

**THE EFFECT OF SAVINGS AND CREDIT FACILITIES ON MIGRANTS' AND
NON-MIGRANTS' GENDERED LIVELIHOOD OPTIONS IN ILULA
EMERGING URBAN CENTRE**

BY

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**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY OF SOKOINE UNIVERSITY OF
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ABSTRACT

The study presents the analysis of the effect of savings and credit facilities to migrants' and non-migrants' gendered livelihood options and development of Ilula Emerging Urban Centre (EUC). Specifically, the study aimed at establishing rural-urban migration determinants, identifying and analysing migrants' and non-migrants livelihood options across different gender groups, and assessing factors influencing household access to savings and credit services and investment decisions. A cross-sectional research design was employed, whereby both qualitative and quantitative research methodologies were used to obtain the data. Data was processed using SPSS for descriptive statistics and regression analysis. The findings indicated that rural-urban migration was mainly influenced by family issues (26.3%), existing opportunities in EUC for business undertakings (18.5%) and employment (13.8%). Agriculture was an important livelihood option in EUC, whereas 50.3% of interviewed households were engaged in tomato production. Migrants especially male headed households engaged in tomato production. Only 27.6% of interviewed heads of households in Ilula EUC accessed credit from financial institutions including MBF, FINCA, SACCOS, SIDO, PRIDE, VICOBA and Commercial Banks. Based on the results from binary logistic model, age, education, value of livestock owned and migration duration had significant influence on household heads' access to savings and credit services. Credit was mainly used for financing livelihood activities, largely business enterprises (47.9%). However, with regards to investment decisions, male household heads were more likely to invest in assets/ businesses than female household heads. This thesis concludes that social capital related decisions (marriages and family re-union) for migration exceeded economic values. Nonetheless, the young men were less risk-averse than old aged people in pursuing migration decisions. The study concludes further that variables like age, education level, livestock ownership

and migration duration of respective individuals, best explained their accessibility to savings and credit services, whereas the migrants were the dominants. Likewise, the education level and sex identity of household head had positive influence on investment decisions. Yet this study calls for special financial support to the agricultural sector and promotion of gender specific interventions to reduce practical and strategic gender gaps in accessing and control of credits, including other productive resources.

DECLARATION

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

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DEDICATION

To God be the Glory

This work is dedicated to my lovely parents RTD Judge Fredrick S. Mshote and Mrs.

Benedicta F. Mshote. I Love You All.

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LIST OF ABBREVIATIONS

ADB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
BAKWATA	<i>Baraza Kuu la Waislamu Tanzania</i>
DANIDA	Danish International Development Agency
DFID	Department for International Development
DRC	Development Research Centre
EUC	Emerging Urban Centre
FGD	Focus Group Discussion
Fig	Figure
FINCA	Foundation for International Community Assistance
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
MBF	Mama Bahati Foundation
MLHSD	Ministry of Lands and Human Settlements Development
NBS	National Bureau of Statistics
NELM	New Economics of Labour Migration
NGOs	Non Governmental Organizations
NMB	National Microfinance Bank
OECD	Organization for Economic Co-operation and Development
PRIDE	Promotion of Rural Initiative and Development Enterprises
PWP	Public Water Point
PMO-RALG	Prime Minister's Office Regional Administration and Local Government
RCC	Roman Catholic Church

ROSCA	Rotating, Saving and Credit Association
RTD	Retired
RUCROP	Rural Urban Complementarities for the Reduction of Poverty
SACCOS	Savings and Credit Cooperative Organizations
SIDO	Small Industries Development Organization
SPSS	Statistical Package for Social Sciences
TASAF	Tanzania Social Action Fund
TShs	Tanzanian shillings
UN	United Nations
UNDP	United Nation Development Program
URT	United Republic of Tanzania
VICOBA	Village Community Bank

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

The agricultural sector in Tanzania like many other Sub-Sahara African countries is one of the main pillars of the economy. The sector employs over 80% of the population especially smallholder farmers living in rural areas where poverty is at the highest level (UNDP, 2015). Recently, however, the share of agricultural sector to the National Domestic Product (GDP) has declined from around 30% (1998) to 27.6% (2013) surpassed by the services sector which has shown a steady increase of its GDP share to about 47.4% (World Bank, 2015).

Poor performance of agriculture sector in Tanzania and existing rural-urban inequalities particularly in terms of access to savings and credit services, health, education, markets for agricultural produce, employment and investment opportunities are among the causes of rural-urban migration (Morris *et al.*, 2003). Migration is the central feature of livelihood diversification since it plays multiple roles of reducing vulnerabilities of households, and potentially enabling asset accumulation that can allow families to alleviate poverty (Ellis and Freeman 2004). According to the Sustainable Livelihoods Approach employed by Department for International Development (DFID), the concept of livelihood is defined as ‘the capabilities, assets which include both material and social resources and activities required for a means of living’ (Carney, 1998). This Sustainable Livelihood Framework outlines various capital assets (human, financial, natural, physical and social capital) that shape livelihood options, including migration decisions (Hunter *et al.*, 2014). Migration is one of the strategies adopted by individuals, households or communities to enhance their livelihoods (De Haan, 2000). However, the way that a

household organizes the migration of its members depends on its resources endowment (Waddington, 2003). Drawing on the findings by other scholars, however, migrants have attained more economic returns by accumulating more capital and investments than non-migrants (Adams and Page, 2005; Garikipati, 2008). Since the access to migration opportunities are not randomly distributed, likewise the migration effects are also expected to be uneven due to social differences that influences migration (Kothari, 2002; De Haan, 2000). All of these have amplified the existing gender inequality patterns in the rural communities. However, migration decisions are in turn affected by evolving political, social and economic structures at the national and international levels, and these interrelationships are connected to one another over time and can affect migration decisions, as well (NBS, 2011). The economic reforms and market liberalization that was undertaken by Tanzania in the 1980s and 1990s increased the need for higher income earnings to meet the growing households' living costs following government subsidies removal of subsidies by the government. This accelerated out-migration of rural people to urban centres seeking for either paid labour or pursuing non-farm activities (Lerise *et al.*, 2001). Therefore, it has remained as a challenge to many of development practitioners to come up with solid and well-informed solutions towards inclusive growth and development among the rural and urban populations. Most of workers have approached the two as separate components.

1.2 Problem Statement and Study Justification

1.2.1 Problem Statement

The migrating people have mostly maintained linkages with native places or families through remittances, home visits, undertaking investments and related practices (Tacoli, 2004). However, remitted funds are claimed to have little significance in bringing rural economic development as most of the funds are used to finance consumption and less is

invested in production activities (Rempel *et al.*, 1978). De Brauw and Rozzel (2008) hypothesized that financing of rural investments could reduce out-migration particularly among the credit constrained households. However, formal financial services have been unavailable to meet increasing demands for credit in rural areas as most of formal service providers have concentrated in urban areas and less interested with rural economy. Several initiatives by the government have been in place to resolve problems related to rural-urban migration among which include implementation of rural financial program (2002) focused on enhancing income and livelihoods of rural based population. However, despite all initiatives to improve accessibility of rural communities to microfinance services, yet intended outcomes have not been realised (Rweyemamu, 2003; Ellis *et al.*, 2007).

Despite all scholarly attention on migration processes (Rempel *et al.*, 1978; Watkins, 2003; Tacoli, 2004), yet there is no enough empirical evidence pinpointing how the migrants' livelihood activities undertaken in their respective destinations are being financed, and what are their associated effects on investment and rural and urban poverty reduction. The proposed study was therefore meant to bridge this knowledge gap by bringing an understanding on how savings and credit facilities could have effects on migrants' livelihood activities and their accompanying investments. Moreover, the information on gender dimensions under the urbanization pressure is still not exhaustive, which called for a contribution to the available empirical base.

1.2.2 Justification of the study

The study was designed for contributing knowledge to one of the key development problems of rural-urban migration. Some of policy makers perceive migration phenomenon largely as a problem posing a threat to social and economic stability rather than being an important livelihood option for the poor (Start, 2001). There are also claims

that migration has widened the gender gap between men and women in terms of wealth accruing from migration opportunities. Some evidences show that men have dominated migration spheres albeit there are indications that women also do participate in migration (De Haan, 1999; Barrientos, 2001; Start, 2001).

This study is in line with the Tanzania Development Vision 2025 (attaining high quality livelihood through devising strategies that will realize food self sufficiency and food security), as well as the goal number four and five on growth and reduction of income poverty respectively (URT, 2006). The findings of the study also contribute to our understanding on the role of savings and credit in supporting the rural -urban linkages and poverty reducing effects. The study also shades some light to other development stakeholders and decision/policy makers, including Ministry of Agriculture, Food Security and Cooperatives and local communities in designing/making informed decisions, policies and institutional arrangements that are conducive for agricultural growth and poverty reduction.

1.3 Objectives of the Study

1.3.1 General objective

To determine the effect of savings and credit facilities on migrants' gendered livelihood options and development of Ilula emerging urban centre.

1.3.2 Specific objectives

- i. To identify rural-urban migration determinants in the study area;
- ii. To identify and analyze migrants' and non migrants livelihood options across different gender groups in the study area;

- iii. To assess socio-economic and demographic factors influencing migrants and non migrants access to savings and credit services and;
- iv. To assess multiplier effect of migrants income on household investment(s)

1.4 Research Questions

1.4.1 Central question

How are migrants and non-migrants' livelihood activities being financed in order to reduce poverty stress in their respective destinations and native places and bringing development to EUC?

1.4.2 Specific questions

- i. What are the factors influencing the migration into Ilula emerging urban centre?
- ii. What are the existing migrants' and non migrants' livelihood options according to different gender groups?
- iii. How are migrants' and non migrants' livelihood activities being financed in EUC?
- iv. Do socio-economic and demographic disparities between migrants and non- migrants, and how do they influence access to credit and saving services?
- v. What are the existing investment opportunities for migrants and non migrants in rural and urban areas and their implications on household welfare?

1.5 Research Hypotheses

- i. Socio - economic and demographic characteristics of rural inhabitants have no influence on their migration propensity.
- ii. There are no differences in livelihood options for migrants and non migrants across gender groups in study area.

- iii. Socio - economic and demographic characteristics of migrants and non migrants' have no influence on access to credit.
- iv. Socio - economic and demographic characteristics of migrants and non migrants' have no influence on investment decision.

1.6 Conceptual Framework

The proposed conceptual framework of this study is presented in Fig. 1. The conceptual framework provides a highlight that neither of the rural nor urban areas/communities exists in isolation rather they are linked through rural-urban-rural migration and migrants investments. Likewise, the EUC provides a range of diversified livelihood options to people living in both rural and EUC to engage in. It also offers migration opportunities for people living in rural areas as a coping strategy for earning livelihood, which among others include employment opportunities and access to social services (e.g. health, education and microfinance services). However, migration is based on selected characteristics in relation to gender and social economic aspects separating the migrants and non-migrants. The selectivity nature of migration has been empirically shown in various studies (Sebopetji and Belete, 2009; Lindstrom and Ramirez, 2010; Ghatak *et al.*, 1996). Similarly, the opportunities for access to livelihoods in relation to activities and resources are not equally distributed. Since the EUC has potential for income generating activities than rural areas, thus people migrating to the EUC will tend to have access to diversified livelihood activities and resources, including micro-credits for their well-being improvement. Yet, migrants' access to credit is determined by a combination of factors like gender, demographic and social economic characteristics. Based on the Lee's (1966) selective migration theory, the proposed framework similarly assumes that various independent variables (i.e. related to gender, institutional, demographic and socio-

economic aspects) have influence on migrants and non-migrants access to savings and credit services as well as migrants' investment options in rural and urban settings.

The framework centres on variables like gender related aspects i.e. division of labour, access to and control of resources, institutional factors (e.g. savings and credit facilities, infrastructure, extension services and information) and demographic (age, sex and household size) and socio-economic factors (education, occupation, wealth status and social networks). The mentioned variables are considered by this study being fundamental in understanding their influence towards investments decisions of the migrants and non-migrants, including the growth of urban centre and alleviation of poverty stress among the households. Furthermore, the proposed conceptual framework still suggests that these independent variables does not operate in isolation rather interacts with each other.

1.7 Limitations of the Study

Time was a constraint as most of the respondents identified were mobile seeking for livelihoods e.g. in crop fields outside EUC or undertaking business enterprises elsewhere. This follows the fact that the EUC has dynamic livelihood options which prompts people to be more mobile. Similarly, responses of most of respondents were based on their memories which called for triangulation and enough time for them to recall. Time constraint was over comed by hiring in two enumerators who were also trained on data collection which was compounded by pre-testing the tools. This re-enforced the whole data collection and cleaning process from the field without compromising the quality of the study work.

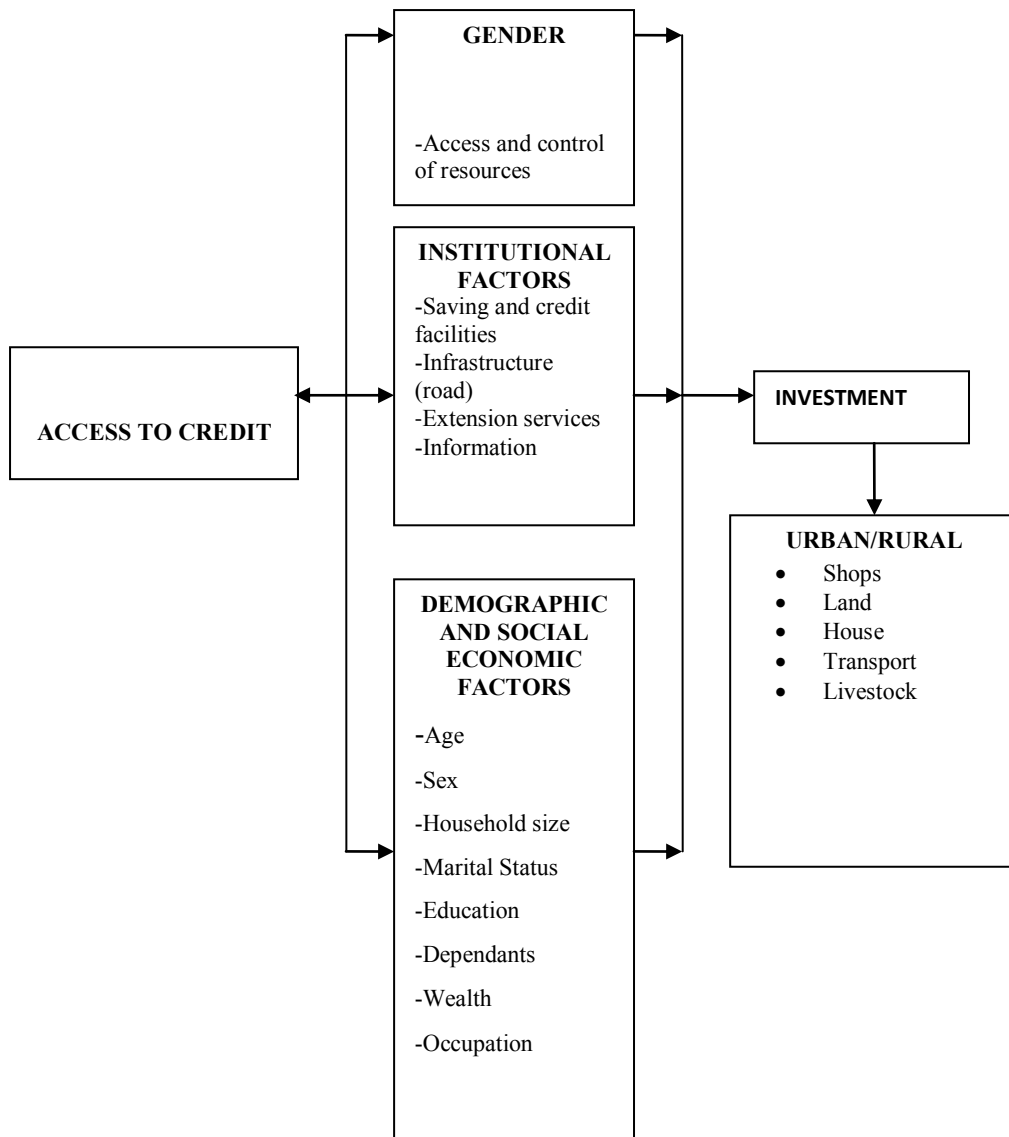


Figure 1: Conceptual frame work (Source: Author’s own construct from literature review: Lee (1966); Ghatak and Price (1996); Sebopetji and Belete 2009)

1.8 Organisation of the Thesis

Given below is the brief summary on how thesis is organized. This thesis is presented in five chapters with respective sections as summarised below. Chapter one provides an introduction to the research work presented in this thesis. It describes the research background including the problem statement and justification, which prompted this study

to be undertaken. It also presents the research objectives, research hypotheses, research questions as well as conceptual frame work. Finally it describes the limitations of the study. Chapter two presents the reviewed literature. The chapter provides a wider body of knowledge with regards to migration and emerging urban centres. It describes different research works related to how migration or population movement is being associated with development and poverty reduction through emerging urban centres. It also provides a narrative description as to why the EUC are being considered as centres of attraction based on the dynamics of the economic activities. It also provides insights on the gendered employment and factors underpinning this aspect. It also briefly presents different research works explaining how gendered activities are being financed through credit services. Finally, it analyzes different literature with respect to the outcomes of the financed activities in improving the well-fare of the people in EUC, including the trickle-down effect to other investments within EUC or areas of migrants' origin.

Chapter three is focusing on the methodology of the study. It describes research design, sampling procedure and methods used to analyse the data. Chapter four presents the findings, which include timeline events with or agencies associated with development of Ilula EUC. This chapter also elaborates on characteristics of the respondents; different gendered labour markets available in the EUC in relation to participation of the household members; the financial service providers in EUC and access to credit among households involved in different livelihood activities; household investment and summary of main findings. Chapter five concludes on the results based on the empirical evidences from this study. It highlights key messages in response to the research questions. Furthermore, it provides some recommendations based on the study findings.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 The concept of EUC

Many countries adopt different definitions when designating areas as rural or urban (Lanjouwa *et al.*, 2001). Locations are sometimes classified based on population thresholds and functional services or characteristics. Tacoli (2004) pointed out that there is also variation on what constitutes an urban centre and what is a small urban centre. However, in Tanzania urban area can be defined based on four perspectives: statistical perspective (area of enumeration), political-administrative urban perspective¹, human settlements perspective and density-based urban perspective². All these definitions results into different outcome of what constitute an urban area (Muzzin and Lindeboom, 2008).

While these differences on definitions of EUC are recognized there is a consensus that small urban centers have played important roles in rural and urban development (Tacoli, 2004; Christiaensen and Todo, 2013). These centres performs better than rural areas with respect to the provision of basic services, creation of employment opportunities, generation of human capital and reduction of poverty (Chamwali, 2000; Muzzin and Lindeboom, 2008; Christiaensen and Todo, 2013). Empirical evidences (Muzzin and Lindeboom, 2008) have shown that people in small urban centers are more frequently self-employed (83.0%) than those in urban population in large centers (61.0%). The participation of people in non-agricultural activities is low in small centres (33.0%) compared to large urban centres (77.0%). Likewise, unemployment is also significantly

¹ This is adopted under Prime Minister's Office Regional Administration and Local Government (PMO-RALG) criteria in which include political administrative entities and Local Government Authorities (LGAs) with legal and autonomous status. It includes cities, municipalities and town councils.

² The OECD cut-off put of more than 150 people per km² towards results in significantly higher level of urbanization

lower in small urban centers (1.7%) than in large urban centers. Various scholars have acknowledged that small urban centers tend to attract migrants at a higher rate than large centers (Tacoli, 2004; Muzzin and Lindeboom, 2008; Christiaensen and Todo, 2013).

The Ilula EUC is defined based on its transformation from rural settings. This particular area has acquired urban characteristics, which include having above average population growth, infrastructure and economic diversity following technological innovations in tomato sub-sector and better access to savings and credit services.

2.2 Migration and Gender Dimensions

Migration is defined as a human movement either temporarily or permanently from one place or area to another within or outside the borders for different reasons, including economic, social, political and environmental factors (IFAD, 2008). Under this study, however, the aspect of migration is simply referred to as the movement of people from one area to another (i.e. rural-urban and vice versa) within the country. Yet there are multiple dimensions of migration i.e. rural- rural, rural-urban, and urban-rural migration patterns (Bilsborrow, 2002). The main driving forces for migration have been associated with differences in living and economic conditions between destination and origins. Lee (1966) categorized these factors as pull factor (destination) and push factors (origin). Migration is also considered as a source of permanent or semi-permanent change of residence, which can be of short or long duration. The push and pull factors and their effects vary by region and by factors of age, education, occupation, class, caste, tribe, ethnicity, region and religion. The roles of these factors or individuals' traits differ from the place of origin and to the destination.

As far as the gender aspect is concerned, this is regarded as the social construct/variable which centres on the relationship between men and women, including other social groups in a given society. These relations are changeable and influenced by class, caste, ethnicity and race and are expressions of power relations. Gender is considered as an important aspect in migration discourse due to the fact that migrants are of different social groups rather not uniformly distributed between and within the urban centres. Above that there are existing set of intervening obstacles which can hinder migration process, and thus migration becomes selective against those who can overcome such obstacles. Therefore, migration is gendered, and is increasingly being opted as a livelihood diversification strategy for majority of the poor households (Tacoli, 2002; Awumbila and Ardayfio-Schandorf, 2008; Tacoli, 2012). However, migration situation differs with differences in access to resources among different social categories (Awumbila and Ardayfio-Schandorf, 2008; Tacoli, 2012).

The prevailing economic conditions in urban centers offer diverse employment opportunities in urban areas that attract in-migrants (Tacoli, 2012). However, there are several other variables underlying migration decisions, such variables include social economic (social network, income and education), gender and institutional variables (Pack, 1973; Hare, 1999; Von Brawn, 2007; Li and An, 2009). The relative importance and effects of these variables on migration decision varies across countries and communities. For example Pack (1973) observed that the removal of social obstacles increases migrants' participation in economic activities. Successful migration can provide adequate resources for investments and prevent the migrant's family falling into poverty (Black, 2004; Moshi, 2010). However, migration outcomes are not always positive. Nevertheless, migration opportunities are not evenly distributed and it's for those only who have access to such fortune.

Many of researchers have noted the dominance of males, especially a youth group in migration activities (Hare, 1999; Agarwal, 2003; World Bank, 2009; Castaldo *et al.*, 2012 and Liwenga *et al.*, 2012). However, the emergency of gendered opportunities have also influenced the migration of women in some localities (Ghorayshi and Bélanger, 1996; Agergaard and Thao, 2011). There have been changing trends of directions, and gender composition of migration flows. Women are also reported to have recently embarked on out-migration enabling them to secure alternatives or new sources of income which are normally not at their disposal in respective areas of origins (Agergaard and Thao, 2011).

Migration provides opportunities to different migrants to improve living standards at their original home places (Awumbila and Ardayfio-Schandorf, 2008). Empirical studies have also revealed that despite the low position in labour markets and poor remuneration, still migrants have managed to improve their economic status (Taylor, 1999; Rwelamira and Kirsten, 2003). However, elite migrants are more likely to secure good position in labour markets in destination areas than non-elite migrants (Ghorayshi and Bélanger, 1996).

Likewise, migration is an agency of social transformation. Migration brings transformation of the household's structure, especially on household's headship prompting females to assume the role by de facto (Ghorayshi and Bélanger, 1996). This is particularly true when men out-migrate and leave back their families thereby forcing women to take over the responsibilities of heading the family. It also happens when women move out from area of origin and establish their own independent households. The urban economies are characterized by cash economy, and for that matter migrants must work to meet their cash demand. Women who are part of migration are often associated with such gender-related transformations through greater engagement in paid employment that are linked with a wider range of opportunities than in rural areas (Tacoli, 2012).

However, the money economy in urban centers is among the factors which force women to engage in paid work even at the young age, and in many instances this involves working in low-paid formal and informal sectors, which at times of economic crises, require increasingly long hours for the same income (Tacoli, 2012).

The other aspect of gender in migration has been observed on propensity to remit. This has been associated with differences in earnings, life cycle and family responsibilities (UN, 2009). Sending remittances has also been perceived as a moral obligation, as well as a way to maintain claims on assets in home areas (Tacoli, 2002).

Women employment choice is also determined by social and household responsibilities and for that matter whenever there is no sharing in unpaid housework women tend to participate more in flexible and temporary employments and this limits their mobility in labour. However, there have been reported changes on migration composition with increasing number of independent women though male youth still dominate the migration flows (Tacoli, 2002 and Bah *et al.*, 2003).

Social links have been observed to mediate the migration process through sharing of information regarding to employment opportunities, migration costs and sometimes these links mediate people access to business and wage employment opportunities (Lanjouwa *et al.*, 2001; Zhang *et al.*, 2002). Many of the social networks are gendered. Women have been reported to participate more in kinship related networks as opposed to other network groups (Curran and Saguy, 2001). Participation in kinship networks has been associated with obligation of remitting to home areas (Curran and Saguy, 2001).

