizes on vertical integration in linking upstream and downstream activities and actors in the chain (Davies and Ellis 2000; Roduner, 2004). Other items are: (iii) Global Commodity Chain concept (GCC) (Gereffi *et al.*, 2005) which is an approach that analyses power relations in coordination of globally dispersed, but linked production systems; and (iv) World Economic Triangle concept (Messner, 2002 cited in Roduner, 2004) which underscores the linkages between local and global commodity chains and the importance of vertical and horizontal integration.

While value chain interventions have been widely used as pro-poor approaches by development organisations and government agencies in many countries, its impact on poverty, gender and environment is difficult to generalize (Riisgaard *et al.*, 2010; Coles and Mitchell, 2011). Some studies have found that women's involvement in agricultural value chains does not always translate into women empowerment (Laven *et al.*, 2009;

Riisgaard *et al.*, 2010). Nevertheless, other scholars have found that women involvement in value chain development results into women empowerment at household and community levels (KIT *et al.*, 2006; Coles and Mitchel, 2011). These divergences in views call for further investigation. Furthermore, there is paucity between theoretical perspective and development practices on the outcome of value chain development between and among different actors. Theoretically, in Sub-Saharan Africa, women generally have the right to use products and income from their own economic activities. Nevertheless, “in practice they are often constrained to using them to meet their responsibilities for certain expenditures that are determined by their husbands or by prevailing male-enforced norms” (Dey, 1992 as cited in Coles and Mitchell, 2011: 6). In many instances, men, who own the productive assets and control their outputs, usually appropriate the income while women continue to provide the bulk of the labour (Dolan, 2001; Coles and Mitchel, 2011). While women involvement in production and marketing of agricultural products has increased (Lastarria, 2006), corresponding change in improved control of their income has remained largely uncertain.

The motivation for doing the research on women empowerment was derived from the researcher's academic background and work experiences. Before joining Sokoine University of Agriculture (SUA) as an assistant lecturer in 2008 he worked for Oxfam in the Tanzania Scale up Programme (TASU) as a programme officer responsible for community empowerment. TASU was an initiative by Oxfam to assist smallholder farmers and producers to enhance their productivity in order to become food secure, empower men and women to participate in plans and decision making processes that affect their lives and improve trade and market links for products from smallholder farmers. TASU programme implemented this initiatives using value chain approach whereby four value chains were developed and supported, which were rice for local and export markets.



sisal, chickpea and local chicken for local markets. However, while implementing these value chain development initiatives the researcher could not have an opportunity to assess its impact on women empowerment. When he secured an opportunity for PhD research at SUA he was motivated to research on his long established interest in the linkage between value chain development initiatives and women empowerment. The research also compliments his teaching and professional career in gender and development at the University.

## **1.2 Problem Statement**

In Tanzania, there are many value chain initiatives which focus on a few commodities in specific geographical areas (MMA, 2012). Most of these value chains focus on interventions on crops or commodities that have potential to increase income and reduce poverty. Some value chain interventions have special focus on improving the wellbeing of involved women, and special efforts have been made to involve more women in value chain development activities. Despite the interventions that focus on improving the wellbeing of women so as to empower them, women empowerment among those involved in value chain development activities in Tanzania is low (VECO, 2008). Men still dominate household decision making especially on access to and control of resources and on spending household income. Women freedom of movement is restricted by husbands and they have to seek permission from their husbands to visit some places. Therefore, there is a need to understand how women participation in value chain development empowers them.

In Simanjiro District, where this study was conducted, the District Council in collaboration with some NGOs in the District has embarked on developing market commodity chains that aim to empower smallholder farmers to participate actively and

profitably in the market transactions. The approaches have targeted crops which have potential to contribute significantly to household income. Therefore, onion was selected based on this merit. The initiative to develop the onion value chain has established production and marketing groups at village and ward levels for accessing production inputs, credits, extension services and marketing linkages. It is anticipated that women's participation in the value chain development activities would gradually generate reasonable incomes for the involved actors and bring a range of benefits that lead to their empowerment. Although women participation in the value chain development activities has increased, the impact of their participation on their empowerment is not well understood (Coles and Mitchel, 2011; Bolwig *et al.*, 2010; Laven *et al.*, 2009). As Coles and Mitchell (2011) argue, transformation of empowerment effects acquired at value chain level depends on complex socio-economic and cultural set ups and thus it is difficult to generalize. The focus of this study was to explore whether and to what extent women participation at various stages in the onion value chain has empowered them and to establish the determinants of women empowerment in the value chain.

### 1.3 Justification of the Study

Studies on women empowerment are scanty, geographically unevenly distributed and skewed focus-wise. Most of them have been on the impact of micro-credit or credit based micro-enterprises on women empowerment in South Asia, particularly in Bangladesh, India and Pakistan (Hashemi *et al.*, 1996; Malhotra *et al.*, 2002). It is imperative to find more evidence of women empowerment in agricultural value chains from other areas focusing on agricultural related activities in which women are the majority. While the current theoretical debates in value chain interventions are centred on the question of how to create and distribute gains from economic activities better (Roduner, 2004), relatively less attention has been paid to how participation in value chain development activities

empowers women. Few value chain studies have succeeded in explicitly documenting the impact of value chain activities on empowerment and gender (Riisgaard *et al.*, 2010). Generally, there is lack of clarity on whether and to what extent women participation in value chain development activities increases women choices, access to income accrued from the chain and increase in women decision making at household level. Despite several efforts that have been made to improve empowerment of women, there is scanty empirical information on women empowerment through participation in value chain development activities in the agricultural sector in which women are the majority. There is a need to inform policy makers on how women involvement in value chain development activities contributes to their empowerment, thus increase their potential to contribute to national development.

The findings from this study add new knowledge on gender and value chain, especially how gender roles and relations occur in value chain and how such changes are transformed at household level. They inform policy makers involved in planning and implementing development projects and programmes that aim to empower women. Women empowerment is a necessary condition for the attainment of the millennium development goal number three and Tanzania Development Vision (TDV) 2025 goal number one in which it's envisaged to eliminate gender disparities and increase share of women in wage employment as well as in non-agricultural sectors to ensure empowerment of women in all socio-economic and political relations and cultures by 2015 (URT, 2010b; URT, 2005; URT, 2000).

## **1.4 Objectives**

### **1.4.1 General objective**

The general objective of the study was to examine the impacts of women participation in onion value chain development activities on their empowerment.

### **1.4.2 Specific objectives**

- i. To identify gender roles and relations in the onion value chain.
- ii. To determine the extent of women empowerment in onion value chain.
- iii. To analyse gender differences in control of income and assets accrued from onion value chains.
- iv. To analyse the determinants of women empowerment in onion value chain.

## **1.5 Research Questions and Hypotheses**

This study sought to answer the following research questions:

- i. How does women participation in onion value chain development impact on women empowerment?
- ii. How do changes in gender roles and relations occur in onion value chain?
- iii. What gender issues in value chain development contribute to women empowerment? Women from low socioeconomic status are more likely to
- iv. What determine the transformation of empowerment changes occurring in value chain into women empowerment at household level?

### **1.5.1 Hypotheses**

This study was also guided by two hypotheses:

- i. Women from low socioeconomic status are more likely to be categorized in low empowerment than those from high socio economic status

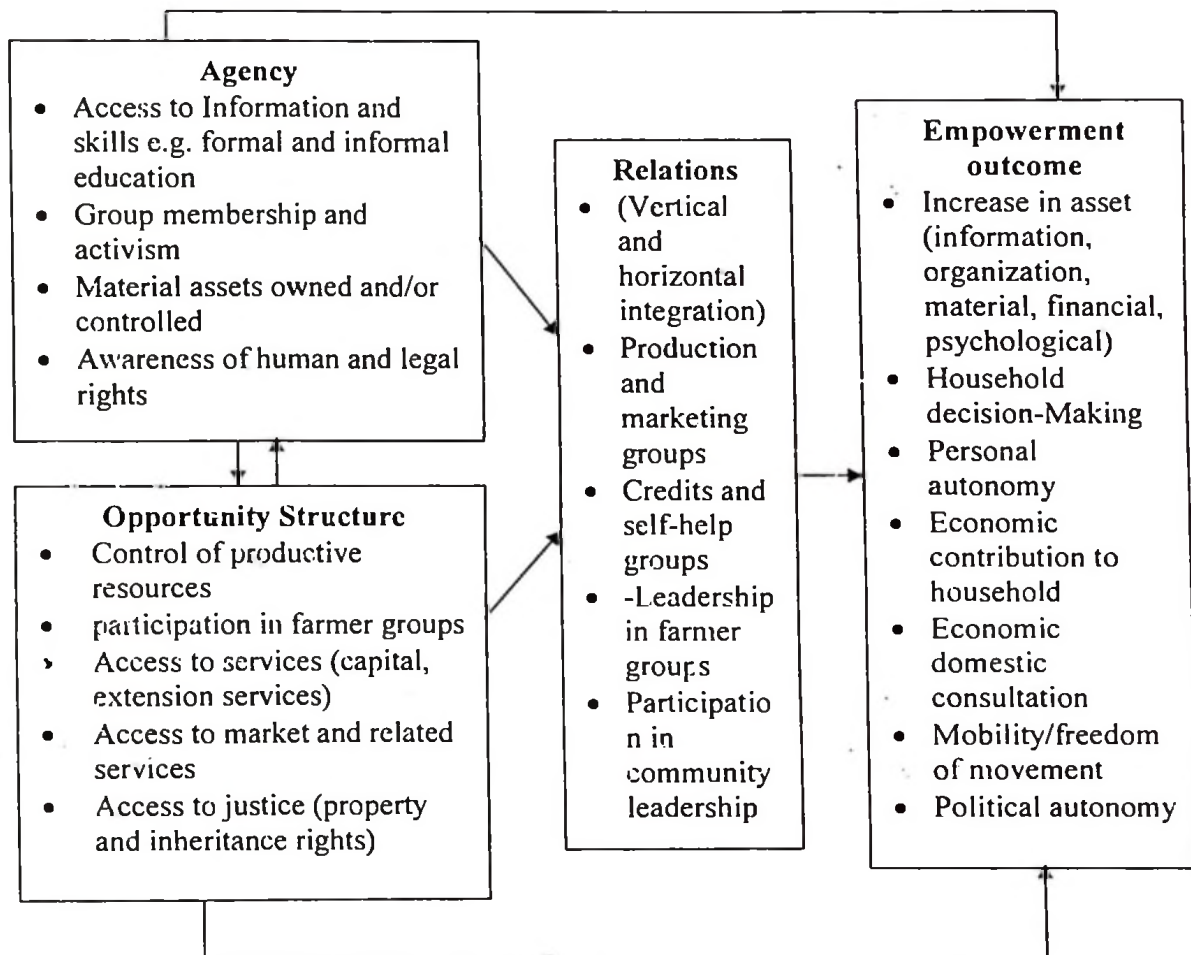
- ii. Women participating in onion value chain development activities are more likely to be empowered than non participants

### 1.6 Conceptual Framework for the Study

The concept of empowerment and its measurement is multi-faceted; there are several frameworks for evaluating and measuring empowerment including those developed by Kabeer (1999), Narayan (2002; 2005, cited in Samman and Santos, 2009), Alsop *et al.*, (2006), CARE (Hill and Khan, 2008), Mayoux and Mackie (2008), KIT *et al.* (2006) and Laven and Verhart (2011). At their core, all these frameworks essentially evaluate three factors: agency, structure and relations (Fig. 1). Agency is the capacity of individual human to act independently and to make their own free choices; agency can be predicted by asset endowment. Structures are factors such as social class, religion, gender, ethnicity, custom etc. which limit or influence the opportunities that individuals have.

The agency and structure concepts are interrelated. Changes in agency can result into empowerment; this assumes that if business and financial services are provided, a woman can freely choose to use these services without facing any constraints posed by her family, community or class to market her products. Improvement in structure that enhances participation or market access can result into empowerment if equal opportunities in participation will always lead to equal outcomes. Therefore, human agency shapes and is in turn shaped by formal and informal rules and institutions which account for a certain positioning in the value chain and the outcomes of value chain interventions. Iterative relationship between agency and opportunity structure (Alsop *et al.*, 2006) builds relationships between and among actors involved in development intervention like value chain development interventions. Empowerment in value chain may occur when an individual or group builds relationships, joint efforts, coalitions, and mutual support, in

order to claim and expand agency to alter inequitable structures in order to realize their rights and maximize outcomes.



**Figure 1: The conceptual framework used for the research**

Source: Adopted from the works of Alsop *et al.* (2006) and Hill and Khan (2008)

### 1.7 Theoretical Framework for the Study

The conceptual framework presented in Figure 1 above is also in line with the structuration commonly referred to as duality of structure theory (Giddens, 1984 cited in Williams and Sewell, 1992), which contends that structure and interaction are mutually constitutive duality. According to Giddens (1984) as cited in Williams and Sewell (1992), structures are both the medium and the outcome of the practices which constitute social



systems. Structures shape people's practices, but it is also people's practices that constitute and/or shape structures. Therefore, as Alsop *et al.* (2006) argue, the iterative relationships between agency and structure are important in building relations and bringing about change in empowerment. The study examined whether value chain interventions have improved agency of the involved members and whether change in agency has influenced change in structure; hence, empowerment.

### **1.8 Organization of the Thesis**

This thesis is organised in three chapters. The first chapter consists of the extended abstract and introduction of the overall theme studied; it offers a description of the commonality of concepts presented in separate papers. Chapter Two contains a series of originally published papers in different journals, and the last chapter presents conclusion and overall implication of the study findings.

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## CHAPTER TWO

### PAPER ONE

#### Mapping Gender Roles and Relations along Onion Value Chain in Tanzania

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## MAPPING OF GENDER ROLES AND RELATIONS ALONG ONION VALUE CHAIN IN NORTHERN TANZANIA

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### ABSTRACT

*It is argued that gender roles and relations determine distribution of benefits accrued from ones' participation in value chain activities. But many value chain programmes are commonly designed and implemented without taking into consideration gender roles and relations. This study analysed onion value chain to determine its impact on gender roles, relations and distribution of income in the chain. The study adopted a mixed-methods design where focus group discussions, key informant interviews and household survey which were the main methods for data collection. Evolution in gender roles especially in production activities was found. Women participation in onion value chain activities, leadership in farmers' organisation and in decision making over the income accrued from onion production was found to increase following interventions to develop the onion value chain. However, their participation in marketing of onion is constrained by many factors, including limitation on movement placed by their husbands or male partners. This study recommends to government and non-governmental organisations using value chain intervention to address gender roles and relation in value chain development activities to facilitate equitable access by rural producers' men and women to agricultural inputs as and facilitate access to market of their crops and products. Gender sensitive intervention strategies should be used in forming and strengthening farmer organizations to competitively participate in onion value chain and increase women participation and benefit from onion production.*

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**Key Words:** Value chain intervention, gender roles, gender relations, onion value chain. JEL: Q





## INTRODUCTION

The importance of agriculture in fostering socio-economic development of poor countries like Tanzania can never be over-emphasized. Many developing countries focus on agriculture production as a poverty reduction strategy. In that regard, massive efforts and resources are being spent on improving agricultural production, productivity and promoting market access by smallholder producers (Nang'ole *et al.*, 2011). In Tanzania, the government has adopted a multi-pronged approach in improving its agriculture as articulated in the Agricultural Sector Development Programme (ASDP) and in the current agricultural development initiative 'Kilimo Kwanza' (Agriculture first) in order to improve agricultural growth (United Republic of Tanzania (URT), 2010). Kilimo kwanza is an initiative to promote the implementation of the ASDP programme. This initiative comprises both policy instruments and strategies designed to transform the agricultural sector. The focus of ASDP initiative is on modernization and commercialization of private sector based small, medium and large scale agriculture for increased productivity, employment creation, profitability and increased incomes, especially in rural areas (United Republic of Tanzania (URT), 2010). The ASDP endeavours to develop private markets as well as to support development of smallholder marketing associations. The programme also focuses on linking smallholder farmers to external markets, and capacity building and investment along the entire marketing chain. Furthermore, ASDP has identified a value chain approach which is anticipated to help smallholder farmers gain access to local, regional, and global market niches (United Republic of Tanzania (URT), 2010). Value chain intervention usually focus on economic activities like crops, animals, crop or animal products that have potential to contribute significant income to the involved actors, hence improve food security and reduce poverty. It is anticipated that value chain development initiatives like this will benefit farmers in gaining better prices for their produces. Apart from the government, non-governmental organisations that support government initiatives have adopted the value-chain approach in addressing the problems of agricultural production and marketing.

In Tanzania, value chain development approach has been adopted by many development organizations, non governmental organizations (NGOs), research institutions and government programmes including VECO, FAO, IFAD, and Plan International. Others include Fintrac, USAID, DANIDA, Technoserve Oxfam GB, RUDI and MVIWATA, just to mention but a few (Match Maker Associates (MMA), 2012). Most of these value chains intervene along food crop commodities such as: organic cashew nuts, cassava, fresh fruits and vegetables, tomatoes, onions, cocoa, maize, rice, cotton and sunflower. The focus of most of these value chains interventions has been on facilitating smallholder farmers' linkage to the market in order to increase profit and reduce poverty. Much less attention has been paid on the impact of these value chain interventions on changes in traditional gender roles and relations especially in production and accessing markets of the agricultural products.





Traditions affect the roles that men and women play in value chains as it is in many other production activities (KIT *et al.*, 2012). According to (Laven *et al.*, 2009) in order to understand how gender roles and relations change in value chains it is important to combine value chain analysis with the gender approach on a development activity. However, most value chain development interventions involve women in the chain development activities based on what they already do in producing the crops and other related products. This generic value chain intervention anticipates that, as women are involved in value chain development activities the benefits obtained will also trickle down to women involved. (Laven *et al.*, 2009) argue that the work that women and men take up within the chain may have implication on other economic activities such as subsistence farming for other crops, income generating activities or household tasks and on gender roles and relation within the household or at the community level. Generalizations of the impact of value chain intervention on gender roles and relations are always tricky as farming systems differ from place to place (KIT *et al.*, 2012). It is imperative to have empirical evidence from as many perspectives as possible whether value chain interventions change gender roles and relations and how such changes impact on women.

In agricultural value chains, women make up a large part of the work force (KIT *et al.*, 2012). However, women rights and benefits they derive from their participation in the value chain are frequently violated, and their contribution to the economy is largely invisible. In the context of value chain development, excluding women, results in underutilization of their labour force which may decrease agricultural productivity. While women involvement in agricultural production has increased; their participation in value chain development activities is concentrated in lower levels of the value chain especially in production (KIT *et al.*, 2006; Lastarria, 2006). According to the (World Bank and IFAD, 2008), there is a growing trend of more women being involved in agriculture as men seek alternative income generating activities in non-farm activities. Nevertheless, due to patriarchal nature of most rural societies, women generally do not have the same rights to productive resources as men. While women involvement in agricultural production contributes to increased production and export of high value crop (Lastarria, 2006), women do not equally benefit as men this is partly because of the gender relations that segregate women from participation or benefit from certain tasks in agricultural value chains.

A review of literature suggest that the existing gender inequality in agricultural production affects economic development and benefits especially for women (World Bank and IFAD, 2008; KIT *et al.*, 2012). And, while in recent years, value chain development has been adopted as a key approach in increasing the income of small and medium producers and the economically active poor. The role of women in agricultural value chains which were usually under-recognized has started to become more and more obvious (KIT *et al.*, 2006; KIT *et al.*, 2012). (Laven *et al.*, 2009) in their research on the impact of value chains on gender and empowerment found that positive changes for women with respect to their access to capital, training and extension, decision making in the production process and position in the chain has been realized. The authors further revealed that



changes in gender roles have resulted into more workload for women; women participation in management of the chain is limited. The study also did not establish whether women's changing role in the chain was appreciated and valued at the household level. Other scholars including Coles and Mitchell (2011) have argued that the transformation in gender roles acquired at value chain level does not always translate into the household level. According to KIT *et al.* (2012) the resistance for change in gender roles is rooted in power relations, and the fear that by giving some women more power, others (especially men) will lose out. However, it has also been reported that value chain intervention resulted into changes in gender roles and relations (KIT *et al.*, 2012). Such changes are a necessary step towards women empowerment. The authors reported from evidence collected from seven case studies where changes in gender roles between men and women have been acquired. These value chain from which evidence were collected are from diverse background ranging from sheer butter making, livestock, dairying and green agriculture from different countries in Africa, Asia, and South America.

Women in developing countries are widely recognized as the face of farming, especially among smallholders (United States Agency for International Development (USAID). 2009). The growing trend of women's engagement in agriculture, commonly referred to as feminization of agriculture, has resulted in changes in gender roles, for example (Muza, 2009) cited by KIT *et al.* (2012) found that: in some areas women participation in agricultural activities has increased due absence of men who have moved out into non-agricultural income generating activities in urban areas. In such instances women are responsible for taking care of the family farm, participate more in nonfarm activities to supplement income from farm activities, receive wages and start making marketing decisions over all household issues that were the male domain. Changes in gender relations is an important factor in determining the division of labour between what is considered productive and reproductive; this is argued to be the basis for the distribution and allocation of work, income, wealth and assets, and productive inputs (Lastarria, 2006). During the past three decades research on gender issues in agriculture and natural resource management has been given amplified consideration. New research focusing on agricultural credit, land tenure security, managing risk, access to assets, and the agricultural policy environment aim to discover how gender roles and relations affect these issues (United States Agency for International Development (USAID). 2009). Research on gender and agriculture in Tanzania also indicates that traditional gender roles in agriculture are changing, although causes for such changes are different and location specific thus difficult to generalize (Leavens and Anderson, 2011). Value chain intervention or upgrading strategies that do not consider gender relations are more likely to have negative impacts on women. Therefore, there is need to understand gender relations in value chain development activities and how changes in gender relations impact on men and women.



