A STUDY OF GENDER ROLES IN THE CASHEW NUT VALUE CHAIN IN MKURANGA DISTRICT, TANZANIA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN RURAL DEVELOPMENT OF SOKOINE UNIVERSITY OF AGRICULTURE. MOROGORO, TANZANIA.

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ABSTRACT

The main objective of the study was to assess gender roles in the cashew nut value chain in Mkuranga. Data were collected along the cashew nut value chain nodes, including 80 producers (farmers), 10 processors, and 10 local traders from Kisutu and Kariakoo markets in Dar es Salaam. Structured questionnaire was used to collect data from the cashew nut value chain actors. Both quantitative and qualitative analysis was applied. The SPSS statistical software was used for data analysis. The results show that the key actors of cashew nut value chain include input suppliers, producers (farmers), processors, local traders and consumers who play different roles in cashew nut value chain. The study also found that cashew nut is constrained by production, processing, and marketing factors despite having a lot of opportunities at urban, regional and international markets. The roles assigned to men alone in cashew nut value chain were mainly associated with quality control, bargaining and decision making in all cashew nut value chain nodes, selling of raw nuts, selling the processed kernel, which eventually allow men to control income earned in different cashew nut value chain nodes. Hence, it lowers women's motivation in cashew nut production and involvement in cashew nut value chain leading to lower women cashew nut production potential. The study documented limited frequency of visits of extension agents and lack of credit services to processors, it also documented cultural gender patterns that exist for access to and control over resources available in the cashew nut value chain and unequal income distribution among men and women along the cashew nut value chain nodes. The study recommends that gender equality is vital for cashew nut value chain improvement and calls for efforts from all development stakeholders in cashew nut value chain to focus on gender mainstreaming.

DECLARATION

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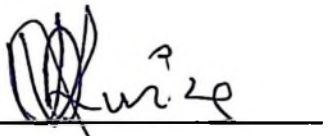

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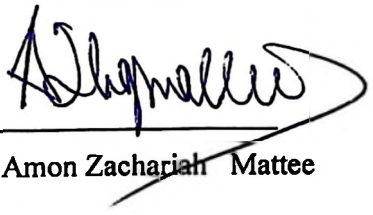

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DEDICATION

This work is dedicated to the Almighty God for his help in whatever I do and wherever I go. He will never let my steps be altered.

TABLE OF CONTENTS

ABSTRACT ..... **i**

DECLARATION ..... **iii**

COPYRIGHT ..... **iv**

ACKNOWLEDGEMENTS ..... **v**

DEDICATION ..... **vii**

TABLE OF CONTENTS ..... **viii**

LIST OF TABLES ..... **xii**

LIST OF FIGURES ..... **xiii**

LIST OF APPENDICES ..... **xiv**

LIST OF ABBREVIATIONS ..... **xv**

CHAPTER ONE **1**

1.0 INTRODUCTION **1**

1.1 Problem Statement and Justification 3

1.1.1 Problem statement 3

1.1.2 Study justification 4

1.2 Objectives of the Study 5

1.2.1 General objective 5

1.2.2 Specific objectives 5

1.3 Research Questions 5

CHAPTER TWO **7**

2.0 LITERATURE REVIEW **7**

2.1 Conceptualization of Key Concepts 7

2.1.1 Gender 7

2.1.2 Gender analysis 7

2.1.3 Gender Issues 8

2.1.4 Gender roles 8

2.1.5 Value chain 8

2.1.6 Value chain analysis 9

2.2 Division of Labor and Relations in Agriculture 10

2.3 Cashew Nut Industry and Policies 11

2.4 Access to Agricultural Extension and Credit Services 13

2.4.1 Agricultural extension services 13

2.4.2 Access to credit services 14

2.5 Conceptual Framework 15

CHAPTER THREE 17

3.0 RESEARCH METHODOLOGY 17

3.1 Description of the Study Area 17

3.1.1 Location 17

3.1.2 Agro – ecological zones 18

3.1.3 Climatic conditions 18

3.1.4 Economic activities 18

3.2 Research Design 20

3.3 Study Population 20

3.4 Sampling Procedure 20

3.5 Data Collection Methods 21

3.5.1 Primary data 21

3.5.2 Questionnaire 21

3.5.3 Secondary data 21

3.6 Methods of Data Analysis 22

3.7 Data Quality Control 22

3.7.1 Pre-testing of the research instruments 22

CHAPTER FOUR 23

4.0 RESULTS AND DISCUSSION 23

4.1 Respondents' Socio-economic Characteristics 23

4.1.1 Sex of Respondents 24

4.1.2 Age of the respondents 25

4.1.3 Marital status of Respondent 26

4.1.4 Level of education of respondents 26

4.1.5 Household size of respondents 27

4.1.6 Area under cashew nut production 28

4.2 Activities Performed by Men and Women in Cashew Nut Value Chain 30

4.2.1 Activities performed by men and women at the cashew nut producer node 30

4.2.2 Activities performed by men and women at the cashew nut processors node .. 30

4.2.3 Activities performed at the cashew nut local traders node 31

4.3 Access to Extension and Credit Services among Men and Women at Each Node of the Cashew Nut Value Chain 33

4.3.1 Impact of agricultural extension services on cashew production yield 33

4.3.2 Modalities of receiving extension services 34

4.3.3 Access to credit services among men and women in the cashew nut value chain cashew nut producers 35

4.3.4 Access to credit services among processors node 36

4.3.5 Access to credit services by cashew nut local traders 36

4.4 Gender Patterns in the Access to and Control over Resources in the Cashew nut Value Chain 37

4.4.1 Impact of limited participation in decision making at all levels affects gender relations at the producer node 37

4.4.2 Decision making on Aspects of household life among cashew nut producers.. 38

4.4.3 Decision making on aspects of household life among cashew nut processors.. 40

4.4.4 Decision making on aspects of household life among local traders 42

4.5 Access and Control over Resources in the Cashew nut Value Chain..... 43

4.5.1 Power and control over resources at the cashew nut producer node 43

4.5.2 Power and control over resources at the cashew nut processing node..... 44

4.5.3 Power and control over resources at the cashew nut local trade node 46

4.6 Factors Affecting Gender Relations in Cashew nut Producer Node 47

4.7 Distribution of Income Obtained Among Women and Men in the Household from Cashewnut Value Chain Activities 50

CHAPTER FIVE 52

5.0 CONCLUSIONS AND RECOMMENDATIONS 52

5.1 Conclusions 52

5.2 Recommendations..... 55

REFERENCES 57

APPENDICES 87

LIST OF TABLES

Table 1: Distribution of the respondents according to socio- economic characteristics 23

Table 2: Distribution of the respondents by activities performed by men and women in cashew nut value chain 32

Table 3: Distribution of respondents by modalities of receiving extension service 35

Table 4: Distribution of respondents by impact of limited participation in decision making at all levels affects gender relations at the producer node 38

Table 5: The distribution of respondents by decision making on aspects of household life among cashew nut- producer node 40

Table 6: Distribution of respondents by decision making on aspects of household life processors 41

Table 7: Distribution of respondents by decision making on aspects of household life- local traders 43

Table 8: Distribution of respondents by power and control over resources at the cashew nut producer node 44

Table 9: Distribution of respondents by power and control over resources at the cashew nut processing node 46

Table 10: Distribution of respondents by power choice and control over resources cashew nut local trade node 47

Table 11: Distribution of respondents by factors affecting gender relations in cashew production 49

Table 12: Distribution of respondents by income obtained among males and females in the cashew nut value chain activities 51

LIST OF FIGURES

Figure 1: Conceptual Framework 16

Figure 2: Map of Tanzania, Coast Region and Mkuranga District 19

LIST OF APPENDICES

Appendix 1: Variable, operational definitions, units of the variables and measurement levels 87

Appendix 2: Questionnaire for Respondents at the Cashew nut producer node..... 88

Appendix3: Questionnaire for Respondents at Cashew nut processor node 93

Appendix 4: Questionnaire for Input Suppliers 94

Appendix 5: Questionnaire for Respondents at the cashew nut Consumer node 96

LIST OF ABBREVIATIONS

CARE	Cooperative Agencies Resources for Education
CBT	Cashew nut Board of Tanzania
CFC	Common Fund for Commodities
DALDO	District Agricultural and Livestock Development Officer
DFID	Department for International Development
DIIS	Danish Institute of International Studies
FAO	Food and Agriculture Organization
GTz	German Agency for Technical Cooperation
IFAD	International Fund for Agricultural Development.
IIED	International Institute for Environment and Development
ILO	International Labour Organisation
KIT	Royal Tropical Institute
MAFC	Ministry of Agriculture Food Security and Cooperatives
MARI	Mikocheni Agricultural Research Institute
MCDGC	Ministry of Community Development, Gender and Children
MDC	Mkuranga District Council
MDGs	Millennium Development Goals
MITM	Ministry of Industry, Trade and Marketing
MKUKUTA	*Mkakati wa Kupunguza na Kuondoa Umaskini Tanzania*
MOA	Ministry of Agriculture
NARI	Naliendele Agricultural Research Institute
NSGPR	National Strategy for Growth and Reduction of Poverty
SACCOS	Savings and Credit Cooperative Society
SIDA	Swedish International Development Agency

SPSS	Statistical Package for Social Sciences
SUA	Sokoine University of Agriculture
TAWLAE	Tanzania Women Leaders in Agriculture and Environment
UNIDO	United Nations Industrial Development Organization
URT	United Republic of Tanzania
USAID	United States Agency for International Development

CHAPTER ONE

1.0 INTRODUCTION

Cashew nut (*Anacardium occidentale*), belong to the family of *anacardiacceae*. It is one of the most valuable processed nuts on the global commodity markets, and an important cash crop for farmers with the potential to generate employment through processing and export revenue for developing countries (Kanji *et al.*, 2004). The world's leading producers of processed cashew nuts are India, Brazil and Vietnam. There is a growing market for cashew nuts in Europe and the US, with new markets opening up in other parts of the world, for example Russia and Japan. On the other hand, countries like Vietnam are increasing their supply of cashew nuts for the international market (Kanji *et al.*, 2006).

The cashew nut industry in Tanzania provides the basis for the livelihoods of almost half a million people, most of them being small-scale farmers and farm labourers who live below or slightly above the poverty line (UNIDO, 2011). Moreover, Tanzania would benefit from both increases in productivity and production as well as higher levels of value addition in the cashew nut sector. Together being able to generate substantial additional income, employment and social benefits on the farm, processing and service provision level. Such development, however, would require stark changes with regard to the application of technologies and the efficient conduct of operations at the levels of production, processing and marketing as well as a more coherent coordination in the entire value chain (UNIDO, 2011). A study done by CFC (2004) in Eastern and Southern Africa, Cashew growing Regional found that the industry has suffered from socio-economic, bio-physical and technical constraints which are directly or indirectly linked to production. Such problems have also affected the quantity and quality of nuts needed for processing. There is also scope for enhanced local and regional trade in cashew nut, so the

informal trade which already exists in domestic and regional markets needs to be stimulated without stifling its development with over-regulation (URT, 2001a). But to capture these benefits, farmers, especially women, need to build their skills to become informed about market prices, improve their negotiating power and strengthen the marketing organization of raw cashew nut (Kanji *et al.*, 2004). For example, in Zambia women verifiably have much weaker access to, or decision-making power over, critical productive resources such as land, machinery, or money, than do men. This is so even if the household as a whole possesses such resources. Women in both matrilineal and patrilineal societies in Zambia normally gain access rights to key resources, including land, tools and livestock, through male kin (USAID, 2012). Male and female farmers are affected differently by agricultural policies and programmes because of their diverse yet often complementary roles and responsibilities in agricultural production, disparities in their access to and control over productive resources and the existence of social norms and legal legislations that often favour men over women (FAO, 2010b).