2.3 Migration and Access to Savings and Credit Services

The structural adjustments and economic reforms in Tanzania affected the financial market especially credit services for small farmers. This has led into farmers facing constraints in accessing inputs and farm implements (Tacoli, 2002). It has been reported by Taylor (2010) that, without access to vital agricultural inputs, the family may forego high-paying commercial production and instead use its labor for low-value subsistence production, low-paying wage work, or decide to migrate. However, literature by Waddington (2003) acknowledged the financial intermediation role played by migration through remittances. Some empirical findings (Hagen-Zanker, 2008; World Bank, 2009; Wondimagegnhu, 2012). have shown that remittances sent to migrants' households tends to relieve the credit constraints among poor households leading to higher use of improved technologies and willingness to undertake risky investment with expected high pay-offs.

Although urban centres are regarded to have relatively improved social services, including savings and credit services where most of providers concentrate, still majority are constrained by poor access to financial services (Muzzin and Lindeboom, 2008; Finscope, 2006). The literature have shown attributing factors are like: availability of collateral which is termed as security interest, legal protections that safeguards lender's security interest and the amount of credit information available to the lender (Ghorayshi and Bélanger, 1996; Ellis *et al.*, 2007; Kiiza and Pederson 2002; Gina *et al.*, 2012). Women are the majority who faces such difficulties as most of them do not have collaterals such as land which can be used to fulfill bank requirements (Ghorayshi and Bélanger, 1996; Ellis *et al.*, 2007). The gendered financial markets especially those targeting the rural poor have shown some promising success for enabling the poor accessing financial services such as insurance, credit and savings (Ghorayshi and Bélanger, 1996).

2.4 Migration and Investment

Literature has shown the existing linkage among migration, remittance, investment and poverty reduction. Migration can allow the poor to overcome their poverty stress. This is possible through accessing productive investments and improvement of household well-being (Sabates *et al.*, 2007). Migration has been considered as a diversification strategy in which household members may out migrate to avoid risk or accumulate wealth (Seppala, 1998; Ojong, 2011). Migration is considered as risk hedging strategy when individuals from households are facing or predicting uncertainties associated with failures in capital markets, markets for their produce, crop and livestock failures arising from pest, diseases and unreliable climatic conditions (Chamwali, 2000; Taylor, 2010; Barham and Bouche, 1998). However, migration is also used as an accumulation strategy in which individuals or households tend to invest income accrued from migration into different activities for future income generation (Deshngkan and Start, 2003; Garikipati, 2008).

The literature on the contribution of migrants to the development of the hosting community is still narrow. Yet the existing literature has revealed on the contribution of migrants to urban investments i.e. mostly investing in knowledge and skills (OECD, 2010). Migration is associated with the transmission of knowledge and skills (De Haas, 2007). Such transmission of knowledge and skills can be from original places to hosting area or vice versa, and sometimes the transmitted skills are transformed and retransmitted to either origin or hosting community (De Haas, 2007). Thus new skills are not necessarily originated from hosting areas but they can be also be out sourced from places of origins. For example the OECD report of 2010 on migrants and entrepreneurship showed that a migrant coming from a more entrepreneurial culture is more likely to start a business than natives in host community or country (OECD, 2010). Intervention such as agricultural

commercialization tends to increase access to cities through migration to cities (Rhoda, 1983).

Remittances can enable farmers to pursue risky investments like production of high value crop that could yield high expected returns (Taylor, 2010). However, there are different pathways through which households can climb up out of poverty. Taylor (2010) put forward that this could include agricultural intensification (via the adoption of new crops and technologies) and commercialization, critically involving both agricultural input and output markets. The pathways may include transitioning from agricultural to non-farm activities, participating in rural non-farm labor markets, or embarking on out-migration. There is abundant literature that reveals connection between migrants and areas of their origins (Rogaly et al., 2003; Rwelamira and Kirsten, 2003; De Haas, 2007; Taylor, 2010). This has been evidenced through close ties with their families in original home places maintained through remittances or emotional ties.

The benefits of migration does not necessarily trickle down only to the respective family (ies) of the migrant(s) rather might include even members of the community i.e. non-migrants' households. The surrounding communities could benefit from different investment projects which offers labour markets for local people (Taylor, 2010). This is what is referred to as indirect linkage effects of the remittances from the migrants. However, the flow of remittances is also gendered. The research work by the International Research and Training Institute for the Advancement of Women (INSTRAW) noted that women migrants who send remittances tend to prioritize the needs of families, particularly children's health and education (Floro *et al.*, 2007).

2.5 Investment Decisions by Migrants on their New Settlements

Existing literature on migrants' investment decisions has centred on investments in community of origins where the migrants originate through the use of remittances (Lucas 1987; Adams 1991; Stark 1991; De Brauw and Rozelle, 2008). It is pointed out for example migrants who plan on returning to their origin they might be interested in two different types of investments; one is investing in assets that would improve their standard of living immediately such as housing or consumer durables or investing in assets that improve the productive capacity of the household (which is regarded as productive investment). There are various factors which determine investment decisions like wealth and business opportunities (Nyberg and Rozelle, 1999 as cited by De Brauw, 2008). It's also been revealed that demographic characteristics, in one way or another tends to influence on the households' saving and investment behaviour. Age especially middle ages have been associated with higher productivity, income, and save more. That is to say that aggregate savings of a household will be affected by the age distribution of the particular household (Loayza *et al.*, 2000). Families with large number of dependants (below age of 15 and above 65 years) tend to have low income associated with low labour participation rate and thus they tend to have low saving propensity, and this also affects their investment plans (Gina *et al.*, 2012). Savings and assets are important because, unlike income, they are what individuals and families accumulate and hold over time.

2.6 Theoretical Framework

The analysis of this study is guided by some theories of migration that are explained in this section. It is generally contended that migration occurs for a reason. Among the ancient theorists of migration, Lee (1966) introduced migration selectivity theory on push and pull factors. He hypothesized that each destination and origin has a set of positive and negative factors that attract and repel migrants. The greater is the difference among these

factors, the higher is the probability of migration. The theory also explains how increased diversity and specialization among people in these areas increase the volume of migration. There are also intervening and personal factors which may hinder or accelerate migration. The negative factors in the area of origin are regarded as push factors and the positive factors which attract individuals at the destination area are regarded as pull factors. Examples of push factors are; natural calamities, unemployment, low wage and pull factors are employment opportunities, good wage and availability of social services. Lee (1966) has also shown how decision to migrate is determined by individual life cycle and thus migration process is selective and depends on how persons respond to push-pull factors which is also determined by their ability to overcome intervening obstacles. Furthermore, personal factors such as person's education, knowledge of a potential receiver population, family ties can facilitate or retard migration.

Todaro (1969) migration model has focused on specific economic motives for migration. He has quantified the economic motives in terms of perceived rural-urban income differentials assuming that migrants seek to maximize future earnings and that individual decision to migration is governed by two main principles; rural-urban real income differences and probability of obtaining a job in urban. This model helps to explain why there are high rate of migration despite of high rates of unemployment in areas of destination.

The theory was later revisited by Harris and Todaro (1970) as it did not specifically consider the welfare of the rural sector nor was it concerned with the broader issues of economic policy, instead it was focused on urban unemployment sector only. Alternatively, they proposed a two sector model that migration process is determined by two main factors: wage differentials and employment opportunities with assumption of

complete employment. The proposed model could therefore explain the continuation of rural-urban migration even when the determinants were fulfilled. Yet a failure of taking into account personal characteristics which could influence individual migration decisions was conceived as a theory weakness (Etzo, 2008). The other weakness of the theory was found on the assumption made on an equilibrium which will take place which is not found in the real world and some of the other empirical predictions e.g. wage equalization, have also not been found (Hagen-Zanker, 2008).

Most of above theories have centred on individual decisions, in contrast to the new economics of labour migration theory which considered family as a unit of decision making on migration process (Stark and Bloom, 1985). One of the key features of the New Economic Migration Theory is the importance of remittance on the development aspects. Thus migration is considered as a household strategy in which the potential migrant (s) in a household are selected based on the income potentials of the migration intended for the well being of the family as whole.

Based on the above schools of thought it's evident that migration process is complex with regards to dynamics of individuals, area of origin and destination and thus call for use of multiple theories in explaining the migration process. Under this premise, similarly this study hinged on above mentioned theories in explaining the scenario in Ilula emerging urban centre.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Description of the Study Area

The research was conducted in Ilula Township which is administratively located in Mazombe Division in Kilolo District, Iringa. The Ilula Township was officially established under the local government Act No. 8 of 1982 in 2006. The Township extends between latitudes $7^{\circ} 4'0''$ South and longitudes $36^{\circ}2'0''$ East. According to national census of 2002 the Township was under mixed ward³ with the total population of 22 071. However, the 2012 national census revealed an increase in population from 22 071 to 26 415.

Ilula Township is comprised of two wards, namely: Nyalumbu and Ilula. The Township consists of 12 villages/streets in which Nyalumbu ward consists of seven (7) villages/streets i.e. Mtua, Ilula Mwaya, Ding'inayo, Ngelango, Matalawe, Ilula Sokoni and Itabali. Ilula ward consists of five villages/streets, which are: Ilula Itunda, Igunga, Madizini, Ikokoto and Masukanzi.

The Emerging Urban Centre (EUC) consists of five villages namely: Mtua, Ilula Mwaya, Ding'inayo, Ngelango and Ilula Sokoni (Fig.2). These villages are within the Nyalumbu ward. The selection criteria for the study area were based on population dynamics in relation to migration and diversity of economic activities. It is hypothesized that the growth of EUC is partly due to the tomato sub-sector. The area portrays characteristics related to urban areas like diversified agricultural and non-agricultural employment

³ The entire area of the ward could not be categorised as a rural or urban based on regional and district headquarters boundaries as identified by the Village Act, 1975 and Urban Ward Act, 1976.

opportunities, concentration of social services like health, education, water, electricity, shops, postal office, financial institutions, Tele-centre, agricultural market and administrative units (division and wards' offices). Such characteristics provide diversified livelihood opportunities to both neighboring rural and urban population.

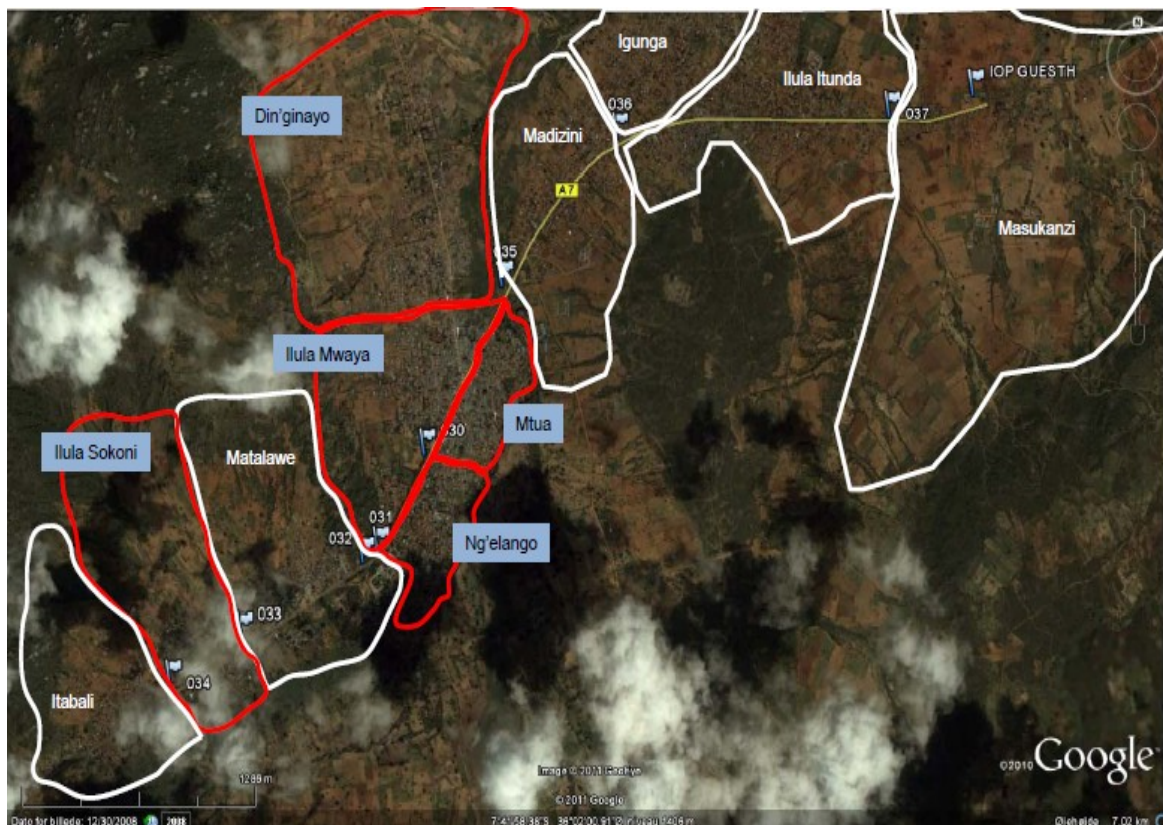


Figure 2: Map of EUC showing selected villages for household survey

(Source: GPS data superimposed on satellite image from Google Earth)

The selection of rural hinterlands for establishing existing urban-rural linkages was based on two criteria. Firstly, selecting rural hinterlands with high concentration of the total number of migrants at the EUC originating from that hinterland location and secondly presence of migrants' investments in that location. Based on these criteria a total number of five villages were selected for follow-ups. These included: Uhambingeto, Mlafu, Luhindo, Lulanzi and Mwatasi. All selected villages were under Kilolo District.

3.2 Research Design

A multiple visit research design was used by this study that employed both qualitative and quantitative research methodologies for primary data collection. Primarily, it started with study site characterisation followed by household survey in EUC and rural hinterlands. According to the nature of the study, the selected research design was feasible and economical. However, the research design involved the following processes in general:

- i. Study site characterization which involved investigation of existing secondary data/ information on the research topic and defining the area of study. Establishing a rapport with local administrative officials in the study area by sharing the objectives of the research;
- ii. Preparation of data collection tools data collection materials
- iii. Establishment of the sample frame and determination of sample size
- iv. Pre-testing of the questionnaire
- v. Selection of research assistants and training on administering questionnaires. The two research assistants who were trained participated in data collection process
- vi. Selection of sample households and key informants, and
- vii. This was followed by data processing through which data were coded and entered into SPSS spread sheet for analysis and presentation.

3.3 Sampling Procedures

The study employed multistage and systematic random sampling to select study location and households. The reason for using multistage sampling was based on the delineation of the EUC with regards to what characterized the location.

The first stage involved collection of secondary data from the ward office for mapping population characteristics and different services available in the study area. Service

inventory report and village population census (2010) were collected during this stage. The secondary information obtained at the ward office could not depict the characteristics of population in relation to migration. Therefore the analysis of secondary data was necessary for mapping the population in relation to migration. Other secondary data were collected through reviewing official documents and online sources.

The second stage involved selection of key informants for FGD using a snowballing technique, also known as chain referral sampling. With regards to this method, the first identified/contacted key informants served as the reference for further identification of other people who were well informed with temporal development changes of Ilula Township. The identified key informants played a role in reviewing the village census of 2010 in order to update the data for establishing the sample frame. The key informants were also involved in defining indicators of wealth (well-being) as the indicators are important in understanding the social economic grouping in a community (Slocum *et al.*, 1995). Identified indicators for wealth were: house ownership; land and farming ability; ownership of transport facilities; ability to take care of household needs like education, health and food. The details are as presented in Appendix 3.

However, the key informants involved were village elders, government officials and youth people who were involved in different economic activities (e.g. transportation and communication, shop keeping as well as agriculture).

3.3.1 Sampling frame and sampling technique

The establishment of the sampling frame was based on two main aspects i.e. mapping of services available in Ilula Township and the number of migrants' and non-migrants' households in Ilula Township.

3.3.2 Mapping of services available in Ilula Township

This activity was done by analysing the service inventory report which was obtained from the Mazombe Division office. Based on the assessment of Ilula Township service inventory report, it showed that there was a higher concentration of services in Ilula Mwaya, Mtua and Ilula Sokoni villages as compared to other villages in Ilula Township (Fig. 3).

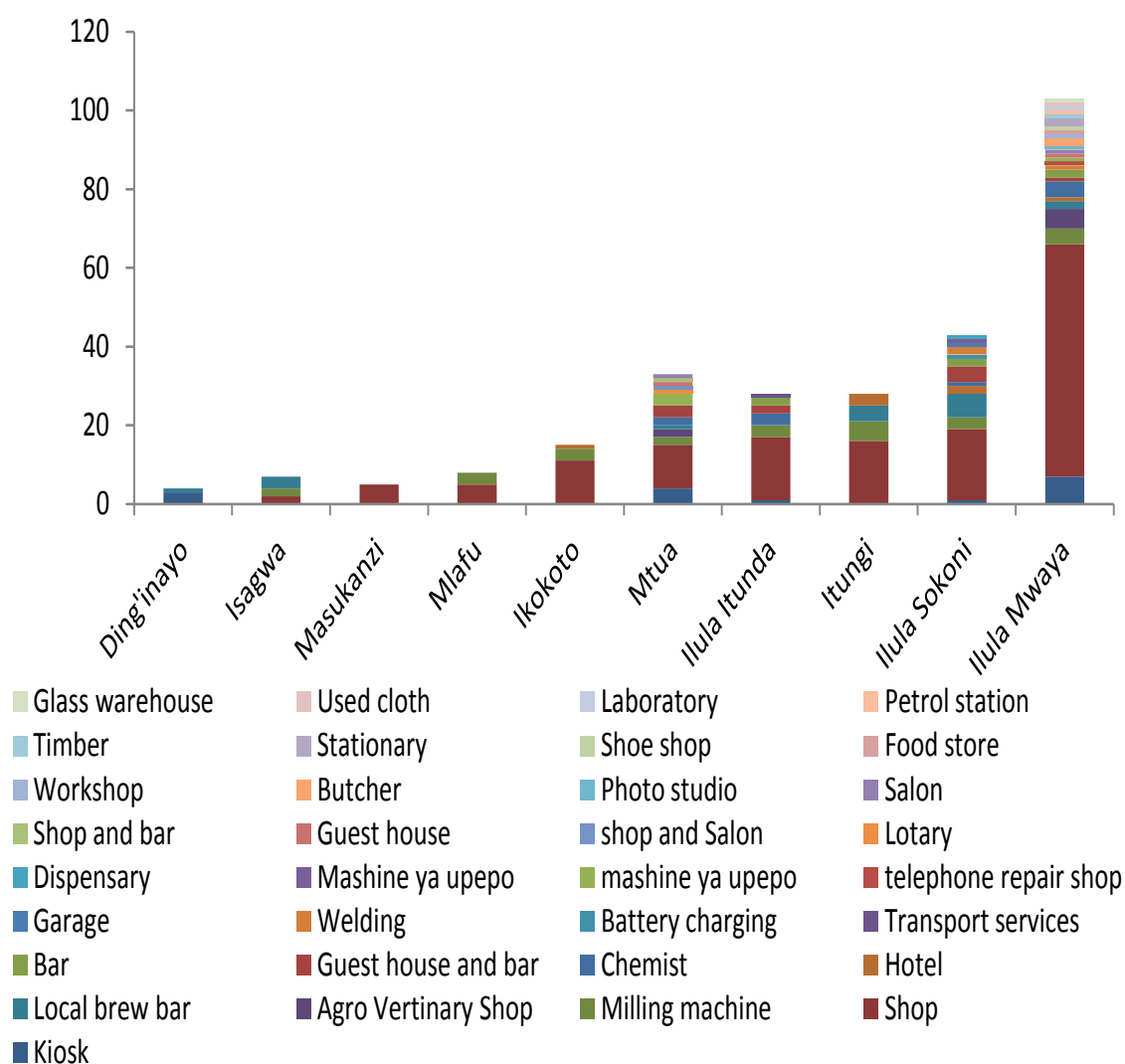


Figure 3: Concentration of services by villages (Source: Mazombe Division Office)

3.3.3 Mapping of migrants' households in Ilula Township

The available village surveys didn't disaggregate the village household census into migrants' and non-migrants' households. Through the focus group discussions (FGD), sources of migrants were identified and timeline events were used for mapping migration trends and areas where most of migrants reside.

The analysis of focus group discussion and service inventory report led into selection of enumeration area which comprised of five villages within the Ilula Township, namely: Ilula Sokoni, Ngelango, Ilula Mwaya, Mtua and Ding'inayo. The area of enumeration symbolizes the Ilula emerging urban centre (EUC).

3.3.4 Desegregating village census by residential status (migrants and non-migrants)

According to the village household census' statistics from the divisional office indicated that there were a total of 3 061 heads of households from Ilula Sokoni, Ngelango, Ilula Mwaya, Mtua and Ding'inayo. However, following the assessment of the records which was done during the FGD, it was found that the actual total number had declined to 2 867 since some were no longer living in the area as due to out-migration and death factors.

3.3.5 Sample size determination

The sample size was determined by using the Slovin's equation as indicated below. The advantage of using such equation is based on the fact that it allows the researcher to sample with desired degree of accuracy (Yamane, 1967). The sample frame was established using village census of 2010 and it indicated that there were a total of 3 061 heads of households (from Ilula Sokoni, Ngelango, Ilula Mwaya, Mtua and Ding'inayo). However, following the assessment of the village census' statistics which was done during the FGD, it was noted that the actual total number had declined to 2 867 since some were

no longer living in the area. Thus in order to determine the sample size from the sample frame the following equation was applied:

$$n = \frac{N}{1 + N(e)^2}$$

N = Population size (Total number of household heads)

e = level of precision 5%

n = Sample size 351

The total sample size determined through calculations was 351 but there was an addition of 3 households as replacement to take into account of possibilities of missing households. Thus a total number of 354 household heads were selected through systematic proportionate random sampling technique.

3.4 Data Analysis

Data collected during the survey were analysed using the Statistical Package for Social Science software (SPSS). The analysis involved both descriptive and inferential statistics. The descriptive statistics such as frequencies, means and standard deviations were used to explain the distribution of variables. Regression analysis was adopted to estimate the relationship between dependent and explanatory variables, including socio-economic and demographic characteristics shaping access to savings and credit facilities and investment decision for migrants and non-migrants households.

3.4.1 Specification of logistic regression model

A binary logistic regression model was used to assess the variables that determine migrants' access to savings and credit services. The β_0 in the equation is the equation constant term, $\beta_1 - \beta_{12}$ are the parameter coefficients of the model to be estimated. The variables included: X_1 - sex category of household head; X_2 - age of household head; X_3 -

household size; X_4 - number of dependants; X_5 - education level of household head; X_6 - marital status of the household head; X_7 - household's land endowment; X_8 - livestock value; X_9 - migration duration; X_{10} - Participation in social/community groups; X_{11} - migration status; and X_{12} - house ownership. These variables were used as predictor variables for migrants' and non-migrants' households' accessibility to credit in emerging urban centre as indicated in Model 3.1. Table 1 present model explanatory variables and definitions for access to credit model for migrants and non migrants households.

Model 3.1 Determinants of likelihood that household will have an access to credit

$$\text{logit} (P(X)) = \ln \frac{P(X)}{1-P(X)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots \beta_{12} X_{12} + \varepsilon \dots (1)$$

Table 1: Definition of variables in Access to credit model

Variable name	Units	Variable description
X_1 Sex of household head	Binary	1 If the household head is male, 0 otherwise
X_2 Age of household head	Numeric	Age of household head in years
X_3 Household size	Numeric	Number of members in a household living together
X_5 Household head education level	Dummy	1 If the household head has any formal education, 0 otherwise
X_6 Marital status of the household head	Dummy	1 If the household head is married, 0 otherwise
X_7 Household land endowment	Numeric	Size of land owned by household in acres
X_8 Livestock value	Numeric	Total value of livestock owned (Tshs)
X_9 Migration duration in host area	Numeric	Number of year migrants has spent in host area
X_{10} Participation in social/community groups	Dummy	1 If the household head is a member in social/community groups, 0 otherwise
X_{11} Migration status	Dummy	1 If the household head is a migrant, 0 otherwise
X_{12} House ownership	Dummy	1 If the household head own a house, 0 otherwise

3.4.2 Analytical regression model for household investment model

This study assumes that heads of households who invested in social and human capital at the initial stage of migration were more likely to have access to savings and credit with low migration costs. Studies have indicated that access to credit enabled farmers to increase their production, both by expanding cultivated land and using improved production techniques and inputs (De Brauw and Rozelle, 2008). Therefore, there is a possibility of migrants in emerging urban centre to invest in agriculture through expanding production area and by using improved technologies and inputs. However, with increased urban population (internal birth and migration) land for agriculture production decreases and thus migrants can rely on two options which are that acquiring more land in rural hinterland or under takes intensive agriculture on the existing land area. Alternatively, migrants may opt to diversify their livelihood by venturing into other forms of employment including shop keeping, food services and masonry. However, migrants with similar characteristics may decide to invest back home or in area of destination depending on the investment opportunities prevailing in either side. Thus cumulative investment which is the total value of assets owned in the current period is determined by number of factors including those described in Model 3.2. Table 2 present model explanatory variables and definitions for migrants and non migrants household investment model.