## RESEARCH METHODOLOGY

### Study Location and Justification for its Selection

This study was conducted in Simanjiro District in Manyara Region in Tanzania. Eight villages that are actively involved in onion production and marketing were purposefully selected from four wards. The wards selected were Msitu wa Tembo, Ngorika, Ruvu Remit and Loborsoit; the villages were Nyumba ya Mungu, Lemkuna, Gunge, Ngage A and Ngge B., Kiruani, Msitu wa Tembo, and Ruvu Remiti. All the four wards from which the eight villages were selected are traversed by the Ruvu River Basin (RRB) where irrigation farming, especially onion production, is an important economic activity. Onion farmers use both traditional and improved forms of irrigation systems. The dominant ethnic groups in Simanjiro District are Maasai; other ethnic groups include the Chagga, Arusha, Pare, Fipa and Iraqw. Apart from traditionally being pastoralists, few Maasai are now actively engaged in crop production and are among the important actors in the onion value chain. Maasai represents a good example of patriarchy societies in Tanzania where men dominate decision making in the household and women have little chance or do not participate in decision making especially the ownership of income or participation in activities in which men are also involved. Therefore, it is a good case to reflect and learn how gender roles and relations are changing as they engage in onion value chain development activities.

### Research Design and Data Collection

The study adopted a cross-sectional research design and a mixed method approach was used in data collection. A sequential exploratory design was used to collect and analyze quantitative and qualitative data in consecutive phases. Data collection methods included focus group discussions and key informant interviews. Quantitative data were collected using household questionnaire. The sampling unit was individual women participating in the onion production activities and those not participating in the onion value chain. Focus group discussions (FGDs) involved women onion farmers participating and those not participating in onion production and marketing but were involved in other group activities like saving and credit groups in the villages. The focus group discussion composed of between six and eleven people. In these focus group discussions issues of gendered participation and sharing of benefits accrued from onion value chains were discussed. Other issues discussed included: perception on changes in men's and women's roles and gender relations in production and marketing of onion, ownership of assets, income and money accrued from onions sales, factors promoting or hindering women decision making especially in onion marketing, group networks and interactions. The FGD were also used to provide additional information needed to establish profitability levels in onion value chain through participatory budgeting exercises. Key informant interviews were used to explore the main economic activities and sources of livelihood in the area, NGOs and government activities in relation to onion value chain development activities in the area and gendered participation in productive and non-productive activities.





The household questionnaire was used to solicit information on the patterns, trends and relationships among different value chain actors. The household questionnaire was also used to seek information on what value chain actors were doing; their socioeconomic status, participation in value chain development activities and in establishing income and benefit obtained by women at different nodes in the onion value chain. Data were collected during October, 2011 to February, 2012 where 402 respondents completed the household questionnaires of whom 207 (51.2%) were participating in the onion value chain development activities and 195 (48.5%) were non-participants.

## DATA ANALYSIS

Onion value chain mapping was done by identifying and charting existing value chain as discovered during key informant interviews and focus group discussions. Value chain mapping were done to identify women positions in the chain and the type of activities that they are mostly involved in. The value chain mappings also were aimed at identifying women's positions and roles in different markets where onions were sold. Profitability analysis was done by calculating the gross margins and simplified gross margins to establish the profit margin that different chain actors earned; this was done to provide a basis for understanding actors' benefits along the onion value chain. Gross margins and simplified gross margins were calculated by considering different production costs (minimum, median and maximum) and selling seasons (May-August, October-September and November-December) of the year when onion prices fluctuated markedly. This was done to provide evidence and lessons to guide farmers and practitioners on better upgrading strategies that has potential to increase income and profit along the onion value chain. Data obtained through focus group discussions and from programme and project documents were analysed using ethnographic content analysis with constant comparison techniques.

## RESULTS AND DISCUSSIONS

### Onion Value Chain and Gender Relations

Onion cultivation in Simanjiro District is generally smallholder-based whereby 66.3% of respondents cultivate less than an acre and 31.7% cultivate between one and five acres, very few respondents (2%) had field plot sizes of more than five acres. Onions from Simanjiro District exchange many hands before reaching the final consumers. This study identified three major channels through which Simanjiro onions pass before reaching final consumers within and outside Tanzania. The observed flow of the onions is shown in Figure 1 and gender division of labour among actors at each stage of the value chain are described in the following subsections. The first channel starts with Input supply, producer, middleman, wholesaler, retailer and finally to the consumers. The second channel which carries the biggest volume starts with input supply, producer, local traders, large traders, wholesaler and retailer to the final consumer. The third channel which is the second in importance with regard to the volume traded and starts with input

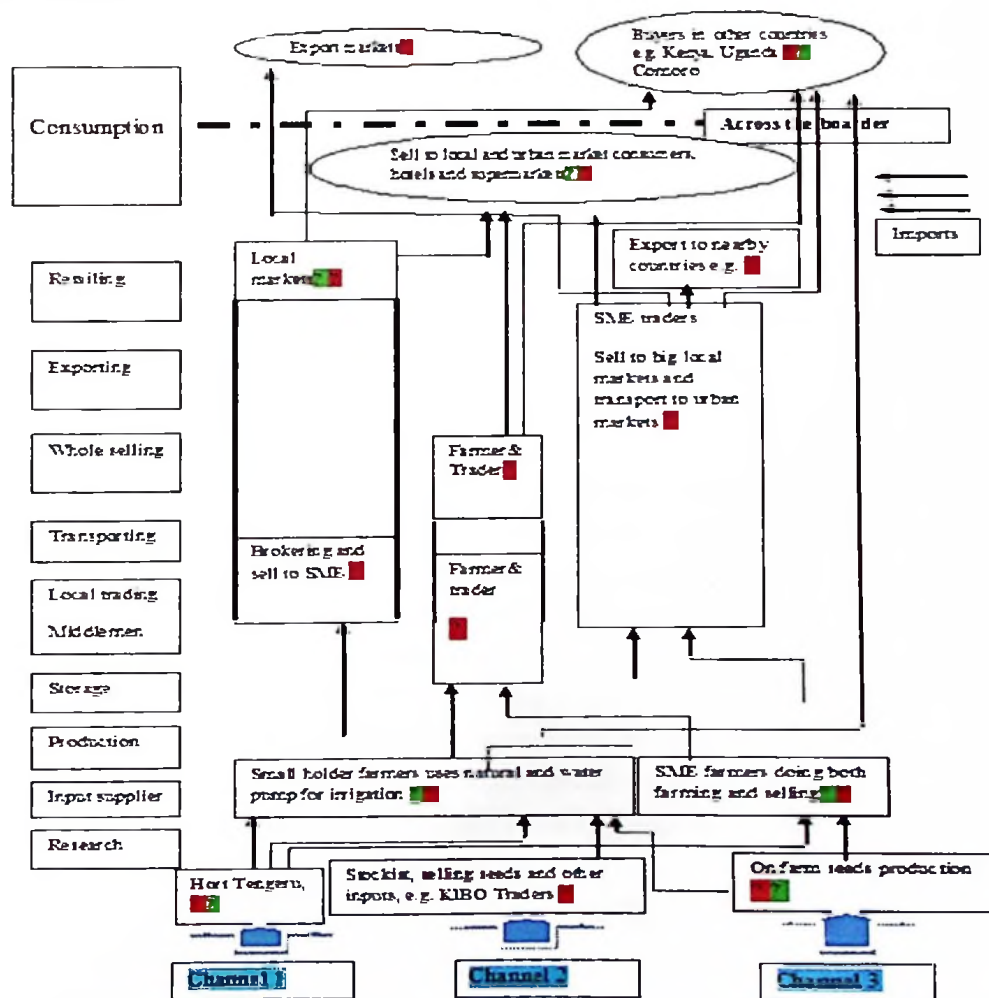


supply, producer, local trader, SME Onion traders, regional trader, wholesaler, retailer to the final consumer.

### Input supply

Onion seeds, fertilizers, and pesticides are the major inputs that determine onion productivity in Simanjiro District. The inputs are supplied by specialized companies' and institutions such as KIBO traders located in Moshi, and other research institutes such as Tengeru Horticulture Institute located in Arusha, other inputs are obtained from small retail agro-vet shops mostly found at ward or district headquarters. Extension officers also help in supplying the inputs or link the farmers to input suppliers, mostly through established farmer groups. Input supply in the villages surveyed is dominated by men who can easily travel long distances to purchase them from whole sellers located in urban areas. Less women's participation in the input supply business is partly due to restriction on

Figure-1. Onion Value Chains map in Simanjiro District, Tanzania (■ = male, ■ = female dominated areas)



Movement placed by husbands which reduces their potential to engage in input supply activities.

### **Onion Production Level**

Production of onions is a labour intensive enterprise; it involves a variety of procedures such as land clearing, land tillage, drawing block lines, sowing seeds in a nursery bed, transplanting, irrigating, spraying or weeding and harvesting, cutting, transporting and storage before sale. Most farmers do not have adequate family labour, thus they usually employ daily workers, who are paid in cash or exchange for food. Onion production trend in Simanjiro District is expanding rapidly, more and more onion growers from within and outside Simanjiro District are engaged in onion production. Currently, the bigger part of the onion farmers are migrants from neighbouring districts and regions, such as Same, Moshi, Arusha while only a small percentage originates from Simanjiro District.

Men, women and children are involved in different onion production activities. Some activities are mostly done by men only while others are done by women; almost all activities are done by both men and women. However, some activities are referred to as men's or women's activities because traditionally such duties have been allocated to men or women e.g. clearing a new field, drawing lines, blocks and water ways in the field are mostly done by men. During this study it was reported that land clearing is mostly done by men (64.6%) and only 7.4% of this activity is done by women. Land tillage including drawing of blocks and water ways were done by men 71.4% versus 5% for only women. In the activity of drawing furrows the scores were 69.2% and 4.6% for men and women only respectively. There are some activities which were reported to be done mostly by women e.g. Transplanting 36.8% for women versus 17.6% by men only and harvesting of onion where 32.9% were done by women and 18.7% by men. Children are also involved in onion production activities especially in transplanting (2.7%) and harvesting where (26.1%) of these activities were done by children only.

In Simanjiro district children are involved in different activities in their households and in other farms outside their households for pay, thus they are used as cheap labourers in production. Involvement of children in production activities denies them opportunity for schooling and may retard their mental development. Overall, traditional divide between men and women activities in onion production is becoming blurred; some activities that were usually done by men are also done by women and vice versa. For example 36% of the respondent reported that they were doing activities that were considered men's activities because of the lack of male support in their own activities. The majority of women who were married reported that when they start and manage their own farm plots they are compelled to perform all the tasks required in the onion production. On top of that women are also expected to perform other household chores which increase their workload burden.



One of the reasons for a shift in gendered roles and participation to some activities was mentioned to result from less support from husbands or male partners and inability to afford high labour costs for the onion production activities. This was emphasized during focus group discussions where it was reported that:

*"When we start our own farm plots, husbands do not support us in most of the activities... we don't have money to afford the costly labour so we do it ourselves"* (Women FGD Ngage village).

On the other hand, unmarried women or those who lived as singles reported that it is labour constraints and lack of capital for onion production that forces them to engage in some activities that were considered men activities. Women who live as singles reported to benefit more in the onion value chain as they had final decision and control in deciding over the use of money accrued from the onion. Despite the fact that they also face similar challenges as married women in terms of access to and ownership of productive resources including land when they acquire such resources with support they get from their farmer groups, through direct purchase or rent they participate in all of the activities in the onion value chain including marketing which is dominated by men. Furthermore, while men and women are involved in most of the activities in the onion production most of the activities were reported to be men's only work. Overrepresentation of men in most of the onion production activities was mentioned to result from men's involvement in these activities both in their households and as labourers in other people's farms. Respondents in this study reported on the basis of who was mostly involved in a particular activity regardless of whether it was from family or hired labour. The only difference in activities that men did at home and away of home plots was that men were willing to do activities considered to be women's activities as long as they were paid for. Focus group discussions revealed that men also tended to engage in activities that were traditionally referred to as women's work when such works gained attractive payment. An FGD participant emphasized:

*"Some activities like transplanting used to be women and children only activities, but as the labour costs have increased in recent years men have now come in... whenever an activity gain monetary value they usually want to be part of it"* (Women FGD Nyumba ya Mungu village).

### **Onion Processing and Grading**

Onions produced in Simanjiro District undergo minimum processing before they reach different final markets. Most of processing involves cutting of leaves and grading into different sizes and shapes. Sorting and grading of onions is done by both men and women. However, men dominate this activity; it was found that 46.3% of men are responsible for this sorting as compared to 26.9% of respondent who were women. The sorting and grading is normally done according to customer quality requirements in different markets as described in the next section. Men and children are also involved in sorting and grading in most cases as hired laborers.





### Onion Trading

Onions in Tanzania and Simanjiro District in particular are traded in different markets, which include local village markets, supermarkets in urban areas, regional markets, national markets and export markets. Each market usually represents different customers who demand for different qualities of onions. Therefore, onions to be sold in these markets are arranged in different grades, those with good round shape and skin are sold at relatively higher prices to urban markets, supermarkets, and export markets prefer this type of onion while those with blemishes, twins, bad shape and small bulb sell at lower prices. These low grade onions are sold mostly in local and village markets. Traders in local markets, usually sell the onions to final consumers who usually buy small quantities. This study found that the majority of farmers (77.2%) usually sold their onion immediately after harvest while 22.2% of the respondents stored their onions for about three to four months before selling, it was also observed that few farmers (0.6%) sell their onions while they are still in the field just before harvesting. Traders who buy onion before they are harvested exploit farmers by offering them lower prices (Eaton *et al.*, 2008). Due to lack of alternative sources of income farmers are sometimes compelled to sell their products while they are still in the fields to meet other urgent family needs. In Simanjiro District, as it is in many other rural markets in Tanzania, onion trading by farmers is not well organized; most of the onions are sold on spot deals to whoever arrives in the village and offers a relatively better price. The marketing chain usually starts from a farmer or rural brokers who, for a fee, introduce wholesale traders to farmers who have onions for sale. The trader buys onions from the farmer, packs and stores them to wait for better prices or transport to urban markets like Dar es Salaam and Arusha. From these urban market places the onions are sold to final consumers or repackaged for export markets. Generally, onions sales at farm level are done by both men and women, although men usually dominate the decision of when and how much to sell. This emanates from traditional setup norms whereby men's have an upper hand in decision making at household level. Wholesale marketing which is usually done in urban markets is also a male dominated activity while the final sales in retail shops and in open market places are dominated by women who combine onions sale with other pet businesses. Focus group discussion with women established that lack of capital and experience in big business enterprises were among the barriers for women participation in onion whole sale marketing. Women also complained that the wholesale markets are often not even accessible for them because of broker cartels of whom the majority are men who control marketing transactions at big markets where whole-sale buyers do not have direct contact with farmers. These marketing arrangements make it difficult for farmers, especially women, to sell at whole-sale markets. However, women dominate onion retail marketing as it doesn't require big start up capital and is usually done in their living areas or neighbouring villages. Such a marketing arrangement is preferred by women as it overcomes the problem of limited mobility imposed by their husbands or male partners. Some factors hindering more women participation in onion trading are presented in Table 1 where lack of capital needed to transport onion to urban markets was the most popular limitation. Others were lack of marketing or bargain skills, poor support from husbands or male partners, and restrictions





on movement placed by their husbands or male partners. Similar findings have also been reported in literature.

**Table-1.** Factors that limit women participation in onion trading

SN	Statement	Percent (N=187)
1	Lack of capital needed in onion business	41.4
2	Lack of marketing skills e.g. bargaining	15.1
3	Lack of support from husbands	14.2
4	Men dominate decision of onion marketing	9.0
5	Restrictions of movement placed by husbands	8.2
6	Too many family responsibilities	7.1
7	Inadequate or unreliable means of transport	3.0

Women's time constraints and restriction on movement placed by their husbands or partners and social norms regarding interactions between men and women was also reported to hinder effective women participation in marketing agricultural crops (Susan, 2004). Women in Simanjiro district as it is the in all other parts of rural Tanzania, are involved in most of the household chores such as farming, cooking, fetching water and firewood and taking care of the household members, especially children and the elderly. Therefore, engaging in productive activities like participation in value chain development activities is an additional burden, and they may also don't have time to fully engage in such activities. Furthermore, women's business relationships are often limited to those that they know and trust and overlap with social relationships; this limits their engagement in selling their products. Moreover, the breadth and depth of the commercial networks in which they engage can isolate them from making contacts that would facilitate their entry into value chains or expand into more wealth creating activities (Riisgaard *et al.*, 2010). These gendered patterns of participation in value chains result into fewer options for women and place them at lower and less profitable nodes in the value chain. Women involvement in onion value chain development activities were anticipated to help in forming up both horizontal and vertical bonding networks with other upstream chain actors. However, this study found that, women were more likely to join horizontal networks in the form of farmer and women groups. Furthermore, there was little interaction amongst women involved in different group activities. The mapping of onion value chain (see Figure 1) revealed also that most women are concentrated in production and retailing nodes of the chain; therefore, they have less engagement with other actors in the chains. They access most of other services through their farmers' groups.

### Brokers

Brokers and middlemen are important actors in onion marketing in Simanjiro District; they are the intermediaries between farmers and traders. Their position and roles result from lack of working relationship and trust between farmers and traders and lack of reliable information on availability of onions and prices. Farmers and traders rely on brokers who know their requirements in terms of prices and onion supplies. Due to irregular contact between farmers and traders they usually lack



business trust as they only contact each other during harvest periods. Onion value chain intervention has facilitated farmers' and trader's access to marketing information through farmer groups but the linkage has not developed so much and the free flow of information is still relatively low. The onion traders usually contact men who are traditionally believed to be the head of households, but also women who live as singles and own their onion plots are equally contacted by these traders and brokers. Brokering activities in Simanjiro District are dominated by men who travel frequently to urban areas and have frequent contacts with traders in different markets; most of them are also in contact with farmers in different villages, hence easy search for prices and other marketing information such as about means of transport. Although mobile phone usage in the area has increased in the recent years; its usage is still on individual basis based on who they know. The mobile phone usage in the area has not established market information system that farmers would use to access market information especially onion prices in different market places. Brokers usually offer small contractual loans to farmers who eventually sell their onion to them at relatively lower prices and usually use non-standard units of measure such as bags which are overfilled (*Lumbesa*). Although farmers complain that brokers reduce the benefits they receive from onion marketing; they also acknowledge the marketing linkages that are facilitated by brokers.

### Storage

Onions are stored in structures which are constructed using locally available materials such as grass and bamboo sticks to prevent them from direct sunlight and to allow some ventilation. Traditionally men are mostly involved in construction and maintaining of the storage structures. This study also found that men were mostly responsible for maintenance of the storage structures (53.7%). Although profitability analysis revealed that the onion prices increased with storage time, very few onion farmers were able to store their onions to wait for better prices as they don't have alternative sources of income to meet other needy household expenditures. Furthermore, construction of the storage structure is male dominated activities, hence its control and this deny women opportunity to store their onion and wait for better prices if they are not able to hire or pay or the storage fees.

### Transportation of Onions

Due to very poor infrastructure in Simanjiro District, only a few farmers are able to transport their products for the wholesale in urban markets; it is too expensive and very time consuming. Farmers use oxen carts and small tractors (power tillers) to transport onions from their fields to the household or storage structures. Due to higher transporting costs most farmers opt to sell their onion to traders at farm gate price in the villages, few farmers who transport their onions to urban markets are mostly men. Women face challenges to transport their onions to the market. They also face restriction on movement placed by husbands which further limit their participation in onions trading. This study found that 75.3% of all onion produced were sold at the farm gate prices, 20.4% were sold in the village markets after storage and only small quantity (4.3%) were sold in distant markets by farmers themselves.



### Onion Consumption

Onions from Simanjiro Districts exchange many hands before they reach the final consumers in both rural and urban markets. Generally, it was anticipated that consumers in different markets would have influence on the quality of the onions produced and sold. However, periodic high demand for the onion is the only driving force for onion production in the district. Consumers in urban areas and institutions such as supermarkets are sensitive to quality and consistency of supply. Therefore, producers and traders aiming to sell onions at such markets need to ensure conformity to the quality required, if they are to remain competitive in that market segment. On the other hand, consumers in rural areas and most of the retail shops are sensitive to prices; they are also willing to buy low quality onions if they sell at lower prices. Most consumers in export markets require consistency in quality, quantity, traceability and safety standards, thus farmers and traders aiming at this markets need to adhere to these quality standards.