According to Dempsey and Campbell (2006), a value chain is a supply chain consisting of the input suppliers, producers, processors and buyers that bring a product from its conception to its end use. Value chain also is the vehicle that is used to maximize value creation, minimize cost and distribute profit along the chain (Kaplinsky and Morris, 2006). Hence cashew nut could earn more income for the country if quality and processing were improved targeting international niche markets, such as fair trade sector as at present large profits are made by the companies which do the final stages of processing of cashew nuts within Asia, Europe and United States.

Gender analysis is the collection and analysis of sex-disaggregated information. Men and women perform different roles, so do girls and boys. This leads to males and females

having different experience, knowledge, needs, access to and control over resources. Gender roles can result in one sex having an unequal role in decision-making or being denied the benefits from development. Gender analysis also explores these differences so policies, programmes and projects can identify and meet the different needs of women, men, girls and boys. Gender analysis also facilitates the strategic use of their distinct knowledge and skills (Farnworth *et al.*, 2011).

1.1 Problem Statement and Justification

1.1.1 Problem statement

Despite the fact that women are important actors in cashew nut production, intervention to promote production have so far largely excluded them. If women are to really benefit from cashew income and if they are to contribute effectively to revival of the sector, then organizations have to actively recognize them as primary actors in cashew production (Kanji and Young, 2002).

Many studies have been done on cashew nut production without considering the gender roles and gender relations and how they affect different sections of the household or community for example five studies in cashew nut value chain have been conducted in Tanzania which have focused on one or few commodities in specific area, and attempted to analyze dynamics and the links between actors in the cashew nut value chain. These studies were conducted in Mtwara Region by private sector Masasi High Quality Farmer Products Limited (MHQFP) and Dutch Connexxion (DUCON), DANIDA and Irish Aid (2012). Yet gender disaggregated data on earnings from cashew nut value chain have not been shown, therefore this study intends to examine the cashew nut value chain in relation to gender roles through gender role and relations analysis in order to unveil the existing

gaps and imbalances as well as generating information that could be used to improve the cashew nut value chain.

1.1.2 Study justification

A key step in addressing gender-based constraints in agricultural value chains is to improve the quality and availability of gender-disaggregated data and analysis. This is essential to improve targeting and investments. Creating, monitoring, and evaluating effective gender-aware policies and programmes depend on data being available at different levels (Farnworth *et al.*, 2011). In order to expedite the poverty eradication process before 2015, gender inequalities in the value chain process should be directly addressed and given priority in policy formulation and implementation (Tebusabwa, 2006).Therefore a careful analysis of the operation of the cashew nut value chain will often identify state failures as well as market failures (Coles *et al.*, 2009). According to the study by Khan (2011) it was found that apart from other miseries, gender disparity and gender inequality still persist among the farmers. Hence the study findings will facilitate adjustment in gender equality in cashew nut production for farmers and rural development as it highlights the key issues related to gender roles and relations for improving cashew nut production.

In Tanzania, despite constitutional proclamations of gender equality and many laws that promote equal opportunities for both men and women, it remains the case that on both smallholder farms and large plantations, men and women carry out different types of work, have different levels of access to resources, and are unequally rewarded for their contributions to the agricultural system, with women typically having less access and lower incomes (Rubin *et al.*, 2010). The study is also in line with Millennium Development Goals (MDGs) number one which emphasize poverty alleviation among the

household and hence improve household income. Also the MDG number three which aims to promote gender equality and empower women (MDGs, 2000-2015).

1.2 Objectives of the Study

1.2.1 General objective

The general objective of the study was to assess gender roles and relations in the cashew nut value chain in Mkuranga District.

1.2.2 Specific objectives

i. To identify the activities performed by men and women at each node of the cashew nut value chain.
ii. To assess the accessibility of extension and credit services to men and women at each node of the cashew nut value chain.
iii. To determine gender patterns that exist for access to and control over resources in the cashew nut value chain.
iv. To examine the distribution of income obtained among women and men in the household from cashew nut value chain activities.

1.3 Research Questions

i. What are the activities performed by men and women at each node of cashew nut value chain?
ii. How accessible are extension and credit services to women and men at each node in the cashew nut value chain?
iii. How accessible are market information to men and women in each node in the cashew nut value chain?

iv. What are the gender patterns with respect to access and control over resource of cashew nut value chain economy?

v. How is the income obtained from cashew nut value chain distributed among men and women in the household?

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Conceptualization of Key Concepts

2.1.1 Gender

Gender is a social construct that refers to relations between and among sexes, based on their relative roles. It encompasses the economic, political, and socio-cultural attributes, constraints, and opportunities associated with being a man or a woman. Though often confused with sex, which refers to universal biological characteristics that differentiate males and females, gender is socially constructed, is defined differently around the world, and changes over time. Although often used interchangeably, the terms women and gender are not the same (Manfre *et al.*, 2013).

Furthermore, gender refers to the set of socially constructed roles, behaviors, responsibilities, and attributes a society considers appropriate for men and women (Ragasa *et al.*, 2011). Beside that the distribution of economic activity by type of employment is uneven indicating important gender gaps. Only 4% of employed women are in paid jobs, in either the formal or informal sector, compared with 9.8% of men and a scant 2% of Tanzania's businesses operating legally (Seebens, 2010).

2.1.2 Gender analysis

Gender analysis a means to look a society and make sure that the interests of all members –men, women and children are addressed (Ragasa *et al.*, 2011). Hence, gender analysis programmes is a critical step in gender mainstreaming of legislation, policies and programmes and in turn, in achieving gender equality (UNGEI, 2012).

2.1.3 Gender Issues

According to Rubin *et al.* (2009), gender issues basically shape the totality of production, distribution, and consumption within an economy but have often been overlooked in value chain progress. In totality gender analysis is a means to look at a society and make sure that the interests of all members-men, women, and children are addressed (Ragasa *et al.*, 2011).

2.1.4 Gender roles

Gender roles demarcate responsibilities between men and women in social and economic activities, access to resources and decision making authority (World Bank, 2013) Therefore, availability/economy/production and appropriate access and control over resources will be attained if different gender roles and relations are properly integrated into agricultural related interventions and household production processes (Blackden *et al.*, 2006).

2.1.5 Value chain

Value chain describes the full sequence of activities (functions) required to bring a product or service from conception, through the intermediary of production, transformation, marketing, and delivery to final consumers (USAID, 2009b). Moreover, value chains are about linkages between actors who transfer or exchange goods, capital or knowledge. In that respect, they are also trading places of culture, values, and personalities. If these match, we observe that there is belief or "chemistry" (KIT *et al.*, 2006). The activities that comprise the value chain can be contained within a single firm or divided among different firms, as well as within a single geographical location or spread over wider areas (ILO, 2008). Each actor looks at their role from a different perspective and they are able to exercise their power in different ways. Large-scale comparative studies have demonstrated

that greater gender equality and economic growth can go hand in hand and that gender inequalities are costly and inefficient (World Bank 2001; World Bank, 2009; IFAD, 2009 and FAO, 2009).

2.1.6 Value chain analysis

Value chain analysis helps us to understand the connection to other actors in the chain. It addresses the question: Who adds value where along the chain? Cashew nut producers in developing countries must improve or upgrade their businesses, if they are to cope with the challenges of globalization, increased competition and price fluctuations. This may involve acquiring new capabilities that enable them to participate in particular value chains or clusters, or to access new market segments (Humphrey, 2005). Furthermore, value chain analysis is a method for accounting and presenting the value that is created in a product or service as it is transformed from raw inputs to final product consumed by end users (Submarian, 2007).

This feature of the value chain analysis lends to its completeness as strategic tool in exploring different alternative strategies for poverty alleviation. In addition value chain analysis seeks to understand the various factors that drive incentives, growth and competitiveness within a particular industry and identify opportunities and constraints to increasing benefits for stakeholders operating throughout the industry (AsiaDHRRA, 2008). Hence addressing gender issues in value chains seeks to identify relationships and actions that enhance value chain efficiency and competitiveness while supporting gender equality goals. Value chain analysis has its origins in industrial sociology and new institutional economics and focuses on connections between firms operating within the chain (Kanji *et al.*, 2006). In Tanzania there is a weak link between input suppliers,

farmers, processors, and traders which leads to an unbalanced cashew nut value chain (Kilama, 2013).

2.2 Division of Labor and Relations in Agriculture

Gender division of labour refers to the classification and allocation of tasks for women and men in managing domestic and community activities and it inflicts gender stereotyping in that particular society. Gender relationships differ from one social setting to another and can change from time to time (URT, 2000b). Within the hierarchical relations of power between women and men which tend to disadvantage women and they are often accepted as natural but are socially determined relations, culturally based, and are subjected to change over time (Reeves and Baden, 2000). Women and men working in rural surroundings are often involved in multiple activities and different contractual arrangements concurrently. Thus, an extra effort is needed to understand what women and men are doing in different places and how these roles together restrain them from and serve to reinforce gender relations, decision-making and welfare (Grace, 2004).

According to Khosla (2008), while women and men build, live, work, and share villages and districts, they do not do these things in a similar way. Due to the differences in the living conditions, responsibilities and relations between women and men, i.e. their sexual category differences. Theoretically, in Sub-Saharan Africa gendered education systems affect the way men and women gain from their participation in value chains in several ways. Firstly, women's income is often limited by their occupancy of lower skilled roles, secondly, the less educated are less able to access training and thereby upgrade their skills and knowledge. Thirdly, women are less able to access and process market and financial information (World Bank, 2001 and 2007). Thus, women, on aggregate tend to earn less than men even in associated roles.

Cashew farming can also lead to increased employment opportunities for women in rural areas (processing companies) and generate income for vulnerable small holder farmers. All these opportunities will ultimately result in an improvement in rural living conditions, and hence contribute to poverty reduction (GTz, 2010). It has been argued that markets tend to benefit those with the greatest pre-existing assets (material and social), unless specific policies are put in place to re - govern markets (Torres, 2001; IIED, 2001). In the Philippines for example, where algal culture is a larger scale commercially important activity, individual men, women and families own lines and labour is provided by the entire extended family during planting and harvesting periods (Arnold, 2008). Such roles were estimated in some studies as above 60% of unpaid farm labour in countries such as Syria and Somalia (FAO, 2010a). Besides that, men and women are not distributed evenly across the sectors of the economy, as women comprise a slight majority of the labor force in agriculture, while men are a substantially higher majority of the labor force in the industry and service sectors (URT, 2012).

Gender dynamics in value chains play out along two main axes: first, that of scale, from individual interactions at the household level through clusters of horizontally linked households to the level of the value chain. Second, that of participation related issues versus factors that govern levels of gains from participation (Coles and Mitchell, 2010).

2.3 Cashew Nut Industry and Policies

Cashews provide an important source of income for some 250 000 smallholder farmers in Tanzania. They are especially important in the southern coastal region, where the districts of Mtwara, Lindi, and Ruvuma account for 80-90 percent of Tanzania's marketed cashew crop (Mitchell, 2004). Cashew also provides an important source of income and food

security for smallholder producers and for low-income groups, particularly women, who work in the processing sector in both Mozambique and India (UNIDO, 2011).

According to FAO (2008) data, cashew nut production in Tanzania ranks 16th in terms of the farm gate value it generates. More than 85% of the cashew nut farm owners are smallholder farmers of around one hectare. Beside that the production of cashew nuts in Tanzania over the past ten years has been characterised by variable production with the low level being 75 000 tonnes on two occasions and the high being the 158 000 tonnes produced in 2011/12 (Fitzpatrick, 2013). Because of its value, cashew nut can be used as one of the strategic crops to be used in the *KILIMO KWANZA* or National Growth Strategy for Growth and Reduction of Poverty (NSGRP) to address rural poverty. Thus, cashew industry is strategic in Tanzania in terms of both poverty alleviation and economic growth. However, its development is hindered by an unsupportive operating environment. Moreover, the industry is open to a clash of cultures at the stage of trade, as the farmer is consistently Tanzanian, uneducated, poor and dependent on cashew, whereas the buyer is Indian, educated, wealthier and with cashew as one of his/her many activities. The sector also operates inefficiently as each actor has their own role to play without necessarily complementing the performance of the entire sector (Kilama, 2013). In addition the failure of the sector to sustain cashew processing as a significant part of its activity and to retain market share casts doubt on the competitiveness of the cashew processing sector and its sustainability over the longer term (Fitzpatrick, 2013). Due to the above factors facing the cashew nut industry youth have moved away from the villages where most of the cashew production is located seeking better income and employment opportunities in urban centers (UNIDO, 2011). Therefore for this industry to realize its potential, comprehensive policy reform is required (URT, 2008).