Model 3.2

$$Cm_t = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \varepsilon \dots \dots (2)$$

Cm_t = Cumulative investment in the current period t (Asset value generated at time period t).

Table 2: Definition of variables in investment model

Variable name	Units	Variable description
X ₁ Sex of household head	Binary	1 If the household head is male, 0 otherwise
X ₂ Marital status of the household head	Dummy	1 If the household head is married, 0 otherwise
X ₃ Age of household head	Numeric	Age of household head in years
X ₄ Migration duration in host area	Numeric	Number of year migrants has spent in host area
X ₅ Involvement in tomato production	Dummy	1 If household is involved in tomato production, 0 otherwise
X ₆ House ownership	Dummy	1 If the household head own house, 0 otherwise
X ₇ Own land location	Dummy	1 If land owned is located in EUC, 0 otherwise
X ₈ Investment in business	Dummy	1 If the household head has invested in business, 0 otherwise
X ₉ Access to credit	Dummy	1 If the household head had access to credit, 0 otherwise

3.5 Measures of Multicollinearity

Multicollinearity can be examined by using tolerance and the Variance Inflation Factor (VIF). The Variance Inflation Factor (VIF) measures the impact of collinearity among the variables in a regression model. The Variance Inflation Factor (VIF) is $1/\text{Tolerance}$. Values of VIF that exceed 5 are often regarded as indicating multicollinearity (Hair *et al.*, 2014). The Variance Inflation Factor VIF for model 3.1 and 3.2 are all had values below 5 which signify the absence of multicollinearity on estimated models (Appendix 6 and 7).

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 The Development of Ilula EUC

This section describes the time line events generated through focus group discussions. The key issues associated with development of Ilula are described in sub-section related to rural - rural migration; change in policies, agriculture transformation and rural transformation.

4.1.1 Rural-rural migration pattern

Historically, the natives of Ilula are the Wahehe people, however, in-migrants from other rural areas moved to the area during the 1950s. The in-migrants were particularly the Wabena and Wakinga from Njombe and Makete, respectively. The most important factors underlying this migration opportunities were engagement in agriculture and barter trade that prevailed. Traditionally, the people in Ilula were mainly engaged in crop farming and livestock keeping. Major crops grown were maize, beans and green peas, while cattle, sheep and goats were the most important livestock raised by the natives. The barter trade system was practiced in Ilula even before 1950s. The trade was basically undertaken during food scarcity, whereas people exchanged cows or goats with food i.e. maize/ beans. This trade continued until 1950s when people from different places in-migrated to Ilula and started commercial production of maize.

The in-migrants were given virgin land in Kipaduka areas which at that time had wild animals. Settling of migrants in Kipaduka was done purposely to serve as buffer zone to the natives against wild animals. Incoming of migrants in Ilula led to the introduction of new knowledge and skills most notable was related to the extraction of bamboo juice

(used locally to produce alcoholic drink known as *ulanzi*) and charcoal making. The migrants opened new fields by felling down trees to clear land, while making charcoal and extracting bamboo juice from wild bamboo. The in-migrants maintained linkages with their original places through seasonal visits and sending in-kind remittances.

However, such linkages to areas of origin motivated more in-migration flows to Ilula from Njombe and Makete Districts, as well as other distant places outside Iringa Region. In-migrants from distant places were mainly seeking for employment in tobacco farms owned by Greece settlers in neighboring hinterland Image village. These migrants were predominantly men who sold labour to earn money required to pay levies imposed by colonial rule. Similarly, some of migrants who were on transit to or from sisal estates (e.g. in Tanga) also decided to settle in Ilula. The predominance of male migrants as laborers in plantations had an implication on gender and migration situations in EUC. Presumably, males were able to oversee the prevailing opportunities in EUC which influenced their migration decisions, and females were either the followers or by de facto became heads of households in areas of origin. Consequently, this settlement contributed to the transformation of Ilula.

4.1.2 Changes in policy

The villagisation policy⁴ was also identified to have positively impacted on the development of the Ilula urban centre. According to the policy rural people were forced to settle in communal villages to facilitate the provision of basic and utility services that were largely provided by the government. The resettlement resulting from this forced migration led into influxes of migrants into communal villages which were located within

⁴ The Villagisation policy was basically a resettlement of people into villages designated by the government aiming at utilization of means of production collectively in such a way the majority could easily be reached, while living in communal villages. This was initiated in 1973.

the current location being referred to as Ilula EUC. The main migration pattern during villagisation programme was basically rural - rural migration.

4.1.3 Agricultural transformation

In 1970s the agriculture, tomato sub-sector in particular was mainly under subsistence domain until it was 1980s. At this particular time (1980s), the tomato sub-sector in Ilula was transformed from subsistence to commercial production. The transformation was mainly an outcome of the adoption of new agricultural technologies among these were the use of improved tomato seed varieties obtained from Morogoro Region. The adoption of improved/hybrid seed varieties led into gradual abandonment of local varieties (locally known as *shanga*), which were characterized by small-sized tomatoes. This commercialization of the sub-sector was further promoted by financing not only through own farmers' savings but also from external financial sources/institutions, particularly the CRDB bank in Iringa town. Access to financial services prompted farmers to have access to improved agricultural inputs and technologies for example farm implements such as tractors and sprayers which in return improved working efficiency and crop yields in the mid-1980s. These transformations created different employment opportunities within the tomato sub-sector value chain (e.g. input supply, production process, service sector and marketing). These provided chances for diversifying livelihood on emerged opportunities. It also attracted both seasonal and permanent in-migrants from hinterland villages, as well as distant places. In-migrants from hinterlands, however, many were employed as casual labourers in tomato fields, while others ventured into different livelihood activities like shop keeping, petty trade, masonry and carpentry. The agricultural transformation within the tomato sub-sector in particular has attracted more in-migrants from outside the Iringa Region to settle in Ilula EUC.

4.1.4 Rural transformation

A large number of shops and other businesses were reported to have emerged in Ilula during the 1990s. This period was associated with the incoming of civil servants like school teachers, health practitioners/staff and police officials. Many of these civil servants invested in Ilula, and others decided settling permanently after retirement. Most of the business investments were strategically located within prime areas (i.e. the junction connecting the Ikuvala, Uhambingeto and Vitono villages to the Tanzania-Zambia Highway). This centralized location of business prompted more investments and development in Mtua and Ilula-Mwaya villages. However, some of the businesses shifted from other nearby business centres (e.g. Ilula Sokoni) to these current strategic locations. The expansion of the Tanzania-Zambia Highway which was accompanied by demolition of business premises along the road reserve, and frequent flood incidences in Ilula Sokoni (the former business centre) contributed to the re-location of business premises to the current business strategic points. These businesses include: shops, kiosk, selling of products such as maize, wood products and transportation.

Moreover, the installation of national electricity grid in 1997, establishment of Udzungwa National Park, as well as up-grading of the road connecting Mlafu ward and Ilula Township in 2000, establishment and registration of Mazombe SACCOS in 2002 had significant influence to the development of Ilula EUC. Nevertheless, the official declaration of Kilolo District in 2002, introduction of the Airtel mobile phone company (formerly Celtel) in 2003, establishment of TASAF market in 2006, and designation of Kilolo District hospital in 2008 also prompted the development process of Ilula EUC. Ultimately, the previously rural village was transformed into an Ilula EUC. The EUC that has become a service centre serving the people within and neighboring and distant rural area.

4.2 General Household Characteristics

This section describes general characteristics of the sampled households (both migrants' and non-migrants' households) interviewed during the household survey from the study area. It includes composition by age, sex, marital status, household size, education level, household wealth status, ownership of assets and access to social services.

4.2.1 Demographic characteristics

Age structure is regarded as an important factor in explaining the labour supply in an economy. A total of 1 918 people, including household heads were recorded as the members within 354 sampled households from the study area. Out of this, 51% were males and 49% were females. According to the age structure as shown in Fig. 4, the sampled population was largely dominated by people of the age between 10 to 14 years old. Relatively these were within the school age and predominantly males. The mean age of the household members was 22 years, meanwhile less than six months was the minimum and 100 years old was the maximum age. The proportion of infants (i.e. 0 to 4 years) from sampled households was 9.8% which is relatively low compared to the reported national statistics of 16.8% in 1998, 16.5% in 2002 and 16.2% in 2012. The marginal decrease in years is associated with decreasing fertility (NBS, 2013). Other empirical studies have also quantified factors such as higher costs of child care, higher levels of education which reduce early exposure of women to marriage and pregnancies, as well as greater chances for women to engage in employment opportunities (Tacolli, 2012). In addition, the prevalence of HIV disease and malnutrition could also be among other factors affecting the fertility.

The study results also indicated that the dependency ratio from the sampled population was as 0.733 which represent the ratio of dependants (people older than 64 and younger

than 15 years old) to the working age population (those with age of 15 - 64 years). Child dependency ratio was higher (0.692) than the dependency ratio for older people (0.041). This indicates that there were more children than old people in the EUC.

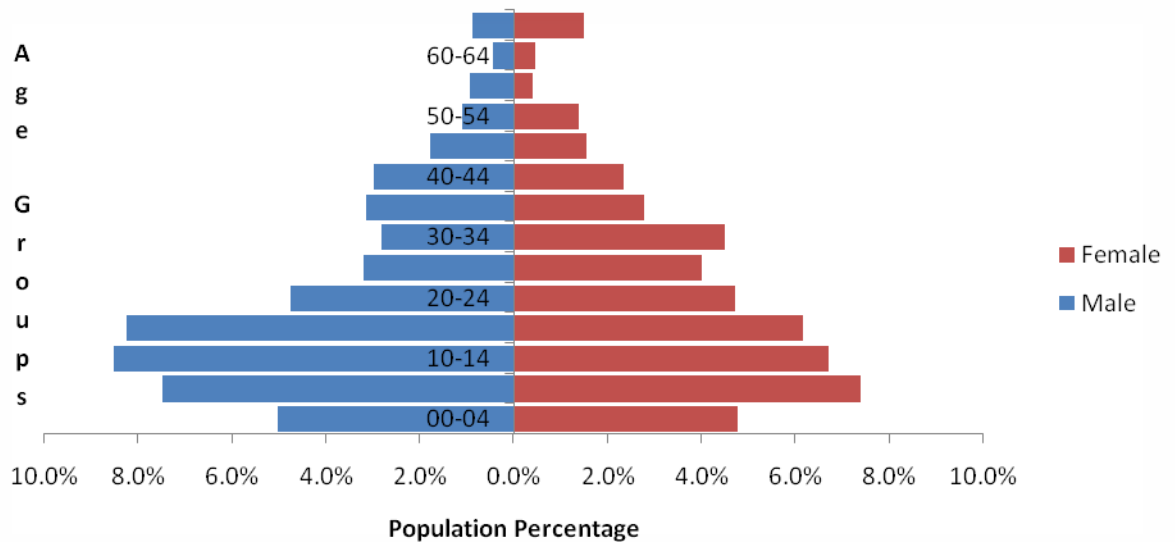


Figure 4: Age structure of the sample

4.2.2 Marital status of the household heads

Study results presented in Table 3 shows that the relationship between household head's sex and marital status was significant ($\chi^2 (4) = 194.62, p = 0.005$), with majority of the male household heads being married (91.6 %) as compared to 24.8% of the female household heads⁵. The rate of widowhood was relatively higher, and more particularly to female household heads than to the regional reported figure of 6.5% (Kessy *et al.*, 2008). This might have been due to several factors, including incidences of HIV/AIDS reported in the area (locally termed as “*wamredio*” i.e. what is commonly heard/ reported from radios concerning the HIV/AIDS pandemic). The divorced heads of households accounted for 6.2% of the sampled household heads.

⁵ Irrespective of her sex category, she is the one who is mainly responsible for household's economic well-being, and has more access and control to resources. Such headship could have been attained by de facto being un-married, widowed, divorced or male out-migrated for labour, etc.

Table 3: Marital status of the household heads

Marital Status	Male Headed households (n=249)	Female Headed households (n=105)	Total (n=354)
Single	3.6	13.3	6.5
Married	91.6	24.8*	71.8
Widow/Widower	2.4	46.7	15.5
Divorced	2.4	15.2	6.2
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 194.962			
P value = 0.005			
df = 4			

Note: * These represent households headed by women (under marriage) attained headship due to out-migration/absence of their spouses and by de facto became responsible for household's economic well-being.

Understanding the marital status of the household heads has an implication on labour participation rate and economic status of the households (Clapham, 2009; ADB, 2012). There has been some empirical evidence showing the relationship between marital status and labour force participation rate (ADB, 2012). It has been observed that labour force participation rate is relatively higher for single or divorced women than married ones. This is possibly due to the increased labour demand in the absence of a partner/spouse. Labour force participation rate is also associated with the aspect of widowhood. Many widows tend to have lower labour force participation rate due to poor access to resources.

4.2.3 Household size

The average household size in the study area was five people, one person was the minimum and 15 persons was the maximum. The results in Table 4 show that there is the relationship between household heads' sex and number of household members. Majority of the male headed households had relatively large number of household members (26%) compared to female headed households (18%). This relationship differed significantly (χ^2 (3) 14.46, $p = 0.002$). The number of household members is regarded as a primary source

of the family labour which is among the assets owned by small-holder farmers. Labour is the most widely available factor of production for poor people and the primary means through which they earn a living (UN, 2009). Since the study findings have shown a significant relationship between sex category of household head and household size, thus it has an implication toward investment in different livelihood activities. Nevertheless, it still depends on whether all members are able bodied and are within the productive age group.

Table 4: Household size disaggregated by sex (%)

Household size (Number of persons)	Male headed households (n=249)	Female headed households (n=105)	Total (n=354)
1-3	18	36	23
4-6	51	41	48
7-9	26	18	23
More than 9	5	5	5
Total	100	100	100
Chi-square statistics:			
X ² value = 14.460			
P value = 0.002			
df = 3			

4.2.4 Education level

4.2.4.1 Education level of household members

Table 5 presents the study results on the education level of the household members. The results show that there is a significant relationship between sex of the household head and level of education attained (χ^2 (4) = 12.063, p = 0.017). Over fifty percent of the household members had attained primary school level of education, and only 13% had no any formal education. In comparing the education levels between male and female members of households, it was observed that the former had relatively higher level of education (with 26% attained secondary school) than females who were only 19.5%. Such

a high literacy level in EUC could be most likely associated with much emphasis and sensitization made by the government to the community members over the rationale of sending children to school. Not only that but also contributed by the establishment of ward secondary schools in the area. Despite such achievements, still the sector stands a challenge from a recently established informal sub-sector involving motorcycle hiring (alias “*Boda boda*”) which tends to attract majority of young men, including those from school age group.

Table 5: Literacy level of other members of the household (%)

Education level	Male members (n = 678)	Female members (n = 771)	Total (n = 1449)
None	12.5	13.2	12.9
Primary school	52.9	60.3	56.9
Secondary school	26.0	19.5	22.5
Post secondary school	1.9	1.2	1.5
Others	6.6	5.8	6.2
Total	100.0	100.0	100.0
Chi-square statistics:			
X^2 value = 12.063			
P value = 0.017			
df = 4			

4.2.4.2 Education level of household heads

According to NBS (2007) findings from the integrated labour force survey showed that there is a relationship between education and household’s income, that is the group with the highest educational level had the highest monthly mean income (i.e. secondary education level and above). Other empirical studies have also revealed the role of education in accessing economic opportunities (Waddington, 2003; De Haan 2000). The results from this study have shown that there is a significant relationship between education level attained and sex of the head of household (χ^2 (3) = 28.601, $p < 0.001$). It was observed that more of female heads of households had not attained a formal education (27.6%) than male heads of households who accounted 7.2% (Table 6). The highest

education level attained by both male and female heads of households was the university level although very few heads attained this level (2.2%). With such differences in education level, women in the EUC seem to be relatively more disadvantaged in accessing employment opportunities that require higher level of education.

Table 6: Level of education attained by household heads (%)

Education level	Male household heads (n=249)	Female household heads (n=105)	Total (n=354)
None	7.2	27.6	13.4
Primary	83.2	62.9	77.1
Secondary	7.2	7.6	7.3
Post-secondary	2.4	1.9	2.2
Total	100.0	100.0	100.0
Chi-square statistics:			
X^2 value = 28.601			
P value = 0.000			
df = 3			

4.2.5 Households' wealth status

The results from focus group discussions (FGD) revealed that the EUC population comprised of four different wealth categories, namely: very rich, rich, better off and poor (Appendix 3). Indicators of wealth status included: quality of the house owned, ownership of transport facilities, business and ability to cultivate, livestock ownership, sending children to school and ability to cover costs pertaining to health services.

4.2.5.1 Ownership of houses by households in EUC

Ownership of houses was among the indicators of wealth in EUC. The attributes associated with quality of house owned are as presented in (Appendix 3; Table 7). Majority of male household heads (72.7%) and female heads (72.4%) owned house(s).

The source of ownership varied from inheritance to own investment initiatives/ construction. However, there were no significant differences in ownership of houses between male and female headed households ($\chi^2 (1) = 1.217, p = 0.270$).

Table 7: Ownership of house by household heads (%)

Ownership	Male headed (n=249)	Female headed (n=105)	Total (n=354)
Own house	72.7	72.4	72.6
Not own house	27.3	27.6	27.4
Total	100.0	100.0	100.0
Chi-square statistics: X ² value = 1.217 P value=0.270 df = 1			

The wealth ranking by the FGD revealed that most of the heads of households (52.5%) were poor (Table 8). Ownership of house(s) has been perceived as a critical factor as it can potentially serve as collateral for accessing loans which can eventually be used for creating or expanding businesses (Tibaijuka, 2009).

Table 8: Households' wealth rankings (%)

Wealth category	Male headed households (n=181)	Female headed households (n=76)	Total (n=257)
Rich	23.2	7.8	18.7
Better off	24.9	18.4	23.0
Poor	48.6	61.8	52.5
Unclassified	3.3	11.8	5.8
Total	100.0	100.0	100.0

4.2.5.2 Ownership of means of transport

The study findings in Table 9 have shown that there is significant differences on ownership of transport facilities between male and female headed households ($\chi^2 (1) =$

74.886, $p = 0.001$). More of male headed households owned transport facilities (60.6%) compared by 10.5% of the households headed by females.

The ownership of transport facilities could save time and costs to reach various places for both social and economic needs. In most cases people in Ilula EUC could simply walk or use own bicycles/rent motorcycles. Trucks were also used for transporting agricultural produce and other goods to and from distant markets. The means of transport owned are as shown in Table 36.

Table 9: Ownership of transport facilities in EUC by gender (%)

Transport ownership	Male headed household (n=249)	Female headed household (n=105)	Total (n=354)
Own transport	60.6	10.5	45.8
Not own transport	39.4	89.5	54.2
Total	100.0	100.0	100.0
Chi-square statistics:			
X^2 value = 74.886			
P value = 0.000			
df = 1			

4.2.5.3 Ownership of agricultural land

According to findings presented in Table 10, about 68.4% of the households in Ilula EUC owned agricultural land. However, there was no significant relationship between household head's sex and ownership of agricultural land ($\chi^2(1) = 0.038$, $p = 0.845$). The average size of land owned was 3.9 acres. This was relatively higher than 2.5 acres as the average land size owned by majority of smallholder farmers within the country. The largest land owned was 50 acres. About 2.3% of the household heads owned more than 15 acres of land (Table 11). The study results show that female headed households were limited to land access and ownership compared to male household heads who owned even more than 15 acres.

Table 10: Ownership of agricultural land disaggregated by sex (%)

Whether owning land	Male headed household (n=249)	Female headed household (n=105)	Total (n=354)
Yes	68.7	67.6	68.4
No	31.3	32.4	31.6
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 0.038			
P value = 0.845			
df = 1			

Table 11: Size of land owned disaggregated by sex (%)

Land size (acre)	Male headed household (n=171)	Female headed household (n=71)	Total (n=242)
Below 5	72.4	89.6	77.6
5-10	22.4	8.9	18.3
11-15	2.0	1.5	1.8
Above 15	3.2	0	2.3
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 8.612			
P value = 0.035			
df = 3			

4.3 Access to Social Services

The EUC has been referred to as the centre of attraction following the availability of different services. However, the study findings have shown that a few household heads owning houses in Ilula EUC had access to both electricity and piped water installed within respective houses. Table 12 show that 70.8% of respondents residing in Ilula EUC were living in houses which were neither connected to piped water nor electricity. However, the FGD revealed that the supply of electricity contributed towards the development of Ilula EUC. Previous studies (Ellis *et al.*, 2007; Lanjouwa *et al.*, 2001) have also shown the existing relationship between access to such services and the creation of small business opportunities, including non-farm wage opportunities.

About 85% of the houses owned by female household heads in EUC were not connected to water and electricity (Table 12). Certainly the poor access to these two services could be partly associated with inability to afford the cost of the services or promptness/ability of the service providers to meet customers' demand. Potentially implies that these societies could be subjected to outbreak of water born diseases as they depended on unreliable sources of water. Meanwhile, the women and children could be overwhelmed by workload related to water fetching activities, and subsequently wasting more time. This extra workload and time wasted have negative implications on both productive and leisure time (UN, 2009). Yet the study findings suggest that the communities in Ilula EUC are better positioned to access water than other rural areas as per country's statistics (NBS, 2013). On the other hand, the water shortage problem has also created a livelihood opportunity to some of people who ventured in fetching and selling water to residents willing to pay for this service.

Table 12: Households' access to water and electricity disaggregated by sex (%)

House situation	Male headed (n=181)	Female headed (n=76)	Total (n=257)
House connected to piped water and electricity	17.7	4.0	13.7
House connected to piped water but not electricity	2.2	4.0	2.7
House connected to electricity but not piped water	15.5	6.5	12.8
Neither connected to piped water nor electricity	64.6	85.5	70.8
Total	100.0	100.0	100.0

4.4 Migration to Ilula EUC

4.4.1 Migrants' origin

The population of Ilula EUC is characterized by large proportion of in-migrants. The proportion of migrants households within the sample from Ilula EUC was more than

60.0% (Table 13). In terms of number, however, the study findings showed that there were no statistical differences between male and female headed households among the migrants and non migrants ($\chi^2 (1) = 0.183, p = 0.696$).

Table 13: Migration status of the respondents (%)

Migration status	Male headed households (n=249)	Female headed households (n=105)	Total (n=354)
Migrants	60.6	62.9	61.3
Non migrants	39.4	37.1	38.7
Total	100.0	100.0	100.0
Chi-square statistics:			
χ^2 value = 0.183			
P value = 0.696			
df = 1			

However, the majority of these in-migrants (81.6%) acknowledged coming from different districts within Iringa Region. The other migrants (18.4%) came from distantly located regions like Kilimanjaro, Mara and Shinyanga (Table 14). It has been established in section 4.1 that barter trade, villagelisation policy and employment opportunities in tobacco farms were among factors that attracted migrants to Ilula EUC.

Table 14: The migrants' places of origin

Region	Frequency (n)	Percentage (%)
Iringa	177	81.6
Mbeya	10	4.6
Morogoro	6	2.8
Tanga	5	2.3
Ruvuma	4	1.8
Kilimanjaro	3	1.4
Shinyanga	3	1.4
Dar es Salaam	2	0.9
Mara	2	0.9
Dodoma	1	0.5
Unidentified*	4	1.8
Total	217	100.0

* = these in-migrants were not aware of their original places (i.e. born in Ilula or migrated when were still kids/at infant stage)

4.4.2 The distribution of migrants from within Iringa Region

In-migrants to Ilula EUC who came from areas within Iringa Region, their statistics are as presented in Table 15. Many of these in-migrants came from Kilolo District, especially, Mlafu (13.4%), Image (11.3%), Uhambingeto (12.4%) and Dabaga (4.1%). Thus the existence of these earlier migrants also provided chances for their relatives from their respective areas of origin to migrate to Ilula EUC as they could easily access information about the prevailing opportunities and get support from their relatives. These migrants from different regions claimed to have influences on social-economic and political activities in the region (NBS, 2006). All the same, these influences could have positive or negative effects, and sometimes both.