### PROFITABILITY ANALYSIS

This study found that farmers selling their onions just after harvesting make very little profit and some losses (Simplified gross margin ranged from -3.5% to 75%) (See Table 3). The analysis also shows that the profits increased with storage time; when farmers are able to store for about 3 months or more (i.e. selling by November - December) the gross margins increases up to 81.47% at current agronomic practices. Within Simanjiro District the profit that farmers get per acre varies due to different costs and technology used to grow onions. For example farmers at Msitu wa Tembo ward had the lowest profit margins of all the wards surveyed. They usually incurred losses if they sold just after harvesting, and with storage time their simplified gross margins only got up to less than 40%. This is due to the higher fuel costs involved in supplementary irrigation using water pumps. The infrastructure and proximity of a production area to town or other formal/commercial activities have impacts on labour costs; in more remote areas the labour costs are relatively low. Villages located closer to towns or highways have advantages as many traders easily reach the area and compete for the available onions which benefit the farmers by giving them better prices. The overall productions costs were lower in Gunge ward which had relatively low labour costs and the production costs were highest in Msitu wa Tembo ward located near Moshi town and which is also surrounded by Lower Moshi sugarcane plantations. Loboisoit ward had an average production cost of Tsh 1,287,250/= per acre with a gross profit of 3,512,750/= while Msitu wa Tembo had average production costs of 2,421,950/= and gross profit of 1,218,050/=. Minimum, average and high costs of production were used in estimating profitability levels; average costs were used as the basis for discussion and comparison across different areas.

The study also found that traders and transporters earned different levels of profits from their engagement in buying and selling of onions; they all had positive gross margins. This is partly because they don't encounter many costs as it is the case with farmers, and they also determine the selling prices. Further analysis showed that they had lower gross margins as compared to farmers.





This may probably result due to the fact that most traders are able to record and report most of the expenses that they incur in their business while most farmers tend to underestimate some of the production costs and forget some of the costs for the activities that they use family or own labour. Table 2 presents the gross margin calculations for different actors as the percentage of the total costs. In the focus group discussion women reported that they got lower prices for their onions; even if they cultivated their own plots because it was difficult for them to store onions as men usually control the storage structures and all the stored onions belong to the head of the household who is a man.

*"The storage structure belongs to men even if we cultivate our own plots we have to sell immediately after harvesting"* (Women FDG Lemkuna Village).

**Table-2.** Summary of gross margin analysis from various villages and actors (% of total cost)

Place and time	May- August costs			Oct-Sept costs			Nov-Dec costs		
	Min	Av c	Max	Min	Av s	Max	Min	Av	Max
Farmers									
Gunge*	76.22	72.65	56.19	78.29	75.03	60.00	83.89	81.47	70.32
Gunge**							83.89	81.47	70.32
Ngage*	69.41	64.24	58.96	44.94	35.64	26.14	77.06	73.18	69.22
Ngage**							77.06	73.18	69.22
M/Tembo*	14.02	44.86	22.37	26.47	-3.50	14.02	52.73	33.46	26.70
M/Tembo**							52.73	33.46	26.70
Faermer who store/SME									
N/Mungu trader							33.39	52.64	54.03
Transporter							66.79	61.72	51.67
Whole Sellers									
Arusha Kirombero market							54.07	45.83	38.13
DSM-K'koo market							26.00	17.59	11.70
DSM – Mabibo market							7.14	14.71	20.00
Retailers									
Hedaru market							12.93	14.81	15.20
Moshi- Mbuyuni market							23.72	24.31	18.75
Mwanga market							7.43	1.20	3.5
Same central market							40.00	40.91	29.17
Shoprite-Arusha							29.31	32.14	26.67

\*Farmers selling immediately after harvesting

\*\*Farmers selling after storage (about four months)

### Income Accrued From Onion

Onion is a high value crop that has potential to contribute significant income to involved households. The average production cost per acre is about Tsh 700,000/=. The income is usually between 1,000,000 and 5,200,000 Tsh, depending on the selling season, yield per acre and whether the onions are sold right after harvesting or after storage time. Table 3 presents the gross average income obtained by onion farmers in Simanjiro District where the majority obtained income below one million. Such low income, given higher production costs involved in onion production, was explained to result from poor weather and high disease outbreak during the year 2010/2011 in



which this survey was conducted. The gross margin calculation (see Table 2) revealed that farmers who were able to store their onion for about four months were more likely to sell them at higher prices and increases the profit.

**Table-3. Average Income from Onion Production**

SN	Income Level (Tshs)	Percent N=187
1	<1,000,000	46.3
2	1,000,001-2,000,000	21.0
3	2,000,001-3,000,000	10.5
4	3,000,001-4,000,000	10.5
5	4,000,001-5,000,000	4.9
6	>5,000,001	6.8

### Control of Income Accrued From Onion

This study found that women participation in decision making was relatively high. About half of the respondents (51%) reported that they had decided together with their husbands or male partners, and about a third (28%) of the respondents reported that women only were involved in decision making over the money accrued from onions while 21% made joint decisions. This study found that women participation in decision making was relatively higher, which may be attributable to their involvement in onion value chain activities. However, focus group discussions revealed that married women did not have final decisions over the use of income accrued from onion production, but they are consulted by their husbands before final decisions were made, especially when they owned and managed their own farm plots. On the other hand, unmarried women were able to make final decisions over the use of money accrued from onion production. Although, in some sections of this study it was reported that women involvement in marketing is still dominated by men; women involved in onion value chain are frequently consulted by their husbands when deciding on important family issues. A similar trend has also been reported by Jeckoniah *et al.* (2012).

### INSTITUTIONAL RELATIONSHIP AND GOVERNANCE IN THE ONION VALUE CHAIN

A development approach that uses value chain intervention usually aims at increasing farmers' access to production inputs such as fertilizers, pesticides and seeds; which is often a principal constraint to raising value chain productivity. Government and non-governmental organisation promote and support farmers to join producer and marketing groups for easy access of production inputs, extension services and markets of their crops. In this study 57.5% of the surveyed households were members of different farmers' groups or organisations while 42.5% did not have membership to farmers' organisations or groups. The majority of farmers were registered in groups that were involved in helping them to access financial services and farming inputs, three-quarters of the respondents (75%) reported that they greatly benefited by being members of these farmer groups or organisations, 17.4% said they fairly benefited while very few (7.6%) said they saw little



or no benefit. Women who have joined these farmer groups are also taking leadership roles. The structures of some of these groups have reserved special posts to be covered by women and, through their involvement in leadership positions in these groups, most of them have vied for other management posts that are also contested for by men. In order to improve women's position in chain management the common strategies have been to create places for women involvement in leadership. According to Coles and Mitchell (2011), placing women in leadership positions like in groups and committees can help to challenge power imbalances but the presence of women does not necessarily confirm their active participation. Furthermore, Coles and Mitchell (2011) found that the placement of women in strategic organisational positions helped to correct household and chain power imbalances in the value chain aimed to commercialize cassava in Tanzania. Such intervention helped women to increase control of the value chain, hence improved outputs. A similar initiative was also found in this study; there was strategic arrangement to ensure women participated in leadership of the farmer groups. Table 4 summarizes women leadership in onion value chains.

Table-4. Women Leadership in Onion Value Chains

Ward and Villages	Name of CFO	Membership	Leadership position available	Position held	% of posts held by women
Msitu wa Tembo (Msitu wa Tembo and Kiruani Villages)	Mapambano	7 Groups with 280 people (120male, 160 female)	Out of 20 leadership (Executive and 3 other committees), 11 are women in the CFO leadership	Vice secretary, Treasurer and members of committees	55
Ngorika( Lemkuna Village)	UWAVIKI	4 groups with 116 people (38male, 78female)	Out of 20 leaders, 12 are women	Vice chairperson, secretary, and members of the committees	60
Loborsoit (Ngage and loborsoit Village)	Nyota Njema	12 groups with 360 people (165 male, 195 female)	Out of 25 leaders, 14 are women (Executive and 4 other committees)	Secretary, Treasurer and members of committees	56
Ruvu Remit (Gunge Vilage)	UWAGU	7 groups with 280 people (116 male, 164 female)	Out of 16 leaders, 8 are women (executive committee and 3 other committees)	Members of committees	50
Ruvu Remit	MWANGEMA	4 Groups with 109 people (46 male, 63 female)	Out of 20 leaders, 10 are women	Members of committees	50





The data in Table 4 reveal that women were actively participating in leadership positions in economic groups such as the organized farmer groups (OFFs) and commercial farmers' organisations (CFOs) where men were also involved. They held varying positions and undertook a variety of responsibilities in their leadership roles; this is a positive but initial step towards their empowerment and management of the onion value chain. In a focused group discussion with leaders of farmers groups, women revealed that they had equal chances with men to make decisions on important organisation matters such as purchase and allocation of inputs to different members. They also revealed that men are facing increasing challenges from women over the decision that they make in the organisation activities. They also revealed that, many women after being placed in decision making positions they had quickly realized that they were able to make decisions as well as challenge decisions made by other members, including men. Therefore, they shared their individual experiences and contributed in decision making over many issues which obviously used to be the men's domain for quite long time. Some women had also gained confidence to speak in public and compete with men for other leadership posts not specifically reserved for women. Women also reported that men did not easily adopt decisions and changes made or suggested by women. Further analysis in Table 4 reveals that women are the majority. The focus group discussion with leaders of farmers' organisation revealed further that many men usually dropped out of these organisations because they failed to conform to group rules and regulation. The farmers groups have rules that ensure equal participation in group activities and in decision making regardless of one's sex; some punishments were also given for misbehaving against group norms such as late coming, and speaking without permission of the group leaders, which men found it difficult to conform to.

## CONCLUSIONS AND RECOMMENDATIONS

Onions is a high value crop; its demand in the urban markets within and outside Tanzania is increasing. In the onion value chain, men and women are involved in all activities from production to the marketing of the onion. Some activities such as clearing the new field, land tillage and drawing blocks and water ways are mainly done by men while transplanting and harvesting are mainly done by women and children. Overall, traditional divide between men and women activities in onion production is becoming blurred; some activities that were usually done by men are also done by women especially when they manage their own farm plots. However, these changes in men's and women's roles have not been reflected in other household chores that women are involved in the household. Therefore, it is likely that increased women's participation in value chain development activities increases woman workload in the household as well. The gradual shift of men into women dominated activities especially those that are paid for e.g. weeding and transplanting may have implication for women income and workload at household level. The upgrading strategies by government and non-governmental organisations should focus and emphasize on educating men on gender issues and encourage them to participate in some



household chores to reduce women's workload and enable them to equally benefit from their engagement in value chain development activities.

Increased women's participation in decision making over income accrued from onion production reflects increased awareness of women in their rights and changes in household decision making roles, although their participation in marketing of onion is still constrained by many factors such as lack of capital, lack of marketing skills and lack of support from men who dominate decision on selling the onions. The value chain intervention by government and non-governmental organizations should increase efforts to address unfavorable gender norms that reduce women participation and benefits such as restriction of movement and appropriation of women incomes. This study also found that women are more linked to actors involved in similar activities in the value chain e.g. production and have less vertical linkages with other actors like input supply and buyers. Therefore, there is need to empower them to improve their profit in the current positions example by advocating for more equitable access to and control of resources needed in onion production as well as controlling income accrued from onion production. Farmer organization in which women are the majority should be facilitated with capacity building skills to identify and address barriers for entry into higher and more profitable nodes in the onion value chain.

This study found that farmers are willing to use their organisations as an avenue to increase their production, and productivity through increased access to financial services such as loan and credits, input and social support. However, men still dominate supply of production inputs and are the barrier for women who want to participate in the input supply, which forces women to rely on farmers' organisations for accessing inputs. Therefore, government and non-governmental organizations should invest in farmers' organizations as a potential and promising way to facilitate equitable access by rural producers, including the poor to agricultural markets. In addition, and as is frequently the case, if decision-making in these farmer groups is male-dominated, women's priorities may be ignored. Hence, gender sensitive interventions and approaches should be used in forming and strengthening farmer groups. It is imperative for development practitioners in value chain development to understand how changes in gender roles and relations impact value chains and programmes outcomes at chain and household levels in order to facilitate transformation of such changes from chain to household level.

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**PAPER TWO**

**Women empowerment in agricultural value chains: voices from onion growers in  
northern Tanzania**

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# Women Empowerment in Agricultural Value Chains: Voices from Onion Growers in Northern Tanzania

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## Abstract

Women empowerment is multifaceted concept, there are many definitions and perceptions that are used by programmes and projects espousing to empower women. This study, using qualitative data sought to assess women perception on empowerment among those involved in onion value chain development activities. The study adopted cross sectional research design where focus group discussions, key informant interviews and case studies were the main methods for data collection. Content analysis with constant comparison technique was used to analyse the data. The study found that women empowerment is linked to different achievement in their lives in their social and economic contexts such as increases in income, confidence to speak in public, awareness of their rights and participation in decision making at the household and community levels. Men's attitude and behaviours such as reluctantancy to accept changes suggested by women and control over income accrued from their activities are among the barrier for women empowerment. The study recommends for use of gender sensitive approaches in designing and implementing development programmes on women empowerment. Men and tribal leaders should be involved in women empowerment initiatives in order to change their mindset towards women empowerment

**Key words:** Women empowerment, value chain, perception, content analysis

## 1.0 Introduction

Women play critical roles in agricultural value chain development in developing countries. However, their participation in value chain development activities does not always result into their empowerment. The conceptualization and analysis of women's empowerment is based on gender and empowerment theories which contend that gender relations are constructed and deconstructed as a result of behavior of men and women which is influenced by changes in economic, cultural and historic events in the society (Kabeer, 2001; SIDA 2001). Such changes might be a result of a development intervention such as value chain development activities. Therefore, women's empowerment is a process of change in which women are significant actors in the process of change that is being described or measured (Malhotra *et al*, 2002). The change is about women regaining the ability to make decisions and affect outcome that is important to themselves and their families (Kabeer, 1999). Women empowerment considers women as agents of that change rather than merely as its recipients. Kabeer (2001) defines empowerment as 'the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them. World Bank (2002) defines empowerment as: "the expansion of freedom of choice and action to shape one's life". Mosedale (2005) argues that in defining empowerment there are four central concepts: Firstly to be empowered one must have been disempowered, secondly empowerment cannot be bestowed by a third party, there should be a sense of people making decisions on matters which are important in their lives and being able to carry them out and finally empowerment is an ongoing process rather than a product. The author further argues that people are empowered, or disempowered, relative to others or relative to themselves at a previous time.

Community development projects that include structured intervention such as value chain development have a potential to enable involved communities to have greater control over the conditions that affect their lives (Simvised *et al*, 2008; Rashidpour *et al*, 2010). However, some studies reports that the ineffectiveness of community development program or projects to improve the quality of life of indigenous communities is associated with the attitude of the planners who fail to understand the needs and the aspirations of the community from their own world view (Novel *et al*, 2011; Rashidpour *et al*, 2010; Samah *et al*, 2011). The participation of the programme recipients usually depend on personal experiences, needs and aspirations which are shaped by their own world view, thus it is important to understand the participant own perception of empowerment.

In Tanzania, as it is in many developing countries, efforts to empower women have been focused on improving women status through education, training, access to health, and family planning services as well as legal counselling and support. Many development programmes and projects espousing for women empowerment emphasize on increasing their access to income, participation in decision making and control over assets and resources. For example women economic empowerment through micro-finance and micro-credit services



programmes has become popular since 1990s (Malhotra *et al.*, 2002; Mayoux 2000). While some empowerment outcomes have been realized in economic empowerment among women involved in micro-credit projects (Hashemi *et al.*, 1996; Mayoux 2000, Kishor, 2000; Varghese, 2011). little is known on the empowerment outcome of those involved in agricultural based livelihoods which employ the majority. However, in recent year's government and non governmental organizations have started implementing and supporting projects and programmes that aim to empower women involved in agricultural related activities with a new focus on value chain approaches. The initiatives range from supply of government subsidized agricultural inputs, provision of soft loans to invest in income generating activities, and assist small scale producers to access markets and the formulation of producer and marketing groups under the farmer field schools approaches (URT, 2006). Under these initiatives, farmers have been facilitated to organise themselves in producer and marketing groups. They are also encouraged to form networks at village and ward levels for easier access to production inputs, credit and extension services.

Simanjiro District, farmers' especially women have been facilitated by government and nongovernmental organisation to select agricultural commodity which has potential to increase their income and reduce poverty. onion production for local and export market was selected based on this merit and several effort have been made to develop the onion value chain. In an effort to improve linkage to markets farmers have been also facilitated to form or join into producer and marketing groups and networks which have helped them to identify and work with other actors involved in the onion value chain. It is anticipated that women's participation in these value chain development activities will gradually generate reasonable incomes for the involved actors, hence bringing a range of benefits that lead to empowerment within families and societies in general. Coles and Mitchel (2011) argue that the transformation of the empowerment effects acquired in the value chain level into household level is determined by location specific socio-cultural contexts hence difficult to generalize

This paper uses qualitative data collected using a combination of methods to explore women's perception of empowerment in relation to their involvement in onion value chain development activities. The next section of the paper describes the study in terms of location and methods used to collect data. This is followed by a result on women perceptions of empowerment and barriers to women's empowerment. The paper winds up with conclusion based on the study findings.

## **2.0 Methodology**

### **2.1 About the study area**

This study was conducted in Simanjiro District in Manyara Region where eight villages that are actively involved in onion production and marketing and onion value chain were purposefully selected from four wards: The wards selected are Msitu wa Tembo, Ngorika, Ruvu Remit and Loborsoit, the villages were Nyumba ya Mungu, Lemkuna, Gunge, Ngage A and B., Kiruani Msitu wa Tembo and Ruvu Remiti. All the four wards from which the eight villages were selected are traversed by the Ruvu River Basin (RRB) where irrigation farming especially onion production is an important economic activity. Apart from traditionally being pastoralists, the Maasai are now actively engaged in the crop production and are among the major actors in the onion value chain. The onions from the study area are sold in many local markets within the district and nearby regions. Other markets include Arusha, Moshi, Zanzibar and Dar es Salaam. Onions from Simanjiro are also traded across national border especially to Nairobi and Mombasa markets in Kenya. During onion harvesting periods many traders from outside Simanjiro District and from distant markets come to these villages to purchase the onion directly from farmers who usually receive low prices for their crops.

### **2.2 Research Design and Data Collection**

Qualitative data on women empowerment were collected from November 2011 to March 2012 using a combination of methods of data collection including focus group discussions (FGDs), key informant interviews and case studies. FGDs involved women participating in onion production and marketing and other group activities like saving and credit groups in the village. The focus group discussion composed of between six and eleven people. In these FGDs issues on women participation and benefit accrued from onion value chains were discussed including: perception on changes in men and women roles in production and marketing of onion, ownership of assets, income and money accrued from onions. Others issues covered were: factors promoting or hindering women decision making, men's attitude towards women's voice and leadership, household decision making, women's freedom of movement, group networks and interactions, political activities and changes in livelihood. One additional focus group involving men's only was held where some responses and claims raised by women over men were clarified.

Key informant interviews were held with people who were believed to have in-depth understanding and knowledge on women empowerment in the area. They included, district agricultural and livestock development officer (DALDO), district community development officer (DCDO), and village and ward extension officers, village government leaders, tribal elders, and leaders of farmers groups as well as leaders of non governmental organizations (NGOs). The district, ward and village leaders helped in generating general information about

people and their livelihoods, recent changes and development due to different initiatives. Issues explored during key informant interviews included; main economic activities and sources of livelihood, NGOs and government activities in relation to women empowerment and onion value chain development activities in the area, women participation in local government activities and politics, resources' ownership and access to citizens rights.

The case study method was used to obtain information on women's personal experience on their empowerment and changes achieved due to the support and opportunities presented to them by value chain development activities. A semi structured interview checklist was prepared to document life histories addressing important aspects of empowerment and changes over time. This information was useful to understand how changes related to empowerment occur in the household and how such changes are viewed and valued by different members in the household or community.

Data were analyzed using content analysis technique with constant comparison; data from focus group discussions, key informants and transcripts from case studies were interpreted and organized into different themes based on the conceptual description of ideas and concepts. The resulting themes were then analyzed guided by research question for this study.