2.4 Access to Agricultural Extension and Credit Services

2.4.1 Agricultural extension services

Agricultural extension has been recently defined as a system that facilitates the access of farmers, their organizations and other market actors to knowledge, information and technologies, facilitates their interaction with partners in research, education, agribusiness, and other relevant institutions and assists them to develop their own technical, organizational and management skills and practices (Christoplos, 2010).

Generally, there are various factors influencing access to agricultural extension services among men and women, sex being one of them. Agricultural extension services also need to recognize female farmers (not just heads of household) using methods that actually reach them by, for example, sending out female extension agents in highly gender-segregated societies or using farmer field schools for experiential learning. Because women often have access to fewer resources, they are better able than men to adopt high-value crops that do not require large initial investments. For example, in Zimbabwe, women were more likely to adopt open-pollinated varieties (OPVs) of maize that did not require fertilizer and allowed for seed systems built on women's informal networks, whereas men, were more likely to adopt high-yielding hybrid varieties (Bourdillon *et al.*, 2007). At the same time, implementers can look into ways of reducing the up-front fixed costs of adopting some high-value technologies; a group fishpond project in Bangladesh, for example, introduced high-value polyculture fish technologies to poor women's groups, enabling them to lease land and to take advantage of a food-for-work program to excavate a fish pond (Hallman *et al.*, 2007).

In Tanzania the knowledge on efficient production and proper plantation management is not commonly applied among farmers in cashew nut production areas. Since the years of

low prices (for example from 2000 to 2007) have resulted in reduced interest of farmers in proper plantation management; investments in weeding, pruning and pest control hardly paid off in this period. Cashew nut productivity was at the peak in 1996 when it recorded 1256.90 Kg/Ha. Currently cashew nut productivity stands at 1054.20Kg/Ha. (URT, 2010). Hence agricultural extension would have to play an important role in guiding farmers towards use of knowledge on efficient production and good agricultural practices (UNIDO, 2011).

2.4.2 Access to credit services

According to Kashuliza *et al.* (1998), credit refers to a transfer in cash or in kind with obligation to repay. Credit can be obtained through formal, semi-formal and informal microfinance institutions. Credit services are important for the success in the cashew value chain. However, in Tanzania there is lack of sustainable rural credit facilities and institutional linkages of credit schemes in agriculture and livestock production (URT, 1997). Actually, it is hard to access credit for smaller actors, especially as the cashew industry has a reputation for being unreliable; soft loans have been available to well-connected companies purchasing the disused large mechanised factories: however, most of them are not operating (URT, 2008). According to Mbata (1991) and Ponte (2002) the importance of credit provision lies on argument that credit is expected to enable farmers to acquire more modern agricultural inputs for creating employment and other economic opportunities.

Sometimes, farmer groups and individuals are assisted to access credit through groups or individuals through cooperatives or private company. When forming under a legal status such as a cooperative or a private company such groups attain the right to sell raw cashew nuts to the export market. These groups have been often established in response to members' discontent with the operations of primary cooperative societies (UNIDO, 2011).

It is often argued that credit is scarce in Tanzania, particularly for rural women, where banks and microfinance institutions have made little head way in finding cost-effective ways of lending to rural areas (Ellis, 2006). Moreover, this is combined with administrative barriers (e.g. writing up a business plan) and security barriers (collateral in the form of titled assets or a full time salaried job). Besides that, private banks do not like giving unsecured loans which means that they are apparently less likely to lend to microfinance NGOs or SACCOS whose clients are poor people (Da Corta and Magongo, 2010). A major constraint in this respect is limited access to financial services by smallholder rural producers and traders, which inhibits the purchase, trade and processing of agricultural produce, and hence the farmers' productive potential.

2.5 Conceptual Framework

A conceptual framework can be defined as an abstract indicating how basic concepts and constructs are expected to interact with definite settings and experiences that form a foundation of the research study (Kothari, 2000). In this study there are four independent variables that appear to influence the dependent variable: the Gender roles and relations. The independent variables in this study are the actors on the cashew nuts value chain. To accomplish the cashew nut production along the value chain it involves various activities at each node. The actors in value chain in turn determine the kind of roles necessary to accomplish the task. The gender roles and relations are influenced by the respective actors on the cashew nuts value chain. However, it is hypothesizing that the allocation of roles among the actors are gender biased. Moreover, the independent variables and the dependent variable interact in the Tanzanian context consisting of socio-economic, political, educational, and cultural manifestations. Each of the independent variable is presented in Fig.1.

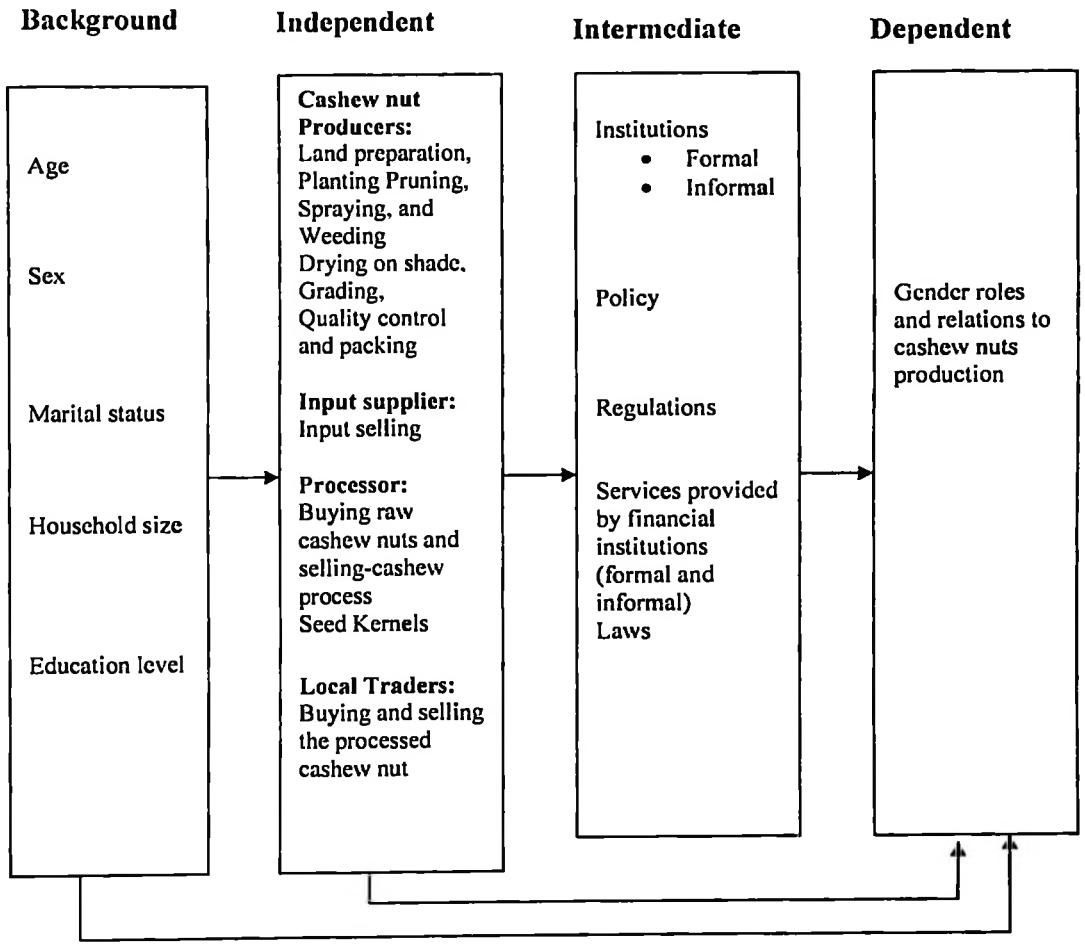

Figure 1: Conceptual Framework

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Description of the Study Area

3.1.1 Location

The study was conducted in Mkuranga District which is part of Coast Region, located about 30 - 40km from the city of Dar es Salaam. It is one of the six districts that form Coast Region; it is bordered by Dar es Salaam city to the north, the Indian Ocean to the east, Rufiji District to the south, and Kisarawe District to the west. Mkuranga is relatively a small district covering 243 200 ha, which is about quarter of the size of Bagamoyo and about the size of Zanzibar Island. Out of this total area, an area of 1985sq km or198 500ha equivalent to 81.6% is land area for settlement and agriculture, and 447sq km (44 700ha) is covered by Indian Ocean. Land covered by natural reserve area is 10 560ha. It has a population of 187 428 and an annual growth rate of 2.4%. Male and female population is 12 256 and 13 591 respectively, thus resulting into a female: male ratio of 0.474. Average household size is 4.4 persons (URT, 2012).

About 70% of the residents of Mkuranga District are natives, whereas 30% are immigrants from other coastal districts with an insignificant up-country immigration (TAWLAE/VECO, 2006). Most of the rural communities are engaged in food and cash crop production on small–scale basis. Individual farmers or households own plot(s) which are planted with fruit trees, cashew nuts, coconuts, cassava, maize, paddy, sweet potatoes and a variety of vegetables (URT, 2001b).

Administratively, Mkuranga District has a total of 101 villages, 15 wards and 4 divisions. The district has about 90 km of coastal line, extending from where it borders Temeke

District to Rufiji Districts (MDC, 2009). According to Coast Region statistics Mkuranga District was the second in cashew nut production after Kibaha District during the 2011/12 season. The area has been selected due to importance of cashew nut production in all of its 4 divisions.

3.1.2 Agro – ecological zones

Mkuranga District is divided into two main agro - ecological zones which are the coastal belt and upland zones. Each of the two zones is characterized by its own features. The coastal belt zone covers Shungubweni Division, and parts of Kisiju and Mkuranga Divisions. This area is characterized by sandy soils which have low water holding capacity, high water table and poor soil fertility. The upland zone covers Mkamba and parts of Mkuranga Division and is characterized by loamy sand soils which are suitable for agriculture.

3.1.3 Climatic conditions

Mkuranga District experiences a bimodal rainfall pattern. The short rains (*Vuli*) occur in October, and the long rains (*Masika*) fall between March and June. Normally, the long rains are more reliable and more evenly distributed than the short rains. The annual rainfall ranges from 800 - 1000 mm. The district is highly humid and hot with an average temperature of 28^0C throughout the year. The annual maximum temperature is 38^0C while the annual minimum temperature is 18^0C (MDC, 2008).

3.1.4 Economic activities

Mkuranga District depends on agriculture as the main source of its income since agriculture is the dominant activity in the district. About 80% of its population is engaged in crop production (cash and food crops), livestock keeping, fisheries and forest

production activities. Most of the people in Mkuranga District are engaged in subsistence agriculture, growing cashew nut, cassava, maize, paddy, coconut, sweet potatoes, legumes, and horticultural crops like pineapples, mangoes, passions, water melons, tangerines, sweet potatoes and peppers.

Livestock keeping is second after crop production, whereby it is dominated by indigenous cattle, goats, sheep and chicken. Fishing is practiced by about 1500 fishers found along the coast; few people are engaged in forest production where they produce timber, charcoal, honey and medicine (MDC, 2009).