Table 15: Proportion of migrants to Ilula EUC coming from areas within Iringa Region

District	Frequency (n)	Percentage (%)
Kilolo	102	57.6
Iringa Rural	26	14.7
Iringa Municipal Council	16	9
Mufindi	13	7.3
Makete	8	4.5
Njombe	7	4
Wanging'ombe	4	2.3
Mafinga	1	0.6
Total	177	100.0

4.4.3 Demographic characteristics of the migrants

Figure 5 shows the age structure of the in-migrants during the migration period. The findings indicate that many of the interviewed people migrated to Ilula at the age of 15 to 34 years old. The age of 15 years coincides with the age at which children completes their primary education. The overall impression from this figure is that there were more men than female migrants in the study area. Nevertheless, many of the females followed their

spouses and only a few migrated for other reasons such as seeking for livelihood alternatives in the Ilula EUC (e.g. serving as bar maids, casual labourers and wage labourers).

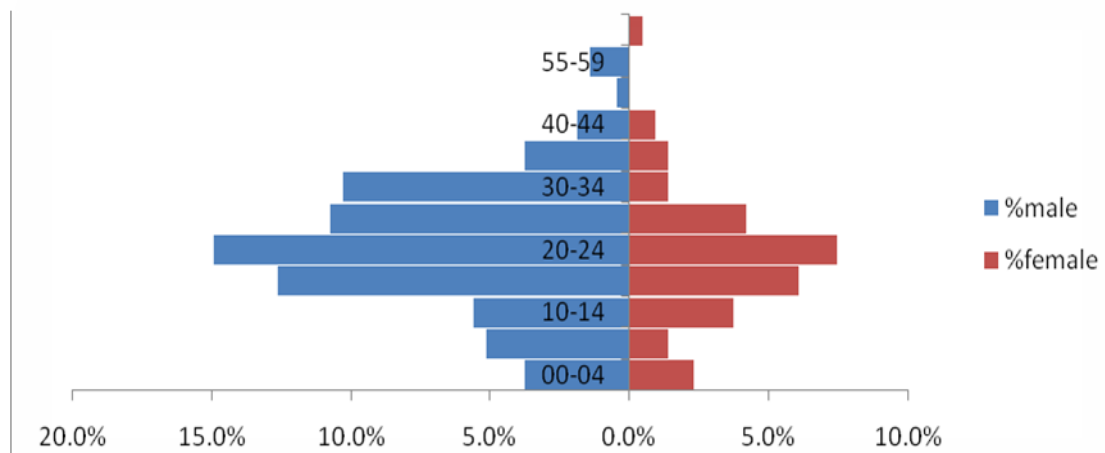


Figure 5: Population pyramid depicting the age structure of migrants at the period of migration

4.4.4 Reasons for migration

The in-migrants identified several reasons for their migration to Ilula EUC (Table 16). Family issues (i.e. marriages and family re-union) were the core drivers for decisions to migrate to Ilula EUC, which accounted 26.3% of responses. This was mainly reported by female headed households (30.2%) Likewise, the availability of business opportunities in EUC (18.5%) was also mentioned as another reason for their migration to Ilula EUC. Nevertheless, there have been some migrants' networks which facilitated migration to Ilula EUC. That is migrants tend to maintain their home attachments by visiting back, and also forging relationship with other individuals or social groups through which shares information about opportunities available in the destination areas. Through such relationships/attachments new streams of migration to Ilula EUC emerges.

Other reasons for migration decisions were associated with challenges they had faced while in their original places, which included: land shortages both for agricultural and construction purposes, low returns from agriculture production activities and lack of employment opportunities.

Table 16: Reasons for migration into EUC disaggregated by sex of household heads

Reasons for migration	Male household head (n=117)	Female household head (n=60)	Total (n=177)
Family issues (e.g. marriage and family reunion)	20.4	30.2	26.3
Accessing business opportunities	19.0	18.1	18.5
Accessing employment opportunities	12.9	14.4	13.8
Accessing land for agriculture	13.6	12.1	12.7
Accessing land for construction	11.6	13.0	12.4
EUC being close to the area of origin	11.6	5.6	8.0
Access to other social services (e.g. hospital; school; water)	6.8	4.7	5.5
Inspired by changes of early movers	2.0	0.9	1.4
Low returns in agriculture	1.4	0.5	0.8
Accessing financial services	0.7	0.5	0.6
Total	100.0	100.0	100.0

Note: n= is based on multiple responses for 177 migrants' household heads

4.4.5 Financing the migration process

Migration is associated with costs such as travelling costs, housing, food and other living expenses. However, migrants used different ways to finance their migration processes. Table 17 indicates that 18.5% of the heads of households relied on family and friends' relations for financing their migration process. Income obtained from selling crops was mentioned by 21.8% of respondents that facilitated their migration. Family and friends relations were also important for accommodation prospects as well as access to employment and other services. However, a significant number of female migrants were financed by their spouses to migrate (Table 17). However, there were a few in-migrants

i.e. spiritual service providers reported to have been supported by their respective religious institutions which included the Roman Catholic Church (RCC) and Baraza Kuu la Waislamu Tanzania (BAKWATA).

Table 17: Financing mechanism of migration process

Source of funds for migration	Male household head		Female household head		Overall	
	n	%	n	%	n	%
Crop sales	37	22	15	21	52	22
Moved with relatives/parents	28	17	16	22	44	19
Spouse	6	4	25	34	31	13
Salary from employment	24	15	6	8	30	13
Business	23	14	7	10	30	13
Friends' support	21	13	4	5	25	11
Income from tomato	15	9	0	0	15	6
Credit from relative	3	2	0	0	3	1
Credit from an institution	2	1	0	0	2	1
Religious institution	2	1	0	0	2	1
Moved without funding	4	2	0	0	4	2
Total	165	100	73	100	238	100

NB: The results are based on multiple responses for 207 cases with 238 responses

4.4.6 Migrants' settlements and respective occupations at their arrivals in EUC

Migrants' settlements arrangements

Migrants in EUC adapted to different settlement arrangements to cope with the situation that existed in the EUC as illustrated in Table 18. The migration theories especially the social networks theory underscores the role of networks as a form of social capital in which a wide range of ties connect former migrants and non-migrants in areas of origin (Massey *et al.*, 1993). Such networks facilitate migration process in which individuals secure information with respect to opportunities prevailing in both destiny and home origin. Kin and friendship ties were one of the most important strategies used by migrants to settle in the destination area. The results presented in Table 18 show that (41%) of the interviewed migrants who migrated before 1980, reported to have settled with relatives

when they arrived in Ilula EUC. However, some had already invested in the EUC by building houses prior their migration and settling in the EUC. For the case of civil servants and private sector employees, some had benefits on settlement arrangements from employers (Table 18).

Table 18: Migrants' accommodation in destination area – Ilula EUC (%)

Migration period	Accommodation arrangement					Stayed with employer (n=1)
	Stayed with relatives (n=71)	Stayed with friends(n=19)	Rented a house (n=79)	Stayed in Government's Quarters (2)	Owned house(42)	
Before 1980	41	0	26	0	33	0
1980 – 1990	34	3	45	3	15	0
1991 – 2000	33	12	36	1	17	1
2001 – 2005	33	21	36	0	10	0
After 2005	24	7	42	0	27	0

(ii) Migrants' occupations at arrival in EUC

Among the motives of migration to EUC were employment and business opportunities as presented in Table 19. Different migrants arrived in the EUC at different phases/time periods and were mainly engaged in three different employment categories, namely casual labourers, farmers and business people.

Largely, the migrating people in the EUC depended on agricultural activities as the main livelihood undertaking although the relative importance of this activity varied over time. The high dependency on agricultural activities was particularly evident during 1980 – 1990 when farming enterprise accounted for 47.4%, likewise 46.5% and 42.5% in 1991 – 2000 and 2001 – 2005 of all occupations, respectively. The in-migrants were engaged in different livelihood activities depending on available opportunities which have been changing over time (i.e. before and after 1980s) in EUC. For instance, 5.6% of people who migrated between 1991 – 2000 in Ilula EUC worked as casual labourers following the

high demand for labour during this period (Table 19). This is partly a result of the growth of Ilula that as this period was characterized by emergence of new businesses as well as increased tomato production. About 22.5% of migrants who arrived in Ilula EUC between 1991 and 2000 were engaged in business enterprises as their main livelihood activity (Table 19). However, during 2001 – 2005 the number of migrants involved in business was only 15.0% following the demolition of some business premises to allow space for the construction of Tanzania-Zambia Highway. Larsen and Birch-Thomsen (2015) established that many of businesses (45%) in Ilula EUC were established from 2006 to 2010.

Table 19: Migrants' occupations upon arrival in Ilula EUC (%)

Migration period	Before 1980 (n=35)	1980-1990 (n=38)	1991-2000 (n=71)	2001-2005 (n=40)	After 2005 (n=33)
Causal labourer	0.0	0.0	5.6	0.0	0.0
Farmers	28.6	47.4	46.5	42.5	33.3
Business person	8.6	10.5	22.5	15.0	18.2
Government employee	0.0	7.9	0.0	5.0	6.1
Missionary	2.9	0.0	1.4	0.0	0.0
Other activities	5.7	13.2	16.9	17.5	18.2
Dependants	54.2	21.0	7.1	20.0	24.2
Total	100.0	100.0	100.0	100.0	100.0

4.4.7 Changes in migration trend from rural hinterlands

To assess changes in migration trends, the study tracked down some of families of the migrants in hinterlands (including Dabaga, Mlafu, Itungi, and Uhambingeto villages) and found that many of the tomato producers in Ilula EUC who originated from Dabaga hired seasonal workers from area of their origin on contractual basis. Youths, specifically males were the most preferred group category compared to other social groups. Preference for this particular group formed seasonal migrations of young men from hinterlands.

Through communications with friends or relatives many of the young people became aware of the potentiality of the EUC. This led into high out migration of youth from hinterlands to the EUC especially in the late 1980s to 2010. However, some of these migrants moved further to new destinations especially Lindi Region and Mozambique to seek for employment in the timber business. Certainly, whenever new opportunities arise there is a possibility for change in mobility of labour in favour of more rewarding ventures. Many of the seasonal workers in Ilula EUC were reported originating from Lusinga, Lukani, Ukumbi, and Kimara which are remote areas in Dabaga.

4.4.8 Migrants' connections to original home places

Connections with places of origin were in different forms. One of these forms was to maintain family ties with their original places. Another form was through investment. The study observed that 93% of the interviewed migrants' household heads acknowledged having some connections with their respective areas of origin (Fig. 6). Such connections included presence of other family members and friends in home origins, investment of businesses or owning assets in respective home origins (Table 20). While many of the in-migrants to Ilula were males there was no statistical difference between male and female headed migrants' households.

Other empirical studies have reported the role which migration plays in linking different economic areas including origins and destinies (Tacoli, 1998; Waddington, 2003; Tacoli, 2004). Other important aspects which link these migrants with their home origins are described in the following sub-sections.

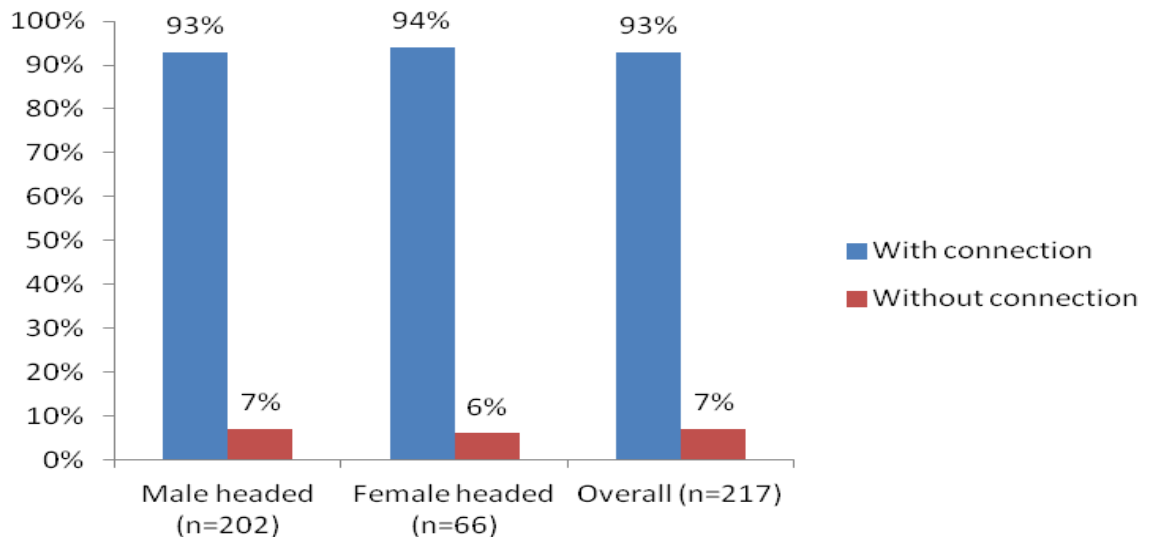


Figure 6: Migrants with and without connections with their origins

The types of migrants' contacts with their original destinations are presented in Table 20. Presence of family members in the EUC (17.0%), communication through home visits (16.6%), phone calls (15.6%), and investment like owning farm land (15.0%) were the major means connecting migrants to their home origins. The study findings are in line with Sepalla (1998) who found that ownership of farming plots in home villages was among factors reconnecting migrants to their origins.

Table 20: Responses on issues connecting migrants to their original places

Existing forms of contact/linkage	Frequency (n)	Percentage (%)
Owning a house in the village	166	14.3
Owning a farm in the village	174	15.0
Owning a business (e.g. shop) in the village	6	0.5
Owning livestock in the village	72	6.2
Buy goods from the village	6	0.5
Part of family members live in the village	197	17.0
Home visits	191	16.6
Phone calls	180	15.6
Remittances	165	14.3

NB: The statistics are based on multiple responses

4.4.9 Remittances and migrants' linkage to their original places

Remittance was one way through which migrant people were connected back to their home origins (Table 21). Over 72% of the interviewed migrants were sending remittances to home origins, and male headed households dominated (76%). However, those who did not send remittances claimed to have no close relatives in their respective original home places. Similarly, there were about 61.5% of the migrants in EUC who acknowledged receiving remittances from their relatives in hinterlands. The flow of money or materials from rural to EUC happens particularly when family members in EUC are still attending schools or experiencing food shortages. The flow of remittances from areas of origin to destinations also depends on the linkages which exist between the two. These linkages could be through existing family and investment practices in hinterlands.

Table 21: Proportion of male and female headed households acknowledged sending or receiving remittances (%)

Remittance	Male headed (n = 151)		Female headed (n = 66)		Total (n = 217)	
	Yes	No	Yes	No	Yes	No
Sent	76.2	23.8	63.1	36.9	72.2	27.8
Received	65.1	34.9	53.1	46.9	61.5	38.5

The reasons for sending or receiving remittances by the migrants' households in EUC are presented in (Table 22). About 71.3% of the migrants claimed that they sent remittances to their relatives in home places as gifts, and these were mainly female household heads (80.0%). Some migrants remitted fund to finance farming activities (13.9%) while others remitted funds to meet costs of health services for sick family members (12%). Similarly, some of migrants in Ilula EUC received remittances from their respective relatives in rural areas of origin as gifts (88.3%). It is worth noting that none of the respondents mentioned receiving or sending remittances claimed to have financed education.

Based on the study findings, the migrant households in Ilula EUC were relatively receiving more of the gifts (88.3%) than their fellows in rural areas (71.3%). Probably this was due to the fact that migrants were being given gifts in-kind as food whenever visited their home places. After all, the two sides were closely related prompting exchange of gifts.

Table 22: Reasons for migrants in the EUC to send or receive remittances (%)

Reasons for: Remitting	Male headed (n=115)	Female headed (n=42)	Overall (n=157)
Farming activities	15.4	10.0	13.9
House construction	2.6	3.3	2.8
Health	14.1	6.7	12.0
Gift	67.9	80.0	71.3
Receiving remittance	Male headed (n=98)	Female headed (n=35)	Total (n=134)
Gift	89.8	84.4	88.3
Health	5.7	3.1	5.0
House construction	1.1	6.3	2.5
Farming activities	3.4	6.2	4.2

There were different types of remittances which were being sent or received by migrants' families/households. Remittances could be in cash or in-kind (e.g. food, cloths, construction materials, and cooking utensils). The attached values for the remittances have different meanings and impacts differently to the receiving or sending households.

4.5 Rural-Urban linkage

4.5.1 Linkage of the Ilula EUC with hinterlands

Ilula EUC had better access to utility and support services than hinterlands. Thus it served as a point/location for hinterland communities to have access to services like: health facilities, financial services, building materials, business stocks and labour market.

Investment activities that existed in the EUC offered employment opportunities to people residing in hinterlands especially those with relevant skills. During the follow up survey in rural hinterlands which aimed at tracking down households which had some members living in EUC, the following were the findings:

The Ilula EUC and the hinterlands were inter-dependent. The Ilula EUC accommodated investment activities not only for those living in EUC but also from people living in the rural hinterlands (Table 23). Investment practices were diverse, as people found venturing in handcraft/artisan, crop farming and shop keeping. However, individuals with different skills secured employments in Ilula EUC. Plate 1 show commuters with masonry skills who were travelling to EUC looking for house construction activities. The Ilula EUC was also characterised by valley bottom cultivation activities which provided an opportunity for rural inhabitants as well to engage in vegetable production particularly in dry spells.

Table 23: Economic activities linking migrants to EUC (%)

Economic activity	Male headed households (n=9)	Female headed households (n= 1)	Total (n=10)
Labour	33.3	-	30.0
Crop farming	33.3	-	30.0
Craft/artisan	-	100	10.0
Driver	11.1	-	10.0
Shop keeping	22.3	-	20.0
Chi-square statistics			
X ² value = 10.0			
P value = 0.04			
df = 4			



Plate 1: Local masons seeking for jobs

4.5.2 Ilula EUC linkages to other urban centres

To a large extent the Ilula EUC is connected to other urban centres. Through such connectivity, the communities in Ilula EUC also becomes well positioned to have access to different services such as financial services provided by banks and NGOs (e.g. NMB, NBC, CRDB, PRIDE and FINCA) which are located in Iringa Town. Other services calls for people travelling to town, includes health services (e.g. Regional Hospital), education and buying goods from wholesale shops. Ilula EUC is also connected to other regions like Dar es Salaam, Mbeya, Morogoro, and Dodoma through existing different markets for

goods and services. This is facilitated not only by the existing good road network but also the economic base of the Ilula EUC.

4.6 Ilula EUC and labour markets

Rural labour markets are regarded as pivotal for economic development. Labour markets under this particular study have been categorized into two broad categories i.e. agricultural and non-agricultural labour markets. The agricultural labour markets involve supply and demand of labour on activities related to crop production and livestock keeping. While non-agricultural labour markets involve supply and demand of labour in activities as described in the following sub-sections.

Results on the labour markets distribution in Ilula EUC are presented in Table 24. About 57.1% of the interviewed female heads of households reported participating more in non-agricultural activities than in agricultural related activities (42.9%). This was not the case among the male heads of households. Over 70% of male headed households were engaged in agricultural activities and only 26% ventured in non-agricultural activities. This implies that there is gender disparities in terms of specialization, as more of female heads of households were taking part in non-agricultural activities than males ($\chi^2 (1) = 32.078$, $p = 0.000$). Probably this disparity stems from the existing potentials in Ilula EUC for pursuing small businesses as self-employment activities (e.g. food vending, kiosk and local brew business), which compliments income earnings to invest in agricultural activities. In addition, crop farmers reported deterioration in soil fertility in most of the fields in EUC resulting from continuous use and inappropriate fertilizer applications. This phenomenon might have impaired most of female headed households from engaging in agricultural activities, probably due to insufficient resources to invest in capital intensive agriculture that requires farmer to use several inputs.

Generally, most of the households (65%) in Ilula EUC were engaged in agricultural activities as compared to the non-agricultural activities (Table 24). This finding confirms that the agricultural sector is still the most important livelihood option for the majority of rural people.

Table 24: Participation of households in agricultural and non-agricultural activities in EUC (%)

Economic activity	Male headed (n=249)	Female headed (n= 105)	Total (n=354)
Agriculture	74.3	42.9	65.0
Non agriculture	25.7	57.1	35.0
Chi-square statistics			
X ² value = 32.078			
P value = 0.000			
df = 1			

4.6.1 Agricultural labour markets

People in the study area were mainly engaged in the production of food and cash crops although a significant number integrated crop production with livestock keeping. Maize as the main staple food crop was grown by 79.9% of respondents many of which were male headed households (83.9%). Other food crops grown in the EUC were vegetables (e.g. cowpeas and leafy vegetables). Maize served dual purposes as food and cash crop. Tomato was the main cash crop in the study area grown by 50.3% of all interviewed households. Over fifty percent of the male headed households were engaged in tomato crop production as compared to only 30% of the female headed households. In normal years the production of food crop in Ilula EUC was confined between December and July which coincided with that of tomato production leading into competition for labour.

Sunflower production was also practiced by 19.5% of all surveyed households (Table 25). Apart from growing crops, there were also some of households in EUC ventured in livestock keeping (54.2%) and (39.8%) were selling family labour to crop farms for earning income to meet their family needs and obligations (Table 25).

Table 25: Engagement of households in agricultural production (%)

Activity involved	Male headed households (n=249)	Female headed households (n=105)	Total (n=354)
Maize production	209(83.9)	74(70.5)	283(79.9)
Tomato production	147(59.0)	31(29.5)	178(50.3)
Sunflower production	55(22.1)	14(13.3)	69(19.5)
Livestock keeping	147(59.0)	45(42.9)	192(54.2)
Selling labour	100(40.2)	41(39.1)	141(39.8)

NB: Numbers in brackets are percentages based on multiple responses

4.6.1.1 Participation of households in food crops production activities

Food production activities involved production of maize, cowpeas and other leafy vegetables. The main activities in food crops production consists of land clearing, land cultivations, weeding and harvesting. According to Figure 7.0 it shows that food crops production activities were mostly performed household members. That is the household labour was largely invested in land clearing activities (83%) in contrast to hired labour which was only 17%. This was also followed by other activities like crop harvesting and weeding which respectively comprised of 82% and 79% of all labour sources coming from household members. However, hired labour was mainly required to compliment the household labour especially during land cultivations (57%) and weeding (21%) activities.

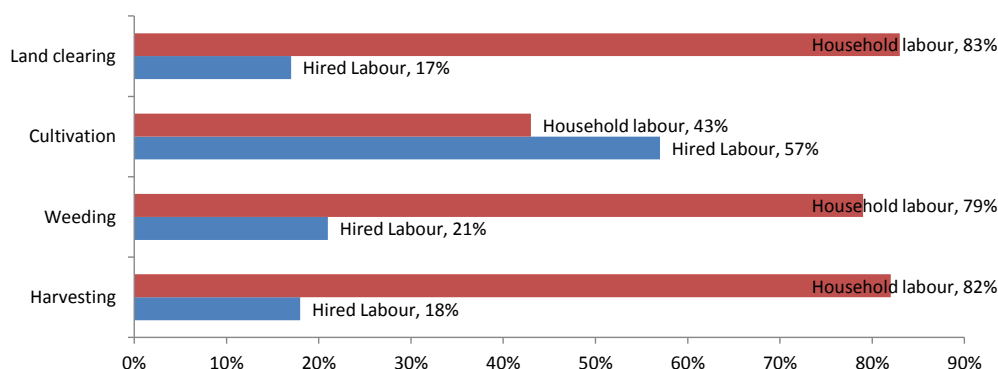


Figure 7: Labour distribution in food crop production

4.6.1.2 Participation of EUC households in livestock keeping

Some of the people living in EUC were keeping livestock (54.7%) apart from engaging in crop production activities (Table 26). Types of livestock owned were: pigs, chicken, goats, ducks, cattle, sheep and a few people had donkeys. The total number of livestock owned by the male and female headed households differed significantly. Male headed households had a large number of animals ranging from cattle, pigs to chicken and ducks (Table 26). Female headed households preferred to keep goats followed by chicken and ducks.

Table 26: Household headship and livestock ownership in EUC (%)

Type of livestock owned	Male headed household (n=147)	Female headed household (n=45)	Total (n=192)
Chicken	40(43.5)	16(46.4)	56(44.2)
Pigs	19(16.7)	4(23.2)	23(18.2)
Goats	104(16.4)	32(10.1)	136(14.9)
Ducks	34(14.2)	10(14.5)	44(14.2)
Cattle/cow	39(7.9)	7(5.8)	46(7.5)
Sheep	3(1.3)	0(0.0)	3(1.0)

Note: The results are based on multiple responses for 192 respondent who own livestock

The main use of livestock by the people in EUC was basically for income earning. Nevertheless, livestock also served as food to the households, and was the form of saving, including a sign of wealth and security against unforeseen circumstances.

Livestock keeping was partly integrated into crop farming activities through the use of animals' draught power for tilling the land and transportation of inputs and farm products within EUC and hinterlands. The use of oxen/draught power for tillage was mostly preferred as compared to tractors due to relatively low costs. Above that the use of oxen was relatively more effective in saving time and reducing drudgery than hand hoeing. Thus it was a better alternative for those farmers constrained by time or cash to endure the pain associated with hand hoeing or cost of hiring tractor.