### 3.0 Results and Discussion

#### 3.1 Women Empowerment: Voices From Women in the Study Area

Many respondents in FGDs related empowerment with some achievements in different aspects of their life and changes in the relationship with their husbands, partners and other male members of the family. Diverse opinion and perception was expressed throughout the discussions; most opinions were attached to their situation in life and how society views or treats them. Therefore, some women perceived empowerment as the increase in benefit accrued due to their involvement in different productive activities that contribute to their income and for the household. Increased participation and influence in household decision making and acquiring sense of self worth, recognition and respect in the household and in the community were also mentioned as important attribute of their empowerment. Women's perception over their empowerment covered a wider context ranging from realizing and using their own potential, increase in income, ability to meet some household expenditure and increased participation in development activities as well as in the household decision making. The majority of respondents also recognize the ability of individuals to gain more control in determining their lives and the ability to produce ideas that can be shared with project leaders, local government authorities in the community as important aspects of empowerment. The following quotes highlight important aspects perceived to be critical to aspects of their empowerment:-

*Before joining into these group activities I felt shy to speak in public, but now I can even speak in front of men or ask questions in a village meeting* " Woman FGD participant, Lemkuna Village

*"My husband never listened or asked for my opinion when deciding on household issues because I didn't have my own income to contribute, now we discuss and decide together because I have more voice to decide over the use of my money which I get from our group activities"* Woman FGD participant Ngage Village

*"My children are going to school because of my creativity" the loan I received from our onion production and marketing groups enabled me to pay for school fees of my kids. In the past I feared to ask the village government to force my husband to send our kids to school now I have more confidence to demand for the rights of my kids, my husband now treats me relatively fair.* Woman FGD Gunge village

*"I can get the production input that I need for onion production on my name, which was not possible in the past ; I have a say over the money I get from selling onions"* Woman FGD Loboisoit village

*"I have bought some asset with my own money (mobile phone, foam mattress, and dairy cattle); I feel I have more power to do many things than I used to "* Woman FGD Lemkuna village

*"If you are married to a Maasai man it is like you've been bought, you can't do any independent income generating activity, only when I divorced I started my own small business that I happily live on"* FGD Woman Ngage village

The onion value chain apart from promoting production, productivity and marketing do also support and promote women to join into groups. These groups are used for trainings related to onion production and marketing as well as increasing women's knowledge in other important aspects of their livelihoods such as saving and credit acquisition, entrepreneurship, curving and creating and managing income generating activities. The efforts and support provided through developing onion value chain were anticipated to impact on women's empowerment. Most of the notable changes brought by onion value chain development activities are increased women involvement in production, marketing and credits and saving groups. During men focus group discussion it was found that men acknowledge that women as a result of their engagement in these value chain development activities have been enlightened, they feel more confident of doing even things that were used to be done by men only.

*"when women are allowed to make some decision over some family issues, they want to take control of everything; especially now that they get money from their group activities, they feel they can do all activities that*



*were meant for meant for men only"* Participant, Men FGD Ngage Village

Most men in Simanjoro District perceive changes in women empowerment as radical ones which in some aspects contradict their social norms and men's position in the household and society. Men defined women empowerment as an increase in awareness and capabilities, which have increased women's confidence in many aspects, for example they said some women have started to challenge men in many issues as well as decisions made by men that they were not able to do before.

*"Women especially those involved in group activities are now difficult to manage, they question many things and decision made by men in the household and even in village meetings; they can even ask questions in public meetings. They get some money in their group activities, and plan its use, it has become difficult to decide for them or use their money. I think these groups' activities have corrupted their minds".* Ngage village chairman

Considering women's situation in the past men acknowledge that women have acquired many changes which are associated with group activities, initiated and supported by these development programmes for example Village Community Banks (VICOBA) groups which have been strengthened in the onion value chain development initiatives. Barham and Chitemi (2009) also found that smallholder farmer groups that link them to agricultural markets produce a range of benefits including income and food security. The authors further argue that gender composition of the groups may affect marketing performance.

### 3.2 Barriers to Women's Empowerment

Women identified men's behaviours which do not allow women to have full control over resources, restrictions on movement and their rigidity to accept change as one of the barriers they face in their efforts to empower themselves. Women also reported that men usually withdraw their contribution to household expenditures when they see women income have increased, this increases the women's workload. Men were also reported to interfere women's decision over the use of money that women have made through their activities.

*"The benefit of our engagement in value chain development activities is undermined by our husbands/male partners, ownership of assets and income in our area usually falls within men's hands they don't allow us to decide on how to use our money and they want to appropriate our income"* Key informant, leaders of farmers group

*".....my husband always tell me.....You get allot of money from your group activities, I can't give you more money for buying household consumables because you have the money already"* Women FGD Lemkuna Village

*"When we gain some more income we contribute to household expenditure e.g. buying food, but we face more burden because men divert their income from household activities, actually we benefit at our own increased workload and expenditures.....look we can't starve our children to force men to contribute..... we also love our husband but they are not supportive especially when our income improves ....they need to be educated as well so that we enjoy the benefit of our effort"* Women FGD Lemkuna village

Similar trend have also been reported that when women's contribution to household expenditure increases men tend to divert their attention from household expenditure and thereby increasing the expenditure burden to women (Malhotra *et al*, 2002). Evidence from the studies in micro-finances and women empowerment also inform that men usually control and or appropriate income or credits acquired by women (Goetz and Sen Gupta 1996; Hunt and Kasynathan, 2002).

Voices of women onion farmers in Simanjoro District reveal that men and women have different perception over the benefit and contribution of women empowerment into household level. Women perceived that men would not like them to be empowered because of the benefit they rip out of their disempowerment. Men on the other hand perceived empowerment as a zero sum game; where one benefit on the expense of the other. They perceived that the efforts to empower women are done to their disadvantage and thought that if women are empowered they will lose many benefits that they are enjoying now. Men's believe that they are the custodians of the traditional norms. A change that does not involve their permission is not usually accepted. Men were also concerned over the contribution of women income to the household because as women spend more time in group activities their labour force needed for household production is reduced, yet if they don't spend some of their income to meet household needs then the wellbeing of the household is affected.

*"Women when enlightened about their rights they go beyond their basic rights that our traditions recognize, they don't obey us, they may even start to come home late".* Men FGD Ngage Village

*"When we allow them to go out to these group activities, the work force at the household is reduced, yet, the income they get there is for their own use and the husband is required to meet all the household requirements.... our control is important in order to set limits over what they can do and what they should not do"* Men FGD Ngage Village

*For an old person like me these changes being demanded by women are illogical, I am used to our traditional way of living and do not accept these changes. After all, they didn't come with anything when they were married; they got all the properties in our own compounds. Therefore, all the assets and property belong to the head of the household who is a man" ...* men FGD Ngage Village

Men also perceived that the empowerment initiatives by government and NGOs favour women: -

*"The government and non-governmental organizations, now days put more emphasis on women's rights and issues as a result women are becoming so difficult to manage and discipline, when a woman takes you to court or the village government she is given high priority, even the decision by our elders are questioned!"* Men FGD member- Ngage

Apart from placing some restriction on women's movement, the study also found that men believe that they have the right to set limits over what women can do within and outside the household. Therefore, women sometimes take radical changes such as divorce in order effect changes that they desire. Although many women saw divorce as a radical and unacceptable way to enforce desired changes, some women who live as singles or are divorced claimed that they enjoy a relatively higher level of empowerment than when they used to be in marital union. A story of Ms Asha is one of the examples that reveal how some women may progress and accumulate some income and assets after divorce.

#### **Casel. Asha Ramadhani: divorced and empowered**

Asha a woman aged 40 years with three kids said; she has been married for twelve years before she was divorced in 2007. She has lived in Ngage village for 10 years now her husband never allowed her to join the credit or farmer groups. They used to cultivate rice with her husband, but she never had a say over how the income accrued from the crops they produced should be used. Her husband used all the money on alcohol and she was frequently beaten by her husband. After several attempts to correct her husband's behaviour failed and life became miserable; she decided to divorce her husband and continued to live on her own. She started managing her own life by selling buns to nearby school, then with support she got from VECO she joined farmer groups for onion production and she also joined the local saving and credit organisation. Now she owns a share in her credit union amounting to Tsh 500,000/=, she is able to rent a piece of land for onion production and she has even managed to buy a plot and build her house in which she lives with her young son. Although divorced she still acknowledges the value of being married: "I thank God to have been married and have children so that I can be respected as a woman; but for 12 years that I was married, I did not achieve progress in my life, only after divorce have things started to change"

This case reveals that, when women are free to decide on the use of the resources that they have access to they may prosper than when they are under the control of men. This is due to the fact that women have full control of the income and she can decide on how to use the income or invest in productive activities. Asha case also highlight that marital relationship is highly valued despite failures that may happen in the relationship; married women are relatively highly respected than the unmarried ones. As also argued by Powell (1990), despite many disadvantages, divorce can enhance women with social and interpersonal skills. Some women like Asha, divorce help them re-discover their self-esteem, goals and their sense of independence. It helps them realize how significant they are in changing their lives hence acquiring a higher level of empowerment.

#### **4.0 Conclusion**

This study has found that women perception of empowerment in Simanjiro District is linked to different achievement in their life in their local contexts such as improvement in income levels, increased control of the productive resources and participation in decision making at the household and at the community levels. On the basis of the experiences articulated by women involved in the onion value chain development activities women empowerment is viewed as a process in which women income increases, become aware of their rights and increase their control over material assets and acquire knowledge, information and ideas to challenge beliefs, attitude and behaviour that contribute to their subordinate position in their families and societies. The study has found that women empowerment has improved in terms of increases in income, confidence to speak in public, awareness of their rights, increased appreciation by husbands and community on decision and ideas suggested by women. Men's attitude towards women empowerment was reported to be a barrier to women empowerment, men are reluctant to accept changes suggested by women, and they are also rigid to allow women to have more control over income accrued from their activities and other household resources. Most men would like the current traditional set up of decision making and control of resources to continue where men have an upper hand in all decision making. Therefore there is a need to change the men's mind set so that they understand and support women empowerment initiatives. Programmes interventions aiming at empowering women and improve their socioeconomic status are less likely to achieve this important objective if they do not address men's attitude towards women empowerment. The local power structures and networks that command high respect e.g. tribal elders (*Laigwanani* - for the case of Maasai), men and women elders should be especially targeted with education for empowerment changes to be valued and accepted in the community. The findings of this study highlight the need to take into account local contexts values and meaning attached to women's needs when



designing and implementing community/participatory women empowerment interventions.

Most development programmes intending to empower women tend to focus on increasing women's income and expand their capabilities. In order for such changes to transform into women empowerment it must impact on rules and norms that are socially constructed. This study found that changes acquired by women due to their involvement in onion value chain development activities have potential to alter gender roles and relations within households and communities. Men and women have different perception on empowerment which is linked to different achievement in life in their local context. Therefore, programmes addressing women empowerment should also focus on men in order to facilitate them to change their attitude in order to support women's effort to institute changes acquired in the value chain development activities into the household level.

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**PAPER THREE**

**Socio-economic Status and Women Empowerment in Rural Tanzania:**

**A Case of Onion Value Chain in Simanjiro District**

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### Abstract

*Literature on the link between women empowerment and their socioeconomic status is inconclusive. Many development organisations' efforts to empower women focus on increasing their participation in income generating activities in order to improve their socioeconomic status. The study was conducted in Simanjiro District to explore the linkage between women socioeconomic status and their empowerment, a comparison was made between participant and no participant to onion value chain. The study adopted a cross-sectional research design, and a total of 402 women completed the household questionnaires which were supplemented with focus group discussions and key informants interviews. Principal Component Analysis (PCA) using SPSS version 16 was applied to the socioeconomic data to obtain index as a proxy for household socioeconomic status. A composite women empowerment index was constructed to gauge women empowerment in different spheres, and F-test was used to determine the relationship between women socioeconomic status and their empowerment. The study found that many respondents were categorized into low to medium levels of empowerment. Relatively high levels of empowerment were found in aspects of household economic consultation, freedom of movement and political autonomy. Asset ownership and housing conditions revealed that the poorest were below average for most of the items or services to which the better off had access or possessed. The relationship between socio-economic status and women empowerment was statistically significant ( $P < 0.05$ ), implying that efforts to improve women's wellbeing that focus on income and asset accumulation have the potential to empower women; therefore government, nongovernmental organisations and development programmes espousing to empower women should improve their approaches to ensure the poorest also gain opportunities to participate.*

Key words: Women empowerment, socioeconomic status, empowerment index, wellbeing

## 1.0 BACKGROUND INFORMATION

Women participation in income generating activities (IGAs) especially in Third World countries has been a central focus on efforts to empower women. Government and non-governmental organisations for many years have encouraged women to undertake IGAs so as to gain income and assets of their own for supplementing their household income and improve their standard of living. Despite such efforts, it is argued that those economic and social development efforts had not benefitted women as much as men (Mbilinyi, 1992 cited by Makombe *et al.*, 1999). Many studies have been conducted to assess the impact of women's participation into IGAs onto their empowerment. Some scholars have found positive impacts both on household outcomes such as income, wealth and asset accumulation and on individual outcomes like employment, health and nutrition (Baden and Green, 1994 cited by Parvin *et al.*, 2005, Makombe, 2006; KIT *et al.*, 2006; Shackleton *et al.*, 2011). Nevertheless, negative impacts have also been reported (Hashemi *et al.*, 1996, Mayoux 1999; Mayoux, 2000).

Oakes and Rossi (2003) define socio-economic status as “differential access to (realized and potential) desired resources”. The authors further argue that the resources fall into three distinct domains: (i) material endowments e.g. earned income, investment income and real property, (ii) Skills abilities and knowledge, and (iii) One's social networks. Therefore, the task of measuring socio economic status according to Oakes and Rossi (2003) seems to be reduced to identifying appropriate indicators for each of the domains and summarizing them at the level of individual or community. Other authors, e.g. Krieger, William and Moss (1997) cited in INDEPTH (2005) argue that the term socio economic status blurs the distinction between two aspects of socio-economic position which are actual resources and status, hence confusing. In actual practice, it is difficult to generate and measure all potential indicators in the three proposed domains. This study

adopts the Oakes and Rossi (2003) definition of socio-economic status and uses the method proposed by Filmer and Pritchett (2001) whereby assets are used to generate wealth quintiles as proxy for household socioeconomic status.

Literature on social and economic development has established that there are gender differences in how goods and services that result in the well-being of household members are valued (Katz *et al.*, 2007). It is also hypothesized that the income that women earn from their productive activities increases status and power of women to acquire assets and services that are important to them. According to Morris (2005), there are four commonly used methods in measuring socio-economic status, where a single composite index is developed: (i) Proxy Means Test (Grosh and Baker, 1995 cited in INDEPTH Network, 2005). This method uses per capita consumption or income. (ii) Principal Component Analysis (Byaman and Cramer, 2001 cited in INDEPTH Network, 2005) which was popularised by Filmer and Pritchett (2001). This method uses assets to generate wealth quintiles as proxy for household socioeconomic status. Other methods are those proposed by Ferguson *et al.* (2003) cited in INDEPTH (2005) which uses permanent income and Oakes and Ross (2003) who focus on social norms as the gold standard of social economic status whereby an individual assign socio-economic scores which are used in final selection of weights.

Several studies have used assets ownership, housing quality and sanitation as proxies for household socioeconomic status (Mwageni *et al.*, 2005; Nathan *et al.*, 2005; Sikira *et al.*, 2010). A change in socio-economic status provides direct and indirect benefits to individuals and households including: improved living conditions, protection during emergencies and collateral for credits that can be used for investment or consumption (Doss *et al.*, 2008). Many studies conducted on exploring the linkage between socio-



economic status and women empowerment have focused on access to and involvement in micro-credits projects as a source of income generating activities. Scanty information exists on the linkage between women participation in agricultural markets and related activities and women empowerment. Furthermore, the studies on the linkage between micro-credit and empowerment are geographically skewed to South Asian countries especially in Bangladesh, Pakistan and India. Experience from South Asian countries on the impact of microfinance on women empowerment has been replicated in other parts of the world (Hunt and Kasynathan, 2001). It is imperative to find empirical evidence in other locations as Coles and Mitchel (2011) suggest that factors responsible for women empowerment are affected by locations specific socio cultural contexts.

In Tanzania, as it is in many other developing countries, efforts to empower women have been focusing on improving women status through education, training, access to health, and family planning services as well as legal counseling and support. Many development programmes and projects espousing for women empowerment emphasize on increasing women's access to income, participate in decision making, control over assets and resources. For example women economic empowerment through microfinance and micro credit services programmes has become a popular approach since the 1990s (Malhotra *et al.*, 2002). Women participation in productive and market activities such as value chain development activities is anticipated to result into a range of benefits to involved women and may impact on their empowerment. Agriculture and its related activities have been identified as national mainstay and an engine for economic growth in Tanzania; given that women are the majority of agricultural producers, it is important to understand means to empower them. This study sought to examine the link between socioeconomic status and women empowerment in onion value chain development activities so as to draw lessons

for government and non-governmental organisations involved in women empowerment in agricultural related livelihood.

## **2.0 METHODOLOGY**

### **2.1 Description of the Study Area**

The study was conducted in Simanjiro District located in Manyara Region in Tanzania. The District has both government and Non-Governmental Organisations promoting onion production and marketing using value chain approach. There are many farmer groups organized for onion production and marketing in which women are the majority.

### **2.2 Data for the Study**

The study adopted a cross-sectional research design, whereby data were collected only once. Eight villages were selected purposively from four wards. The sampling unit for this study was the individual women participating and those not participating in onion value chain development activities. The interviewed women represented their households which were used as the unit of analysis in developing wealth quintiles as a proxy for households' socioeconomic statuses. Data were collected between October, 2011 and February, 2012. Multistage sampling procedure was used. Villages that had farmer groups that were actively engaged in onion value chain development activities were purposively selected. Systematic sampling technique was used to obtain respondents involved in the onion value chain development activities based on the sampling frame which was the names of registered participants in different farmer groups involved in onion value chain development activities. Simple random sampling technique was used to obtain a comparative sample of respondents who were not participating in the value chain development activities.



Household survey was conducted in all eight villages; a structured questionnaire was used, and 402 respondents participated in this study, 207 (51.2%) of whom were participating in onion value chain development activities and 195 (48.5%) were non-participants. Qualitative data were collected using focused group discussions and key informant interviews. Household survey captured socioeconomic information, ownership of assets, involvement in onion value chain and profitability analysis in the onion value chain, the information was also used for the construction of the women empowerment indices.

Focus group discussions, which composed of between six and eleven people was also used for data collection for this study. During focus group discussions, women's perceptions on issues related to benefits accrued from onion value chains; changes in men's and women's roles in production and marketing of onions, ownership of assets, income and money accrued from onions were discussed. Other issues explored included factors promoting or hindering women's decision making, men's attitude towards women's voice and leadership, household decision making, women's freedom of movement, group networks and interactions, political activities and changes in livelihood were discussed.

### **2.2.1 Household socio-economic status index**

Principal Component Analysis (PCA) using SPSS version 16 was applied to the socioeconomic data to obtain index as a proxy for household socioeconomic status. PCA involves breaking down variables like assets (radio, solar panel, water pump etc) or access to service in a household (water, toilet) into categorical or interval variables (Mwageni *et al.*, 2005, Nathan *et al.*, 2005). In this study, household assets, housing conditions, water and sanitation were the main variables used for construction of socioeconomic status index. The variables were then processed in order to obtain weights and principal

components. The results obtained from the first principal component (explaining the most variability) were used to develop an index based on the formula:

$A_j = f_1 \times (a_{j1} - a_1) / (S_1) + \dots + f_N \times (a_{jN} - a_N) / (s_N)$  (Filmer and Pritchett, 1998 cited by Mwageni *et al.*, 2005 ).

Where:

$A_j$  = Index developed

$x$  = the variable

$a_1$  = mean

$f_1$  = scoring factor

$a_j$  = the value for the asset or service

$S_1$  = standard deviation

Based on this formula, indices of each household were calculated and the resulting population was divided into wealth quintiles; five indices were prepared and used as proxies for socio-economic status in which the first quintile represented the poorest while the fifth quintile represented the well off. Two statistical measures of inequality were used; one was the poorest/well-off ratio which compares the rate prevailing in the poorest and well-off quintiles. The second was a trend test (Chi Squares) to determine the significance in the inequality.

### 2.2.2 Measurement of women empowerment

Women empowerment was measured by developing women empowerment index (WEI). Cumulative/Composite Empowerment Index (CEI) was constructed based on the WEIs from different spheres. Six indicators of women's empowerment were measured, hence six indices: Person Autonomy Index (PAI), Household Decision-making Index (HDMI),

Economic Contribution to Household Income (ECHI), Economic Domestic Consultation Index (EDCI), Freedom of Movement Index (FMI) and Political Autonomy Index (PoAI).

The respondents were requested to indicate their degree of involvement in issues related to each particular index, and the scores obtained were used to develop these indices.

### 3.0 RESULTS AND DISCUSSION

#### 3.1 Asset Ownership

During focus group discussion which preceded household surveys, the respondents were requested to state the assets which connote wealth status in their area. Only assets voted for by the majority were included in the survey questionnaire. Table 1 present these findings whereby assets owned by the respondents were disaggregated by their involvement in onion value chain development activities. According to Table 1, there is difference in asset ownership, except for Television set and sewing machine which were more owned by those not participating in onion value chain. In all other assets women participating in onion value chain activities had more assets than their counterparts.

**Table 1: Assets Owned by respondent household**

Assets Owned by respondent household	Percent (n=402)		
	OVC Participant	OVC non-participant	All
Radio	84.4	73.6	79.1
Solar panel	7.3	1.0	4.3
Bicycle	53.2	31.4	42.6
Motor bike	16.1	5.7	11
Car/tractor/power tiller	1.5	2.1	1.8
Functioning Telephone/mobile	78.5	67.5	73.2
Television set (TV)	10.8	12.4	11.6
Sewing machine	4.9	7.2	6.0
Satellite dish	5.9	4.1	5.0
Foam mattress	54.1	40.7	47.6
Water pump	11.2	6.2	8.8
Land	74.1	57.2	65.9
Wooden bed and mattress	73.7	66.5	70.2
Goat	37.6	19.1	26.8
Cattle	18.1	13.4	15.8

### 3.1.1 Housing conditions

The study reveals that majority of the respondents (71.8%) were living in the houses that they owned. The differences in quality of houses were also small; this may be due to the fact that most of the households found in the surveyed villages were made of cheap and locally available materials which indicate the level of poverty prevailing in many rural areas of Tanzania. For example 48.9% of the houses had thatch grass roof, and 70% had mud floor. This implies that most of the respondents still faced high level of poverty.