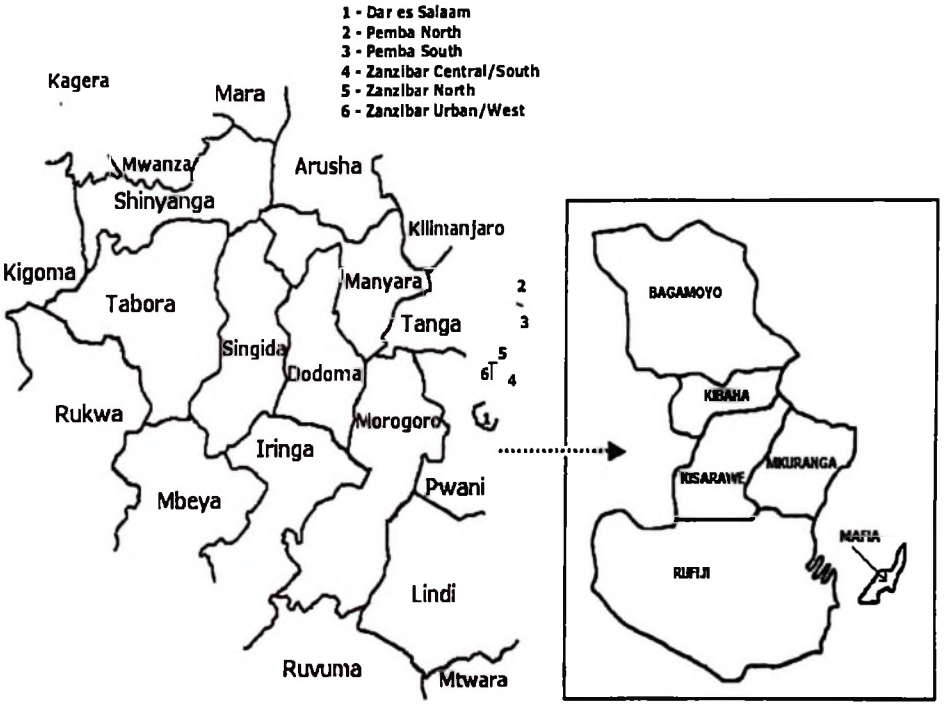

Figure 2: Map of Tanzania, Coast Region and Mkuranga District: From Torell *et al.* (2006)

3.2 Research Design

A cross-sectional research design was used in this study for data collection. This design was preferred; despite its simplicity it allows determination of relationships between variables. In addition, it is considered to be favorable in situations of limited time and resources as is the case for the present study (Babbie, 1990).

3.3 Study Population

The study population included the actors in cashew nut value chain who are input suppliers, producers, processor traders and consumers.

3.4 Sampling Procedure

Multistage sampling technique was employed to select district, ward, villages and farmers. First stage was purposive selection of Mkuranga District based on cashew nut production. Second stage was selection of wards whereby two wards namely Kisiju and Magawa were purposively selected due to high production obtained in the previous season of 2011/12. Third stage was selection of villages. Simple random sampling was employed to select two villages in each ward namely Msonga and Tunduni from Magawa wards and Kisiju pwani and Kerekese villages from Kisiju Ward. The fourth stage, involved random selection of forty households (20from each village) were randomly assigned to interview male respondents while other 40 respondents (20 from each village) were randomly selected to interview female respondents. Last stage a snowball sampling technique was used in obtaining respondents. The first respondent was obtained by asking cashew nut farmers thus one (1) input supplier, 10 cashew nut processors, and 10 local traders and 10 consumers (total of 111 cashew nut value chain actors), (these are only input supplier, processors and local traders in the study area) to form a total of 111 respondents.

3.5 Data Collection Methods

3.5.1 Primary data

The study involved multiple data collection methods. More than one method was used in order to provide checks and balances as regards any shortfalls in the other data gathering methods.

3.5.2 Questionnaire

This involved administering a structured questionnaire (Appendix 1) with closed and open-ended questions to the respondents in order to get the required data. This enabled the researcher to collect data from a wide population scattered throughout the villages. The questionnaire was administered to the target groups (input supplier, producers, processors, local traders, and consumers) by researcher. The researcher involved herself personally in order to avoid a low return of the questionnaire. The advantage of the questionnaire method was that it involved several respondents who answered the set of questions. Additionally, questionnaires are relatively inexpensive to administer. Also, it has a fixed format, hence, eliminating variations in questioning.

3.5.3 Secondary data

Secondary data were gathered to compliment and provide additional information that could not be obtained sufficiently through primary data sources, were gathered through reading various reports, journals, books, and websites and through reading various reports from District Agricultural and livestock Development offices (DALDO) and Planning department office. The data obtained include: location of the study, population, agro-ecological zones, climate and economic activities.

3.6 Methods of Data Analysis

The quantitative data collected was coded and summarized prior to analysis by using the Statistical Package for Social Sciences (SPSS) version 16.0 for windows. Descriptive analysis was used to analyze the data for objective one, two, and three which involved percentages, frequencies and mean generating, while the data for objective number four a paired *t*-test was used to compare the cashew nut income mean between men and women (at the house hold level).

3.7 Data Quality Control

3.7.1 Pre-testing of the research instruments

In order to ensure that there were no inconsistencies and misinterpretation of the questions, a pre-test was conducted with 10 farmers in Kisiju Pwani village in Mkuranga District, after which the questions were re-phrased or corrected where necessary in order to make them more understandable to the respondents.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Respondents' Socio-economic Characteristics

Socio- economic Characteristics of respondents is an important factor which determines an individual's understanding and distribution of gender roles and relations in the cashew nut value chain. These included age, marital status, educational level and household size.

Table 1: Distribution of the respondents according to socio- economic characteristics (n=80)

Variable	Categories	Producer n (%)	Processor n (%)	Local trader n(%)
Age (years)	30 - 39	13 (16.3)	2 (16.7)	5 (50.0)
	40 - 49	28 (35.0)	10 (83.3)	5 (50.0)
	50 - 59	30 (37.5)	0 (0.0)	0 (0.0)
	60 and above	9 (11.3)	0 (0.0)	0 (0.0)
Sex	Male	40 (50.0)	10 (100)	10 (100)
	Female	40 (50.0)	0 (0.0)	0 (0.0)
Marital status	Married	80 (100)	8 (80.0)	9 (90.0)
	Single	0 (0.0)	2 (20.0)	1 (10.0)
Education level	Islamic education	22 (27.5)	2 (16.7)	1 (10.0)
	Primary education	29 (36.3)	6 (50.0)	4 (40.0)
	Secondary education	29 (36.3)	4 (33.3)	5 (50.0)
Household size	2 – 3	0 (0.0)	0 (0.0)	2 (20.0)
	4 – 5	0 (0.0)	7 (70.0)	8 (80.0)
	6 – 7	33 (41.3)	3 (30.0)	0 (0.0)
	8 – 9	45 (56.2)	0 (0.0)	0 (0.0)
	10 – 11	2 (2.5)	0 (0.0)	0 (0.0)
Area under cashew nuts	3 - 4 acres	50 (62.5)	0 (0.0)	0.0 (0.0)
	2.5 acres	1 (1.2)	0 (0.0)	0.0 (0.0)
	5 -7acres	28 (35.0)	0 (0.0)	0.0 (0.0)
	>7 acres	1 (1.2)	0 (0.0)	0.0 (0.0)

NB: Number in brackets indicate percent; n - Frequency

4.1.1 Sex of Respondents

Various studies have indicated that females usually have to combine their domestic responsibilities and farm activities IIDE and Boodhna (2011) hence it was also assumed in this study that the sex of respondents will have an effect on cashew nut value development because of gender responsibilities assigned to them. Therefore the male and women proportion in the value chain nodes were taken into consideration. The results in table 1 show that producers were 50% males and 50% females, local traders and processors were all males and majority of consumers were males. This implies that the cashew nut value chain is dominated by males due to multiple roles females are assigned by society which include, reproductive roles, productive roles and community roles. The study is in line with IIED and Boodhna (2011) who found that females usually have to combine the work in their enterprise with household responsibilities and farm production.

Female who then try to join the labour market often find themselves with an increased labor burden. The results are also in line with the study in northern Afghanistan by Grace (2004) who found that the sales of agricultural (or any other) produce are mostly the domain of males. Basu (2005) in south Asia found that cultural values and misinterpretation of traditional and folk wisdom that women being a delicate sex are not in the position to bear the burden of political activities over their shoulders hence they could not perform political duties. In addition, World Bank (2009) found that gender inequalities are key causes of inefficiency in enterprises at different levels of household production.

These inequalities within households and value chains magnify to have significant implications for wealth creation at national level. Beside that the work carried out by children, differentiations need to be done as well, as they also tend to perform different

tasks assigned on the basis of their respective sexes and ages (FAO, 2012b). Generally, the domination of one sex (male) in cashew nut value chain nodes contributes to gender inequalities among males and females in the study area, and the females contribute more as producers because the activities are near home for easy performance of home chores.

4.1.2 Age of the respondents

A study done by Basnayake and Gunaratne (2002) in Sri lanka found that the age of a person is usually a factor that can explain the level of production and efficiency. Hence it was also assumed that in this study the age of respondents will have an effect on cashew nut value chain development. The age of the respondents under study as shown in Table 1, ranges between 30 years and above. This is based on the fact that in the context of Tanzania such age group is the major producer particularly in rural areas engaged in agricultural activities. The findings are in line with URT (2009), that working age is clear as being from 15 to 60 years particularly in rural areas. Age also influences experience, wealth and decision making all of which has an effect on the working capabilities of an individual and therefore individual's productivity.

As regards the work carried out by children, differentiations need to be done as well, as they also tend to perform different tasks assigned on the basis of their respective sexes and ages (FAO, 2012b). However the study done by UNIDO (2011) found that youth have moved away from the villages where most of the cashew production is located seeking better income and employment opportunities in urban centers. This implies that trading raw cashews, kernels are also traded at a lower level such that the youth in cashew nut growing area in Tanzania cannot comprehend the input - output relationship in cashew nut production For instance during 2008/09 season, 15 000 metric tons of kernels were

exported, which is less than 25% of the country's raw cashew production (CBT, 2010 cited in UNIDO, 2011).

4.1.3 Marital status of Respondent

Power within the household is influenced by generational and family status (including status related to polygamy and age differentials) control over income and assets, age at marriage, level of education and informal norms and practices (UNDP, 2010a). It was assumed in this study that the marital status of an individual will have an effect on gender roles and relation in cashew nut value chain. As the results in Table 1 reveal majority of respondents among all the cashew nuts value chain actors were married. The distribution of marital status confirms that cashew nut farming activities in the study area attract mostly adults, whose main activity for their wellbeing is farming. According to Novarty (2005) study, in Mbeya found that, married couples are likely to be accomplishing farm and non – farm activities than single due to family responsibility for food security. Generally, the age and education level variation among the married couples could also have some implication on gender roles and relation in the cashew nuts value chain.

4.1.4 Level of education of respondents

It was assumed that level of education of farmers is very important for their ability to utilize well the advice and information offered by extension agents. Hence the respondents were asked their education level. The findings in Table 1 showed typical characteristics of literacy common for farmers in rural areas of Tanzania. Education level might influence farmers' understanding on the gender roles and relations and hence influence distribution of various roles in the cashew nut value chain. Education is always regarded and valued as a means of freedom from ignorance (Luhasi, 1998). It is also perceived as among the

factors that influence an individual's perception of an intervention before making decision to take part.

According to UNICEF (2006), level of education, earnings and asset ownership and age gaps are key in determining bargaining power between men and women within the household. Moreover, gender roles and relations are embedded in education, political and economic systems and religion in any given situation (Reeves and Baden, 2000). Besides that, education increases women's role in household, decision-making and their control over family assets. It also influences investment decisions in relation to daughter's education, thereby also enhancing daughters' future potential negotiating power in the household (Agarwal, 1997; Lloyd and Young, 2009; Khandkar, 1998; Pitt and Khandkar, 1998 cited in UNDP, 2010a). However, possession of education alone does not necessarily imply respondents' capability of adopting gendered participation on various activities in cashew nuts value chain.