Livestock keeping was also important for generating income through disposing the animal. It was claimed that it is easy to sell livestock like chicken, ducks, pigs and goats owing high demand for barbeques (*nyama choma*), soups and food vending services. Thus owning such livestock was an opportunity for households to secure quick money whenever they needed.

i) Livestock management arrangements within households

The management of livestock mainly involved a family. Family members who were involved to manage the livestock are presented in Table 27. The study observed that within female headed households, adult females (57.7%) and male children (17.9%) were more responsible in undertaking livestock management activities. These statistics are complemented by what was reported during the FGD that the management of small animals (like ducks, chickens, guinea pigs, goats and pigs) was normally the responsibility

of women and children. The use of hired labour was not common in Ilula EUC though it was slightly common among male headed households (0.4%).

Table 27: Participation of household members in livestock management (%)

Source of labour	Male headed household (n=147)	Female headed household (n=45)
Male adults	38.9	23.1
Female adults	44.7	57.7
Male children	15.6	17.9
Female child	0.4	1.3
Hired labour	0.4	0.0

Duties performed during the management included collection of animal feeds i.e. household's remains and crop remains from markets and giving supplementary feeds like sunflower cake (*mashudu*) for indoor or zero grazed animals. Apart from indoor or zero grazing, free range management was also practiced (Plate 2 and 3). However, households with a large number of cattle used common land for grazing their animals e.g. around Itofya Mountain and Ding'inayo Mountain.



Plate 2: Piglets kept under free range in Ilula EUC



Plate 3: Goats feeding under tethering management in Ilula EUC

It is important to note that agricultural and grazing land have been decreasing overtime because of an increase of competing land uses resulting from population growth and urbanization. These changes prompted people with large stock of animals to use hinterlands for raising their livestock. However, during the FGD it was mentioned that small number of households maintained their large number of cattle in “*boma*” in Ilula EUC due to several challenges including limited grazing space. However, Ilula EUC has rivers which serve as water drinking points for even large stock of animals from hinterlands. In addition, the Ilula EUC has other infrastructures like animal deeps and slaughter house services.

4.6.1.3 Households participation in tomato sub-sector

About 50.3% of the sampled households in Ilula EUC were involved in tomato production (Fig. 8). However, the participation of male and female headed households in tomato production differed significantly, as 59.4% comprised of male headed households compared to 28.6% households headed by females. Tomato production was perceived as a capital intensive and risky investment because it is predominantly rain fed and rainfall is erratic. Other risks included unreliable crop markets and perishability. Thus participation into this sub-sector relies on individual’s financial capacity to overcome such challenges which could be the main reason for low participation of women.

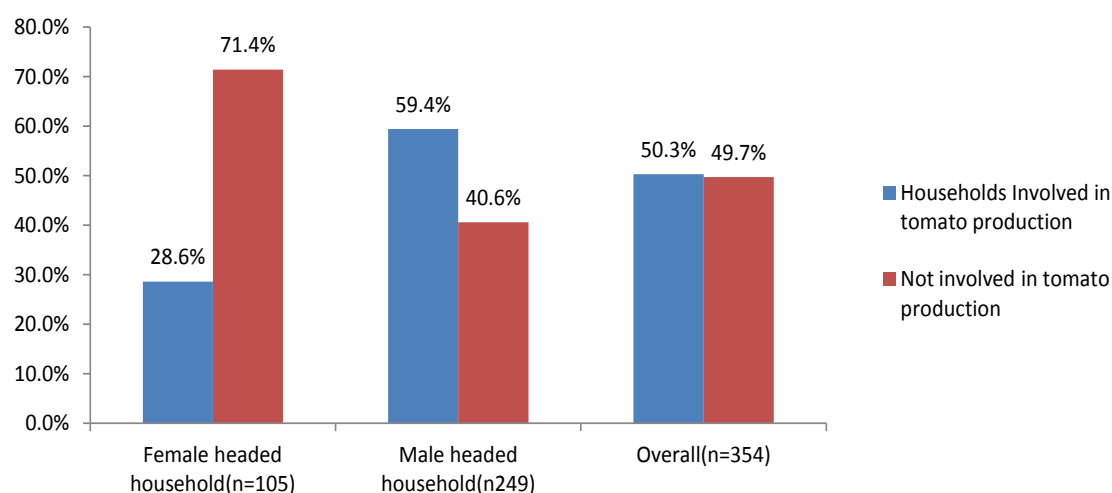


Figure 8: Percentage (%) of households involved in tomato production

i) The location of tomato crop fields

It is estimated that most of the households, about 72.1% grew tomatoes within Ilula EUC, particularly in Nyalumbu ward (Fig. 9). Others grew within hinterland villages: Uhambingeto ward, specifically in Vitono, Kipaduka and Ikuka villages; Mlafu ward in Itungi, Isagwa and Ifua village; Ilula ward in Ikokoto village. Furthermore, the study results have shown that there were differences between male and female headed households as far as tomato field locations are concerned. Most of the female headed households (90.9%) were producing tomatoes within the Ilula EUC. In contrast 68.9% of all male headed households produced tomatoes in these areas. Some (31.1%) of male headed households produced tomatoes even in the hinterlands. This could probably be explained by the fact that male headed households had better chances of accessing land in hinterlands than female headed households owing to their high mobility potentials and financial capabilities as compared to women.

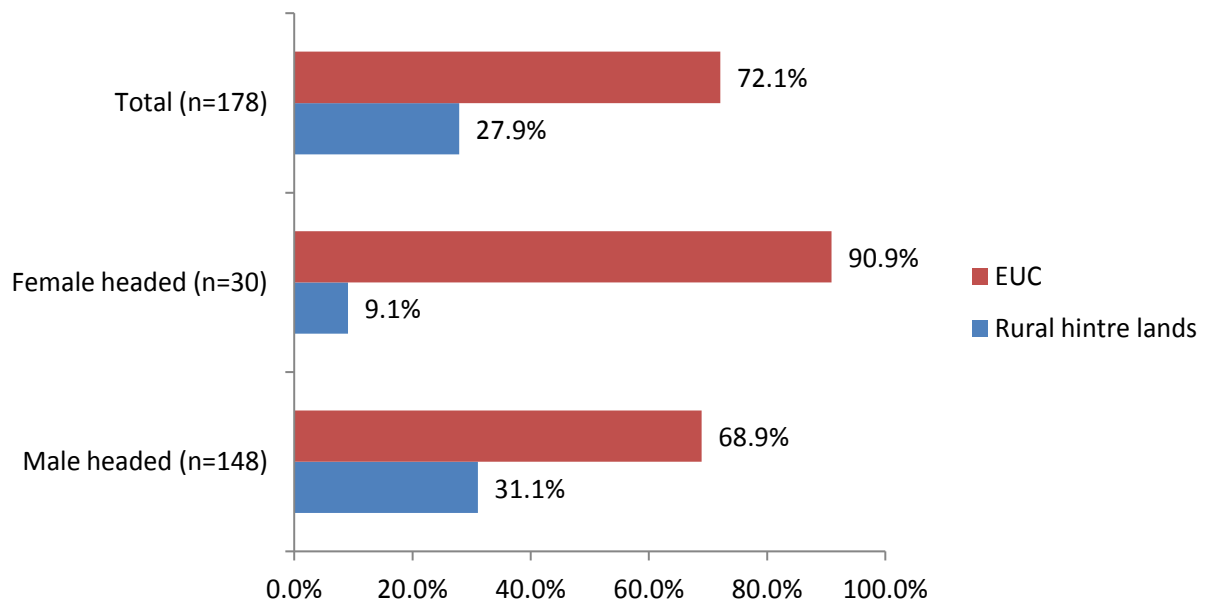


Figure 9: The location of tomato fields in Ilula EUC

ii) Particular seasons for tomato production

Tomato production seasons in Ilula EUC are presented in Fig. 10. According to the crop seasonal calendar in the study area there are two tomato production seasons under normal circumstances i.e. the first season is during the rainy season commonly termed as *kilimo cha nje*, which starts in January to April. Majority of tomato growers in the EUC (87%) were producing tomatoes during this particular season (Fig. 10). The raining season was characterised by high labour demands as the tomato production coincided with food production activities, ultimately created a high competition for labour. All the same, production costs waived higher during this particular season compounded not only by labour competition but also the higher use of pesticides and other agrochemicals. Farming activities started in December and harvesting was done in March to July depending on planting dates.

The second tomato growing season involved cultivation of valley bottomlands, locally known as “*nyanya za vinyunguni*”. This was normally done during dry seasons (starts in August and ends in December). Producers not only capitalized on residual moisture in the valley bottomland but also irrigated to boost yields. This was done by only 13% of households involved in tomato production (Fig. 10). It was practiced within Ilula EUC and other rural hinterlands e.g. Image, Mlafu and Itungi. Poor access to these few and small pockets of valley bottomlands including shortage of irrigation facilities limited the participation for some of farmers during this particular tomato production season.

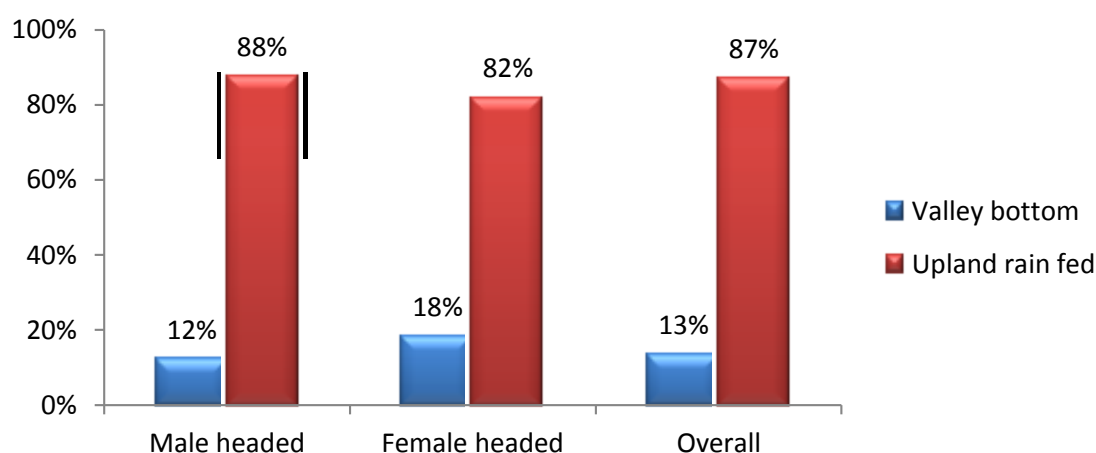


Figure 10: Tomato production seasons

iii) Area under tomato production and its production potentials

Many of the tomato growers were cultivating 0.5 to 1.0 acre of tomato fields. The mean acreage per household for rain fed tomato production field was 1.8 acres, while 1.6 acres was an average for cultivated valley bottomland. The participants of FGD reported that the production potential for 0.5 acre of cultivated land ranged from 180 to 200 crates of tomatoes (Approximately 19 000 kg). However, the amount produced could still deviate from the average due to unfavourable weather conditions, as well as variation in soil fertility and management practices (e.g. use of pesticides and fertilizers). Table 28 shows

that there was significant difference on areas under tomato production between male and female headed households ($\chi^2 (4) = 3.442$, $p = 0.009$). Most of female headed households had access to small pockets of land (mostly in EUC), which was not the case for male headed households who were able to access more land even from other locations. Also most of the large fields were in the hinterlands.

Table 28: Area under tomato production (%)

Area under production (acre)	Male headed household(n=132)		Female headed household(n=22)		Overall (n=154)	
	EUC	hinterland	EUC	hinterland	EUC	hinterland
0.5 - 1.0	45.9	43.3	88.9	75.0	54.4	45.3
1.1 - 1.25	-	1.7	-	-	-	1.6
1.26 - 2.0	33.3	33.3	5.5	-	27.8	31.2
2.1 - 2.25	-	1.7	-	-	-	1.6
More than 2.5	20.8	20	5.6	25.0	17.8	20.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Chi-square statistics:						
χ^2 value = 3.442						
P value = 0.009						
df = 4						

iv) Access to land for tomato production

Tomato producers in the study area were accessing land through different arrangements (Table 29). Renting-in of crop fields was a relatively more common practice (34.2%) in the study area as compared to other land acquisition methods (Table 29). Many of female heads of households (45.5%) were renting-in agricultural land for producing tomatoes. This could be associated with existing gender inequalities stemming from traditional practices and customary laws that have continued discriminating women to have access and control over land resources. Some of the women managed to get this land through formal applications in relevant village governments (13.6%).

Table 29: Field plots acquisition for tomato production (%)

Means of acquisition	Male headed household (n=136)	Female headed household (n=22)	*Overall (n=158)
Inherited	23.5	22.7	23.4
Purchased	19.1	13.7	18.4
Borrowed	24.3	4.5	21.5
Renting-in	32.4	45.5	34.2
Given by Village government	0.7	13.6	2.5
Total	100.0	100.0	100.0

*The overall is based on 88.8% responses since 20 households could not respond

Moreover, the deterioration of crop fields in terms of soil fertility status and unreliability of rainfalls in Ilula EUC has also contributed to farmers' decisions of moving out to hinterlands for renting-in arable lands. This was further justified by study results as indicated in Table 30 that decisions for renting-in/ borrowing land to grow tomatoes was not done by landless people only rather involved even those owning arable land in Ilula EUC. Within sampled households, 124 of the interviewed households involved in growing tomatoes owned land, and yet some were also borrowing and/renting in land (Table 30). Within respective sex categories, many of the female and male heads of households used their own lands. However, male heads of households both rented-in (26%) and borrowed land (19.2%) to grow tomatoes, apart from using their own land.

Renting-in upland crop field was costing about Tshs 40 000 per acre per season. Meanwhile, valley bottomland (alias *kinyungu*) was rented-in at around Tshs 160 000 per acre per season. Valley bottoms were costly to rent-in since had relatively fertile soils consisting of some residual moisture that could support crop performance in dry seasons in contrast to upland crop fields. It therefore indicates that soil fertility declines in tomato growing soils in Ilula EUC is the issue of concern to farmers and is aggravated by the

current change of climate. Hence borrowing and renting-in land in hinterlands served as a coping strategy.

Table 30: Land owners' renting-in/borrowing arable land for growing tomatoes (%)

Means of land acquisition	Male household heads (n=104)	Female household heads (n=20)	Total (n=124)
Own land	54.8	55.0	54.8
Borrowed	19.2	-	16.1
Rented in	26.0	45.0	29.1
Total	100.0	100.0	100.0

Poor agronomic practices and continued use of inorganic fertilizers during tomato production were claimed being among factors led into soil fertility declines in crop fields. This has consequently discouraged most of land owners to subject their respective agricultural lands into tomato production. It was similarly mentioned that land owners who rent-out their crop fields normally ends with less income compared to income generated by the tenant (i.e. from total value of tomato crop harvested). Such claims were drawn from the fact that continuous use of inorganic fertilizers which is mostly done to hired-in crop fields affects the natural soil fertility status. However, land owners are tempted to rent-out their crop lands with expectation of accessing social support or cash money from tenant(s) whenever they encounter problems (e.g. sickness; food shortage or emergencies) at the expense of their crop lands' well-being.

v) The division of labour within tomato production sub-sector

Tomato production is generally considered as a labour intensive activity as compared to other crops in Ilula EUC. However, the production activities could be categorised into the following broad categories; nursery preparation and management; field preparation; field crop management and harvesting.

vi) Nursery preparation and management

Figure 11 presents the study findings from Ilula EUC with regards to labour distribution during nursery preparation and management. The percentages are based on multiple responses for 159 reported cases of tomato producers. Nursery preparation and management largely involved family labour which is the most universally familiar asset for smallholder farmers, while only a few households (12%) hired-in labour (Fig. 11). Involvement of adult men in nursery management was relatively higher (44.0%) within both male and female headed households as compared to other household members. Involvement of female children in nursery management activities was relatively higher constituting 10% (Fig. 11). On average, children within female headed households supplied more labour (31%) than male headed households which accounted for only 15%. However, the participation of male children was slightly low compared to their fellows within respective households. Probably this is contributed by gender specific opportunities currently found in Ilula EUC e.g. *Boda boda* enterprise, pool table games, vending business, etc. which have attracted most of male children.

A high use of children labour within female headed households was probably associated with adult labour shortages compounded by time constraints as they have to perform other domestic obligations, and lack of money to hire -in more labour. Alternatively, female headed households compensate by investing in the use of family labour. A significant participation of male adults in nursery preparation and management could be explained by the fact that many of tomato growers depended highly on their own planting materials/seedlings. Therefore, this particular stage was regarded by farmers as one of the very sensitive stages in production because any failure at nursery stage has negative implications to the whole exercise. It could lead into high costs of production for buying seedlings from their fellow farmers and, ultimately reducing earnings.

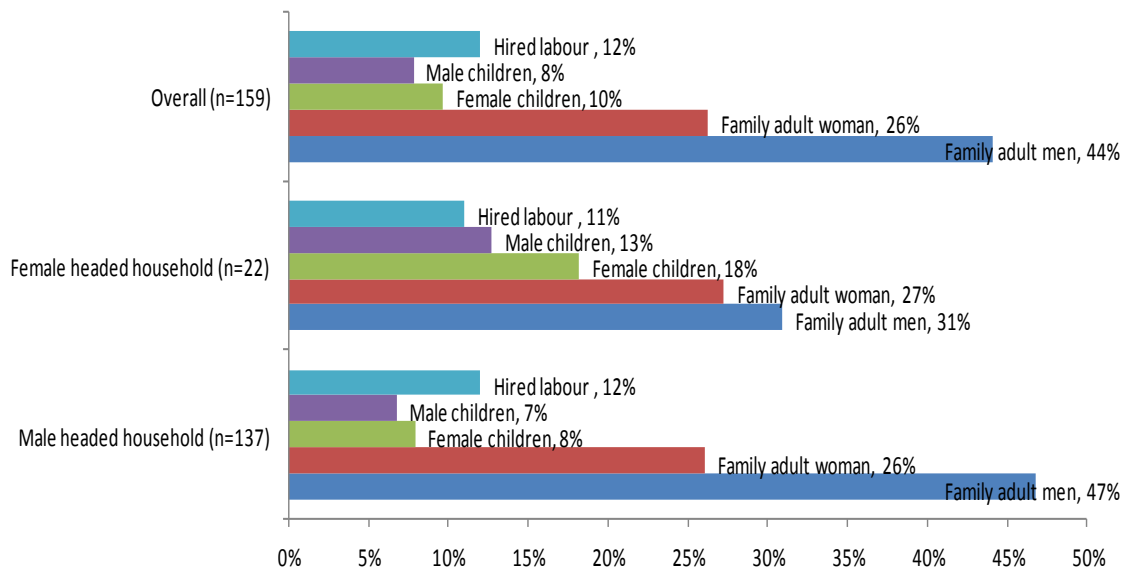


Figure 11: Labour division in nursery management

vii) Field preparation and tomato management

Field preparation and management involved a wide range of activities. The common activities were: land clearing, digging, transplanting, weeding, fertilization, pesticide application, harvesting and farm produce transporting.

viii) Labour for land clearing activity

Figure 12 show results on labour distribution during land clearing activities within male and female headed households. The overall results show that land clearing activities involved a large proportion of male adults (42.0%) followed by hired labour (26.0%) female adults (22.0%) and children (5%). The male adults constituted a large proportion on individuals involved in land clearing across all types of households. All the same, female children under female headed households worked more on land clearing activities (14.0%) compared to their counterparts in male headed households of which only 4% participated in land clearing.

Land clearing involved collection of debris and cutting down of shrubs and prepare field area for tillage. However, land clearing could be an easy or cumbersome task depending on whether it's a virgin land, fallow land or it has previously been used for crop production.

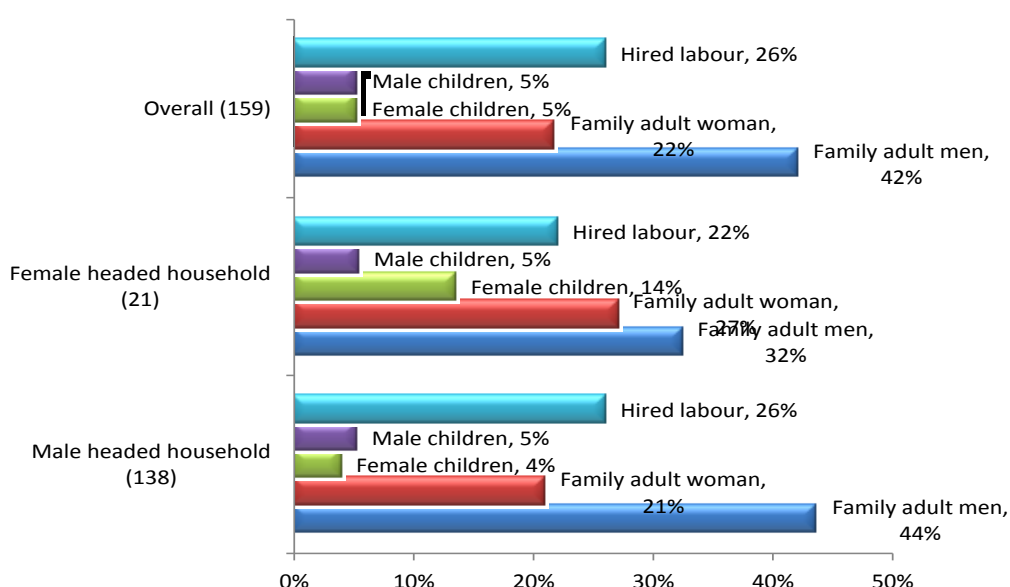


Figure 12: Involvement inland clearing

ix) Land cultivation

Results in Fig. 13 shows that the level of mechanization in the EUC varied considerably from the use of hand hoe to the use of draught power and tractors. The use of tractors and oxen had an implication on the labour markets for those who depended on selling labour for cultivation. For example, based on the overall percentages, it revealed that 12% of the respondents hired-in labour for hand hoeing, meanwhile 14.0% used tractors and 31.0% used oxen. Nevertheless, the participation of men in land preparation, which accounted 23.0% of all labour sources was mainly associated with the use of agro-machineries especially tractors and oxen which were mainly under males' domain. The use of oxen and tractors was higher under male headed households compared to female headed households

(Fig. 13). Moreover, female headed households were still depending more on the family labour as compared to male headed households.

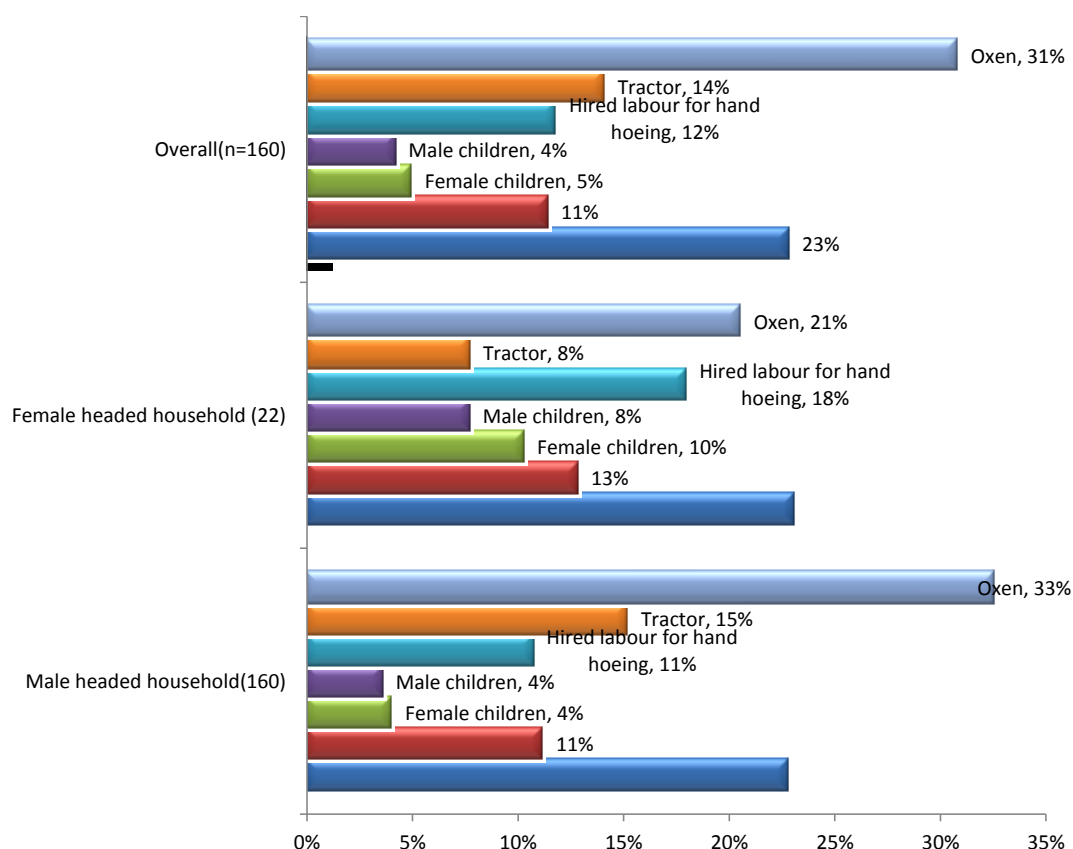


Figure 13: Involvement in cultivation

x) Labour for transplanting seedlings

Transplanting of seedlings is usually done after preparing the fields (i.e. after tilling the land) which also depends on soil moisture availability. For the rain fed field transplanting is usually done during December. The activity is usually done early in the morning or late evening to avoid sunlight stress. Transplanting is a labour intensive activity and for that matter many of the households used most of the labour force available within respective households, as well as hiring-in labour from outside.