**Table 2: Housing conditions**

Category	Percent ( n = 402)		All
	OVC Participant	OVC non-participant	
<b>House ownership</b>			
Yes	75.5	68.0	71.9
No	24.5	32.0	28.1
<b>Wall</b>			
Unburned bricks/mud	72.2	76.4	74.2
Burnt brick	24.2	19.8	22.1
Cement brick	3.5	3.3	3.4
Tin	0.0	0.5	0.3
<b>Roof</b>			
Corrugated iron sheets	46.5	54.4	50.3
Thatch grass/mud	52.5	45.1	48.9
Tiles	0.5	0.5	0.5
Tin	0.5	0.0	0.3
<b>Floor</b>			
Soil/earth/sand	75.6	65.2	70.6
Cement	23.4	33.1	28.0
Ceramic tiles	1.0	1.7	1.3

### 3.1.2 Water and Sanitation

The majority of the respondents (63.8%) depended on unprotected open well water sources, which might have ill health impact. It was anticipated that the benefits women derive due to their participation in onion value chain would help them to improve the living standards by acquiring ability to afford paying for other improved social services. But, according to Table 3, there was clear difference in access to water, whereby women not participating in onion production activities were more likely to have more access to secure sources of water than their counterparts. This implies that participation in onion value chain did not have big impact on access to secure water source.

**Table 3: Source of Water and Sanitation**

Category	Percent (n = 402)		All
	OVC Participant	OVC non-participant	
Source of water for drinking			
Open well/pond or river	78.9	47.9	63.8
Public tape	14.7	32.5	23.4
Water kiosk	4.4	14.4	9.3
Piped into yard house	1.0	3.6	2.3
Own piped into the household	1.0	1.5	1.3
Toilet facilities			
Traditional pit toilet	88.2	81.2	84.8
Own flush toilet	4.4	6.8	5.6
No toilet at the HH	2.9	5.8	4.3
Shared flush toilet	3.4	5.2	4.3
Ventilated improved pit (VIP)	1.0	1.0	1.0

### 3.1.3 Source of energy for cooking

As it is in most rural areas in Tanzania, majority of the respondents (87.9%) depend on firewood for cooking. Although this has a negative impact on the environment, it is the



only available and affordable source of energy for most poor people especially in rural areas. In the 2007 Tanzania household budget survey estimated that about 73% of rural households depend on firewood as their main source of energy for cooking. Therefore, firewood consumption for cooking in Somanjiro District is above the national average (NBS, 2012). Such higher dependence on fuel wood as the main source of energy has implication on environmental degradation. Kerosene was second in importance as a source of energy, and it was used by only 11.1% of the respondents, as presented in Table 4.

**Table 4: Source of energy for cooking**

Category	Percent (n = 402)		All
	OVC Participants	OVC non- participants	
Source of energy for cooking			
Firewood	90.6	85.1	87.9
Kerosene	8.4	13.9	11.1
Electricity	0.5	0.5	0.5
Charcoal	0.5	0.5	0.5

### 3.2 Assets and Housing Ownership

Results in Table 5 show that the poorest were below average in most of the items or services to which the better off had access or possessed. For example, in terms of asset ownership only about ten percent (9.8%) from the poorest category had radios compared to 20.1% in the well off category. The same observation applies to motorcycles, mobile telephones, television sets, mattresses and ownership of animals whereby the well off were more likely to possess more assets than the poorest. A sharp contrast was observed to bicycle ownership whereby the least poor had more ownership than the well off. A similar trend have also been reported by Masengi (2005); this might be due to the fact that in the study area, given its geographical position and remoteness, bicycle is the common form of

transport used in most productive activities hence more important to the poor who do not have other means of transport. The Chi Square ( $\chi^2$ ) statistic indicated a significant relationship ( $P < 0.05$ ) in the distribution of assets between poor and well off for: radio, solar panel, bicycle, television, mattress, land, wooden bed, goat and cattle implying that there was inequality in ownership of these assets between poor and well off individuals. Vyas and Kumaranayake (2006) cited by Sikira *et al.* (2010) report that in principal component analysis variables with positive signs on the factor scores are related with high socioeconomic status while those with negative signs on factor scores are associated with lower socioeconomic status.

Like asset ownership, housing conditions relate to socioeconomic status of the household. A similar trend, which is also consistent on the scores on the index, has been observed (Table 5). Chi Square ( $\chi^2$ ) statistic indicates significant relationship ( $P < 0.05$ ) on the ownership of house, number of sleeping rooms in the houses, whether the house walls were made with burnt bricks or mud, tiles roof and type of toilet facility owned, implying that inequality existed between poor and well-off individuals based on these housing conditions and access to services. Despite the fact that onion value chain intervention in the area has brought much benefit, this finding informs us that income distribution was still uneven.

**Table 5: Distribution of assets and housing condition by quintiles (%)**

Assets owned in the household	Quintiles (Percent N=402)					Mean	1 <sup>st</sup> /5 <sup>th</sup>	(X <sup>2</sup> ) Sig.
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>			
Radio	9.8	13.8	16.8	18.6	20.1	15.82	0.49	0.000
Solar panel	0.3	0.3	0.3	0.5	3.0	0.88	0.10	0.000
Bicycle	11.0	10.0	8.0	8.5	5.0	8.50	2.20	0.002
Motor bike	1.8	1.5	2.3	2.8	2.8	2.24	0.64	0.604
Car/Tractor/Power tiller	0.0	0.0	0.5	0.5	0.8	0.36	0.00	0.273
Telephone/mobile	13.0	14.0	14.0	16.3	15.8	14.62	0.82	0.153
Television set (TV)	1.5	1.5	2.3	2.0	4.3	2.32	0.35	0.044
Sewing machine	1.0	1.0	0.8	1.3	2.0	1.22	0.50	0.551
Satellite dish	0.5	0.3	1.0	1.3	2.0	1.02	0.25	0.106
Foam mattress	7.0	8.3	9.3	11.3	11.8	9.54	0.59	0.008
Water pump	1.8	1.8	1.3	1.5	2.5	1.78	0.72	0.718
Land	5.3	12.0	15.5	15.5	17.5	13.16	0.30	0.000
Wooden bed and mattress	11.5	13.3	14.8	15.0	15.5	14.02	0.74	0.026
Goat	1.0	1.5	2.5	8.0	15.5	5.70	0.06	0.000
Cattle	0.0	0.5	0.5	3.8	11.1	3.18	0.00	0.000
Own a house	10.8	15.6	13.6	15.3	16.6	14.38	0.65	0.000
1-2 Sleeping rooms	14.7	15.7	14.4	14.7	16.4	15.18	0.90	0.005
3-4 Sleeping rooms	2.7	3.0	2.0	7.7	6.7	4.42	0.40	0.004
5+ Sleeping rooms	0.0	0.0	0.3	0.7	0.7	0.34	0.00	0.696
Burnt bricks wall	2.7	2.7	3.7	5.2	5.7	4.00	0.47	0.050
Cement bricks wall	0.2	0.5	0.5	0.7	1.2	0.62	0.17	0.447
Un burnt brick wall	15.7	11.7	13.7	13.5	15.5	14.02	1.01	0.020
Thatch grass roof	13.2	8.9	9.2	8.9	8.7	9.78	1.52	0.014
Tin roof	0.0	0.2	0.0	0.0	0.0	0.04	0.00	0.410
Tiles roof	6.1	10.2	10.2	12.3	12.3	10.22	0.50	0.003
Ceramic floor	0.3	0.0	0.3	0.0	0.8	0.28	0.38	0.219
Cement floor	3.4	6.3	6.3	6.9	5.0	5.58	0.68	0.122
Soil/earth floor	15.9	15.1	13.0	14.0	12.7	14.14	1.25	0.220
<b>If the household uses</b>								
Charcoal	1.0	2.3	1.8	2.8	3.3	2.24	0.30	0.209
Kerosene	0.0	0.0	0.0	0.0	0.5	0.10	0.00	0.093
Electricity	0.0	0.0	0.0	0.3	0.3	0.12	0.00	0.551
<b>If the household water source is</b>								
Piped into house	0.0	0.0	0.3	0.5	0.5	0.26	0.00	0.409
Piped into yard house	0.3	0.5	0.5	0.5	0.5	0.46	0.60	0.977
Public tap use	4.5	6.0	4.8	4.5	3.5	4.66	1.29	0.493
Water kiosk	1.8	1.0	2.0	2.0	2.5	1.86	0.72	0.562
Open well source	13.1	12.3	12.1	12.8	13.6	12.78	0.96	0.894
<b>If the household's toilet is</b>								
Flush toilet	1.0	0.3	1.0	1.5	1.8	1.12	0.56	0.287
Shared flush	0.3	1.3	1.0	1.0	0.8	0.88	0.38	0.593
Traditional pit	16.2	15.7	17.5	16.5	19.0	16.98	0.85	0.020
VIP	0.0	0.3	1.0	1.5	2.5	1.06	0.00	0.003
Bush /No toilet facilities	2.5	1.0	0.0	0.8	0.8	5.10	1.02	0.000

### 3.3 Extent of Women Empowerment

It is argued that, if women are empowered in one aspect of their life, empowerment in some other aspects does not necessarily follow (Malhotra *et al.*, 2002; Mason, 2005; Alkire, 2008). This study found that women were categorised into different levels of empowerment in different aspects. Overall, many respondents were categorized into low to medium level of empowerment. Relatively high levels of empowerment were found in aspects of household economic consultation, freedom of movement and political autonomy. Table 6 presents this finding. This finding is comparable to observation by Mason (2005) who found that women in Kumasi, Ghana are powerful economically but they are sexually and socially submissive to their husbands in the domestic arena and do not actively engage in political processes. Inconsistent empowerment outcome in different spheres have also been reported in different Asian countries (Jejeebhoy, 2000). A comparison between women participating into onion value chain and non-participants revealed that women participating in onion value chain development programme were more likely to be classified into high level of empowerment than their counterparts. The noted differences may be related to the impact of onion value chain development activities in women empowerment.

**Table 6: Extent of Women Empowerment**

Variable Level of empowerment	Percent (n=402)		All
	Value Chain Participants	Non Value Chain Participants	
Low empowerment	34.3	49.2	41.5
Medium empowerment	24.2	25.1	24.6
High empowerment	41.5	25.6	33.8

### 3.4 Socioeconomic Status and Women Empowerment

It was hypothesized that women from high socioeconomic status are more likely to be categorized into high levels of empowerment. In order to determine the differences in levels of women empowerment and level of socio-economic status on women empowerment, the mean scores on socioeconomic status index (wealth quintile) were compared with empowerment outcomes in different aspects using one way of analysis of variance (ANOVA). Table 7 presents this finding. The F-test statistical results showed significant association ( $P < 0.05$ ) between socio-economic status and women empowerment. Thus, the hypothesis that women from low socio-economic statuses are more likely to be categorized into low levels of empowerment is confirmed.

**Table 7: Socioeconomic Status and Women Empowerment**

Socio-economic status index	Mean Score	P
1 <sup>st</sup> Quintile	1.7625	0.019
2 <sup>nd</sup> Quintile	2.0988	
3 <sup>rd</sup> Quintile	1.9630	
4 <sup>th</sup> Quintile	2.0500	
5 <sup>th</sup> Quintile	1.7375	
<b>Index Mean</b>	<b>1.9229</b>	

Further analysis and comparison (Table 8) reveals that the relationship between socioeconomic status and women empowerment were significant for some aspects only e.g. personal autonomy, economic domestic consultation and political autonomy. The relationship was significant for aspects such as personal autonomy, domestic consultation and political autonomy and insignificant for the rest of other aspects implying that women empowerment was appreciated in some spheres only. This finding agrees with Malhotra *et al.* (2002), Mason (2005), and Alkire (2008) who also argue that



empowerment occurring in one aspect does not necessarily trickle down to all other aspects. The relationship between socioeconomic status and household decision making was not statistically significant. This connotes lack or low levels of transformation in gender relations which is an important component for empowerment.

**Table 8: Mean Comparison of Socioeconomic Status and Women Empowerment**

<b>Empowerment</b>		<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Personal autonomy index	Between Groups	9.741	4	2.435	3.510	0.008
	Within Groups	275.415	397	0.694		
	Total	285.157	401			
Household decision making index	Between Groups	3.994	4	0.999	1.687	0.152
	Within Groups	234.914	397	0.592		
	Total	238.908	401			
Household economic contribution index	Between Groups	2.955	4	0.739	1.114	0.349
	Within Groups	263.244	397	0.663		
	Total	266.199	401			
Economic domestic consultation index	Between Groups	7.750	4	1.937	2.944	0.020
	Within Groups	261.228	397	0.658		
	Total	268.978	401			
Freedom of movement index	Between Groups	2.775	4	0.694	1.058	0.377
	Within Groups	260.163	397	0.655		
	Total	262.938	401			
Political autonomy index	Between Groups	10.912	4	2.728	3.716	0.006
	Within Groups	291.466	397	0.734		
	Total	302.378	401			

#### **4.0 CONCLUSION AND RECOMMENDATIONS**

The results have shown a relationship between socioeconomic status and women empowerment with particular focus on differentials between the women participating in onion value chain development activities versus non-participants as well as the

relationship and distribution of assets between poorest and well off. The association between socioeconomic status and empowerment suggests that efforts to improve women's wellbeing that focus on income and asset accumulation have the potential to empower women; therefore government, non-governmental organisations and development programmes espousing to empower women should improve their approach to ensure the poorest also gain opportunity to participate in these initiatives. Furthermore, it is suggested that programmes should use holistic approaches to women empowerment and not focusing on some few aspects only.

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**PAPER FOUR**

**Determinants of Women Empowerment in the Onion Value Chain: A Case of  
Simanjiro District in Tanzania**

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### Abstract

The impact of women participation in agricultural value chains into their empowerment is poorly understood. This paper explores the linkage between women's participation in onion value chain development activities and their empowerment. The study involved 402 women of whom 207 (51.2%) were participating in the onion value chain development activities and 195(48.5%) were non-participants. Data was analyzed using SPSS program, four index scales were constructed to measure women empowerment (personal autonomy, household decision making, economic domestic consultation and freedom of movement). A composite women empowerment index was developed to gauge women empowerment. Women in Simanjiro District were categorized in medium level of empowerment (mean score on CEI = 0.6033). Empowerment was found to increase with education attainment, age at first marriage and women income. Generally, women participating in the value chain development programme were more likely to be empowered than their counterparts. Ordinal logistic regression analysis revealed that there was a significant relationship between women empowerment and marital status, education level, age at first marriage, land ownership, access to credits and participation in onion value chain ( $P < 0.05$ ). The study recommends to the government, non governmental organization and farmers groups to introduce gender and life skills education in value chain programmes to sensitize and mobilize actors to challenge gender inequalities and promote women empowerment.

**Key words:** Women empowerment, empowerment indices, onion value chain, rural women.

### 1.0 Background Information

The existing gender inequalities in society are recognized as one of the critical challenges impacting the attainment of sustainable development in the world. Despite several efforts by governments and non government organisations (NGOs) gender inequalities still exist in almost all the countries in the world. Gender equality is identified as a development objective in itself, and as a means to promote growth, reduce poverty and promote better governance (World Bank, 2001:10). Power imbalances between men and women is said to be the origin of gender inequalities in many countries; hence many people have used the concept of power to describe empowerment. Empowerment is a complex concept, which may vary between cultures, persons, sexes, occupations and positions in life. It may also vary with time and geographical location. Furthermore, men and women may have a different view on empowerment in general and women's empowerment in particular. The concept of women empowerment is multifaceted, the following terms feature in most of the definitions: self-strength, control, self-power, self-reliance, own choice, life of dignity in accordance with one's values, capable of fighting for one's rights, independence, own decision making, being free, awakening, and capability (Malhotra *et al.*, 2002:10; World Bank, 2002:10). Mosedale (2005:243) argues that, a review of literature on women empowerment seems to agree on four key aspects: Firstly to be empowered one must have been disempowered (e.g. as a group women are disempowered relative to men), Secondly empowerment cannot be bestowed by a third party. Therefore government and development organizations need to create conditions favourable to women empowerment, so that women take initiatives of empowering themselves. Thirdly, empowerment involve people to make decisions on matters which are important in their lives and be able to take action which may happen on an individual or a collective level. Finally empowerment is viewed as an ongoing process rather than a final product. The author further argues that, people are empowered, or disempowered, relative to others and in relative to themselves at a previous time. All definitions of women empowerment stress the importance that women empowerment is a process of change in which women are significant actors. Therefore, the definitions of empowerment reveal both diversity and commonality. Many definitions focus on issues of gaining power and control over decisions and resources that determine the quality of one's life. There

are also tendencies by NGOs and other development organisations espousing for women empowerment to focus on structural inequalities that affect entire social groups, which take an assumption that women are a homogeneous group rather than focus only on individual characteristics (World Bank, 2002:16).

Kabeer (1999:435) defines empowerment as a process by which those who have been denied ability/power to make strategic life choices acquire the ability to do so. For women, strategic life choices may include the capacity to choose a marriage partner, a livelihood, whether or not to have children. This definition views women empowerment as both a process and an end result. The author further argues that, for this power to come about, three interrelated dimensions are needed: access to and control of resources; agency (the ability to use these resources to bring about new opportunities) and achievements (the attainment of new social outcomes). Therefore, poverty levels may affect or act as barrier for one to make strategic life choices. In the context of value chain development, empowerment is viewed as a process of reducing inequalities and enhancing people's ability to make choices on issues of interest which impact on one's life; such changes may result into changes in gender roles and relations (Coles and Mitchell, 2011:1, Laven *et al.*, 2009:5). In this study woman empowerment is viewed as a process in which women become aware of their rights and potentials and are able to take control over material assets (e.g. access to and control of income) and acquire knowledge, information and ideas to challenge beliefs, attitude and behaviour that contribute to their subordinate position in their families and societies.

Oxfam GB (2005:7) argues that "women's empowerment is important for reasons of both principle and pragmatism, it's the right thing to do because women have the same rights as men, but it's also a necessary thing to do, because it will make the world a better place and help many countries to attain human development". Empowering and investing in rural women is anticipated to increase productivity, reduce hunger and malnutrition and improve rural livelihoods for women and men. Women's empowerment is ranked third in the Millennium Development Goals (MDG) and endeavours to promote gender equality and empower women (UN, 2011:20). According to Basu and Basu (2001:4), women are less empowered compared to men in many aspects such as education attainment, income, control over own income, bargaining power in selling their own produce and labour, participation in decision making bodies, access to production inputs and employment opportunities. Throughout the world, Governments, NGOs and development organisations are concerned with women empowerment in order to enable them to gain power to challenge their subordinate position or oppressive situation in their families and societies. Many efforts to empower women at household and community levels have been focused on raising women's status through education, training, access to health, and family planning services as well as legal counseling and support. Politically, efforts have been made to increase women representation in decision making organs such as setting quota for women political posts (URT, 2010:18). Economically, the most popular strategy, especially since the 1990s, has been to involve women in credit and microfinance programs to help them acquire capital needed in production (Malhotra *et al.*, 2002:12; Mayoux, 2000:7; Makombe, 2006:59). In recent years government and non government organizations have started implementing projects and programmes that aim to empower women involved in agricultural related livelihoods using value chain approaches.

The literature on whether women participation in value chain development activities impacts on their empowerment lacks consistency (Lastarria, 2006:1). While some studies have found that women's involvement in agricultural value chains does not always translate into women empowerment (e.g. Laven *et al.* 2009:10; Riisgaard *et al.* 2010:203); others have found that women involvement in value chain development results into women empowerment at household and community levels (KIT *et al.* 2006:123; Coles and Mitchell, 2011:1, Shackleton *et al.*, 2011:136). For example Coles and Mitchell (2011:26) reported the findings from seven action research projects which analyzed gender issues and related upgrading strategies in seven countries: Tanzania, Viet Nam, Mali, Philippines, India and Mali where six out of the seven projects showed positive impacts on women empowerment and gender equality. For example in the Tanzanian case (processing and commercialization of cassava); it was found that placement of women in strategic organizational positions helped to correct household and chain power imbalances, which implies that women had increased control of the value chain and its improved output. However, Barrientos *et al.* (2003:1523) and Coles and Mitchell (2011:11) also argue that the impact of value chain development into empowerment depends on complex context-specific socio-cultural norms, which varies from location to location as they can also vary with time. Therefore, applications of development intervention using generic value chain approach are more likely to exacerbate gender inequalities. The authors further propose that development interventions that use value chain approach need to be done on case to case basis after thorough analysis on the particular location, hence the essence of this study. Given this gloomy picture in agricultural value chains, the focus of this research was to understand where women empowerment occurs in agricultural value chains and their determinants.



## 2.0 Methodology

The study was conducted in Simanjiro District located in Manyara Region in Tanzania (see Figure 1). The area was selected as it has some wards that are actively involved in onion production in northern Tanzania. The District has both government and Non-Governmental Organizations promoting onion production and marketing using value chain approach. There are many farmer groups organized for onion production and marketing and women are the majority in these groups.