4.1.5 Household size of respondents

It was assumed that family size has an effect in cashew nut value chain development hence the respondents were asked their family size. The results on Table 1 reveal that producers have higher family size compared to other actors in cashew nut value chain. It was found that 56.2% of the producers have household size between 8 and 9 members. This might be attributed by nature of the marriage on the study area. It was found that majority of men have more than one wife and also living with grand children who are their son's or daughter's children staying in Dar es Salaam. A Large number of households would be able to provide the labour that might be required by performing different activities in cashew nuts value chain. Contrary to other nodes, it was found that there is 70.0% and 80.0% of the processors and traders respectively with 4 to 5 household members.

The household size in cashew nut producers' coincides with URT (2009a) that the households consist on average of 5 to 4 members, 2.5 of which are of working age, defined as being from 15 to 60 years old especially in rural areas. The processors and local traders node family size coincides with the average family size in Coast Region which ranges from 4 to5 (URT, 2012). Moreover, Okurut *et al.* (2002) in their study in Uganda found that the higher the educational attainment of the household head the wealthier the household, while the larger the household size the poorer the household.

4.1.6 Area under cashew nut production

It was assumed that the area under cashew nut production has an effect on cashew nut value chain development thus the respondents were asked about the area they own which is under cashew nut production. As results in Table 1 indicate that about two third (62.5%) of the respondents have the average of 3-4 acres of cashew nut. About a third (35%) of the respondents had the 5-7 acres under cashew nut production. Smallholder farmers characterize the Tanzanian agriculture. The average size of land cultivated varies from less than 2.5 acres to 7.5 acres of land. Average land ownership and operations are both at about 4 acres and less than five percent of rural households own or operate more than five hectares of land. Even in the top land quintile, average land operations are smaller than 12.5 acres. Limited access to land by the rural poor can contribute to inadequate choices of alternative livelihood strategies among the rural poor (URT, 2009a).

Normally, access to land, workspace and productive resources is critical to unlocking the economic potential of Tanzanian women (URT, 2007). Study, results show that the majority (70%) of respondents pointed out that women do not own land, while only 30% reported that women own land. This implies that in the study area people still has the culture which hinders women to own land. Under the law, women in Tanzania have

equitable access to land, livestock and productive assets but in practice such access, is more often through males. This is in line with Muro (1988) and Ministry of Agriculture (1996), who found that even when married women have access to land through husbands; this is an interest of relatively limited scope for they (women) have no power to sell the land.

A Similar trend regarding land ownership is reported in the literature by Ellis *et al.* (2007). Moreover, Blackden and Rwebangira (2004) reported that in practice, land rights are not always enforced because at the local level, principles of customary law are often applied inequitably and women are neither adequately aware of their rights nor have the financial means to confront local officials. A study by SIDA (2010) also found that women are estimated to own about 19 percent of registered land, and their plots are less than half the size of those of their male counterpart (0.52 -7.5 acres compared to 1.52 -17.5 acres).

According to a 2009 report from the International Fund for Agricultural Development (IFAD) and the World Bank three quarters of all farmers and producers in agriculture are women, hence, restricting their access to productive resources such as, land, input supply and capital leads to challenge in agricultural production especially cashew production and efficient value chain operation roles as traders. GTz (2010) also found that in Ghana, particularly in the northern region women generally have difficulties in accessing land except where it is owned by a group or where a male guarantor is present. According to Meena and Shariff (2008) the major factor that causes gender inequality between men and women is the ownership and access to land.

4.2 Activities Performed by Men and Women in Cashew Nut Value Chain

4.2.1 Activities performed by men and women at the cashew nut producer node

It was assumed that division of labour could affect the cashew nut value chain development in the study area. Hence, the respondents were asked which activities they are involved in as producers. Results in Table 2 show that there is gender division of labour in performing different farm operations. These include, weeding, harvesting and drying, transportation from field to home, transporting from field to shade and grading of cashew nuts which are performed by both men and women. On the other hand, pest and disease control and pruning, selling and handling of cash are performed by men.

When asked whether there are particular farm operations associated with either men or women only in their households, majority of the respondents indicated land clearing, field layout, ploughing, seed selection as the activities that are associated with gender in other field crops however these activities are not done to cashew nut production in the study area since the cashew fields are not newly planted, thus the activities are not applicable. The results also show that men are involved more in cash crops which coincide with FAO (2010a). Findings in Sub-Saharan Africa in the agricultural sectors, where there seems to be a common pattern across regions in that women tend to be the main producers of food crops while men appear to be managing most of the cash crops, although not without women's (often unpaid) contribution. A study done in Ivory Coast by Kone (2010), found out that women are usually in charge of harvesting, transporting, sorting and drying the cashew nut fruit.

4.2.2 Activities performed by men and women at the cashew nut processors node

Fontana and Natali (2008) found a marked gender bias in most unpaid work in Tanzania. Women are also more concentrated in certain phases or activities of the supply chain (e.g.

packaging, post-processing). Hence it was assumed that women will perform many activities in processing than men. The respondents were asked to mention the activities they perform along the cashew nut value chain. The results on Table 2 reveal that at the processor node the work was done by both men and women including removing of apples on seeds and in boiling the seed in water and sorting of kernels. The gender specific roles in this node is drying on shade which 100% is done by females and packing in bags, while drying, packaging for transportation, and selling of stock to the market these are 100% male activities. The results imply that males in this node are fully participating because processing for better market cashew nut (quality control) needs follow up/commitment of the actors (processors). This is in line with Whitehead (2013) who found that division of labour in production, reproductive and domestic work appears to be very strong in Sub-Saharan Africa. However, understanding and encouraging women as economic agents can have a substantial impact in their role as entrepreneurs.

4.2.3 Activities performed at the cashew nut local traders node

The respondents were asked to mention the activities they perform as cashew nut local traders' node. As the results in Table 2 reveals there is a clear demarcation of activities performed by men and women. The activities performed by women only include sorting of kernels (quality control) and cashew nut roasting. While the activities which are done exclusively by men include arranging cashew nut packed packets on table for selling and price labeling at the market. The results further reveal that the decision on buying and selling the stock is 100% done by men. This implies that women at this node work under men supervision. The study is in line with Kanji, *et al.* (2006) in Mozambique, found that men dominate in cashew trading, which requires greater initial capital and which brings greater profit. However the distribution of household bargaining power is influenced by women's age at marriage and age difference between a woman and her husband. When the

age gap between spouses is big, the burden of domestic work and child care severely constrains the life time choices available to married girls and child mothers. This, in turn, affects the power that women have over household decisions (UNICEF, 2011).

Table 2: Distribution of the respondents by activities performed by men and women in cashew nut value chain

Activities	People who perform		
	Women	Men	Both
	n (%)	n (%)	n (%)
Producers (n= 80)			
Land clearing	0 (0)	0 (0)	80 (100)
Pruning	0 (0)	80 (100)	0 (0)
Pest and disease control	0 (0)	80 (100)	0 (0)
Weeding	0 (0)	0 (0)	80 (100)
Harvesting and drying	16 (20.0)	0 (0)	64 (80.0)
Transporting from field to shade	0 (0)	0 (0)	80 (100)
Transportation from field to home	0 (0)	0 (0)	80 (100)
Selling and handling of cash	0 (0)	80 (100)	0 (0)
Grading of cashew nuts	0(0)	0 (0)	80 (100)
Processors (n =10)			
Removing the apples on seed	0 (0.0)	0 (0.0)	10 (100)
Fire wood collection	6 (60.0)	2 (20.0)	2 (20.0)
Water fetching	5 (50.0)	3 (30.0)	2 (20.0)
Boiling of the seed in water	0 (0.0)	0 (0.0)	10 (100)
Drying on shade	10 (100)	0 (0.0)	0 (0.0)
Selling of stock to market	0 (0.0)	10 (100)	0 (0.0)
Package for transportation	0 (0.0)	10 (100)	0 (0.0)
Sorting of the kernels(quality control)	2 (20.0)	5 (50.0)	3 (30)
Packing in sacks/gunny bags	0 (0.0)	10 (100)	0 (0.0)
Local traders(n = 10)			
Sorting of the kernels(quality control)	10 (100)	0 (0)	0 (0)
Roasting	10 (100)	0 (0)	0 (0)
Packing in polythene bags	5 (50.0)	5 (50.0)	0 (0)
Arranging on table for selling	0 (0)	10 (100)	0 (0)
Price labeling at the market	0 (0)	10 (100)	0 (0)
Decision of selling price	0 (0)	10 (100)	0 (0)

NB: Number in brackets indicate percent; n - Frequency

4.3 Access to Extension and Credit Services among Men and Women at Each Node of the Cashew Nut Value Chain

There is a growing recognition that farmers obtain technical information from a wide range of sources, that farmers' own understanding is important in choice and change process (Azage *et al.*, 2006). Due to that the respondents were asked whether they access the agricultural extension service and the source of agricultural extension services. The respondents reported to receive agricultural extension services from the government as there is no private extension service provider in the study area. According to Anderson and Feder (2003), the services provided by extension have significant public good attributes and are known to have a greater effect where farmers have more schooling. Hence, to make farmers competent, it is expected from the extension staff to work closely with farmers than any other times especially who has limited schooling. These results are supported by van den Ban and Hawkins (1996) who stated that, extension plays a great role in popularizing farm technologies. Besides that, numerous studies show access to extension services is lower for women as compared to men (Swanson *et al.*, 1990; World Bank and IFPRI 2010; Ragasa, 2012).

4.3.1 Impact of agricultural extension services on cashew production yield

Assisting farmers to become more productive has been common practice in cashew nut production; hence it was assumed that there is positive impacts of agricultural extension services have a positive impact on cashew nut production. The respondents confirmed that the extension services provided improved their cashew nut production at the producer node the yield trend in 2009/10 season 2.791tons/Ha and 2010/11 season 6 429tons/Ha (C BT, 2011 cited in Kilama, 2013).While an average yield per ha is 0.5tons/Ha the potential yield is 1.0tons/Ha (Kitigo-Crop Department MAF, personal communication). This implies that, they are producing through experiences few new technologies disseminated

in the study area. On the contrary (Dercon *et al.*, 2009 cited in Ragasa *et al.*, 2012) show that receiving at least one extension visit per year reduces the likelihood of being poor by 10 percent in Ethiopia, while in the study area most the people are still poor. Poverty is caused by unreliable market for instance, the high yield obtained last season is still in farmers stores (unsold). Moreover, Meinzen-Dick *et al.* (2010) found that extension provision in developing economies remains low for both women and men, and women tend to make less use of extension services than men. Therefore, provision of agricultural extension service can lead to significant yield increases in cashew nut production and efficient value chain operation.

4.3.2 Modalities of receiving extension services

It was assumed that there are different extension provision modalities. Therefore respondents were asked to mention which modalities they receives extension services. The respondents reported the modalities they receive extension services in the study area. As the results in Table 3 reveal, at the cashew nut producer node 60% of the women respondents receive agricultural extension services through home/farm visits and only 25% of men receive this service. The results also show that 17.5% of women attend farmer field schools while 22.5% men attend farmer field schools. Moreover, the results also reveal that 22.5% of women attend demonstrations while 52.2% men attend demonstrations. This implies that male farmers receive more agricultural extension services at the village level. The study is in line with Mogues *et al.* (2009), Peterman *et al.* (2010), Mapila *et al.* (2010) and FAO (2011) found that access to extension services by women is often limited, and services are not likely to be gender-sensitive or modified to women's specific needs. On the contrary, Rasouliazar *et al.* (2011) found that policy making, and socio–cultural factors influence effectiveness of agricultural extension services. While Ragasa *et al.* (2012) in Ethiopia found that female farmers are less likely

to get extension services through various channels and are less likely to access quality services than their male counterparts.