According to the study findings presented in Figure 14, adult males were the dominant labour providers in transplanting activity, accounting 40% of all supplied labour. About 18% of labour in transplanting activity came from children as compared to other activities in tomato production cycles. Transplanting exercise coincided with children's holidays when schools were closed in December, which was also the particular moment for undertaking the activity. Therefore, farming families had an opportunity to capitalize on the idle children's labour within households.

Despite being an intensive activity, still transplanting activity had shorter working days (i.e. with an average of two days) as compared to other activities. It was also established that it was easy to conduct this activity during school lay off days as many of children were available within households. Study results demonstrates that the involvement of female children in transplanting seedlings within female headed households was 21.0% which was close to three times more than female children in male headed households (8.0%). This could probably be associated with availability of female children within female headed households and their close attachment to family activities (Wolf, 1990). The study established that there was a relationship between the ability to control children labour and economic power of the household, where the poor had little control over children labour.

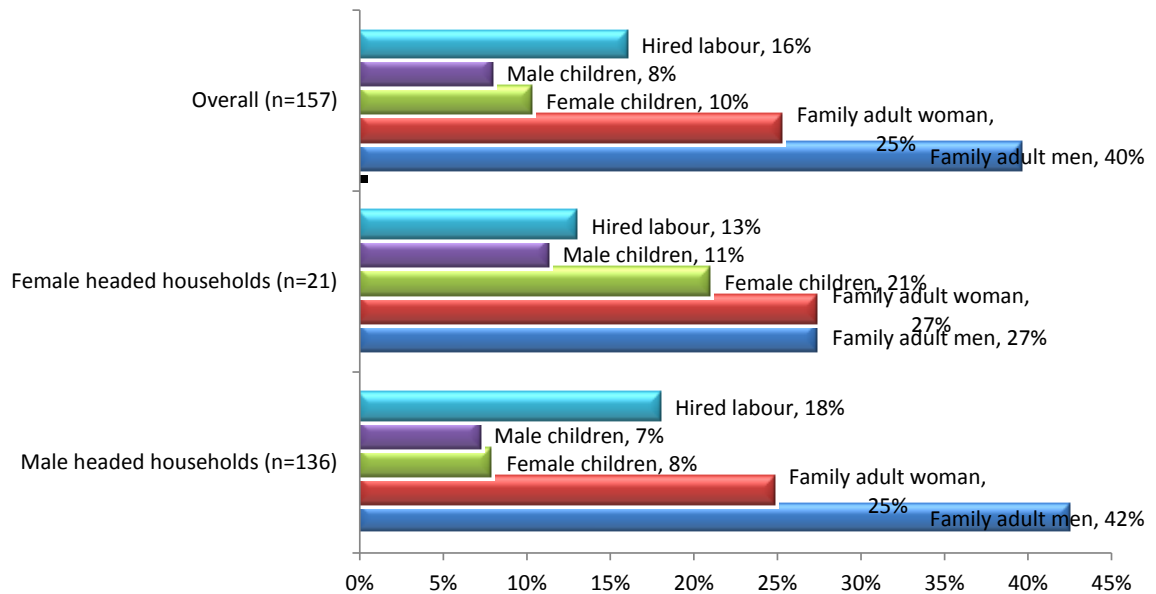


Figure 14: Transplanting labour distribution across different households

xi) Labour for weeding tomato crop field

Results revealed that many of the adult males (36.0%) were the ones who were responsible in weeding activities followed by hired labour (27.0%) as per details in Fig. 15. The involvement of children labour within female headed household in performing this activity was twice as much as of that of children from male headed households. About 18.0% of female children in female headed households were involved in weeding, whereas only 10% of this labour came from children in male headed households. In the case of hired labour, more casual labourers were used by male headed households (29.0%) than in female headed households (20.0%). Yet family labour dominated the activity. This could simply be associated with lack of financial resources to hire in labour.

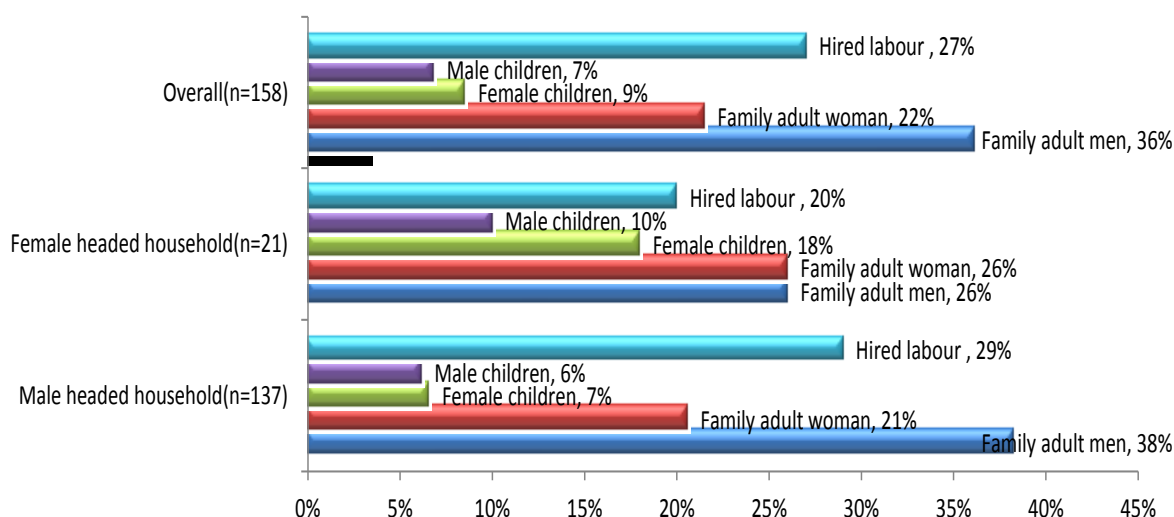


Figure 15: Involvement in weeding activities

xii) Labour for fertilizer and pesticide application

According to the FGD results, the following issues were noted with regards to the labour use on fertilizer and pesticide applications. Fertilizer and pesticide application activity is gendered. Farmers who earned more income were capable of buying these chemicals than poor farmers who accessed them on credit basis from input stockist or middlemen.

Once the fertilizers and pesticides were obtained, their applications were done concurrently to the whole crop field in order to save labour and ensure a uniform performance of the crop stand. The applications of agro-chemicals were mainly performed by family members with exception of children as the activity calendar found them attending schools. However, the application of pesticides revealed the existence of defined roles for women and men. Women were responsible for fetching water to prepare pesticide solutions, while men were responsible for spraying pesticides.

xiii) Labour for harvesting tomatoes

Tomato harvesting was basically considered as a women's task although some hired labour to undertake this task. According to Figure 16, the hired labour accounted for 33.0% of all labour employed to undertake this activity. Large scale farmers mostly preferred hiring women than men for harvesting tomatoes. The FGD participants revealed that this activity was increasingly becoming women's responsibility who were also tasked for carrying tomatoes (on their heads) to collection centres. It was found that women were more careful than men in handling tomatoes during harvesting and carrying tomato baskets from the field.

But this was not the case to the family labour within farming households, as both male and female household members were involved in harvesting the crop. The involvement of male adults was relatively higher than other household members from both males (34.0%) and females (24.0%) headed households (Fig. 16). This was based on the fact that tomato crop production was regarded as a male crop, thereby making the most dominant in performing activities related to tomato harvesting. However, the participation of female children surpassed that of male children from both male and female headed households.

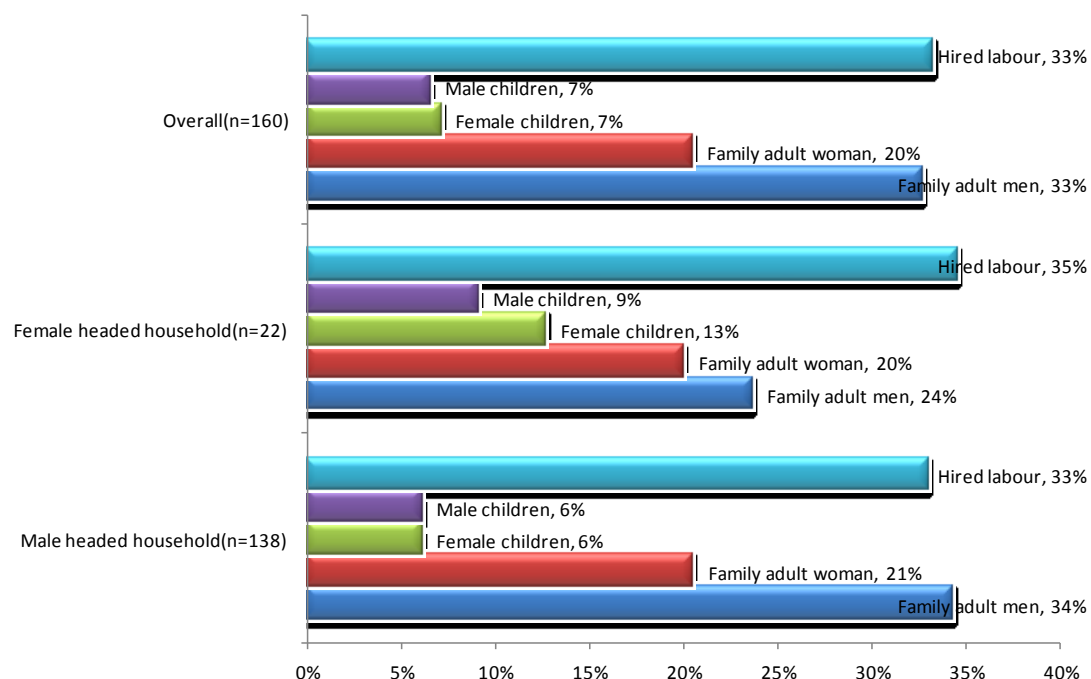


Figure 16: The involvement in tomato harvesting

In summary many of the interviewed farmers depended on family labour for undertaking tomato production activities compared to other sources of labour (Table 31). Only a few of farmers hired in labour to perform some of these activities, like cultivating (over fifty percent), weeding (one third of labour sources) and harvesting (almost one third of labour supply). It suggests that these were labour intensive activities, which required the use of hired labour. A significant labour contribution from adult males in various activities related to tomato production, underscores the fact that tomato is the men's crop. Nevertheless, adult women and female children were also involved in all activities although there were not controlling the use of income earned from these activities.

Table 31: The use of family and hired labour

Activity	Family labour %	Hired labour %	Total %
Nursery preparation and management	88	12	100
Land clearing	74	26	100
Cultivating	43	57	100
Transplanting	84	16	100
Weeding	73	27	100
Harvesting	77	23	100

xiv) Tomato marketing and EUC communities' participation

According to the local government regulations all tomato sales were required to be undertaken within a selected market in Madizini village, commonly known as TASAF market. The market was built by the Local Government Authority in 2006 through the Tanzania Social Action Funds (TASAF). However, there were other small collection points which were located along the main road and they were spot markets. Table 32 gives a summary of main selling points that were used by tomato farmers.

According to the study results, only 0.7% of all households which grew tomato had direct access to distant markets in Dar es Salaam (Table 32). Local markets remained to be largely accessible to producers, as many (78.9%) sold their produce through the TASAF Market and at the farm gate/spot markets which constituted 13.6% of total number of sellers/producers. There were no significant differences between male and female headed households in terms of their participation in local markets (Table 32). However, female headed households preferred selling their tomatoes at farm gate/ local spot markets (i.e. along the Tanzania-Zambia Highway) to formal market places. Such a high participation of female headed households in farm gate and spot markets could be a result of auctioneering system existing in formal selling points that deters their participation, as instead opted for selling directly to customers to reduce marketing costs.

Table 32: Access to tomato markets by male and female headed households (%)

Marketing area	Male headed households (n=127)	Female headed households (n=20)	Overall (n=147)
TASAF Market - Ilula	80.3	70.0	78.9
Farm gate – Ilula/hinterland	13.4	15.0	13.6
Dar es Salaam market	0.8	0	0.7
Spot markets (along the highway)	5.5	15.0	6.8
Total	100.0	100.0	100.0

However, many of the male producers sold tomatoes at respective markets through auctioneers. This was so because the tomato marketing system was governed by the auctioneers and for that matter it was difficult for individual farmers to meet with traders, and thus they found it easier to market their tomatoes through middlemen. Middlemen were usually found at market places provided the tomato produce was available. They sometimes moved to different marketing points to get hold of tomatoes and fulfill the requirement of their clients/buyers.

Traders normally purchased tomatoes under different arrangements. They could either pay in advance (through cash or in terms of materials e.g. farm inputs) or undertaking total payments after the produce has been delivered. Auctioneers charged a commission from each farmer at the market, which was not uniform. Farmers were also supposed to pay a crop cess according to volume traded. The crop cess was about Tshs 100 per wooden crate and Tshs 200 per bamboo basket. On average the bamboo basket weighed about 50 - 60 kilograms while a wooden box weighed 30 - 40 kilograms. Other costs covered by farmers included transport charges from the field to marketing point(s) and costs for hiring *tenga* (bamboo basket) for carrying produce from farm to the market point.

Purchased tomatoes at the markets were normally sorted and repacked before being transported to other markets. Normally harvested tomatoes were packed taken into bamboo baskets lined with grasses as cushioning material and transported to marketing point(s). At the marketing point tomatoes were also sorted/graded and packed ready for marketing. The packing process not only improved the quality of the tomatoes to be marketed but also it offered employment opportunity to many of the male youth groups working in the tomato market (Plate 4a and 4b). These young men were normally paid in cash by the tomato buyers. The payment differed depending on the type of packaging materials (about Tshs 500 for sorting and packing a box of tomatoes, and Tshs 700 - 800 for packing a bamboo basket). On average an individual could earn approximately Tshs 5 000 - 15 000 per day depending on market conditions. A large number of male students were also involved in this activity.

The youth groups maintained contacts with buyers for securing jobs during the onset tomato marketing season. Contacts were maintained mainly through phone calls. It was apparent that through these contacts the young men could even migrate to other places where traders were buying tomatoes. For example during off seasons in Ilula EUC, some of these youth people were reported migrating to Morogoro and Tanga Regions to assume the same responsibilities.



Plate 4a: Ilula EUC market participants sorting/grading and packing tomatoes into wooden boxes/crates



Plate 4b: Sorting and packing of tomatoes into bamboo baskets for transporting to outside markets by youth in Ilula EUC

In line to these findings, accessibility of the local market in EUC has attracted many of tomato traders, consequently created different employment opportunities to local people, particularly within informal sub-sectors like: basket making, cargo porters (loading and off-loading tomato baskets/crates), transporting, tomato packaging, food vendors and telecommunications.

4.6.2 Labour markets for non-agricultural activities

This section describes the types of non-agricultural activities in Ilula EUC and the participation of different households in these markets. The study identified shop-keeping, running of small kiosks (literally referred to as *genge* in Swahili), food vending, local brewing, selling of fire wood, and cargo porters. Others were renting-out residential/business premises, carpentry, masonry, tailoring, middlemen/auctioneers, selling of scrappers, and employment in public sectors (civil servants) as non-agricultural employment opportunities.

4.6.2.1 Shop-keeping and *genge* enterprises

Some of the business activities undertaken by people in Ilula involved running of retail shops, including small kiosks i.e *genge* (Table 33). The study noted that some of these businesses were being operated seasonally depending on the availability of goods to be sold. Seasonality of the business was also determined by capital availability as well as factors like labour and time. The nature of business undertaken by men differed from that of women. Most of the businesses undertaken by females in EUC were simply petty trades (5.7%) like kiosk/ *genge* enterprises. However, men were venturing into relatively high capital enterprises e.g. running big retail shops (11.3%) in contrast to female headed households (6.7%). Women were participating more in a range of small entrepreneurial activities than men, probably due to their limited access to land/collaterals, knowledge and

skills, financial resources, include being overburdened by unpaid work responsibilities. The peak business season is mainly associated with tomato harvesting season (March to June). This particular period was characterised by high circulation of money in the EUC.

Table 33: Households involved in shops/kiosk/ genge business (%)

Type of business	Male headed household (n=249)		Female headed household (n=105)		Overall (N=354)	
	Involved	Not involved	Involved	Not involved	Involved	Not involved
Shop keeping	11.3	88.7	6.7	93.3	9.9	90.1
Kiosk/genge	8.5	91.5	5.7	94.3	7.6	92.4

4.6.2.2 Food vending enterprises

Food vending business in Ilula EUC was one of the economic activities that allowed households to generate income. Twenty eight (7.8%) households out of 354 of sampled households participated in food vending business (Fig.17). Many of these were female headed households i.e. 15 (53.7%) out of 28 households. The participation of adult males and females in food vending enterprises differed significantly whereas adult males accounted for 76.9% of all participants within male headed households, and none of adult females took part in food vending business. Similarly, adult females within their respective female headed households recorded 80.0% in food vending and none of their counterparts provided labour (Fig. 17). All these disparities were contributed by differences within participating households. The study results imply that heads of households were the owners of the enterprises within respective households.

Children within households were also the sources of labour in food vending activities. Female children provided around two folds more labour than male children (Fig. 17). The use of hired labour in food vending enterprise was not reported from the study area.

Probably this is ascribed by the low operating capitals to food vendors. The business usually required both financial and social capital investments. Social relations between food vendors, suppliers of cooking materials and customers were relatively complex. For example it was established that the existing social capital (i.e. a good business relationship) among the food vendors and retail shop owners enabled the former obtaining cooking materials on credit basis and paid after selling food. Through such credit arrangements the retailers were able to maintain the customers' base.

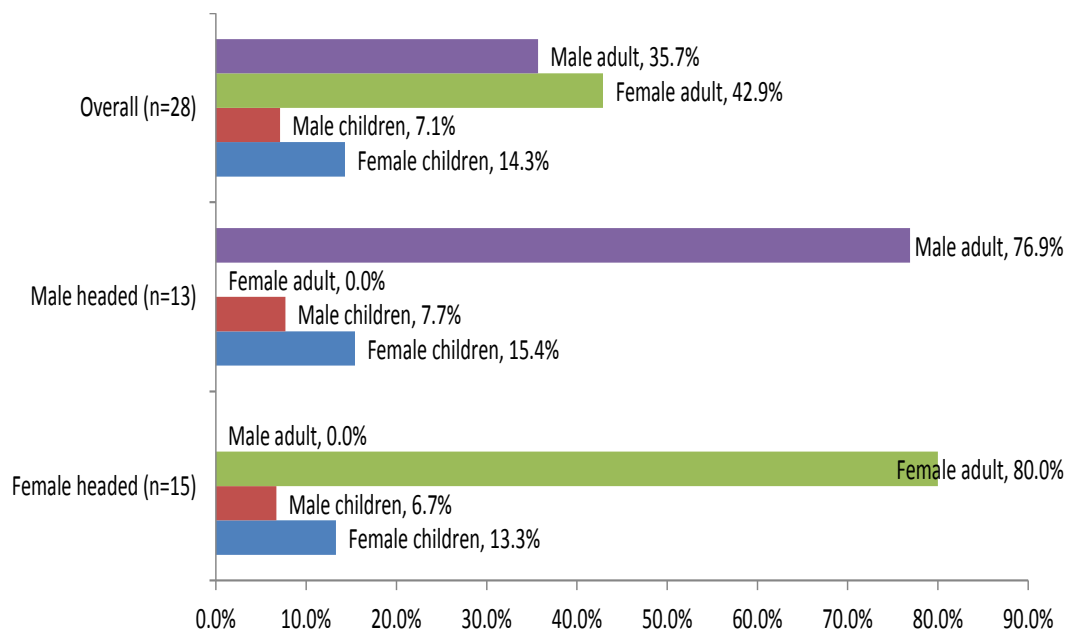


Figure 17: Involvement of household members in food vending business

i) Locations of food vending enterprises

Food vendors in Ilula EUC were located around TASAF market, bus stops, schools and construction sites where potential customers were found. Some of food vendors had permanent structures, while others were mobile providing diversified services like: preparing snacks, roasted/grilled meat and other food products. Plate 5 shows adult male preparing salads at the TASAF market.



Plate 5: An adult male preparing salad for customers at the TASAF market in EUC

ii) Food vendors and access to technology

Access to technology among food vendors could improve their working efficiency and reduce drudgery, subsequently increase business profitability. Some of food vendors, particularly those involved in preparation of snacks had access to simple working machines e.g. grinding machines, as illustrated in Plate 6. However, traditional tools were still being used by food vendors in Ilula EUC.



Plate 6: Different working tools owned by food vendors i.e. grinding machine (left) and stones (right)

4.6.2.3 Wage employment

According to the study results presented in Table 34, wage employment to female headed households was relatively high (6.0%) as compared to male headed households (0.8%). The large number of these employees were working within local government departments (like teachers), including police and spiritual institutions. Therefore the private sector still offered limited opportunities for the non-farm employment to the Ilula EUC people.

Table 34: Household heads involved in wage employment (%)

Response	Male heads of household (n=249)	Female heads of household (n=105)	Total (n=354)
Yes	0.8	5.7	2.3
Not	99.2	94.3	97.7
Total	100.0	100.0	100.0

4.6.2.4 Local beer brewing enterprise

Local beer brewing enterprise in Ilula EUC was among the livelihood activities to both male and female headed households (Table 35). Local beer brewing was also a gendered enterprise (i.e. in terms of sex, age, skills and control of income). The household survey has shown that 15.3% of the respondents were engaged in local beer brewing enterprise. Relatively, more households headed by females (21.9%) were involved in local brewing industry than male headed households (Table 35), and these results were statistically significant ($\chi^2 (1) = 5.107$, $p = 0.024$). The FGDs revealed that women were controlling income generated from local beer brewing regardless of being under male headed households. The participation of men in local beer brewing industry in Ilula EUC was mainly through owning business premises i.e. *pombe* shops and bamboo plots where bamboo juice (*ulanzi*) was extracted.

Table 35: Household headship and local beer brewing involvement (%)

Response	Male headed households (n=249)	Female headed household (n=105)	Total (n=354)
Involved in local beer brewing	12.5	21.9	15.3
Not involved in local beer brewing	87.5	78.1	84.7
Total	100.0	100.0	100.0
Chi square statistics:			
χ^2 value = 5.107			
P value = 0.024			
df = 1			

Households involved in local beer brewing industry could be categorized into two groups' i.e. local beer brewers and sellers. Trading of local beer was done normally on credit arrangement commonly known as "*jumua*", whereas trust and established social capital were most binding. Under this arrangement a local brewer supplies the local beer to sellers on credit, and the buyer is tied with consent to repay her/his debt after selling. Therefore social relations and trust between a brewer and seller(s) was crucial. The FGDs revealed

that most of local brewers in EUC were brewing twice to three times per month and could earn an average profit of Tshs 2 000 per 20 litres of local beer.

The common types of local beer brewed in EUC were *komoni* (from maize & finger millet), *Ulanzi* (fermented bamboo juice), *msabe* (finger millet as the main ingredient), *mbege* (finger millets & banana juice) and *kihambule* prepared from fermented *ugali* (Table 36). In addition, the FGD revealed that each type had its own originality, and people who moved into EUC have also contributed to penetration of such different brewing skills.

Table 36: Type of local beer brewed in Ilula EUC and its origin

Local brew name	Composition	Origin/Associated tribe
Komoni	Maize & finger millet	Un-identified
Ulanzi	Bamboo juice	Wakinga
Msabe	Finger millet	Wagogo
Mbege	Finger millet and banana juice	Wachaga
Kihambule	Fermented ugali	Wabena

i) Local beer brewing sites

Local beer was commonly brewed within respective brewer's premises/household. Women were the custodians in local brewing industry, particularly in brewing *komoni* (Plate 7). However, men were the main suppliers of fuel wood to local beer brewers. Skilled brewers were commonly recognized in the EUC despite the fact that there were also other people who emerged as new brewers especially during food crops harvesting season.

Selling points included those within brewers' households and village *pombe* shops. Generally, *pombe* shops were the main selling points, and these in Ilula EUC were:

Kilabu cha kijiji (village *pombe* shop) at Ilula Mwaya, Ngole club, Nyakilomo club, Kawovela and Saba Kikunga clubs. The mentioned selling points were important for social gathering and livelihood earnings for people who rented out their rooms to local brew sellers, including those involved in selling grilled meat (*nyama choma*), some soups and small business vendors (marching guys/*machinga*).