### 2.1 Data for the study

The study adopted a cross-sectional research design, where data were collected only once. Four wards and eight villages that had women participating in onion value chain development activities were selected purposively. The sampling unit for this study was the individual women participating and those not participating in onion value chain development activities. Data were collected during October, 2011 to February, 2012 using a structured questionnaire where 402 respondents participated in this study. 207 (51.2%) of whom were participating in onion value chain development activities and 195 (48.5%) were non-participants. Qualitative data was collected using focused group discussions and key informants interviews which were conducted at village and ward levels.

### 2.2 Data analysis

A combination of qualitative and quantitative methods was employed to analyze the collected data. Qualitative analyses were used to describe the characteristics of the respondents. Women empowerment was measured by developing women empowerment index (WEI). Four women empowerment indices were developed and used to construct a composite empowerment index (CEI). Personal autonomy index (PAI) sought to understand whether a woman was able to visit parental home, hospital, market, help a relative with money, seek financial help or set money for personal use without seeking permission from her husband. The household decision-making index (HDMI) sought to know who makes decisions over: children's education, family planning, day to day expenditure, purchase of permanent items, going outside home, medical treatment, spending personal income, use of family income, marriages of sons/daughters, selection of crops to plant in the field, food purchase, and purchase of clothes and entertaining guests. Domestic consultation index (DCI) sought to assess whether women are consulted by their husbands when they want to spend family income on: purchasing furniture and utensils, land, medicine, clothes, food, consumer durables, spending money for children education, spending money accrued from onion sale, opening up a bank account, and spending up a personal salary. The freedom of movement index (FM) included items regarding women's freedom to visit market, medical facility, relatives/friends, parental home, meetings, social functions e.g. marriage ceremonies, going to a distant places for shopping and visiting financial institutions e.g. banks. For the PAI, DCI, FM, and PoA indices the response weights were generally (1.0), occasionally (0.5) and never (0). For the household decision making index the scores were wife alone (1.0), joint decision (0.5) and husband alone (0). Since all these indices relate to different aspects of empowerment they were combined into a single index for use in multivariate analysis. In accordance with the construction methods of the Human Development Index (UNDP, 2005 cited by Varghese, 2011:45) the CEI was computed by averaging these four indices.

$$Y = 1/4(PA + HDMI + DCI + FMI) \dots\dots\dots (1)$$

Human development can be measured on an index ranging between the value of 0 which indicates one is deprived of development and value one (1) shows the full development (UNDP, HDI, 2005, cited by Varghese, 2011:44). IFPRI (2012:4) has also developed Women Empowerment in Agriculture Index (WEAI) where women empowerment is also measured on an index ranging from a value of 0 to 1. According to UNDP, HDI scale the human development is further categorized into three levels: minimum level of development (0 - 0.5), medium level of development (0.6 - 0.7) and high level of development (0.8 and 1). Since empowerment and women empowerment is considered to be important aspects of human development; this study adopted the UNDP classification of human development index, where empowerment was classified into four levels. Respondents scoring (0) on the composite empowerment index were categorized as "No empowerment", scores of (0.1 - 0.5) "low empowerment", (0.6 - 0.7) "medium/moderate empowerment" and a score higher than (0.8) was classified as "high empowerment". Other scholars (Varghese, 2011:43; Tayde and Chole, 2010:34; Handy and Kassam, 2006:70) also used similar methods to estimate women empowerment using index scales.

This research also sought to underscore the contribution of value chain development activities into women empowerment among women participating into value chain development programme versus those not in the programme. Therefore, the contribution and the net effects of value chain development activities on women empowerment was assessed using ordinal logistic regression model. The dependent variable (Y) was categorized into four levels (no empowerment, low empowerment, medium and high empowerment) based on individual scores the CEI. The independent variables included a mixture of socio-demographic variables and value chain intervention variables such as access to credit, increase in income, access to extension services and participation into onion value chain activities.

The ordinal logistic regression model took the form:



$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 + b_8 X_8 + b_9 X_9 + b_{10} X_{10} + U \dots (2)$$

a = Constant

b1 ----b10 = Regression coefficient representing the amount of change in the depended variable

U = error term

X<sub>1</sub>= Age of respondent measured in years

X<sub>2</sub>= Marital status of the respondent (married/cohabiting 1, 0 otherwise)

X<sub>3</sub>= Education level of respondent measured in years of schooling

X<sub>4</sub>= Age at first marriage (married at >18 =1 and 0 if married < 18 years)

X<sub>5</sub>= Age of husband (measured in years)

X<sub>6</sub>= Income level of women compared to spouse/husband (Tshs) (higher income than husband=1, 0 otherwise)

X<sub>7</sub>= Land owned/cultivated by respondent's family (measured in acres)

X<sub>8</sub>= Access to credit (Ever received credit 1, 0 otherwise)

X<sub>9</sub>= Participation into onion value chain programme (Participant 1 and 0 for non participant)

X<sub>10</sub>= Access to extension services (average number of visits by extension officer)

### 3.0 Results and Discussion

#### 3.1 Profile of the respondents

The respondents' ages ranged between 18 and 80 years, the mean age of the respondents was 37.6 years. Majority of respondents were in their active productive and reproductive age; 76.3% of the sample was in the 18 - 45 age range (see Table 3). Women empowerment is usually associated with education attainment. In this study found it was found that a significant percentage (18.2%) of the respondents had no formal education and three quarters of respondents (75.6%) had only attained primary education. About half of the respondents (56.5%) depended on agricultural production as their main economic activity followed by 24.6% who depended on both agricultural production and livestock keeping. These characteristics represent a true picture of many rural societies in Tanzania, where many people derive their livelihood in agriculture and related activities. Monogamy was found to be the common form of marital arrangements in Simanjiro District (86.9%) and Christians were more numerous than Muslims (64.2% and 35.8% respectively). The data in Table 1 reveal that age difference between spouses was very high; about over-third of the respondents (35.2%) were married to husbands who were more than ten years older than them. The average incomes of women were reported to be equal or higher than husbands' incomes (42.2% and 47.7% respectively).

[Table 1: about here]

#### 3.2 Status of Women Empowerment

The mean score on the composite empowerment index was found to be 0.6033 which is the medium level. These results imply that, generally, women in Simanjiro District were categorized in the medium level of empowerment. Less than half of the study sample (45.8%) had attained a higher level of empowerment, and about a quarter (24.2%) of the sample was categorized as having medium empowerment; the rest were categorized into low and no empowerment (16.4% and 13.6% respectively), Figure 1 presents the level of women empowerment in Simanjiro District. The study compared levels of empowerment between women participating in value chain development programme and those not participating. Figure 2 presents these results. As per Figure 2, the distribution on the levels of empowerment is disaggregated by their involvement into value chain development activities; it shows that women participating into onion value chain development programme have acquired relative higher level of empowerment than their counterparts.

[Figure 1: about here]

[Figure 2: about here]

Further analysis (using F - test) and comparison on the composite empowerment index revealed that attainment of empowerment varied with some socio-demographic variables. Table 2 presents the status of women empowerment by selected socioeconomic and demographic variables. The data in Table 2 show that, generally, the relationship between age and women empowerment was not statistically significant (P=0.394). However, mean score on women empowerment was observed to increase with age up to the 31-35 age brackets where it started to fall below index mean. Similar trend has also been observed by Mostofa *et al.* (2008:419) in Bangladesh. This study found that women empowerment was the lowest in women with younger ages and for those aged above 50 years. This low status of women empowerment in this aspect is contributed by the nature of the questions asked, most of which sought to understand women decision making and power relative to their male partners or husbands of whom those aged above 50 years were mostly widows, whereas women with younger ages were mostly living as singles. Other studies (e.g. Amin *et al.* 1995:111; Mostofa *et al.* 2008:419) also found that women empowerment increased with women age. During focus group discussion it was emphasized that women married at relatively older ages were more likely to participate in household decision. Older women as

opposed to young ones, have more autonomy over themselves and closer relationship with their spouses; their experiences enable them to have better ways to do what they want without causing conflicts to their spouses

**[Table 2: about here]**

This study found that there was a significant relationship between marital status, education level and type of marriage of the respondents ( $P < 0.05$ ). Education attainment is frequently cited (Malhotra, 2002, Malhotra et al., 2002; Chaundry and Nosheem, 2009 and Varghese, 2011) as one of the key variables that positively impact on women's empowerment by increasing women's self confidence, decreasing dependence from other family members as a result of new skills acquired and to enhance women's value on the labour market and hence their income. This study also found that women empowerment increased with increase in education attainment; the scores on the CEI index scales were highest among those with secondary level education and above. Although age at first marriage and age difference between spouses were not statistically significant, the mean score on the CEI index reveals that low levels of empowerment were found among women who were married at their adolescent age than their counterparts.

Results in Table 2 also shows that age difference between the spouses had impact on women empowerment; higher mean scores on CEI index were recorded among those with little age difference and relatively lower scores were reported among those with big age difference. The husband's greater experience and self-confidence compared to the wife is argued to deprive women of empowerment which implies the bigger the husband-wife age gap the more likely is the low empowerment status of women. Some scholars (including Mostofa *et al.*, 2008:419) argue that women who are married at relatively older ages are expected to experience more empowerment than those married at their adolescent ages because of the their better understanding and experience of marital relationships including fulfilment of certain social obligations like bearing children. The experience acquired may also transform into self-confidence that result from marrying at an older age and thus make older-marrying women more autonomous than those married at their adolescence.

This study also found that there was a significant relationship ( $P < 0.05$ ) between level of income and women empowerment; scores on the CEI index was higher among women with higher income levels than their husbands and relatively low scores were obtained among women with lesser income than their spouses. Women's incomes increase their independency on their husband's incomes and contribute more to household expenditures, which in turn increases their voices in household decision making.

### 3.3 Value chain development activities and women empowerment

In the study area (Simanjoro District), the district council in collaboration with some development organizations (e.g. VECO and World Vision) have facilitated and supported development of onion value chain. Farmers have established production and marketing groups in villages and have formed a network of farmers' groups at village and ward levels; the farmer's groups and network help farmers to access production inputs, credits, extension services and marketing linkages. The production and marketing groups established under this initiative are also encouraged and supported by the government under different development programmes such as Participatory Agricultural Development and Empowerment Programme (PADEP) and Farmers' Field School approach (FFS) programs in order to increase farmers' access to production inputs and extension services. It is anticipated that women participation in the value chain development activities will gradually generate reasonable incomes for involved actors and bring a range of benefits that will lead to empowerment within families and societies in general. This study hypothesized that women involvement in the value chain development activities would impact on their empowerment.

Table 3 shows the results of the ordinal logistic regression model that was employed to explore the factors that can influence women empowerment significantly. The ordinal logistic regression analysis was performed for all women and separately for women participating in the value chain development programme and for those not in the programme. Generally, the Pearson correlation was statistically significant for both program women and non-programme women ( $P < 0.05$ ). This indicates the presence of relationship between the dependent variable (women empowerment) and a combination of independent variables. Results in Table 3, further, show that the Nagelkerke  $R^2$  which represents the adjusted Cox and Snell  $R^2$  statistic for the study sample was 0.316 which implies that 31.6% of variation in women empowerment was explained by a combination of the independent variables entered in the model.

**[Table 3: about here]**

The result of ordinal logistic regression model (Table 3) further reveal that marital status, education level, age at first marriage, land ownership, access to credits and participation in onion value chain were the most important factors for women empowerment in Simanjoro District ( $P < 0.05$ ). Among these factors five were related to value chain development activities (i.e. level of income, land ownership, access to credits, access to extension services and participation in onion value chain), four factors have significant relationship to empowerment. Access to credit was significant for both women participating into value chain program and



non-participants; access to extension services was not significant for both programme participants and non-programme participants. Conversely, land size ownership had significant relationship for women not participating in the value chain development programme ( $P=0.019$ ); than those involved in the programme ( $P=0.391$ ), this may be partly explained by the intensive production methods adopted by women participating into the programme versus extensive method of production adopted by programme non-participants women as the study sought to know the size of land that was actually used for agricultural production. Therefore, the hypothesis that women involvement in value chain development programme will significantly contribute to their empowerment is not confirmed.

#### 4.0 Implication of the findings in value chain programme and women empowerment

The results of this study reveal that women in Simanjiro District, based on women empowerment index, are categorized in the medium level of empowerment. Generally, women participating in onion value chain development program were relatively more empowered than non-participants. Most of the factors contributing for women empowerment in the area were similar for programme and non programme women except for access to credits which have been found to have significant difference for the programme participants' women than their counterparts. This implies that, value chain development activities have not had direct impact on women empowerment. This study recommends the government, non governmental organisations, and farmers groups that, apart from focusing on activities that will increase women incomes such as increased production, productivity and marketing, they should also focus on issues and factors that are required to change household decision making and dynamics such as introducing gender awareness and family life education to stimulate and encourage women participation in decision making at their families and community levels. Elders, traditional leaders and religious leaders who usually have high opinion in family matters and decision making need to be especially targeted. Programmes espousing to empower women using value chain approach should identify gender and location specific factors for women empowerment and mainstream them in the value chain development activities. Application of generic intervention to value chain development activities like the one from which this paper emanates, may fail to address the underlying causes for gender inequalities or exacerbate gender inequalities. This paper did not establish whether the level of women empowerment acquired were due to programme intervention in the area or value chain dynamics among women involved in the programme and spill over effects. Therefore, more research is required to explicitly establish causal effects relationship between value chain development and women empowerment.

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Table 1: Percentage Distribution of Socio-Demographic Characteristics of the Respondents (N=402)

Variable	Frequency	Percent
Age		
<20 years	22	5.5
21-25 years	40	10.0
26-30years	79	19.8
31-35 years	62	15.5
36-40years	68	17.0
41-45years	34	8.5
46-50years	33	8.3

51+ years	61	15.3
<b>Education level</b>		
No formal education	73	18.2
Primary education	304	75.6
Secondary education	19	4.7
Technical education/Diploma	6	1.5
<b>Economic activity</b>		
Farmer/crop producer	227	56.5
Livestock keeper	32	8.0
Farming and livestock keeping	99	24.6
Pet trader self employed	15	3.7
Wage laborer	13	3.2
Civil servant	2	5
Housewife	6	1.5
Farm/crop trade & pet trade	1	2
Fishing	7	1.7
<b>Religion</b>		
Christian	258	64.2
Muslim	144	35.8
<b>Type of marriage</b>		
Monogamy	319	86.9
Polygamy	48	13.1
<b>Age of husband</b>		
Younger than	18	5.2
Same age	11	3.2
1-3 years older	65	18.9
3-6 years older	71	20.6
6-9 years older	58	16.9
More than ten years older	121	35.2
<b>Income level of husband</b>		
Lesser than	158	47.7
Equal to	139	42.0
Higher than wife	34	10.3

Table 2. Status of Women Empowerment by Selected Socio-Demographic Variables

Variable	Mean index	F	P
<b>Age</b>			
15-20 years	0.509	1.052	0.394
21-25 years	0.616		
26-30 years	0.634		
31-35 years	0.674		
36-40 years	0.607		
41-45 years	0.598		
46-50 years	0.566		
50+ years	0.536		
<b>Marital Status</b>			
Single	0.180	21.833	0.000
Married	0.674		
Divorced	0.255		
Separated	0.378		
Widow/widower	0.565		
<b>Age at first marriage</b>			
<18 years	0.579	1.742	0.140
19-23 years	0.657		
24-29 years	0.682		
30-34 years	0.444		
35+ years	0.635		



<b>Type of marriage</b>			
Monogamy	0.645	8.229	0.004
Polygamy	0.497		
<b>Age of husband compared to wife</b>			
Younger than	0.703	1.358	0.240
Same age	0.751		
1-3 older	0.602		
3-6 older	0.696		
6-9 older	0.613		
more than ten older	0.594		
<b>Education level</b>			
No formal education	0.433	9.713	0.000
Primary education	0.629		
Secondary education	0.747		
Technical education/Diploma	0.940		
<b>Economic activity</b>			
Farmer/crop producer	0.618	1.555	0.137
Livestock keeper	0.432		
Farming and livestock keeping	0.624		
Pet trader self employed	0.497		
Wage labourer	0.669		
Civil servant	0.840		
Housewife	0.520		
Farm/crop trade & pet trade	0.800		
Fishing	0.711		
<b>Income level of respondent (wife/woman)</b>			
Lesser husband	0.587	5.320	0.005
Equal to husband	0.676		
Higher than husband	0.765		
<b>Religious affiliation</b>			
Christian	0.596	0.327	0.568
Muslim	0.617		
<b>Index mean</b>	<b>0.603</b>		

Table 3: Results of the Estimated Ordinal Regression Model

Variable		All women (n=402)		Program women (n=205)		Non-program women (n=197)	
		Coefficient	Wald	Coefficient	Wald	Coefficient	Wald
Age	X <sub>1</sub>	-0.008	0.609	0.012	0.614	-0.028	3.367
Marital status	X <sub>2</sub>	-1.662	34.258***	-1.683	21.544***	-1.665	13.853***
Education	X <sub>3</sub>	0.992	15.233***	1.246	9.384***	0.920	7.511***
Age at first marriage	X <sub>4</sub>	0.065	3.729**	0.020	0.174	0.096	3.915**
Age of husband	X <sub>5</sub>	-0.052	0.434	0.030	0.069	-0.086	0.549
Level of income	X <sub>6</sub>	0.140	0.617	0.174	0.501	0.093	0.113
Land holding	X <sub>7</sub>	0.159	6.758***	0.061	0.737	0.344	5.520***
Access to credit	X <sub>8</sub>	-0.946	9.119***	-1.069	6.823***	-0.536	1.075
Participation in OVC program	X <sub>9</sub>	-0.480	2.623*	-0.338	0.633	-	-
Access to extension services	X <sub>10</sub>	-0.018	0.004	0.202	0.305	-1.026	2.885
<b>Model</b>			0.000		0.002		0.000

statistic (Pearson)							
Cox and Snell R <sup>2</sup>			0.287		0.265		0.325
Nagelkerke R <sup>2</sup>			0.316		0.298		0.352

Parameter estimate significance: \*\*\* at 1%, and \*\* at 5%

Figure 1: Status of women empowerment in Simanjiro district

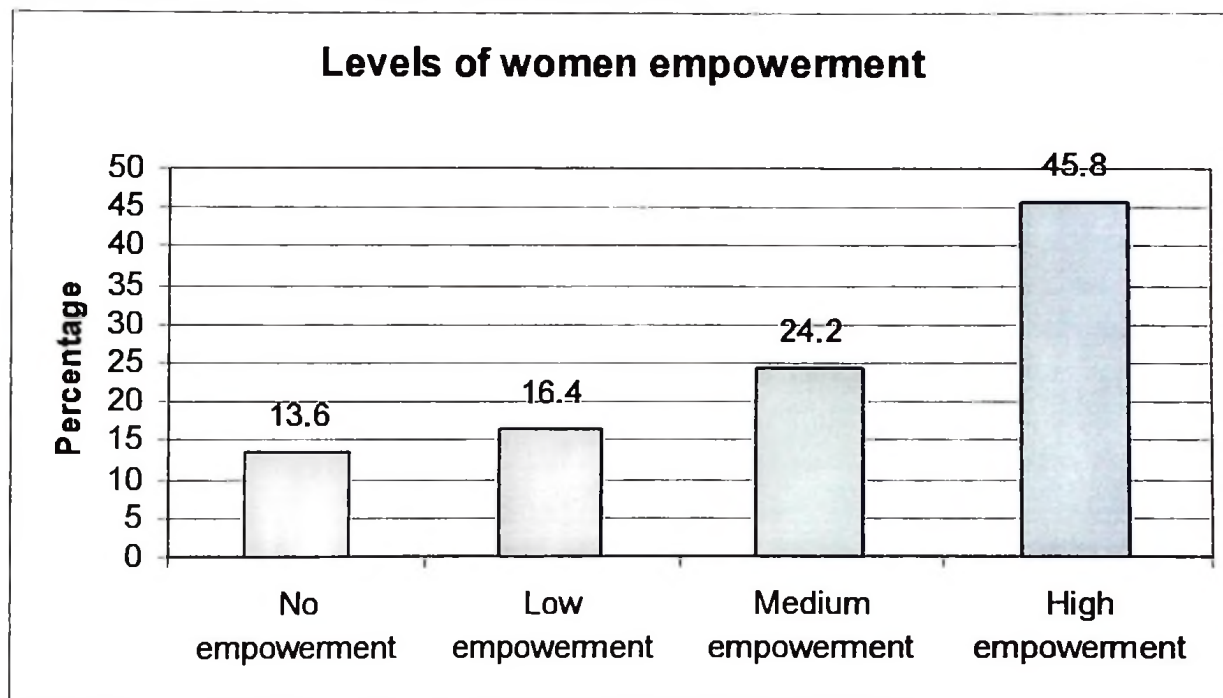
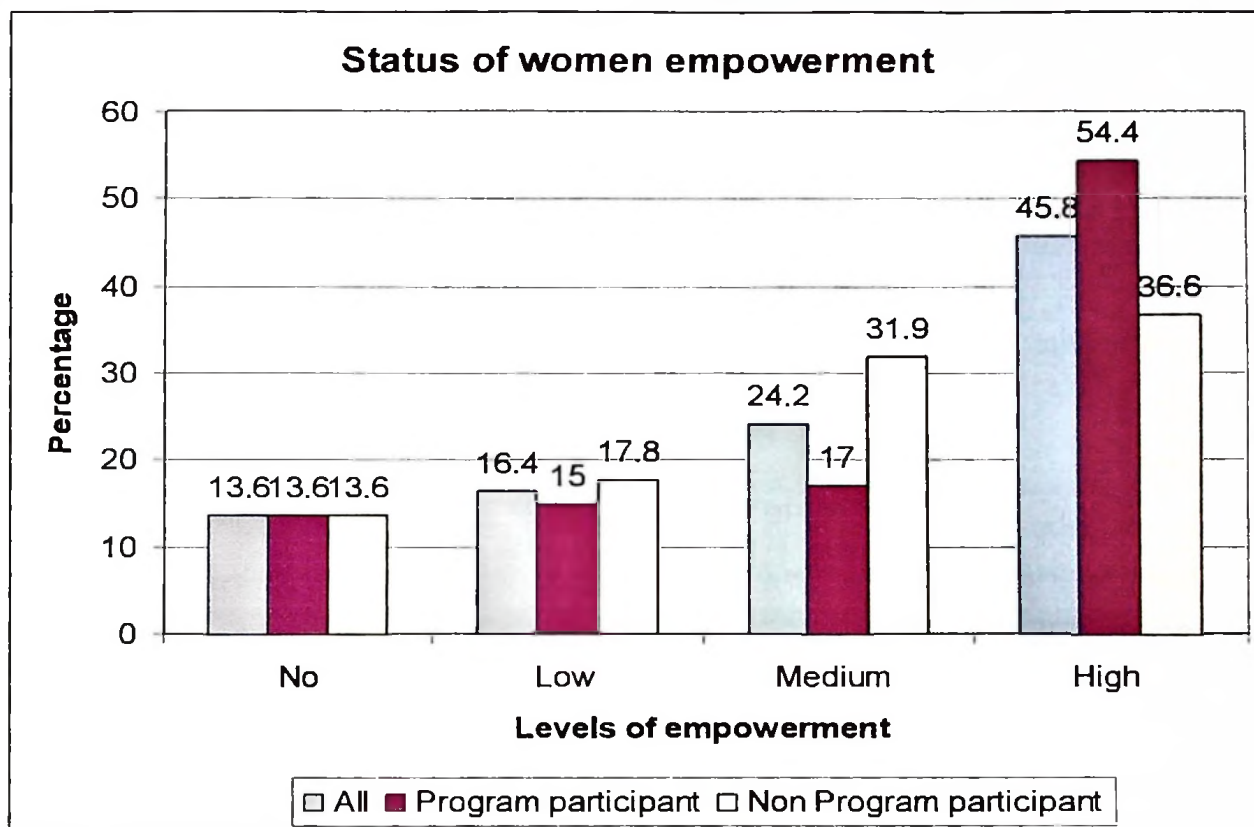


Figure 2: Comparison of women empowerment in Simanjiro district



## **CHAPTER THREE**

### **3.0 CONCLUSIONS AND RECOMENDATIONS**

#### **3.1 Conclusions of Major Findings**

The following are the summary of the major findings of this study which is the basis for the recommendation made.