Table 3: Distribution of respondents by modalities of receiving extension service (n =80)

Modalities of receiving extensions	Female		Male
	n	n	n
Farm/home visited	24 (60.0)	10 (25.0)	34 (42.5)
Farmer field schools	7 (17.5)	9 (22.5)	16 (20.0)
Through demonstrations	9 (22.5)	21 (52.5)	30 (37.5)

NB: Number in brackets indicate percent; n - Frequency

4.3.3 Access to credit services among men and women in the cashew nut value chain cashew nut producers

Studies done by Maswaga (2001) and Sonoko (2001), on adoption and sustainability of agricultural innovations by smallholder farmers in Tanzania indicate that failure of farmers to use modern techniques is due to high cash requirements in terms of purchasing and operating costs. Due to an assumption that the credit services are important in cashew nut value chain development, the respondents were asked if they access it and from what source.

Majority of respondents reported that they had access to credit services. This implies that they process small stock in relation to the available capital. On the contrary, the study

done Wangwe, (2004) found that majority of the rural population which constitutes 70% - 80% of Tanzanians have not benefited from financial reforms.

4.3.4 Access to credit services among processors node

The study done by UNIDO (2011) in cashew nut growing areas found that processing of nuts also requires capital investment. The capital is bound for almost a year; otherwise there would be no continuous supply of raw materials for processing. Where such funds are available in form of credit, the interest rates are too high to make profit. Many processors are actually not able to cope with this challenge. Hence it was assumed that cashew nut processors would have no access to credit. The respondents reported unavailability of credit services. This imply that they face limited stock processing, under the current system it is very difficult for processors, both commercial and small-.scale, to get loans that would enable them to acquire raw cashew nuts at affordable prices and stock sufficient quantities to maintain continuous processing operations over the year.

A study done by Shariff (2010) in Malaysia also found that collateral is considered as an important part in the lending process. Many processors are actually not able to cope with this challenge. Under the current system it is very difficult for processors, both commercial and small-scale, to get loans that would enable them to acquire raw cashew nuts at affordable prices and stock sufficient quantities to maintain continuous processing operations over the year.

4.3.5 Access to credit services by cashew nut local traders

Levistisky's (1993) study done in developing countries found that banks view the small scale and micro entrepreneurs as risk borrowers and extending loans to them is to cut down their profitability in the transactions and to incur irrecoverable losses to the bank.

Due to an assumption that local traders are risk borrower the respondents were asked if they access it and from what source. Majority of respondents reported that they had no access to credit services. The results at this node show that the majority of the respondents (70%) obtain their credit from the bank and the remaining respondents (30%) obtain credit from SACCOS. This implies that in this node all respondents access credit services due to the access to agricultural extension services and being near their credit providers. All the trades reported that the payment terms were after the sales. This implies that they had no problem in credit repayment.

4.4 Gender Patterns in the Access to and Control over Resources in the Cashew nut Value Chain

Respondents were asked to express their views on the impact of different gender pattern in the access to and control over resources rising from gender roles and relations (impact interactions). These include participation in decision making at all levels (gender representation in village, ward and division governing bodies related to cashew nut production), access and control over resources in cashew nut value chain.

4.4.1 Impact of limited participation in decision making at all levels affects gender relations at the producer node

A study done by UNDP (2010b) in Asia found that gender inequality limits choices for women and men, and puts a brake on human development and equality in political participation is socially just and basic to the notion of democracy. The respondents were asked to give views on impact of limited participation in decision making at all levels. The results in Table 5 show that the limited participation in decision making at all levels affects the gender relations by low esteem (33.8%), unequal income distribution of resources and income 63.8% and minimum representation (2.5%), which implies that

limited participation in decision making had many negative impacts on gender equality. The results are in line with Aslam (2002) found that the under- representation of women at the political level is the outcome of masculine hold over the economic and other power resources. On the contrary (USAID, 2012) found that increasing capabilities of women and girls to realize their right, determine their life outcomes, and influence decision-making in households, communities and societies. Besides that, gender inequality in political views are characterized by the relative low women representation in governance and decision making bodies at the village level this obstruct the opportunity of independent power-sharing between women and men and the possibility of blind authority which encourages low self esteem to underrepresented groups. For instance, in Mkuranga District there are three women among ten men in each Ward Development committee. Moreover, Naz and Rehman (2011) study in Pakistan found that in traditional system of patriarchy most of the marriages are arranged and concerned female has to obey the orders of men members.

Table 4: Distribution of respondents by impact of limited participation in decision making at all levels affects gender relations at the producer node (n =80)

	Frequency	Percentage
Low self esteem for women	27	33.8
Minimum representation	2	2.5
Unequal distribution of resources and income	51	63.8

4.4.2 Decision making on Aspects of household life among cashew nut producers

Increased gender equality in households, markets, and society increases women's access to markets, education, and health and gives them greater control over decision making in the household (Griffith and Nallari, 2011). Hence there were assumptions that men and

women participate equally in decision making in aspects of household life in cashew nut value chain in the study area. The results on Table 5 shows that the majority of respondents in production node said the decision making in household expenditure is done by men (98.8%) on education and health (51.3%) male and female heads of house hold, decision on political related issues (88.8%) is done by male head of the household, decision regarding marriage of daughter is done by adult males of the household (47.5%), and the decision on religious matters is done by male head of the household (50%). This implies that most decision on aspects of household life is done by men except in few aspects.

The findings are in line with Cole *et al.* (2011) found that gender inequities arise from disparities in access to factors of production and education, from inequities in time budgets ('time poverty'), gendered labour markets, and power imbalances or cultural norms that affect participation of individuals in decision making. Naz, (2011) and Khan (2011) also found that the position of women is secondary thus they do not have their say in the economic and political affairs. Besides that, a study done by UNDP, (2010b) in Asia-Pacific found that women's chronic under-representation in economic, political and legal institutions across the region has produced deficits in power and voice, which in turn allow inequalities to go unchallenged.

However, some men are more suited to relationships based on cooperation, but live in societies where they are expected to be dominant over women. These confining patterns can place tremendous strains on men, leading many to make choices in conformity with social protocols, not based on what they may genuinely want and need. Generally, decision making for husband and wife at household level is clearly influenced by culture societies.

Table 5: The distribution of respondents by decision making on aspects of household life among cashew nut- producer node (n = 80)

Aspects	Male head of household	Male and female heads of households	Adult male of household	Adult female of household	All adult members of household
	%	%	%	%	%
Decision maker on household expenditure	98.8	1.3	0.0	0.0	0.0
Decision maker on education and health	47.5	51.3	0.0	1.3	0.0
Decision maker on political issues	88.8	2.5	1.3	0.0	7.5
Decision maker regarding marriage of daughter	3.8	15.0	47.5	0.0	33.8
Decision maker regarding religious matters	50.0	41.3	5.0	0.0	3.8

4.4.3 Decision making on aspects of household life among cashew nut processors

There are attitudes in societies which are rigidly based on patriarchal structures, which limit women voices from influencing allocation of domestic resources (Naz and Rehman, 2011). Hence, it was assumed that the decision making aspect of household life will have an effect on cashew nut value chain. When asked the effect of decision making on aspects of household life the respondents reported as shown on Table 6 that the majority of the household decisions are done by the male head of the household (66.7%) sometimes with female counter parts (16.7%). This implies that other family members are rarely involved in family decisions even on marriage issues the male head of the household was the one to make decision. The results are in line with the study in Ileje which revealed that decision-

making at household level continues to be male dominated in all economic activities, even in those activities which women contribute most of the labour (URT, 2008).

The study done by Khan *et al.* (2011) in Pakhtun society also found that women hold far fewer positions in politics (women in Pakhtun society are ignored in all spheres of life especially in politics) as there is no place in politics or decision making. Furthermore, the socialization process and the institutional organization also reinforce male dominancy and patriarchy. In the third world countries women participation in the political affairs is mostly linked with socio-cultural, economic and religious environment which is male oriented and that ultimately restrains women contribution.

Table 6: Distribution of respondents by decision making on aspects of household life processors (n =10)

Aspects	Male head of household %	Male and female heads of households %	Adult male of household %	Adult female of household %	All adult members of household %
Decision maker on household expenditure	66.7	16.7	0.0	0.0	16.7
Decision maker on education and health	83.3	0.0	0.0	16.7	0.0
Decision maker on political issues	25.0	0.0	41.7	0.0	33.3
Decision maker regarding marriage of daughter	66.7	0.0	0.0	0.0	33.3
Decision maker regarding religious matters	100	0.0	0.0	0.0	0.0

4.4.4 Decision making on aspects of household life among local traders

It was assumed that decision making on household aspects of life may be influenced by rigid attitudes which are based on patriachal structures in cashew nut value chain. When asked on their views on effect of decision making results in Table 7 shows that majority of the household decisions was made by men than other family members. Decisions include, household expenditure, education and health and religious matter, while decisions which other family members were involved include decisions regarding marriage of daughter(s) and decisions on political issues. This implies that in the family, there was an attitude which considers men as heads of household; this hinders other family members' voice to be held.

This was also repeated in Moshi Rural Kilimanjaro Region, where men are highly involved in control of income and leading in decision making (Makundi, 1996). At the same time, the a study done by Jeckoniah *et al.* (2012) in Northern Tanzania found that 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.

According to Naz and Rehman (2011), these attitudes are rigidly based on patriarchal structures, which limit women voices from influencing allocation of domestic resources. A cultural system also provides more general guidelines for action in form of beliefs, values and system of meaning. At national level, the existing attitudes influence the election and appointment of women to high profile positions and hence limit women's voices from impacting decision making and the planning process (URT, 2000b). Generally, this is normal in patrilineal societies where women are accustomed to subordination, they play little role in decision making.

Table 7: Distribution of respondents by decision making on aspects of household life- local traders (n =10)

Aspects	Male head of household	Male and female heads of households	Adult male of household	Adult female of household	All adult members of household
	%	%	%	%	%
Decision maker on household expenditure	100	0	0	0	0
Decision maker on education and health	100	0	0	0	0
Decision maker on political issues	30	40	0	0	30
Decision maker regarding marriage of daughter	60	10	0	0	30
Decision maker regarding religious matters	100	0	0	0	0

4.5 Access and Control over Resources in the Cashew nut Value Chain

4.5.1 Power and control over resources at the cashew nut producer node

Study sought to determine whether women have power to access and control productive cashew nut value chain. The results in Table 9 reveal that majority of respondents reported that choice of land access and control is done by men alone while power to access and control land if owned within the family is by both men and women, the resources which were reported to be control fully by men alone includes: land ownership, cash/income obtained from cashew nut sells, income distribution/allocation among family members, crop production, use of extension services and production/market information. The majority of respondents reported that women were involved in choices of land, type of crop to plant/season, asking for credit, plot to plant and production/market information. This implies that women has limited power and control over resources in the study area they have access to choices under the power of men.

Approximately, 98 percent of economically active rural women are engaged in agriculture, and despite their contribution, women are estimated to own only about 1/5 or 19% of titled land in Tanzania, and their plots are less than half the size of their male counterparts (Ellis *et al.*, 2007). Due to insecure land rights women are discouraged from making the necessary investments in their land that would increase its productivity and economic value Ellis *et al.* (2007). Moreover, the study by Unry (1996), Undry *et al.* (1995) and Haddad *et al.* (1997) found out that power relations within the household and the community also affect household allocation and choices.