Plate 7: A local beer brewer at work in Ilula EUC

4.6.2.5 Fire wood selling enterprise

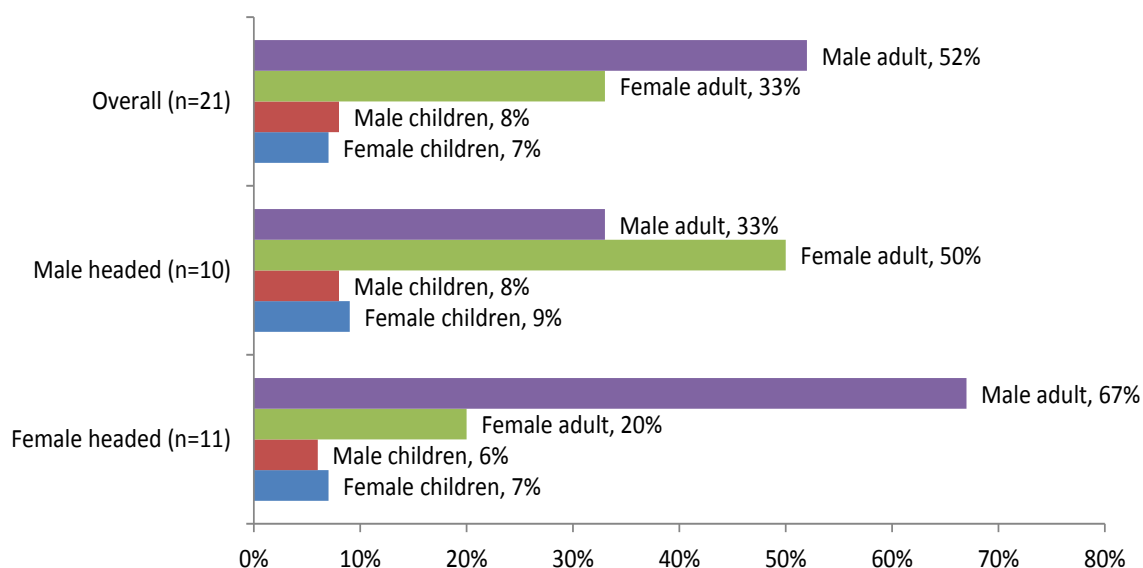
Both male and female headed households were taking part in fire wood selling business as an alternative livelihood option (Table 37). Of all interviewed households 5.9% participated in selling fire woods as a business. The results on relationship between households and participation in fire wood enterprise were statistically significant ($\chi^2 (1) = 5.523$, $p = 0.019$). Out of these households, female headed households were more involved in fire wood selling (10.5%) than male headed households (4%). However, as far as household members' participation is concerned, male adults within female headed households were mostly involved (67.0%) in pursuing the business than any other members. This was found contrary to male headed households where adult female members were the dominants, accounting for 50.0% (Fig. 18). Under female headed households, the male adult members ventured in fire wood business, simply was one of the opportunities available to earn a living. Similarly, the female adult members in male headed households participated more through selling and not collecting firewood from forests (Plate 8).

Fire woods were obtained by collecting from fields/bushes or buying from rural hinterland suppliers. The average price per a bunch of fuel wood ranged from Tshs 2 000 to 5 000 depending on the volume. Traditionally, the activity of collecting fire woods was under females' domain. However, from FGD it was reported that fire wood collection points were increasingly declining. This follows restrictions imposed by people owning those areas where fire woods were collected, hence increased demand for this source of energy in EUC.

Table 37: Whether households involved in fire wood collection and selling (%)

Response	Male headed (n=249)	Female headed (n=105)	Overall (N=354)
Involved	4.0	10.5	5.9
Not involved	96.0	89.5	94.1
Total	100.0	100.0	100.0

Chi-square statistics:
 X^2 value = 5.523
P value = 0.019
df = 1

**Figure 18: Participation of household members in firewood selling business****i) Seasonality of fire wood selling business**

Although selling of fire wood was almost an all year round activity, but sellers acknowledged the existence of peak and low seasons (Fig. 19). The low business season was during the cropping season. Under this particular season farmers relied on fire woods collected from their respective crop fields after clearing of bushes during land preparation (i.e. November to January). However, May was also characterized by high demands for fuel woods because of the increased demands for burning mud bricks and local brewing

activities, apart from household consumptions. It therefore created a good employment for those involved in selling fire woods. Plate 8 shows a person deliver fire wood from rural hinterland to EUC.

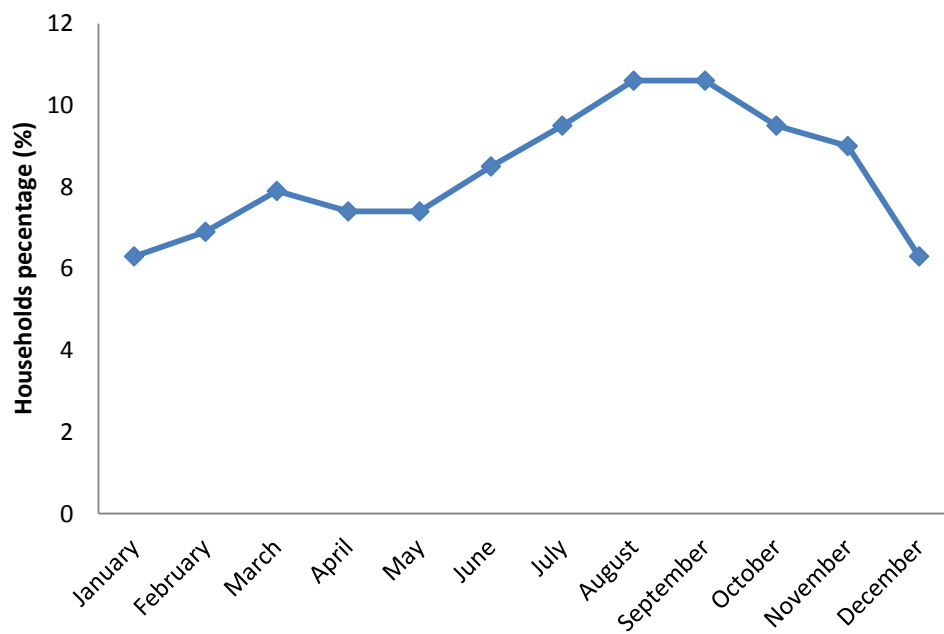


Figure 19: Household involvement in fire wood selling with reference to seasons of the year



Plate 8: Fire wood collection from fields/bushes

4.6.2.6 Masonry activities

Construction activities were also gendered as they required some special skills. Many of those who were involved in masonry activities were men. Nevertheless, women participated in fetching water, collecting bricks and food vending services. The type of houses owned by people living in EUC (section 4.2.7) was an indication of construction works undertaken in EUC. The construction work in EUC was noted as seasonal activity that took place as from May to November. This season was characterised by dry spell period and high demand for burnt bricks for construction of improved houses. People who were involved in quarrying business in Dinginayo also had an opportunity to benefit from high demands at this particular period. However, this high season coincided with crops harvesting period for that matter farmers had cash from sales of their produce.

4.6.2.7 Water vending activity

There were different ways through which households in EUC accessed water. Water was obtained from rivers bore holes, IUWASSA and private water vendors. Access to water in Ilula EUC was claimed as big challenge and thus water vendors played an important role as service providers to people living in EUC.

Although there were two main water sources from which the IUWASSA obtained water to supply in EUC. These sources were not sufficient to meet all the demands in Ilula EUC. According to the records of IUWASSA in 2010, the overall water demand in Ilula EUC per day was approximately 2 799.6 m³. Meanwhile, the total supply capacity from the main source was around 820.8 m³/day. Few households had direct water pipe connections. Largely, people depended on Public Water Points (PWP) where were only allowed to fetch a maximum of three buckets (each with 20 litres capacity) at a cost of Tshs 30 per bucket. Water supply was rationed to allow all people to get access to it by queuing (Plate 9). Normally water was supplied only once per week and the schedule lasted for only four hours.



Plate 9: A long queue for water in EUC

Water vendors have self employed by capitalizing on the problem of water shortages. It consisted of only 1.1% of the households which were involved in water vending business. Water vendors collected water from main sources such as Ilomba and sold to the EUC's residents. Bicycles served as the means of transport for fetching water from distantly located water sources at a cost of about Tshs 300 to 500 per 20 litres of water charged by water vendors. Roughly the water vendors in Ilula EUC could earn Tshs 5 000 - 10 000Tsh per day. The business was enumerative during the peak seasons from August to December, when water shortage was at its highest levels.

Households which could not buy water from water vendors depended on other sources, as well like fetching directly from rivers. Such sources were sometimes contaminated since they served both human beings and livestock subjecting the former into a risk of contracting zoonotic diseases (Plate 10).



Plate 10: Direct fetching of water from the river (left) which also serves as livestock drinking point (right) in EUC

4.6.2.8 Handcraft enterprise for tomato bamboo baskets and wooden crates

Bamboo baskets were primarily used for transporting tomatoes after harvesting. The materials for making bamboo baskets were mainly sourced from hinterlands e.g. in Kipaduka and Image. Prices for bamboo baskets ranged from Tshs 1 500 to 1 800 depending on the size of basket. Many of the buyers were those engaged in renting-out bamboo baskets as a business entity. The baskets were usually rented at the price of Tshs 300 per bamboo basket per day. During the FGD it was revealed that renting-out business was mainly dominated by men. For instance at the TASAF market there were 10 people engaged in renting out bamboo baskets, out these two were women.



Plate11: Bamboo basket manufacturing point (left) and tomatoes packed in bamboo baskets (right) in EUC

Similarly, wooden crates were important in transporting tomatoes to distant markets. The use of wooden crates evolved in Ilula EUC following the ban imposed on the use bamboo baskets lined with grasses in Dar es Salaam's markets. Such bamboo baskets were restricted entering to urban markets to avoid wastes/ debris of grasses that served for cushioning tomatoes. Following such restrictions, the bamboo baskets were used for harvesting purposes/transporting tomatoes from the fields to local markets in Ilula EUC. The use of bamboo baskets lined with grasses enabled other social groups like women and children to secure employment in collecting grasses to cushion tomatoes. The business of making wooden crates likewise created more employment opportunities and craftsmanship improvement to people who were basically men in EUC. Crates were sold at around Tshs 2 500 per piece. Meanwhile the crates were rented out at Tshs 500.

4.6.2.9 Transportation and renting of houses

i) Transportation

Transportation is an important sector for the economic growth as it enhances the mobility of people and products/inputs from one area to another. Transport in EUC involved the use of motor vehicles, motorcycles and bicycles. Table 38 describes transport facilities that were owned or commonly used within the EUC. Relatively, many of households owned bicycles (35.0%) as the main means of transport followed by motorcycles (14.0%). Just a few (4.0%) had motor vehicles like trucks for hauling large volumes of cargo to and from Ilula EUC (Plate 12). However, ownership of ox-carts which served as a means of transport in some places was not reported.

Existence of such facilities created a gendered labour market through which people with different skills and capability could be employed as drivers, conductors and cargo lifters. The use of motorcycles and bicycles was increasingly becoming common means of transportation within the Ilula EUC and hinterlands. The availability of buses, pick-ups and lorries/cargo transporters in Ilula EUC has facilitated the flow of people and goods to and from different areas. However, Ilula EUC is located along the Tanzania-Zambia highway thereby easing the transportation of people and goods.

Table 38: Ownership of means of transportation by household heads (%)

Transport facility	Male headed household (n=249)		Female headed household (n=105)		Overall (n=354)	
	Own	Not own	Own	Not own	Own	Not own
Bicycle	47	53	9	91	35	65
Motorcycle	18	82	2	98	14	86
Cargo/truck	5	95	2	98	4	96



Plate 12: Trucks transporting tomatoes that are well packed in wooden crates in EUC

ii) Renting of houses and business premises in Ilula EUC

Building houses for commercial purposes (e.g. renting out houses for settlement or business undertakings) in Ilula EUC had increased following the population increase and growth of the centre. The study findings indicated that 3.7% of all the household heads owned commercial houses, whereas female household heads accounted 3.8% of their respective sex category (Table 39). These commercial houses, included rental houses like guest houses, residential houses for sub-letting, business premises for people venturing in shop keeping, groceries and other business. Household heads who invested in building commercial houses benefited by earning cash income to meet basic needs, and investing in other livelihood activities.

Tibaijuka (2009) underscores the fact that housing enterprise could be a tool for poverty reduction. People can earn income through housing by working on construction activities, supplying raw materials and accessing financial services when used as collateral. However, the ownership of houses can also reduce living costs for the poor as some studies have shown that poor people in developing countries spend up to 40 per cent of their household income on rent (Tibaijuka, 2009).

Table 39: Ownership of commercial houses in Ilula EUC (%)

Ownership	Male headed households (n=249)	Female headed households (n=105)	Overall (n=354)
Owning	3.6	3.8	3.7
Not owning	96.4	96.2	96.3
Total	100.0	100.0	100.0

4.7 Access to Financial Services in EUC

Access to financial services in EUC is essential for sustaining livelihoods of the people living in EUC. The existence of diversified economic activities in EUC provided opportunities for the availability of diversified sources of finance from both formal and informal sectors. Different types of financial service providers were found in Ilula EUC. These were the Mazombe SACCOS, VICOBA, UPATU/ROSCA, shop-keepers, individual money lenders and mobile phone companies. None of the commercial banks like NBC, NMB, CRDB and Tanzania Postal Bank had physical premises/offices in Ilula EUC. Likewise, some NGOs like PRIDE, FINCA, Mama Bahati Foundation (MBF), and SIDO had only meeting points rather than offices in Ilula EUC, but still were accessible to some households. All commercial banks and financial NGOs were based in Iringa Municipal, except the NMB which had already established a branch in Kilolo District Headquarters.

The good transport and communications network (i.e. the Tanzania-Zambia Highway and road connection to Kilolo District) facilitated access to financial services which were provided outside the EUC. The distance from Ilula EUC to Iringa Town was about 45 km which through a public transport was an hour drive costing Tshs 1 500 per head. The Kilolo District Headquarters was located approximately 90 km away which could take about two hours' drive by public transport at a cost of around Tshs 3 500 per person. Some of NGOs, however, scheduled weekly visits to Ilula EUC to provide financial services to their clients, which reduced time spent and transport costs to clients.

4.7.1 Membership of households to financial institutions

The study found that 146 (41.2%) households out of 354 of the sampled households had household members with membership to different financial institutions located in and outside Ilula EUC (Fig. 20).

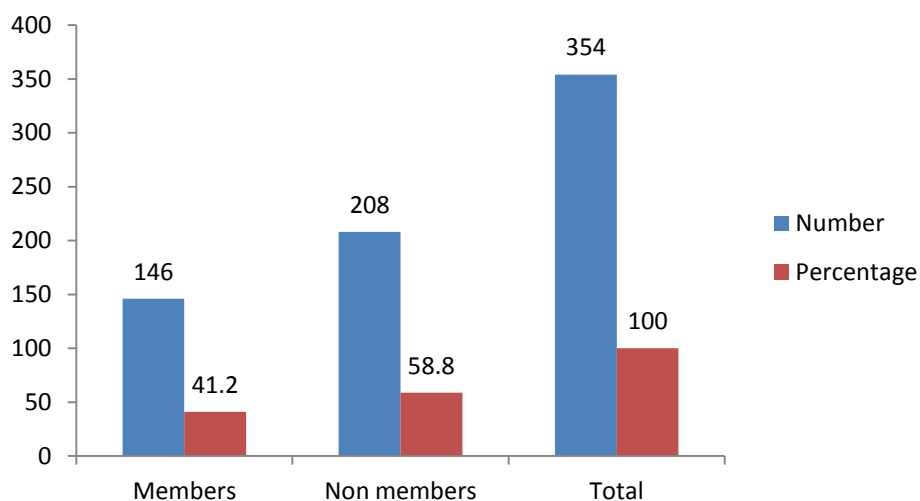


Figure 20: Household membership in financial institution

Figure 21 shows the proportions of respondents who were members of different financial institutions, as far as multiple responses are concerned. Many of household heads (30.6%) were members of the Commercial Banks and SACCOS (25.5%).

Most of respondents acknowledged participating in UPATU, as well. The membership to UPATU was dominated by common household members (49.2%) other than heads of households (Fig. 21). These were mainly spouses and some youths who were involved in this particular informal financial institution.

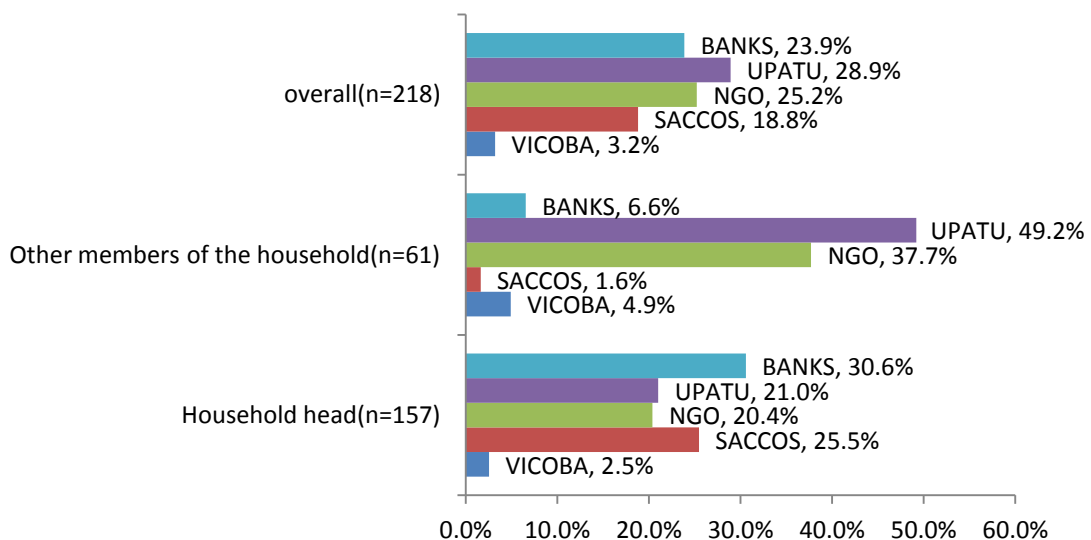


Figure 21: Membership of household head and other members of the household in financial institution

4.7.2 Reasons behind membership to different financial institutions

Various reasons were provided by individuals behind their decisions to become members to different financial institutions (Table 40). Savings was quoted being the major reason (58%) that prompted many of respondents seeking for membership to financial institutions. Savings were important for household's consumption such as payment for

education, health services and food purchases. Also it was important for supporting agricultural production activities e.g. buying of inputs and investing in business activities. Yet savings was among the prerequisites to be fulfilled by clients before accessing credits from financial institutions. Other reasons centred on accessing credits (40%) and shares (3%). Access to credit enabled households to overcome some cash constraints to cover the costs of health services, school fees, house constructions, purchasing of agricultural inputs and transport facilities for income generation.

Table 40: Motivation to join in financial institutions (%)

Reason(s)	Male headed	Female headed	Total responses
Access to credit	51(44)	17(30)	68(40)
Share	1(1)	4(7)	5(3)
Savings	64(55)	35(63)	99(58)
Total	116(100)	57(100)	172(100)

NB: The reasons are based on multiple responses on 146 cases

4.7.3 Household characteristics and credit accessibility

The study results show that only 98 households, i.e. 27.7% accessed credit from different financial institutions. The findings showed that there was significant difference between male and female household heads on access to credit ($\chi^2 (1) = 4.402$, $p = 0.036$). About 30.9% of the male household heads had access to credit in contrast to 20% of female household heads. Similar findings have been reported by Ellis *et al.* (2010) that men are more likely to borrow or save for investment than females. This is probably due to males having an advantage of accessing and controlling resources, including owning assets like land, buildings, cattle, etc which could serve as a collateral for accessing credit services.

Table 41: Household accessed credit services by gender of household head (%)

	Male headed (n=249)	Female headed (n=105)	Total (n=354)
Have accessed credit	30.9	20.0	27.7
Not accessed credit	69.1	80.0	72.3
Total	100.0	100.0	100.0
Chi-square statistics:			
X^2 value = 4.402			
P value = 0.036			
df = 1			

4.7.3.1 Migration status by gender and access to credit

The EUC provide opportunity for both migrants and non-migrants to have access to credit services. About 73.5% of all people (n=98) who had accessed credit services from the study area were the migrants, and the rest were non-migrants (Table 42). However, there were no significant difference by gender between migrants and non migrants for households who accessed credit services ($\chi^2 (1) = 0.102$, $p = 0.750$). This implies that migrants and non-migrants were both eligible and fairly treated by financial institutions in accessing credit services. According to the data, it shows that the migrants were more vibrant and determined in securing credits for investing than the non-migrants/natives of Ilula EUC (Table 42).

Table 42: Migration status of household heads who accessed credit by gender (%)

	Male headed (n=77)	Female headed (n=21)	Total (n=98)
Non migrants	27.3	23.8	26.5
Migrants	72.7	76.2	73.5
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 0.102			
P value = 0.750			
df = 1			

4.7.3.2 Age of heads of households who accessed credit by gender

With reference to age categories the findings showed that there was no significant difference in age between male and female household head ($\chi^2 (2) = 1.908$, $p = 0.385$) who accessed credit. Many of the household heads (50%) aged from 35 to 49 years had accessed credit from different financial institutions (Table 43). With regards to gender disparities, many of male household heads (53.2%) who accessed credit were aged between 35 – 49 years old. Most of female heads of households who accessed credit (38.1%) were at the age of less than 35 years old. According to Alam (1988) cited by Sulemana and Adejei (2015), microfinance users (i.e. borrowers) in Ghana increased their crop yields by 47.6% per hectare in contrast to 38.2% per hectare recorded from non-users. Simply the borrowers invested the credit into costly inputs (e.g. fertilizers and pesticides) to improve agricultural production. Mago and Mago (2013), similarly found that there was a statistically positive relationship between microfinance and ownership of assets.

Table 43: Age of household head who accessed credit by gender (%)

Age group (years)	Male headed (n=77)	Female headed (n=21)	Total (n=98)
Less than 35	20.8	38.1	23.5
35-49	53.2	33.3	50.0
Above 50	26.0	28.6	26.5
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 1.908			
P value = 0.385			
df = 2			

4.7.3.3 Level of education for household head who accessed credit by gender (%)

Access to credit by heads of households in Ilula EUC was dominated by those who had attained a primary school education (74.5%), followed by secondary school leavers (15.3%) across all sex categories (Table 44). Proportionally, more of female heads of households with secondary (23.8%) and post-secondary (9.5%) education had access to credit than male household heads. However, the findings showed that there were no significant differences on education between male and female household head who accessed credit ($\chi^2 (3) = 7.558$, $p = 0.109$).

Table 44: Education by gender of household head who accessed credit (%)

	Male headed (n=77)	Female headed (n=21)	Total (n=98)
None	3.9	9.5	5.1
Primary school	79.2	57.2	74.5
Secondary school	13.0	23.8	15.3
Post secondary school	3.9	9.5	5.1
Total	100.0	100.0	100.0
Chi-square statistics:			
X ² value = 7.558			
P value = 0.109			
df = 3			

4.7.3.4 Land ownership by gender of household head who accessed credit

In most cases, access to credit has been associated with ownership of collateral. Results in Table 45 shows that 69.4% of those who accessed credit owned land. Within respect to gender, female household heads accounted for 76.2% as compared to 67.5% of male household heads of those who owned land and accessed credit. More females accessed credit services due to the existence of MBF which specifically focused on women. The MBF as the financial institution strived to meet the gender strategic needs of the women in EUC by empowering them through micro-credits provided in groups (i.e. social capitals/groups served as collaterals).

Table 45: Land ownership by gender of household head who accessed credit (%)

	Male headed (n=77)	Female headed (n=21)	Total (n=98)
Own land	67.5	76.2	69.4
Do not own land	32.5	23.8	30.6
Total	100.0	100.0	100.0

4.7.4 Credit accessibility from different financial institutions

There were seven financial institutions through which the sampled households accessed credit services (Fig. 22). Over ninety percent of sampled households with membership to MBF reported to have accessed credit from their respective financial institution followed by 81.8% which had membership to FINCA (Fig. 22). Similarly, of all households which had membership to commercial banks, about 32.7% acknowledged accessing credit from respective banks. Such results could be explained by existing conditions set by financial institutions, loan size requested by an individual, and interest rates charged by the institutions. Nevertheless, over fifty percent of members accessed credits respectively from financial institutions like VICOBA, MBF and SIDO (Fig. 22).