##### **3.1.1 Onion Value Chain and Gender Roles and Relations in the Chain**

The first specific objective of this study was to analyse the onion value chain and identify gender roles and relations in the chain. The results of the analysis in relation to this objective are presented in the first paper of this thesis. The paper discusses women participation in onion value chain and how changes in gender roles and relations occur in the chain. In general the findings presented in the paper show that women participate in all activities in the onion value chain. However, the majority of women are concentrated in the downstream part of the value chain, especially in production activities. The study also revealed that the extent of women participation in other activities in the onion value chain increases when women acquire or work in their own plots, where they do all the activities involved in onion production as well as engaging in marketing of the onions. Overall, the traditional roles of men and women activities in onion production are becoming blurred; some activities that were traditionally done by men are also done by women, especially when they own their own farm plots. The gradual shift of men into women dominated activities especially those that are paid for e.g. weeding and transplanting may have implication for women income and workload at household level. This study found that, when women acquire their own farm plots apart from household plots, husbands do not extend the needed labour support or participate in some household chores to reduce the work burden for women. Unlike married women, when women who are unmarried,

separated or live as singles acquire ability to own or hire farm plots; their ability to participate both in production and marketing of onions increases, and therefore derive more benefits resulting from their engagement in onion value chain activities.

Furthermore, the findings presented in the first paper show that women participation in decision making over the income accrued from onion production in Simanjiro District was relatively high. Nevertheless, their participation in marketing of onions is still constrained by many factors including lack of capital, traditions that deny woman rights to own assets including land, lack of marketing skills and lack of support from men who dominate selling of the onions. In the onion value chain, women are involved in management of the onion value chain by participating in different nodes of the chain as well as holding different leadership positions in the farmer groups and organisations where men are also involved. However, some posts are especially reserved for women; this is a positive step to involve women in the management of the onion value chain. This effort is anticipated to increase women participation in leadership roles in building their capacity to even compete with men for other posts in farmer organisations, hence political empowerment.

### **3.1.2 The extent of Women's Empowerment in the Onion Value Chain**

The second specific objective of this study was to identify the perception and extent of women empowerment in onion value chain. In this objective the study sought to determine local meaning of women empowerment in onion value chain in order to understand and reflect on commonly used indicators of women empowerment. The findings in relation to this objective show that women perceived empowerment in terms of achievements in different aspects of their life and changes in the relationship with their husbands, partners and other male members of the family. Women's perception of their empowerment covered a wider context ranging from realizing and using their own potential to meet their



needs. It also entailed an increase in income, ability to meet some household expenditure and increased participation in development activities as well as participating in the household decision making. Other important aspects included acquiring a sense of self worth, recognition and respect in the household and in the community such as ability to speak in the group and village meetings and share their ideas with project leaders and local government authorities.

On the other hand, men perceived women empowerment as an increase in awareness and capabilities, which have increased women's confidence in many aspects including the ability to challenge decisions made by men which affect their wellbeing. Women identified men's behaviours and practices in the household as barriers to their empowerment, thus hindering the transformation of the empowerment women obtained in the chain level into the household. Factors mentioned to limit their empowerment were: men's attitude of not allowing women to have full control over resources, interfering with women's decision over the use of money accrued from their activities, restrictions on movement, and their rigidity to accept changes and new ideas suggested by women. Men were also reported to withdraw their contribution to household expenditures when they see women incomes have increased, thus increasing women's burden to meet the household needs.

### **3.1.3 Gender Differences in Control of Income, Assets and Women Empowerment**

The third specific objective of this study was to analyse gender differences in control of income and assets accrued from onion value chains. Income and asset accumulation were used as proxy indicators for socio-economic status. The findings indicate that the proportion and distribution of households possessing a given asset or characteristic revealed a particular pattern. In general the poorest were below average in most of the

items or services to which the better off had access or possessed e.g. motorcycle, mobile phone, television set, mattress and ownership of livestock. The Chi Square ( $\chi^2$ ) statistic indicated a significant relationship ( $P < 0.05$ ) in the distribution of assets between poor and well off for: radio, solar panel, bicycle, television, mattress, land, wooden bed, goat and cattle implying that there was inequality in ownership of these assets between poor and well off individuals despite close gaps in socio-economic status groups. A similar trend was also observed for ownership of house, number of sleeping rooms in the houses and quality of the house and access to essential services such as water and sanitation. Overall, the relationships between socio-economic status and women empowerment were statistically significant ( $P < 0.05$ ), implying that efforts to improve women's wellbeing that focus on income and asset accumulation have the potential to empower women.

#### **3.1.4 Determinants of Women Empowerment in the Onion Value Chain**

The fourth specific objective of this study was to analyse the determinants of women empowerment in onion value chain. This objective aimed to measure the extent of women empowerment and analyse factors that determine the transformation of empowerment changes occurring in value chain into women empowerment at household level. According to the findings of the analysis in relation to this objective, women in Simanjiro District were categorized into medium level of empowerment (mean score on CEI = 0.6033). Empowerment was found to increase with education attainment, age at first marriage and women income. Generally, women participating in the value chain development programme were more likely to be empowered than their counterparts who did not participate. Ordinal logistic regression analysis revealed that there was a significant relationship between women empowerment and marital status, education level, age at first marriage, land ownership, access to credit and participation in onion value chain ( $P < 0.05$ ).

### **3.2 Theoretical Implication of the Findings**

The theory of duality of structure explains the dynamic aspect of the empowerment process and contends that people's personal resources and abilities have potential to contribute to their empowerment. It also recognizes the importance of the rules and regulations of the social structure which is socially constructed. This study has found that asset ownership which was used as a proxy indicator for social economic status was associated with women empowerment. Overall, value chain intervention had increased women agency. However, women face several limitations to transform empowerment effects acquired at chain and group levels into household dynamics. As opposed to Giddens' structuration, women agency has not had significant impact on transforming the very structure that gave them capacity to act. The findings of this study agree with most of the literature on agency and empowerment that even when individuals' agency has improved, they may be constrained by the institutional environment in which they operate in such a way that they may not be able to transform their choices into the desired outcomes. The findings of this study offer some empirical explanation of the way community empowerment may contribute or fail to transform to individual empowerment. According to the findings of this study, there is a need for change in community norms that shape behaviour and actions of people in order for women empowerment acquired at chain level to be accepted and valued at individual and household level.

### **3.3 Recommendations**

On the basis of the empirical findings presented in the four papers as presented in this thesis, the following recommendations are made.

### **3.3.1 Promoting men's involvement in women empowerment activities**

The stereotypic perception of men and women towards changes in gender roles and relations are reinforced by norms and customs. These stereotypic perceptions can change through awareness creation on men and women. It is therefore recommended that LGAs and NGOs should ensure men involvement in women empowerment activities so that empowerment changes acquired in chain level are transformed and accepted at household levels.

### **3.3.2 Strengthening farmers organisations**

The producer and marketing groups developed during value chain development are important vehicles towards women empowerment. It is therefore recommended that practitioners and NGOs involved in value chain development should strengthen farmers' organisations to facilitate equitable access by rural producers to agricultural inputs and markets for agricultural inputs. It is also recommended that gender sensitive intervention strategies should be used in forming and strengthening producer and marketing groups to competitively participate in onion value chain and increase women participation and benefits from onion marketing.

Farmer groups have been identified by most respondents as an avenue to link farmers with market and production inputs. However, most of these groups have been formed under the initiatives of the NGOs which their projects are short lived. Therefore, government should increase efforts to strengthen farmers' organisations to have more access to production inputs and agricultural markets.

### **3.3.3 Improving Women access to Land and other Resources**

For successful women empowerment, women should have full access to and control of resources especially land. Although the Tanzania village land act 1999 offers equal opportunities for men and women to own land, women still face discrimination in owning land; therefore, the local government should ensure enforcement of the act so that women also have equal benefits to own land as men. Non-governmental organisations should increase their efforts to advocate for women equal rights in land ownership both under land village act and customary land rights.

### **3.4 Areas for Future Research**

- i. Although this study found that value chain intervention has potential to empower women; men were reluctant in accepting empowerment changes suggested by women. There is need to investigate factors limiting men to accept women empowerment at household level.
- ii. Men were reported as obstacles to women empowerment, but this study did not establish men's attitude towards women empowerment. A study on relationship between changes in men's attitude towards women ownership of resources and acceptance of women empowerment at community and household level is needed.
- iii. This study did not compare the level of empowerment between men and women from the same household as well as other women empowerment domain such as time use for work and leisure versus its impact on women empowerment. Therefore, there is a need to conduct a longitudinal study using women empowerment in agriculture index (WEAI) to compare levels of empowerment between men and women from the same farming households.



## APPENDICES

### Appendix 1: Questionnaire

#### Value Chain Development and Women Empowerment in Tanzania: A Case of Onion

#### Value Chain in Northern Tanzania. A PhD Research Questionnaire for

**Jeckoniah, J. N., SUA Morogoro**

#### Section A: Questionnaire Identification

Date of interview .....

Questionnaire No.....

District ..... Ward.....

Village ..... Hamlet/Sub village .....

### Section B: Background Information /Characteristics of the Respondents

In this section i would like to know your background information; therefore, i will ask question about yourself and your family

No	Age (yrs)	Sex 1. Male 2. Female	Relationship with HH head 1. Houshold head 2. Spouse 3. Brother/Sister 4. Own child 5. In laws 6. Grandsons 7. Helper	Marital Status 1. Single 2. Married 3. Divorced 4. Separated 5. Cohabiting 6. Widow/er 7. Others (specify)	Education Level 1. No formal education 2. Primary 3. Secondary 4. Technical education/Diploma 5. University 6. Others (Specify)	Economic activity 1. Farmer/crop producer 2. Livestock keeper 3. Farming & livestock keeping 4. Pet trader 5. Wage labourer 5. Self employed 6. Formal/civil servant 7. Housewife	Religion 1. Christian 2. Muslims 3. Traditional 4. .... 5. ....	Tribe 1. Maasai 2. Pare 3. Chaga 4. 5. 6. 7. 8.
1*								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

*\*should be the respondent/person interviewed*

1. Age at first marriage .....
2. Type of marriage: 1= Monogamy 2= Polygamy 3= others (specify)
3. Age of your husband compared to yours:
  1. Younger than 2. Same age 3. 1–3 yrs older
  4. 4–6 yrs older 5. 7–9 yrs older 6. More than 9 years older
4. Income level of spouse: ( )
  1. Lesser than husband 2. Equal to husband 3. Higher than husband

**Section C: Gender roles and Participation in value chain development activities**

*(Costs and benefits of your participation in onion value chain development activities)*

5. How many land plots does your household own? .....
6. Land plots owned (acres) Plot1 \_\_\_ Plot2 \_\_\_ Plot3 \_\_\_ Plot4 \_\_\_ Plot5 \_\_\_ Total \_\_\_
7. Are you allowed to own land apart from household plot? 1= Yes 2= No
8. If not allowed to own land what are the factors that restricts/deny women rights to own land in your area?
  - (i).....(ii).....
  - (iii) .....(iv).....
9. Do you have your own cultivable land (apart from household land) which you grow onion? 1= Yes 2= No
10. Do you perform different tasks in your own plot than what you usually do in your family plot?
  - 1= Yes 2= No
11. What kind of additional/different activities do you usually do on your own plot?
  - (i) .....(ii).....
  - (iii) .....(iv).....
12. What is the total size of your cultivable land that you grow onion during the last season (acres) \_\_\_\_\_

13. How did you acquire the piece of land that you cultivate onion?

1= Inherited 2= Purchased 3= Allocated by village government

4=Borrowed 5= Rent

14. What is the total area of land that was under cultivation of other crops during the previous production season (acres)? \_\_\_\_\_

15. When did you start producing onion for marketing (year)? \_\_\_\_\_

16. Kindly give the average costs used in the onion production activities during previous production season

SN	Activity per one acres (70m x 70m)	Average cost	Person mostly involved Use codes(1,2,3,4,5,6)					
	Production							
1	Land clearing (removal of vegetation)							
2	Drawing lines, blocks, water ways							
3	Land tillage (inside blocks)							
4	Harrowing and levelling							
5	Drawing farrows							
6	Nursery bed preparation and maintaining							
7	Transplanting							
8	Watering and supervision							
9	Harvesting							
10	Clipping/cutting of leaves							
11	Transporting from field to store/home							
12	Fertilizer application							
13	Watering and Weeding							
	Material Costs							
13	Purchase of seeds							
14	Sprayer/watering can							
15	Herbicides/Pesticides							
16	Fertilizer							
17	Manure							
18	Input transport							
19	Cutting and grading							
20	Maintain store							
21	Grading and storage							
22	Constructing a storage structure							
23	Hiring storage facility							

Key: 1. Men only, 2. Women only 3. Men and women 4. Boys 5. Girls 6. Boys & girls

17. Kindly give details of the labour costs used in onion production during the previous production season

SN	Activity	No of family members worked on the plot in a week	Days worked in a week	Average number of hrs worked in a week	Rate per hour (hired labour)	Rate per hour (family labour)	Total labour cost
1	Land clearing (removal of vegetation and burning)						
2	Drawing lines, blocks, water ways						
3	Land tillage (inside blocks)						
4	Harrowing and leveling						
5	Drawing farrows						
6	Nursery bed preparation and maintaining						
7	Transplanting,						
8	Watering and supervision						
9	Harvesting						
10	Clipping/cutting of leaves						
11	Transporting from field to store/home						
12	Fertilizer application						

18. Sales of onion during the previous season

Product sold	Unit harvest ed(Kg)	No of units sold	Price per unit	Where was the onion sold (use codes below)	When was the onion sold 1. After harvest 2. After storage 3. Befor harvest/at the farm	Total value	Who has final say over use of money obtained 1. Men/husband 2. Woman/wife 3. All/joint decision
Onion							
Onion seeds							

1. At the farm/farm gate price 2. Village market 3. Urban market



19. What are the factors that hinder/restrict women involvement in selling/marketing of onion in your area?

(i) .....

(ii) .....

(iii).....

(iv).....

20. Are there any unfavorable policies/local institutional setups, traditions or taboos that hinder your participation in onion production and marketing? (*Explain*)

1= Yes 2= No

.....

.....

.....

21. Do you think other women in your area are benefiting more from onion production and marketing than you?

1= Yes 2= No

22. What are the factors that reduce your benefits from your participation in onion production and marketing?

(i).....

(ii).....

(iii).....

23. On average what amount of cash money you can make decision over its use without consulting your husband first? (Tsh) \_\_\_\_\_

24. On average what amount of cash money you can not make decision over its use without consulting your husband first? (Tsh) \_\_\_\_\_

25. What other crops did you harvest and sell during the previous season?

	Crop sold	Unit (Kg)	No of units sold	Price per unit	Where was the crop sold (use codes)	When was the crop sold 1. After harvest 2. After storage	Total value	Who has final say over use of money obtained 1. Men/husband 2. wife 3. All/joint
1	Maize							
2	Sunflower							
3								
4								
5								

1. At the farm/farm gate price 2. Village market 3. Urban market

26. Have you ever received credit from a bank or any other organisation during the last 12 months?

1. Yes      2. No      ☐

If 'yes' indicate credit amount received (Tsh) \_\_\_\_\_

Source of the credit \_\_\_\_\_

27. Purpose of the credit received (*Tick all responses mentioned, multiple responses acceptable*)

1. Farm development
2. Farm machinery, implements and tools
3. Construction of storage structure
4. Buying food
5. Paying school fees
6. Marriage expenses
7. Others (specify) \_\_\_\_\_

28. Indicate if you have received the following extension services during the previous productions season

Type of advice	Yes	No	Average number of visits per production season
Technical advisory services e.g. use of improved seeds, use of fertilizer/manure			
Marketing			
Natural Resources Management			
Financial(credit)			
Others (Specify)			

29. Would you say your access to extension services has generally increased, remained the same or decreased during the past 3 years?

1. Increased

2. Remained the same (No change)

3. Decreased

4. Don't know

30. Would you say your access to markets for sale of onion has increased, remained more or less the same or decreased during the past 3 years?

1. Increased

2. Remained the same (No change)

3. Decreased

4. Don't know

31. Would you say onion prices for your products have increased, remained more or less the same or decreased during the past 3 years?

1. Increased

2. Remained the same (No change)

3. Decreased

4. Don't know

#### Section D: Women Empowerment

In the following section we will discuss over different aspect of empowerment; you are requested to respond by selecting appropriate answer that reflect your experience and practice. The aim of this discussion is to understand your feelings about yourself, the community/society you live in, and the property and assets you own or have access to.

##### *Indirect indicators of individual agency*

##### ❖ Informational assets

32. What are the sources of information in this are (*circle/tick all mentioned options*)

1. Radio 2. Television 3. Newspapers 4. Others \_\_\_\_\_

33. How many times in the last month have you read a newspaper or had one read to you?  
(.....)

34. How often do you listen to the radio?

1 Every day

2 A few times a week

3 Once a week

4 Less than once a week

5 Never

35. How often do you watch television?

1 Every day

2 A few times a week

3 Once a week

4 Less than once a week

5 Never

36. In the past month, on average, how many times have you made or received a phone call? (.....)

32. In general, compared to three years ago has your access to information about onion market/marketing improved, deteriorated, or stayed about the same?

1 Improved

2 Deteriorated

3 Stayed about the same

4. Don't know

37. Is your household easily accessible by road all year long or only during certain seasons?

1 All year long

2 Only during certain seasons

3 Never easily accessible

4. Don't know

38. In the last three years, do you feel the roads leading to your community have:

1 Improved

2 Worsened

3 Remained the same

4. Don't know

39. How many times have you travelled to *[district headquarter/big weekly or monthly market]* in the past month? (.....)

❖ **Organisational assets**

40. Are you a member of any organisation or group in this or nearby village?

1 Yes    2 No



41. Which of the following groups are you a member of? (*Tick all mentioned answers;*

*Multiple answers acceptable*)

- 1 Farmer/producer group
- 2 Livestock keeping/production group
- 3 Marketing groups
- 4 Input receiving groups
- 5 Religious or spiritual group (e.g. church, mosque, temple, informal religious group, religious study group)
- 6 Political group or movement
- 7 Cultural group or association (e.g. arts, music, theatre, film)
- 8 Burial society or festival society
- 9 Finance, credit or savings group e.g. VICOBA
- 10 Water use management group
- 11 Sports group
- 12 Youth group
- 13 NGO or civic group (e.g. Rotary Club, Red Cross)
- 14 Ethnic-based community group
- 15 Other groups [*Please specify*]

42. Which of these organisations/groups are the most important to you? Please specify up to three. Please rank in order of importance

1<sup>st</sup> ..... 2<sup>nd</sup> .....  
 3<sup>rd</sup> .....