Table 8: Distribution of Respondents by Power and control over resources at the cashew nut producer node (n=80)

Resources	Access			Power		
	Men	Female	Both	Men	Female	Both
	%	%	%	%	%	%
Land access and control	0.0	100.0	0.0	0.0	0.0	100.0
Land ownership	0.0	0.0	0.0	100.0	0.0	0.0
Control cash	0.0	0.0	0.0	100.0	0.0	0.0
Income distribution	0.0	0.0	0.0	100.0	0.0	0.0
Labour use and type	0.0	0.0	0.0	35.0	0.0	65.0
Type of production	0.0	0.0	0.0	0.0	0.0	100.0
Type of plant to grow /season	0.0	0.0	100.0	0.0	0.0	0.0
Ask for credits	0.0	0.0	100.0	0.0	0.0	0.0
Plot to plant /sow	5.0	66.3	28.8	68.8	0.0	31.2
Control over extension services	0.0	100.0	0.0	100.0	0.0	0.0
Production information/market	0.0	0.0	100.0	0.0	0.0	0.0

4.5.2 Power and control over resources at the cashew nut processing node

Gender inequalities affect where power is located and where and how change can occur in order to translate chain upgrading into poverty reduction (Mayoux and Mackie, 2007). Hence it was assumed that power and control over resources have an effect on value chain

development in the study area, when asked the respondents reported their views as shown in Table 9. Men alone had power in the following aspects in this node (cashew nut processor node) power on control over processing schedules (100%), decision on cashew nut stock to purchase and process (100%), the power to decide which shade to use on drying and process cashew nut (100%), power to decide when, where, and which price to sell (100%) power and control over all agricultural extension services (100%) Power to allow the cashew nut processing information to be used in the family (100%) and lastly power to ask for credit services (100%).While women alone in this node has no power on any decision. Beside that, women are typically concentrated as producers at the bottom of the chain. They find it difficult to take on more profitable roles as buyers, sellers and processors for a number of reasons. Women's unpaid household maintenance roles consume considerable time, resulting in little time for processing and marketing their produce (Quisumbing, 2003).

However decisions, choice of whether to use or not the agricultural extension services female 30 %, men 70%. Choice of type of cashew nut information to access in the family women 33.3%, men 50% and 30% both women and men. This imply that a woman in this node of the cashew nut had no power on choice or decision making unless she is accompanied by a man. This lack of economic and social power and the perception of women as 'inferior' inhibits their ability to be the agents of their own efficiency. This further affects self-esteem of women and their ability to be confident and be leaders and represents a 'glass-ceiling' on women's dream to pursue decision-making or supervisory positions (Boodhna, 2011). The study done by UNDP (2010b) in Asia also found that gender inequality limits choices for women and men, and puts a brake on human development and equality in political participation as socially just and basic to the notion of democracy.

Table 9: Distribution of respondents by power and control over resources at the cashew nut processing node (n=10)

Resources	Women n (%)	Men n (%)	Both n (%)
Access and control of cash-the choice how to use in buying cashew nut stock	0 (0)	10 (100)	0 (0)
Power of income distribution	0 (0)	10 (100)	0 (0)
Power on choice of labour use and at what job and labour type	0 (0)	5 (50.0)	5 (50.0)
Control and bargaining power on labour hired	0 (0)	10 (100)	0 (0)
Power on choice of the type of inputs in cashew nut trading	0 (0)	10 (100)	0 (0)
Power and control over in put purchases and use in cashew nut	0 (0)	7 (70.0)	3 (30.0)
Choice of whether to use or not the agricultural extension services	0 (0)	3 (70.0)	7 (70.0)

NB: Number in brackets indicate percent; n - Frequency

4.5.3 Power and control over resources at the cashew nut local trade node

It is urged that the lack of female voice reinforces women's own sense of self and underpins the continuance of the economic and social realities which make women unable to compete equally in as cashew nut value chain actors (Hambly and Sarapura, 2009). Due to that it was assumed that power and control over resources have an effect in the study area. Hence the respondents were asked for their views. The results in Table10 indicate that women alone have no power to access and control resources at the local trade node. But with men (both) the results shows that (30%) choice of whether to use or not the agricultural extension services, (50%) they have the power on choice of labour use and (30%) power on control over input purchases and uses. While men alone have (100%) power on income distribution, control of bargaining power on labour hired and (100%) power on choice of type of inputs purchase and use in cashew nut trading. The results

imply that the men have all the power of choice, and control over resources in the household.

The findings are in line with IIDE and Boodhna (2011) that in many societies women are seen as weak, dependent, ineffective to make decisions about their own lives, thus are considered subordinate to men. Hence, men dominate in cashew trading, which requires greater initial capital and which brings greater profit (Quisumbing *et al.*, 2011).

Table 10: Distribution of respondents by power of choice and control over resources cashew nut local trade node (n =10)

Resources	Women n %	Men n %	Both n %
Access and control of cash-the choice how to use in buying cashew nut stock	0(0)	10(100)	0(0.0)
Power of income distribution	0(0)	10(100)	0(0.0)
Power on choice of labour use and at what job and labour type	0(0)	5(50.0)	5(50.0)
Control and bargaining power on labour hired	0(0)	10(100)	0(0.0)
Power on choice of the type of inputs in cashew nut trading	0(0)	10(100)	0(0.0)
Power and control over in put purchases and use in cashew nut trade node	0(0)	7(70.0)	3(30.0)
Choice of whether to use or not the agricultural extension services	0(0)	7(70.0)	3(30.0)

NB: Number in brackets indicate percent; n-Frequency

4.6 Factors Affecting Gender Relations in Cashew nut Producer Node

Understanding women position in a value chain, how changes in a value chain might affect gender inequality, and the main constraints for women in terms of gaining from value chain participation, requires one to place gender in the context of intra-household

bargaining and of broader social process dimensions (Wyrod, 2008; Parpart *et al.*, 2002; Laven *et al.*, 2009). The study sought to determine whether there were factors which affect the respondent's gender relations in cashew nut value chain. The results in Table 11 indicate that majority (97.5%), of the respondents concluded that factors affecting their gender relations are religious beliefs, whereas (87.5%) customary laws, and 23.8% control over productive resources, 30% low level of education and the remaining 5% poor information dissemination system. This implies that there are many factors which interfere with positive gender relations in cashew nut value chain. The results are in line with Waithera *et al.* (2011) that the cultural gender norms affect resource distribution and power relations in the family, thereby creating gender inequalities, the family members with more access to resources have greater power; hence more influence. KIT *et al.* (2012) also found that traditions affect the marketing roles that men and women play in value chains as in many other production activities. Male-dominated cultures (patriarchal system) are often determined and are used to justify and even legitimise gender inequality. This is normally true in rural areas, where such cultures are more deep-rooted and customary laws and traditions exist. Beside that 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).

Culture is created and re-created by individuals and formal or informal social institutions (e.g. village councils) to maintain the status quo (Maseno and Kilonzo 2011). According to FAO (1997) and MOA (2001) women are usually constrained by socio – cultural factors in development process such as Patriarchy system. Moreover, Serra (2009) found out that culture, religious beliefs and social norms are all factors which state that unpaid domestic and reproductive activities (such as water collection, child care, cooking and

washing clothes) are the sphere of female members of the household. Inequality is not easy to recognize and to confront in isolation from other cultural, political, economic and emotional injustices. On the contrary FAO (2011a) and Tembon and Fort (2008) found that illiterate women may have lower levels of self-esteem and confidence, and exclude themselves from technical processes. They may also be less able to engage in economic transactions or participate actively in community organization. According to Campese (2011) changing gender relations means changing attitudes and beliefs (over time).

Generally, culture and gender is regularly together, and social change is a process thus, it needs social sensitization and capacity building through education (social instution change). However, rising capability of women and girls to realize their rights, verify their life outcomes is imperative. In addition, Lynch and Feeley (2009) found that gender inequality is difficult to understand and to confront in isolation from other cultural, political, economic and affective injustices. Hence gender influence decision-making in households, communities, and societies (USAID, 2012).

Table 11: Distribution of respondents by factors affecting gender relations in cashew production (n =80)

Factors	Frequency	Percentage
Customary laws	70	87.5
Religious beliefs	78	97.5
Information dissemination system	4	5.0
Low level of education	24	30.0
Power and control over productive assets and benefits	19	23.8

4.7 Distribution of Income Obtained Among Women and Men in the Household from Cashewnut Value Chain Activities

There are attitudes in societies which are rigidly based on patriarchal structures, which limit women voices from influencing allocation of domestic resources. This cultural system also provides more general guidelines for action in form of beliefs, values and system of meaning (Naz and Rehman, 2011).

Hence, it was assumed that there are great disparities in the proportions of income distribution between men, women and children within household. The respondents were therefore asked how the income obtain from cashew nut value chain is distributed among men and women. The results in Table 12 for distribution of income among men and women along the cashew nut value chain activities indicates that men obtain higher income than women in the household (family earning distribution). This implies that despite the women contribution in the cashew nut value chain they do get less from the family income. Besides that, income distributed to women was used for family purchases including school fees.

Dolan (2001) asserts that the traditional household income distribution arrangements in Meru District, Kenya permitted women to retain money from the sale of local food crops to spend on household subsistence needs. According to Mikalista (2010), access to productive resources like income is important for achieving not only household food security but also for purchasing farm inputs such as improved seedling/seeds, fertilizer and pesticides as are sources for next growing season. Access to income also determines a person's production levels and the level of vulnerability to food insecurity. Generally, reforming the law and working to strengthen the institutional gears for implementing gender goals are important, but cultural factors still powerfully influence the ability of

Tanzanian women to realise their potential in production. Besides that, cultural norms govern current attitudes and beliefs, they also incorporate the subordination of women to men, and have a forceful impact on social and economic life, and on how laws and regulations operate in practice. However, this study has shown that putting income in the hands of women normally leads to better dietary and educational outcomes for their children. Assets that help women to earn income as a result have benefits not only to them but to future generations (Quisumbing, 2003). The results of the mean comparison indicate that there is significant difference in income distribution obtained by men and women along the cashew nut value chain.

Table 12: Distribution of respondents by income obtained among males and females in the cashew nut value chain activities

Cashew nut value chain actor	Categories	Mean (Tsh)	t	df	P value
Producer	Female	1 893 800	17.017	79	< 0.0001
	Male	4 406 200			
Processor	Female	450 000	7.782	9	< 0.0001
	Male	2 050 000			
Local traders	Female	840 000	10.625	9	< 0.0001
	Male	3 220 000			

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The study findings show that there is clear demarcation of activities between men and women in cashew nut production that extends to other cashew nut value chain nodes. Many activities in cashew nut value chain are performed by both male and female, despite women having other household chores. The activities in cashew nut producer node which are done by men and women and other household member where applicable include land clearing, sowing/planting, weeding, harvesting, and transporting from field to shade, drying and packing and grading of cashew nuts. Activities such as pruning, pest and disease control, selling, and handling of cash are dominated by men. The activities performed by both men and women include extracting the apples from seeds, fetching water, boiling of seeds and sorting of the kernels (quality control). Since women were over- burdened with other family chores despite their contribution on cashew nut value chain activities, this has a serious implication as far as the cashew nut industry development is concerned. Unless labour saving technologies are developed it might continue affecting the full or active participation of women in the industry.

The study also revealed the factors affecting gender relations among men and women in the cashew nut value chain producer node as religious beliefs, customary laws, and low level of education, power and control over productive assets and benefits, and information dissemination system. This implies that women have less influence in household decisions, especially in making independent decisions. Such barriers and restrictions greatly constrain women opportunities to generate new skills and thus hindering their involvement in cashew nut value chain/programmes. Generally, this affect's the sector

development and economic upgrading potential of the cashew nut value chain/programmes.

The activities dominated by women in cashew nut processor node includes fire wood collection and drying of cashew nut on shade, while the following activities are dominated by men: packing in sacks/gunny bags, package for transportation and selling of stock to market. Along the cashew nut value chain the local traders node, men and women are involved in packing in polythene bags, while women dominated the following activities: roasting of cashew kernels and sorting of the kernels (quality control). On the other hand men dominated the following activities, arranging on tables the selling stock at the market, price labeling at the market, buying and selling the stock and bargaining without involving household members. It is clear that there were gender role biases which affects power relations in cashew nut value chain and lowers the women motivation and influence. For example, men dominated the marketing aspects which finally determine the control and use of the proceedings from sale. With that kind of orientation it could have a negative impact on cashew nut industry development programmes.

Government provides extension services and credit services only to cashew nut producers' node along the cashew value chain. The processors access extension services but do not access credit from the government or from any other channel. On the other hand local traders obtain extension services from the government and credit services from the banks and SACCOS. The government provision of extension services to cashew nut producers was however considered as not being enough since the service was provided just once per month. If we are to improve the cashew nut industry those efforts must be extended throughout the entire chain. The fact that extension services were considered inadequate and processors could not access credit it might affect their roles in the value chain and its

effects can impact negatively in other nodes of the cashew nut value chain. There was a great need for credit in cashew nut processor node and as a result very little of the stock was ultimately processed locally. Generally, the cashew nut value chain actors were not sufficiently assisted by knowledge and financially to become more productive.

Different gender patterns that exist for access and control over resources along the cashew nut value chain influence the decision making aspects of the men and women in household among household members. Men (husbands) dominated decisions in the producer node on household expenditure, political issues and religious matters. Husbands and wives jointly made decisions on education and health, while other household members were involved in decisions regarding the marriage of daughters. It was apparent clear that men dominated decision making and especially on crucial aspects like expenditure.

Similarly, the gender patterns for access and control over resources also influence the decisions of processors. Male heads of the household (husbands) dominated the decisions on household expenditure, education and health, marriage of daughter and religious matters. Husbands and wives jointly were involved in decisions on household expenditure, while adult males in the family were involved in decisions on political issues. It was similarly clear that men dominated decision making even at the processor node and especially on control aspects.

The local traders on the other hand are influenced by gender pattern on access and control over resources as follows; the head of household (husband) dominates the decisions on household expenditure, political issues and religious matters. Husbands and wives jointly made decisions on political issues. An adult member (elder) of the household also is involved in decisions on political issues.

On intra-household income distribution among men and women along cashew nut value chain nodes the study findings show that men obtain significantly higher incomes than women. Gender inequality in income distribution lowers the individual's production performance. Unless women are assisted to improve their incomes and have access to credit facilities on their own right, the development of the cashew nut industry/ programmes will be negatively affected. In addition there was a patriarchal system in the study area which normally manifests itself in socio - economic and cultural structures. The cultural gender norms affect resource distribution and power relations in the family, thereby creating gender inequalities, the family members with more access to resources have greater power; hence more influence. Hence men are more powerful due to ownership of the productive resources in the study area.

5.2 Recommendations

i. DALDO's office should organize regular gender and entrepreneurship skill training. This will help to solve cultural and traditional norms that impede cashew nut production and improve the value chain actor's skills in business/entrepreneurship.

ii. The government should provide gender awareness interventions that can help women to learn and thus reduce workload for them who are mostly performing both productive and reproductive roles in the study area. It will also help women to access and control productive resources like land, production technology, and market information,

iii. DALDO's office should increase educational contacts with farmers, especially in relation to cashew nut value chain improvement.

iv. The government should create conducive environment especially by offering incentives to attract private investment in agro-processing industries. There is also

an urgent need to encourage the development of integrated producer associations to increase the productive and market power of smallholders in particular. Furthermore, efforts should focus on improving extension services in terms of number of extension agents, tools, and transport and market information.

v. The study suggests further that these women and men should organize themselves to form groups or SACCOS which will enable them to access credit from lending institutions especially the processors who do not obtain credit from government or any other financial institutions.

vi. The government should improve the gender mainstreaming capacity of the key ministries, Ministry of Agriculture, Food Security and Cooperatives (MAFC) and Ministry of Industry, Trade and Marketing (MITM), so as to achieve gender equality.

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APPENDICES

Appendix 1: Variable, operational definitions, units of the variables and measurement levels

Variable	Operational Definitions	Units	Level of measurement
Age	Number of years one was born	Years	Ratio
Sex	Being female or male biologically	1. Male 2. Female	Nominal
Education level	Number of years one spent at school	Years	Ratio
Family size	Number of members in a Houschold	Number of members	Ratio
Marital status	Having a spouse around or away	1.Married 2.Unmarried	Nominal
Number of adults	Labour force in the household	Number of members who are able to work	Ratio
Labour	Hired/family	Man day	Ratio
Access to farm inputs (fertilizer ,pesticides and herbicides)	Type of input (fertizer /pesticides/ herbicides)	1.Yes 2. No	Nominal
Meals	Number of meals consumed	Number of meals	Ratio
Asset own from cashew nut sales	Type of asset	Price/Asset/TSH	Ratio
Land owned	Area of land cultivated	Acre/Season	Ratio
Yield earned/house/Prices	Monetary value of cashew nut yield/household	Shillings/kg	Ratio
Access extension	Getting contact with agric. Officers	Number of contacts	Ratio
Technology	Agricultural technology used	Types of technology	Nominal
Access to credit	Amount and purpose in cashew nut value chain	Shillings/cashew nut Production/ processing tool /price/TSH	Ratio

Appendix 2: Questionnaire for Respondents at the Cashew nut producer node

Section A: Background Information

Date of interview..... Questionnaire number.....

Region.....District.....Division.....Ward.....Village.....Name of respondent ..... Sex (male=1, female=2) Age.....

1. Education level .....(Informal education=0, Primary education=1, Secondary education=2 Higher education=3)

Section B: Economic Activities

1. What is your main source of income (Tick where applicable)

   i) Employee

   ii) Farmer

   iii) Trader /Business/Retailer

   iv) Whole saler

   v) Input supplier

   vi) Exporter

   vii) Processor

2(a) How much land do you own? (Ha).....

2. (b) How much of it is under cashew?
3. (c) Kindly estimate the Cashew nut production cost per one Acre and state the person involved in the work use the table below.

SECTION C: Gender roles and relations in cashew nut value chain.

SN	Activity per one acres (70yrd x70yrd)	Average cost	Person mostly involved use codc(1,2,3,4)
1	Land clearing		
2	Field layout		
3	Transplanting		
4	Irrigation		
5	Pruning		
6	Pest and disease control		
7	Weeding		
8	Harvesting and drying		
9	Transportation from field to home		
	Material Costs		
10	Seed/seedlings Purchases		
11	Watering cans		
13	Gumboots		
14	Pruning Saws		
15	Trowel		
16	Input transport		
17	Boom sprayer		
18	Herbicides/Pesticides		
19	Grading		
20	Gunny bags		
21			
22			
23			

1. Key: 1= Men 2=Women 3=Both 4=Laborers

Objective 2: To assess the accessibility of extension and credit services among women and men in each node in the cashew value nut chain

1. Where do you get extension services so as to technically manage your activities? (Enter the corresponding number).....

i) Private=1

ii) Government=2

iii) Not available/none=3

2. Do you manage to perform your activities with the capital you have? .....Yes=1, No=2

3. If no to number two above, where do you get such a capital?.....

Objective 3

1. Household members have power on the access and control over different resources. In the following table would you please mention who has access to and control over the following resources? (Tick to the respective decision maker i.e. Man=1, Woman= 2, Both =3,)

Resources	Decision making			Control		
	Woman	Man	Both	Woman	Man	Both
1.Land						
2.Cash /income						
3.Labour(hired)						
4.Production inputs						
i)seeds/seedlings						
ii)Agrochemicals						
iii)Equipments and package materials						
5.Extension services, information ,credit						

3. What factors affect your active participation in cashew nut Value Chains?

(i)……..

(ii)……

(iii)……..

Objective 4

1. How much cash did you earn from the cashew nut sells this season?
2. How did you distribute the income among your family?
3. Did you always involve them in the income distribution?
4. If no in question three above why do you think it is not important to involve them in income distribution and other decision making in the family matters?
5. From the income obtained from sells of cashew nut would you list down assets bought by husband?

Type of Asset	Bought by husband	Price (Tsh)
i)		
ii)		
iii)		
iv)		
v)		
vi)		
vii)		
viii)		
ix)		

1(b). From the income obtained from sell of cashew nut would you list down assets bought by wife in the household?

Type of Asset	Bought by wife	Price (Tsh)
i)		
ii)		
iii)		
iv)		
v)		
vi)		
vii)		
viii)		
ix)		
x)		

What factors affect your active participation in cashew nut Value Chains?

(i)……

(ii)……

(iii)……

Appendix 3: Questionnaire for Respondents at Cashew nut processor node

Section E :(a) Background information

Date of interview.....Questionnaire number.....

Region.....District.....Division.....Ward.....Village.....

1. Name of respondent.....Sex (male=1, female=2) Age.....
2. Education level..... (Informal education=0, Primary education=1, Secondary education=2 Higher education=3)

Section E: (b) Economic Activities

1. Where do you buy your cashew nut for processing? Farmer =1, middle men =2.....
2. Do you pay cash or installment?.....
3. In which village do you buy your stock?.....
4. How many kilograms' did you purchase the last three seasons?.....
5. Do you manage to purchase your processing stock with the capital you have? Yes=2, No=1
6. If no to number five above, where do you get such a capital?
7. Which tool/equipment/ machine do you use in processing?.....
8. Are you the owner of tool/equipment/machine mentioned above or hiring? Yes=2, No=1
9. If no from whom are you hiring and how much does it cost?, paying in cash or kind?.....
10. How far the processing unit is from the village in km(s)?.....
11. Which transport do you use in transporting your processing stock from the village?
12. How many trips do you take and how much cost per trip?.....

Appendix 4: Questionnaire for Input Suppliers

Section D: **Input Supplier Node**

Date of interview ..... Questionnaire number.....

Region.....District.....Division.....Ward.....Village.....

Name of respondent.....Sex (male=1 ,female=2) Age.....

Education level..... (Informal education=0, Secondary education=2, Higher education=3)

Section b: Economic: Input supplier Node/joint

1. What type of inputs do you sell to cashew producers?...
2. Where do you buy your selling stock?
3. Do you manage to purchase your sell stock with the capital you have?
4. If no to number three above, where do you get such a capital?
5. Do you receive agricultural extension advice by source of services and sex of holders at national and sub national level?
6. If no in question five how do you know the change of technology demand of cashew nut producers?
7. If yes to question how many visit per month? Once =1 Twice =2 Thrice =3
8. What type of gender training, have you attended?
9. Are there any socio-economic factors that hinder female or male to participate in the input supply node?
10. What cultural factors restrict females or males to participate in sales of any kind /type of cashew nut production input?
11. Who has access to and control over resources in this joint? female =1 male=2 girl=3 boy=4, elderly=5 youth=6

12. What roles and responsibilities do female, male, boy or girl perform in this joint?
13. Do female have time to participate in this joint despite of their multiple social roles.

Appendix 5: Questionnaire for Respondents at the cashew nut Consumer node

Section E: Background Information

Date of interview..... Questionnaire number.....

Region.....District.....Division.....Ward.....Village.....

4. Name of respondent ..... Sex (male=1, female=2) Age.....
5. Education level .....(Informal education=0, Primary education=1, Secondary education=2

   Higher education=3)

Section E: Economic Consumer node/joint

1. What is your main source of income (Tick where applicable)

   i) Employee

   ii) Farmer

   iii) Trader /Business/Retailer

   iv) Wholesaler

   v) Input supplier

   vi) Exporter

   vii) Processor

1. Where are you living?
2. Where do you purchase your cashew nutstock?
3. Do you know your gender roles?
4. Mention them?
5. How many kilograms of kernels do you purchase per week?
6. At what price do you purchase your stock?
7. How do you consume/use your stock you purchase ?
8. What challenges do you encounter at the market as a cashew nut consumer?

9. Have you ever attended gender training?
10. If yes where and when? (place and date)
11. Are there any cultural factors which affect a man or woman in opportunities as a consumer?
12. Do you think people prefer to use cashew nut at their home?
13. If no what do you think should done to increase their demand for cashew nut kernels?
14. What are gender roles in cashew nut consumer node?

Thank you very Much for your cooperation