43. How much does being a member of these groups benefit you individually?

1 Greatly

2 Fairly

3 A little

☐

4 Not at all

44. What is the most important benefit, if any, that you feel you gain from being a member of these groups? [*Specify benefit for each group*]

Org/group 1:.....Benefit..... ]

Org/group 2.....Benefit..... ]

Org/group 3.....Benefit..... ]

45. Overall, are the same people members of these three different groups, or is there little overlap in membership?

1 Little overlap

2 Some overlap

3 Much overlap

❖ **Material assets**

46. Does this house (main house in the compound) belong to you or your household head?

1. Yes      2. No

47. How many rooms are used for sleeping only? (.....)

48. What kind of material has been used for the construction of the wall? [Observe and tick]

1. Burnt bricks

2. Corrugated iron sheets/tin

3. Cement bricks

4. Others (specify)\_\_\_\_\_

49. What kind of material is used for roofing? [Observe and tick]

1. Thatch grass/mud    2. Tin    3. Corrugated iron sheets/Asbestos

4. Tiles    5. Others (specify)\_\_\_\_\_

50. What kind of material has been used for floor? [Observe and tick]

1. Wood planks/Polished wood

2. Ceramic tiles

☐

3. Cement

4. Others (specify) \_\_\_\_\_

51. What is the main source of energy for cooking do your household use?

1. Firewood

2. Charcoal

3. Gas

☐

4. Kerosene

5. Electricity

6. Others (specify) \_\_\_\_\_

52. What is the source of water your household uses for drinking?

1. Own piped into household

☐

2. Piped into yard house

3. Public tap

4. Water kiosk

5. Open well/pond/river

6. Others (specify) \_\_\_\_\_

53. What kind of toilet does your household have?

1. Own flush toilet

☐

2. Shared flush toilet

3. Traditional pit toilet

4. Ventilated improved pit (VIP)

5. Other (specify) \_\_\_\_\_

54. Does your household own any of the following assets? *[Tick as appropriate]*

SN	Assets	Yes	No	Who has control or final say over its use or sale <b>Use codes</b>
1	Functioning radio			
2	Functioning solar panel			
3	Functioning bicycle			
4	Functioning motor bike			
5	Functioning car/tractor/power tiller			
6	Functioning Telephone/mobile			
7	Functioning Television set (TV)			
8	Functioning sewing machine			
9	Satellite dish			
10	Foam mattress			
11	Water pump			
12	Land			
13	Wooden bed			
14	Goat			
15	Cattle			

1. Husbandry only 2. Wife only 3. Husband and wife

❖ **Financial assets**

55. Did you feel the need to borrow goods or money in the past year?

1 Yes    2 No   

56. Did you actually borrow money or goods in the past year?

1 Yes    2 No   

57. Are you in debt to anyone at the moment?

1 Yes    2 No *[Go to question 60]*

58. How indebted would you say you are at the moment?

1 Extremely indebted      
2 Very indebted

3 Fairly indebted

4 A little indebted

59. Do you feel you struggle to repay any debts you have?

1 Yes, I struggle greatly

2 Yes, I struggle a little

3 No, I don't struggle at all

❖ **Psychological assets**

60. Are there any community activities, such as those organized by the local government, religious organisations, the school, the local development association etc, in which you think you are not allowed to participate?

1 Yes    2 No [*Go to question 63*]

61. In which activities do you perceive you are not allowed to participate?

*[List up to 3 activities]*

1.....2.....3.....

62. Why do you think you are not allowed to participate? [*Tick up to 2 reasons*]

1. Poverty

2. Occupation

3 Lack of education

4. Sex

5. Age

6. Religion

7. Political affiliation

8. Ethnicity or language spoken/ tribe

9. Other [*Specify:* \_\_\_\_\_]



63. How often have you met with and talked to people from other social groups/tribes outside your home in the last week?

1. Not at all   2. Once   3. Several times   4. Daily   5. Several times a day

64. Are there any people from different social groups that you feel you cannot, or would have difficulty in socializing with?

1. Yes   2. No  

65. Why do you feel you cannot socialize with these people? *[List up to 2 reasons]*

1. Poverty

2. Occupation  

3. Lack of education

4. Gender

5. Age

6. Religion

7. Political affiliation

8. Ethnicity or language spoken/tribe

9. Other *[Specify and add code: \_\_\_\_\_]*

66. Is there anything in your life that you would like to change? *[Probe on changes related to empowerment e.g. wife beating male dominance, wealth inheritance, land ownership]*

1. Yes   2. No  

67. What thing(s) would you most like to change? *[List up to 3 areas/things in order of importance]*

1.....2.....3.....

68. Do you think these will ever change?

1 Yes   2 No *[Go to question 72]*

69. When do you think they will change?

1 Very soon

2 Fairly soon

3 A long time in the future

70. What are the main difficulties that you feel might prevent these changes from occurring?

*[List 1 reason for each area/thing listed in above]*

1.....

2.....

3.....

71. Who do you think will contribute most to any change? *[Tick up to 2 reasons]*

1 Myself

2 My family

3 Our group *[Specify type of group]:* \_\_\_\_\_

4 Our community

5 The local government

6 The national/central government

7 Other *[Specify]* \_\_\_\_\_

72. Do you feel that people like yourself can generally change things in your community if they want to?

1 Yes, very easily

2 Yes, fairly easily

3 Yes, but with a little difficulty

4 Yes, but with a great deal of difficulty

5 No, not at all

73. What is the one thing you would most like to do in your life?

.....

.....

74. How difficult do you think it will be for you to achieve this?

1 Very difficult

2 Fairly difficult

3 Fairly easy

4 Very easy

### **Direct Indicators of Empowerment**

We would like to ask your opinions about the situation of your society, government, and institutions that have an effect on the lives of people.

#### **❖ Justice**

75. To your knowledge, what mechanisms are used in your area and in other parts of the country to achieve justice? *[List all systems mentioned i.e. formal and informal justice systems]*

- (i).....
- (ii) .....
- (iii) .....
- (iv).....

76. Have you ever used these systems to seek redress or access justice?

1. Yes      2. No *[If none at all, go to question .....]*

77. How many times in the last three years have you used these systems to seek redress or access justice?

.....

78. How happy were you with the outcome?

1 Completely happy

2 Fairly happy

3 Neither happy nor unhappy

4 Fairly unhappy

5 Completely unhappy

79. How fairly do you think you were treated?

1 Completely fairly

2 Reasonably fairly

3 Not fairly

80. Do you think men get better, equal, or worse treatment in these systems of justice compared to yourself?

1 A lot better

2 A little better

3 Equally

4 A little worse

5 A lot worse

81. Do you think other groups of people, for instance people from very poor family, different tribe or unmarried women *[different group to respondent]* get better, equal or worse treatment in these systems of justice compared to yourself?

1 A lot better

2 A little better

3 Equally

4 A little worse

5 A lot worse

82. How active are you in complaining about the systems of justice that you mentioned above?

1 Very active

2 Fairly active

3 A little bit active

4 Not active at all

❖ **Market/credit**

83. Did you feel the need to borrow goods or money in the past year?

1 Yes, very often

2 Yes, fairly often

3 Yes, sometimes

4 No, not at all

84. Did you actually borrow money or goods in the past year?

1 Yes    2 No

85. Which two sources do you most usually borrow from?

1 Bank

2 Credit associations

3 Shopkeepers

4 Landlords

5 Families

6 Other [*Specify* \_\_\_\_\_]

86. What other sources of credit do you think you have access to, including informal sources?

.....

.....

.....

.....

.....



87. Why do you choose to borrow from this/these source(s)?

1 Close location

2 Interest rates

3 Easy requirements and procedures

4 No formal requirements or procedures

5 Other [Specify] \_\_\_\_\_]

88. Are there any other sources of credit for people in your area which you feel are not available to you?

1. Yes

2. No

89. Why are these not accessible by you?

1 Lack of collateral

2 No guarantor

3 Interest rates too high

4 Culturally unacceptable

5 Other [Specify and add code: \_\_\_\_\_]

90. Do you have any savings?

1 Yes

2 No [Go to question 92]

91. How do you decide when the savings will be used and what for?

1 I decide on my own

2 I decide jointly with my spouse

3 My husband decides for me/us

4 Another household member decides

5 Other [Specify: \_\_\_\_\_]

❖ **Market/labour**

92. How much choice do you feel you have in deciding your involvement in onion production?

1 Complete choice

2 Some choice

3 No choice

93. How easy would it be to change your current productive activities/occupation if you wanted to?

1 Very easy

2 Fairly easy

3 Not very easy

4 Impossible to change

94. Why would it be easy/not easy to change your productive activities/occupation?

1 Lack skills

2 No local alternatives

3 Traditional barriers/ against custom and culture

4 Other [*Specify and add code:* \_\_\_\_\_]

❖ **Market/ goods**

95. Have you ever felt threatened with eviction from this land/property?

1 Yes, very often

2 Yes, fairly often

3 Yes, occasionally

4 No, never

96. How strongly do you feel the authorities would protect you if somebody tried to make you leave your property/land?

1 Very strongly

2 Fairly strongly

3 Not at all

97. Are there any restrictions on what you are able to own or rent?

1 Yes

2 No

98. Why do you think there are restrictions on what you can own or rent?

1 Your sex

2 Your tribe

3 Your age

4 Your religion

7 Other [*Specify and add code:* \_\_\_\_\_]

99. Have you ever personally inherited any land/property or other items?

1 Yes

2 No

100. Have your brothers or sisters ever inherited any land/property or other items?

1 Yes, brothers

2 Yes sisters

3 Yes, brothers and sisters

4 No

101. Who is traditionally allowed to inherit land/property or other assets?

1 All family members

2 Male family members only

3 Female family members only

4 Other [*Specify:* \_\_\_\_\_]

❖ **Society/household & kinship groups**

102. When decisions are made regarding the following aspects of household life, who is it that normally takes the decision? **[Use codes below]**

1. Household expenditure (    )

2. Education and health (    )

3. Political decisions (    )

4. Marriage choices (    )

5. Religious beliefs (    )

*1 .Male head of household*

*2 .Adult male household members*

*3. Female head of household*

*4. Adult female household members*

*5. Male and female heads of households*

*6. All adult members of household*

*7 .All members of household, including children*

*8. Other [Specify and add code: \_\_\_\_\_]*

103. To what degree do you feel you can make your own personal decisions regarding these issues if you want to? **[Use codes below i.e. 1, 2, 3, and 4.]**

1. Household expenditure

2. Education and health (    )

3. Political decisions (    )

4. Marriage choices (    )

5. Religious beliefs (    )

*1 To a very high degree*

*2 To a fairly high degree*

*3 To a small degree*

*4 Not at all*

104. To what degree do you feel you have control over decisions regarding your own personal welfare, health and body?

1 To a very high degree

2 To a fairly high degree

3 To a small degree

4 Not at all

105. How easy do you find it to access health services when you need to?

1 Very easy

2 Fairly easy

3 Fairly difficult

4 Very difficult    5 Impossible

106. How easy do you find it to access education or training services when you need to?

1 Very easy

2 Fairly easy

3 Fairly difficult

4 Very difficult

5 Impossible

107. Looking back over the past years (before you involved your self into onion cultivation), do you feel more or less has been spent on your personal health care compared to other household members?

1 Much more

2 A little more

3 About the same

4 A little less

5 Much less

6 Not sure



### Construction of Empowerment index

In this sub section we will discuss the extent of your freedom and participation in different issues of importance in your life. Kindly respond to this question honestly reflecting your true experience and practise.

#### 108. Personal Autonomy Index

SN	Can you do the following without seeking permission from your husband?	1	2	3
1	Visit your parental home			
2	Visit a hospital or clinic			
3	Visit the village market			
4	Help a relative with money			
5	Set money aside for your personal use			
6	Seeking help e.g. financial			

Key: Never =1, Occasionally =2, Generally =3

#### 109. What are the factors that hinder/restrict your personal autonomy?

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....
- vi. ....

**110. Index of Household Decision Making (HDMI)**

SN	Who makes decision on the following issues in your household?	<i>[use codes below the table]</i>		
		1	2	3
1	Children's education in school			
2	Family planning			
3	Family day-to-day expenditures			
4	Purchase of major or permanent items e.g. land, bicycles, inputs farming			
5	Going outside of home e.g. visiting parents and other relatives who live away or in nearby villages			
6	Medical treatment			
7	Spending personal income e.g. send money to parents and relatives			
8	Use of family income e.g. from sale of onion			
9	Whom to marry your daughter/son			
10	Selection of crops to plant in the field			
11	Purchasing of food for the family			
12	Purchasing clothes for yourself and children			
13	Entertaining guests			

Key: Husband Alone =1 Joint Decision =2 Wife Alone =3

**111. What are the factors that hinder/restrict your participation in household decision making?**

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

**112. Index of women economic contribution to household (ECHH)**

SN	Variables/Statement	Participate/ contribute	
		Yes	No
1	Do you, in your own name, own any land that you use for onion production?		
2	Own any productive assets (for example: cattle, sewing machine) that contribute to household income?		
3	Have you accumulated any cash or savings from onion production on your own plot?		
4	Have you ever used your savings from sale of onion for business or money lending?		
5	Do you use the money obtained from sale of onion to meet household expenses		
6	Do you have a separate plot for Production of food/cash crops		
7	Do you do any other economic activity (apart from crop and livestock) e.g. curving, small business that earns you some money for use in household		
8	Do you involve yourself in wage labour activities which contributes to household income		
9	Do you get money from selling your own livestock (apart from those owned by husband)that contributes household expenditure		

**113. Economic Domestic Consultation Index (EDC)**

SN	Does your husband consult you when :	1	2	3
1	Buying furniture and utensils			
2	Purchasing land for home or business			
3	Spending for the education of children			
4	Purchasing medical treatment for the family			
5	Purchasing respondent's clothes			
6	Purchasing children's clothes			
7	Purchasing daily food			
8	Spending money accrued from sale of onion			
9	Opening up a bank account			
10	Purchase of Furniture /Consumer durables			
11	Use of personal salary			

Key: 1= Never, 2= Occasionally, 3= Generally

**114. Index of freedom of movement (FM)**

SN	Can you do the following without seeking permission from your husband?	Degree of mobility				
		1	2	3	4	5
1	Visiting the markets (to sell or purchase consumables) local or weekly or nearby village [e.g. mnada]					
2	Visiting medical facility e.g. hospital/clinic/doctor					
3	Visiting your relative / friend's house					
4	Visiting your relative parental home					
5	Attend meetings/ workshop/group meeting					
6	Participation in social functions local e.g. marriage/wedding ceremonies					
7	Purchasing inputs from distant shop					
8	Participation and organisation of cultural programmes					
9	Visiting financial institutions e.g. VICOBA for loan application or paying instalments					

Key: Never=1, Occasionally=2, Frequently=3, Accompanied=4, Ever gone alone=5

**115. What are the factors that hinder/restrict your freedom of movement?**

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

**116. Political Autonomy Index**

SN		1	2	3
	Can you do the following without seeking permission from your husband?			
1	Vote in your own mind/decision			
2	Participate in public issue e.g. village meeting			
3	Standing for election			
4	Usually aware of important current political issue (e.g. constitution review, bunge session etc)			
5	Participate in public protest or political meeting			
6	Campaign politically for candidate or political party			

Key: Never =1, Occasionally = 2, Generally =3

In the following section i would like to understand your perception and awareness on some issues with regard to freedom from family domination that you experience.

## 117. Women perception on gender awareness and Freedom from Family domination

SN	Statement/issue	1	2	3	4	5
1	Men are justified to have final say over use of money in the household					
2	Husband/other family member are justified to prevent women/wives from visiting their parents or friends					
3	Women should not be involved in politics, because men can vote for them					
4	Men are justified to beat their wives if they disobey them					
5	Men/husband should receive the best share of the meal and should be saved first					
6	Men only should inherit property rights in the household					
7	Women have the right to decide on their reproductive choice					
8	Women have the right to decide whether and when to engage in marriage					
9	Women have the right to decide over their divorce rights					
10	Women should be given equal chance to participate in economic opportunities e.g. involvement in onion production and sales					
11	Girls and boys should be given equal chances to get better education					
12	Women have the right to work outside the home and earn personal income					

Key 1=strongly agree 2=agree 3=undecided 4=disagree 5= strongly disagree

## 118 What factors affect your active participation in onion Value Chains?

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....
- vi. ....
- vii. ....
- viii. ....
- ix. ....
- x. ....

**Thank you very much for your time and information that you gave us**

## Appendix 2: Focus Group Discussion Guide

1. How is women empowerment defined in your area?
2. What are men and women roles in onion value chain activities? Has these roles changed overtime? What has changed and why? (horizontal and vertical linkages)
3. What factors/issues/behavior denotes improvement in women empowerment in your area (e.g. in decision making, increase in income, access to and control of income and resources)
4. What are the factors that promote women empowerment in your area?
5. What are the factors that hinder women empowerment from occurring in your area?
6. What is the attitude of men towards women empowerment? Is there any change in the attitude of the men and community leaders regarding women's empowerment?
7. Who usually have a final say over use of money accrued from sale of onion? Why? Has anything changed during the recent past (e.g. five years)?
8. Does women participation in onion production and marketing increase the woman's influence over economic resources and participation in economic decision making at household and community level?
9. Does participation in onion production and marketing groups influence the individual development and growth of a woman?
10. Does participation in onion production and marketing groups increase woman's mobility, development of networks and interactions with other members of your group and community?
11. Does participation in onion production and marketing groups increases woman's participation and influence in social, community and political activities?
12. What are the assets that are owned in your household that denote wealth/improved living conditions?
13. Has involvement in onion production and marketing helped you to achieve important/ desired life outcomes? What have you achieved?
14. Doe participation in onion production and marketing improve livelihood? What aspects of women livelihood have changed in the recent past?



**Appendix 3: Key informants Interview Guide**

1. What are the main economic activities that many people derive their livelihood from?
2. Are there any NGOS/CBOS/Government projects promoting women empowerment in your district/region?
3. Do women and other disadvantaged groups have equal opportunity in participating into activities that promote/result into women empowerment?
4. What are the factors promoting/hindering women empowerment in your area?
5. Does women involvement in onion value chain development contribute to women empowerment?
6. Do women and other disadvantaged groups in your area allowed to own land?
7. Is there any difference in terms of participation to development activities between women involved in onion value chain and those not involved? How?

#### Appendix 4: Checklist for value chain analysis (profitability analysis)

##### ❖ Producer

	Description	Unit	Unit TShs)	Total (TShs)	MIN	MAX
A	<b>Land Preparation Cost (70x70 m2)</b>					
	1. Land Rent					
	2. Labourers					
	a. Stalk Clearing					
	b. Harrow and Plough					
	c. Directing water to the plot					
	d. Drawing lines, blocks, water ways					
	e. Hoe - leveling and clearing					
	f. Drawing farrows, transplanting, watering and supervision					
	<b>Total A</b>					
	<b>% of total Cost</b>					
B	<b>Production Means</b>					
	1. Seeds					
	2. Manure					
	3. Urea fertilizer					
	4. Nursery (7 x 10 m2)					
	5. Watering the nursery					
	6.					
	7.					
	8.					
	<b>Total B</b>					
	<b>% of total Cost</b>					
C	<b>Transplanting and Maintenance</b>					
	1. Preparing seeding for transplanting					
	2. Fertilizing					
	3. Transplanting					
	4. Weed Clearing I					
	5. Irrigation - controlling water flow					
	6. Controlling destructive birds					
	7.					
	8.					
	<b>Total C</b>					
	<b>% of total Cost</b>					

<b>D</b>	<b>Harvest and Post Harvest</b>						
	1. Harvesting and hulling						
	2. Drying and winnowing						
	3. Transport from farm to warehouse						
	4. Storage costs						
	5.						
	6.						
	<b>Total D</b>						
	<b>% of total Cost</b>						
	<b>Total Cost (A+B+C+D)</b>						
<b>E</b>	<b>Income from farming</b>						
	1. Paddy Sales (Low price season)						
	2. Paddy Sales (high price season)						
<b>F</b>	<b>Gross Profit (low price)</b>						
	<b>SGM</b>						
	<b>Gross Profit (high price)</b>						
	<b>SGM</b>						

## ❖ Traders

No	Description	Unit	Unit/kg (TShs)	Minimum (TShs)	Average (TShs)	Maximum (TShs)
<b>A</b>	<b>Processing Cost</b>	1 bag = 100kg				
1	Purchase Onion from whole sellers					
2	Sorting and grading					
4	Packaging					
5	Marketing - telephone calls					
6	Market cess					
	<b>Total Cost</b>					
<b>B</b>	<b>Sale price of rice</b>					
<b>C</b>	<b>Gross Profit</b>					
<b>D</b>	<b>Simplified gross margin</b>					

SPE  
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6T34  
J6