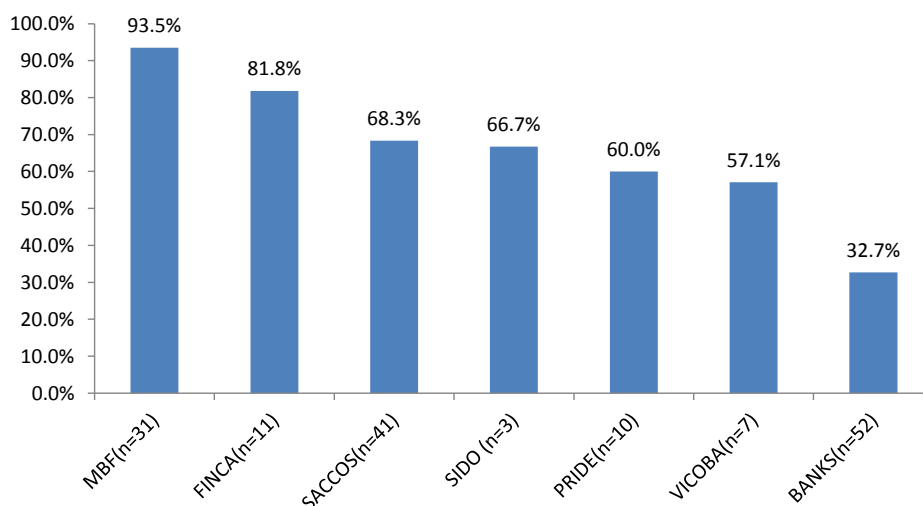


Figure 22: Percentage (%) of household members who had access to credit from different financial institutions

However, the amount of money borrowed by members differed from one institution to another (Table 46). The largest amount of money borrowed was Tshs 5 000 000, while Tshs 2 500 was the smallest. The amount of money borrowed from respective financial institutions is summarized in Table 46.

Table 46: Loans accessed by different members from financial institutions

Source	Mean (TShs)	Loan range (TShs)
VICOBA	283 750	135 000 - 400 000
BANK	1 182 353	100 000 - 3 000 000
SACCOS	923 703	50 000 - 5 000 000
MBF	242 142	50 000 - 1 000 000
PRIDE	933 333	500 000 - 2 000 000
FINCA	238 888	100 000 - 500 000
SIDO	500 000	500 000 - 1 000 000
UPATU	4 055	2 500 - 180 000
Friends, neighbours and relatives	105 333	5 000 - 800 000
Shop owners	669 166	5 000 - 2 000 000

4.7.5 Factors influencing access to credit

Results from a binary logistic regression model on factors influencing access to credit are as shown in Table 47. Age, education, value of owned livestock and migration duration significantly influenced access to credit. The probability of household heads to access credit was positively influenced by their age. Other empirical studies, however, have observed differently. UN (2009) associated the risk and age that with increased age individuals tend to decline taking loans due to the fear of losing their accumulated assets in case of default. Muradoglu and Taskin (1996) argued differently that old aged individuals tend to have accumulated assets in terms of materials and social capital which does not prompt them to seek credit. This is due to the fact that they could easily use their assets to overcome their cash constrains.

Table 47: Determinants for migrants and non migrants access to credit

Explanatory variable	B	Std. Error	Wald	df	Significance	Exp(B)	95% confidence interval	
							Lower	Upper
X1 _ Sex	0.799	0.732	1.193	1	0.275	2.224	0.530	9.336
X2 _ Age	-0.071	0.033	4.664	1	0.031*	0.932	0.874	0.993
X3 _ Household size	0.079	0.100	0.620	1	0.431	1.082	0.890	1.315
X4 _ Inverse depend	-0.094	0.277	0.116	1	0.734	0.910	0.528	1.567
X5 _ Education level	1.126	0.349	10.388	1	0.001*	3.082	1.554	6.110
X6 _ Marital status	0.007	0.774	0.000	1	0.993	1.007	0.221	4.592
X7 _ Total land	0.047	0.067	0.494	1	0.482	1.048	0.919	1.195
X8 _ Livestock value	0.000	0.000	4.375	1	0.036*	1.000	1.000	1.000
X9 _ Migration duration	0.068	0.028	5.971	1	0.015*	1.070	1.013	1.129
X10 _ Social group	0.800	0.609	1.727	1	0.189	2.225	0.675	7.333
X11 _ Born in EUC	0.627	1.091	0.330	1	0.565	1.872	0.221	15.868
X12 _ House ownership	0.123	0.604	0.041	1	0.839	1.131	0.346	3.694
Constant	-4.876	2.580	3.572	1	0.059	0.008	0.530	9.336

Log likelihood = 138.445, χ^2 (12) = 23.848, $p = 0.021$, $R^2 = 19.5$, * Significance at 5%

In addition, the study findings show that education level had a positive effect on access to credit, thereby with increased education level of the household head, chances for accessing credit increased by 3.082 times. This was probably associated with the ability of the educated household head to oversee opportunities for investments. The value of livestock owned also increased the probability for heads of households to access credit. Probably this served as the insurance to the household.

Migration duration in EUC also influenced access to credit. The probability of the household head for accessing credit increased with migration duration. Some literature (OECD, 2010) have documented that migrants have been denied to access credit following lack of credit history, collaterals, co- signer on the loan of which natives could be on the advantage position. Thus with increased migration duration in the destiny area could lead into social capital establishment and accumulation of assets for collateral use.

4.7.6 Implication of credit accessibility to households' livelihoods in Ilula EUC

Access to credit is among the ways in which members from different households could improve their income sources through different investments. Table 48(a) shows the distribution of individuals who had access to credit from financial institutions with their respective activities ventured in for livelihoods. Based on the study results, 47.9% of sampled households invested in different business and 27.6% of the households invested in agriculture related activities. Relatively, more (19.2%) of female headed households invested in education as compared to 13.9% of male headed households who invested in education.

Table 48 (a): Financing of livelihood activities by gender (%)

Gender of household	Livelihood activity financed				
	Business	Agriculture	School	Construction	Emergency
Male household heads (n=77)	48.6	29.2	13.9	5.6	2.7
Female household heads (n=21)	46.2	23.1	19.2	7.7	3.8
Total (n=98)	47.9	27.6	15.3	6.1	3.1

Yet it was also found that nobody among the respondents who had accessed credit from either friends or relatives neighbors decided to invest in house construction (Table 48b). It mainly served for emergency matters especially within male headed households (35.4%). The results, however, were statistically non-significant ($\chi^2 (3) = 2.865$, $p = 0.413$).

Table 48 (b): Livelihood activities financed by credit from friends and relatives (%)

Gender of household head	Business	Agriculture	Education	Emergency	Total
Male (n=26)	34.2	23.1	7.3	35.4	100.0
Female (n=7)	28.6	28.6	28.6	14.2	100.0
Total (n=33)	33.3	24.2	12.1	30.3	100.0

Chi-square statistics:
 X^2 value =2.865
P value = 0.413
df = 3

The existence of different financial institutions offered different services attached with different requirements to be fulfilled by clients. As a result these requirements set by financial institutions might have affected also the use of such financial services to some individuals or households.

4.7.7 Saving strategies of households in EUC

Saving is very important in EUC because it enables individuals or households to overcome unforeseen contingencies or smoothening of consumption whenever budgets are constrained. Saving is also a way through which individuals or households can accumulate and invest in other economic activities and thus provide a wide range of income generating activities. Of all interviewed households (354) in Ilula EUC, 77% were savings/part of income generated. Table 49 presents the results on saving strategies employed by different households in EUC. The majority 50% of all interviewed households saved in the form of cash (50.0%). Saving in the form of livestock was mentioned by 22.1%, whereas in form of crops was 15.1%. The fourth strategy mentioned was through buying of assets such as: land, transport facilities, sewing machines, furniture, houses which could be converted into cash whenever a need emerged. It should be noted that a household could have more than one saving strategy. Presented results, however, were based on 257 households, and the issue of gender did not make any differences on strategies.

According to Gugerty (2007), savings are usually determined by the liquidity and control over the saving type thus people tend to save in a way that they can easily access the saving or sometime put the savings in a manner that can have control.

Table 49: Household saving Strategies (%)

Saving strategy	Male headed	Female headed	Total Responses
Cash money	141(49.5)	54(51.4)	195(50.0)
Crop	45(15.8)	14(13.3)	59(15.1)
Livestock	62(21.8)	24(22.9)	86(22.1)
Assets	37(12.9)	13(12.4)	50(12.8)

Note: The results are based on multiple responses of 257 sampled households

4.8 Multiplier effect of migrants' income on household investments

4.8.1 Households' income proportion from primary sources by migration status

Findings from this study showed that there is a significant difference between migrants and non-migrants in terms of their income proportions accrued from different primary sources ($\chi^2 (10) = 34.009$, $p = 0.000$). Many of the migrants' households (38.8%) depended on business enterprises as the main source of income of which 57.9% of these households, business was their primary source of income by 50-75% (Table 50). This was relatively different from non-migrants' households, where business was reported as the primary source of income by only 33% of all natives' households. However, about 44.0% of all non-migrants' households were depending on business as their primary source of income by more than 75%. The average annual income for migrants' households was about Tshs 3 193 212, while the natives earned approximately Tshs 2 000 173.

Table 50: Households' income proportion from primary sources by migration status

(%)

	Income proportions from primary sources			Total
	Below 50	50-75	Above 75	
Migrants (n=176)				
Tomato	36.0	26.3	27.7	31.0
Farm Wage	14.0	0.0	19.1	13.8
Business	24.0	57.9	46.8	38.8
Livestock	4.0	0.0	0.0	1.7
Selling other crops	22.0	15.8	6.4	14.7
Government/NGO employment	-	-	-	-
Non migrants (n=116)				
Tomato	37.1	20.5	14.7	23.9
Farm Wage	17.7	17.9	22.7	19.9
Business	17.7	35.9	44.0	33.0
Livestock	0.0	2.6	2.7	1.7
Selling other crops	25.8	23.1	9.3	18.2
Government/NGO employment	1.6	0.0	6.7	3.4
Total (n=292)				
Tomato	36.6	22.4	19.7	26.7
Farm Wage	16.6	12.1	21.3	17.5
Business	20.5	43.1	45.1	35.3
Livestock	1.8	1.7	1.6	1.7
Selling other crops	24.1	20.7	8.2	16.8
Government/NGO employment	0.9	0	4.1	2.1
Chi-square statistics:				
X ² value = 34.009				
P value = 0.000				
df = 10				

4.8.2 Migrants and non-migrants investments

Table 51 presents the results on migrants and non-migrants' investments as the multiplier effect of their income earned from different sources. According to the chi-square statistics as presented in Table 51, it shows that migrants and non-migrants differed significantly in investments, especially in tomato production ($\chi^2 (1) = 12.367, p = 0.000$). Majority of migrants have been involved in different investments as compared to non-migrants (Table 51). For example 7.3% of migrants were involved in shop keeping in contrast to 2.5% of non-migrants. However, such differences could be attributed by skills and financial capacities possessed by migrants as compared to the non-migrants. This was also mentioned during the FGD that migrants are more innovative and quick to capitalise on the existing opportunities than non-migrants. This follows the fact that migrants are relatively more exposed to different experiences that builds their confidence to try investing in different livelihood activities than non-migrants. Such observation is also supported by Skeldon (1997) that migrants have chances of introducing new ideas into conservative communities, promoting new agricultural technologies, entrepreneurship activities, and even new attitudes to local communities.

Table 51: Migrants and Non-migrants' investments in EUC (%)

	Tomato production	Investment Shop keeping	Commercial house	Transportation
Migrants (n=217)				
Invested	26.3	7.3	2.3	8.8
Not invested	73.7	92.7	97.7	91.2
Total	100.0	100.0	100.0	100.0
Non migrants (n=137)				
Invested	24.0	2.5	1.4	4.8
Not invested	76.0	97.5	98.6	95.2
Total	100.0	100.0	100.0	100.0
Total (n=354)				
Invested	50.3	9.9	3.7	13.6
Not invested	49.7	90.1	96.3	86.4
Total	100.0	100.0	100.0	100.0

Chi-square statistics*:

X^2 value = 12.367

P value = 0.000

df = 1

Note: * = Presents the Chi-square statistics for tomato investment which showed significant difference at 5% level of significance

4.8.3 Household investment decision

Investment decision in this study means all people's undertakings/decisions on whether to spend the financial resource earned from different ventures for the future use/returns to some individuals or family/relatives. The findings from the study demonstrated that various predicting variables had relationship with households' investment decisions (Table 52). Decisions were shaped by several factors including individuals' characteristics, socio-cultural/socio-economic and policies. The aspect of sex category, age, migration duration, and house ownership were the key factors influencing households' investment decisions.

Table 52: Variables explaining household investment decisions

Explanatory variable	B	Std. Error	Exp(B)	t-value	Significance
Constant	-30 008 397.295	17 408 627.738		-1.724	0.091
Household head's sex	13 547 859.871	6 869 492.994	0.257	1.972	0.054*
Household head's marital status	-748 1847.780	7 456 362.732	-0.128	-1.003	0.321
Age of household head	598 417.357	266 401.834	0.390	2.246	0.029*
Migration duration	-739 001.897	267 581.621	-0.472	-2.762	0.008*
Tomato production	-5 361 395.287	5 622 989.407	-0.117	-0.953	0.345
House ownership	11 414 299.236	5 627 028.789	0.262	2.028	0.048*
Land location	6 144 127.414	5 488 505.218	0.152	1.119	0.268
Invest business	5 399 092.752	6 381 731.023	0.107	0.846	0.402
Access to credit	4 100 214.863	8 117 698.425	0.070	0.505	0.616

$R^2 = 30.9$, $P = 0.022$, $F = 2.437$, $Df = 9$, * Significance at 5%

Male household heads were more likely to undertake investments decisions on different assets i.e. mainly houses, livestock and business enterprises than females (Table 52). Therefore the sex category of household head was associated with the value of investment owned. Males reported to have access to different resources compared to females, which subsequently increased their chances of undertaking investments. According to the estimated model, male heads of the households were more likely to invest in different business/assets by 0.26 times more than females, while holding other factors constant. Similarly, the age of the household head had an influence on household's decisions to invest. A unit increase of age could increase chances of having investment by 0.390 times (Table 52). Presumably, this could be attributed by the fact that aged people tend to have accumulated more land resource, and when these assets are directed to investment have chances of increasing potentials for household earnings.

Furthermore, the ownership of a house(s) significantly influenced household's investment decisions. Thus, by holding other factors constant, an increase in one unit of house ownership consequently increased likelihood of household's investment chances by 0.26. This could be associated with the fact that some of the businesses were carried out within owned premises which reduced operational costs. Kweka and Fox (2011) while looking at

household enterprises in Tanzania observed that shortage of land or business premise was one of most critical constraints within urban settings. Consequently, household enterprises tend to be pushed into smaller markets or temporary structures in unauthorized locations.

The negative beta coefficient for migration duration variable in Table 52 tends to explain that an increase in one unit of migration duration in EUC decreased household investment value by 0.472, while holding other factors constant. Thus the opportunities prevailing in EUC could provide chances to household heads to stay for a short duration and accumulate resources to invest.

4.9 Chapter Summary

The development of the Ilula EUC is partly associated with commercialization of tomato sub-sector following the introduction of improved tomato seed varieties and provision of input credit through Community Rural Development Bank currently CRDB. All these led into the boom of the tomato sub-sector and other supporting services like labour markers, input service providers and markets produce.

The study findings have also revealed that 61.3% of the sampled households' heads were migrants, majority originated from rural areas. The decision to migrate to Ilula EUC was determined by family matters, access to land, access to employment opportunity, and access to social services available in the EUC (e.g. health facilities, hospital and water).

The economic base of the EUC was diversified thus provided diversified labour markets on which different social categories were involved. However some of the labour markets were gendered with respect to skills, capital and financial sources. This led into different levels of participation among interviewed households. Majority of the male headed

households were involved in agricultural (tomato production), business (shop keeping and kiosk) and transportation. Women concentrated more in food vending, local brew industry and renting of premises. The contribution of the financial sector especially credit services to different livelihood activities was relatively low. For those who had access to loan it was mainly for business, agriculture and house construction purposes.

The econometric model results shows that the variables which significantly determined households' accessibility to credit were: the household head's education level, livestock value, migration duration and his/her age. Through participating into different labour markets in EUC, households managed to invest in other activities for improving their incomes well-being. However, factors like sex, age, migration duration and house ownership as an asset have shown to have significant influence on household investment decisions.

CHAPTER FIVE

5.0 CONCLUSSIONS AND RECOMMENDATIONS

5.1 Conclusion

Ilula EUC provides dynamic economic condition favouring availability of different livelihood options to people not only residing in EUC but as well as those in hinterlands. These options have led the Ilula EUC to become an attractive centre for in-migrants mainly from within the region and a few from other regions. The prevailing employment opportunities, social services and social relations (like people who are joining their fellow family members) are among other motives which have attracted in-migration and settling of people in Ilula EUC. Over 60% of in-migrants moved in Ilula EUC before attaining the age of 25 years. Presumably, this was the stage at which the migrants were eager to seek for new livelihood alternatives. This signifying that there were several motives underlying their decisions to migrate e.g. unemployment, lack of job opportunities, low incomes and unfavourable rural living conditions. In addition, decision to migrate for some migrants was not purely based on self-motivation rather influence from family members, peers or friends with prior knowledge on the prevailing opportunities at the destination.

Migrants in Ilula EUC were engaged in livelihood activities, including agricultural (food and cash cropping, livestock keeping) and non-agricultural (food vending, shop-keeping, kiosk, transportation and handcraft) activities. These economic activities to a large extent contributed to the development and growth the EUC. Growth in terms of population, availability of different social and employment opportunities in EUC and hinterlands. In view of this, it is concluded that the existing socio-economic potentials in Ilula EUC were relatively better than where the migrants originated, and these potentials attracted them to the EUC. Migrants were maintaining linkages to their origins in forms of remittances flow

and investments undertaken in respective native places. Moreover the migrants were important actors along the development process of the Ilula EUC. That is they have been the sources of innovation through transferring some of the knowledge and skills, for example the introduction of new tomato seed varieties which led into the transformation of and commercialization of tomato sub-sector in Ilula EUC.

The transformation of the tomato sub-sector became an important source of income and attraction to people from nearby as well as distant rural hinterlands. This resulted into an increased population and demand for various services in Ilula EUC which resulted into emergence of different investment opportunities emerged over time, some of directly related to tomato subsector and others not. Such investment include carpentry workshops, artisans, shops, milling machines, oil extraction machines, transport facilities, financial services and farming machinery like tractors which have not only created different employment opportunities but also reduced costs associated with production activities.

Agriculture was an important livelihood option for the majority of the people in EUC. Different gender groups among migrants and non-migrants practiced agriculture in different form. Largely, the agricultural activities in EUC involved crop production, livestock keeping and selling of labour in farming activities. With regards to crops, tomato was regarded as the main cash crop in EUC produced by 50.3% of the interviewed households. In terms of gender, tomato was largely produced by male headed households and in-migrants. One of the major constraints that limited households' participation in tomato production was its relatively high initial investments costs and risks. High costs, necessitated need for external financing, which was not readily available to the majority of the population. Nevertheless, the commercialization of tomato led into emergence of

different employment opportunities in Ilula EUC which in turn have prompted high in-migration flows and investment in private and public services.

Maize being a staple crop, still played an important role in people's livelihood. Maize was predominantly produced for food and partly for earning cash income. More of male headed households were involved in maize production than female headed households.

External financing from both formal and informal financial services was crucial for establishment and running of different economic activities. Access to financial services was mainly determined by education, age, livestock ownership, and migration duration. More of the migrants accessed credit than non-migrants probably because of being vibrant and determined to ask for loan and invest. Most of the households used more of their credit/loans to for financing business entities than agricultural activities. The risks associated with the agricultural sector like unpredictable climatic conditions, market imperfections and short lived shelf life of tomatoes deterred the use of formal financial services in tomato sub sector. Alternatively, informal financial arrangements/mechanisms like own income and savings from other activities or from local money lenders served the purpose to support agricultural activities. It further suggests that these local arrangements have more user friendly conditions than that of formal financial institutions.

The study noted the importance of affirmative action undertaken by some of financial service providers (e.g. Mama Bahati Foundation) in an endeavour to improve access to financial services by women. The strategy was to facilitate women financially for venturing into income earning enterprises. Among others, the aspects of age, level of education, livestock value and migration duration were crucial elements in determining access to savings and credit services. Such generated information serves as an eye opener

to different development stakeholders to have informed decisions in devising strategies to address existing gender gaps.

Majority of migrants invested in EUC, and partly in areas of their origin. Invested mostly in building houses, opening shops, small kiosk, include venturing in financial services provisioning entities and other sectors within EUC. Age, education level and sex category of heads of households had significant positive influence on investment decisions, as men were more likely than women in accessing credit services. Ownership of assets like house(s) had positive influence on households' investment decisions. Apparently, owning a house means having collateral justifying eligible for accessing credit services that could also be invested into different enterprises. However, the longer migration duration in EUC had a negative implication towards investment decisions. This could be associated with other investment opportunities emerging in other areas, including rural hinterlands.

5.2 Recommendations

The study findings, signifies the need of focusing on EUCs on the development aspects. EUC centers for migrant's attraction and investments but have been over looked on the development process though. The policy designed to favour the growth of the EUC will have an effect on livelihoods of migrants and non migrants in EUC as well as migration flows to large cities. However, improvement in EUC infrastructure like supply of clean and safe water will have an implication towards reducing unnecessary living costs (associated with fetching water), time for productive economic activities and health conditions. Thus the transformation of rural villages to EUC requires external (government non government) support for improvement of infrastructure.

Initiatives undertaken by gender specific institutions in Ilula EUC need to be encouraged and promoted by other development agents to reduce practical and strategic gender gaps not only in accessing saving and credit services but also access to and control of other productive resources. However, it calls for special support to the agricultural sector in terms of finance. Despite the fact that the sector provides means of living for about 65% of the households, financing of this sector by formal financial institution is limited. In addition, there is low participation of women in agricultural enterprises compared to business undertakings (e.g. food vending) as due to being short of access to arable land and financial capital to invest to capital intensive interventions. Nevertheless, income from agriculture supported different investments. Thus formal financial services should also focus on opportunity for investing in agriculture sector in EUC.

Land is an important asset for people residing in both EUC and rural hinterlands. However, agricultural land was reportedly declining in terms of fertility following continuous use of industrial fertilizers. People tends to shy away from using their own land for cultivation purposes as due to soil fertility challenges, and thus opts for borrowing or renting in arable lands from hinterlands. This calls for human capital development initiatives to equip the farming communities with knowledge and skills by putting hands on practice for reclaiming their crop field lands.

The majority of the migrants have connections to their respective areas of origins. This means that improvement of economic activities and resulting incomes of the people in EUC have multiplier effects that improve livelihood in both EUC and rural hinterlands. Therefore improving conditions in the areas of origin could attract migrants' productive investments in the area. Consequently, could also have effects on improving services and employment opportunities for people remained in areas of origins. Not only that but also

investment on processing factories/industries is pivotal based on economic potentials shown by the tomato sub-sector so as to stimulate the economic well-being of the smallholders and development of Ilula EUC.

Future recommendation

The study results call for further research on the dynamics of Emerging Urban Centres' growth as related to land use changes, and its implication for the rural urban linkages. The land resource has therefore become platform linking the EUCs and the rural hinterlands, which ought to be studied further in order to countercheck any existing imbalance between the gainers/winners and the losers from both areas.

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APPENDICES

Appendix 1: Operationalisation of the research objectives

Objective	Type of data	Method of collection	Method of analysis
To identify rural-urban migration determinants and patterns existing in the study area	Residential migrants and Non migrants Social Economic motives (Health, Education, Agricultural Markets, Financial Markets e.t.c)	Snow balling technique	Descriptive statistics
ii To identify and analyze migrants' livelihood options across different gender groups in the study area	Establishing who is responsible with/taking part in: Agricultural food/cash crop production (Marketing) non-farm income generating activities; off-farm income generating activities Community activities Village meetings (village decision making issues)	Focus group discussions and household interviews	Descriptive statistics
iii To assess factors (socio-economic and demographic factors) influencing migrants and non migrants access to savings and credit services	Available Micro financial facilities (Formal and Informal) Services provided by financial facilities Requirements/conditions for accessing financial services (Collaterals) Use of finance acquired	Focus group discussion and household interviews/administering questionnaires	Descriptive and Multiple Linear Regression analysis
iv To assess multiplier effect of migrants income on household investment(s)	Household asset value owned	Household interviews/administering questionnaire Secondary data collection	Descriptive: comparative analysis and Multiple Linear Regression analysis

Appendix 2 Checklist for EUC site characterization

A: Identification of emerging urban centre

Which area of this place can be called as the centre? Why?

B: Identification of migrants and non-migrants

When was this settlement established? How? Who was involved?

What are the first, second and third most numerous ethnic group living here?

In which part of the centre you can say that specific ethnic group lives? Why?

Who is the migrant? Can you categories them? Which criteria are you using?

What is the status of migrant? Seasonal or permanent?

How many people in the area are known as migrants? Where are they mostly coming from?

Are there any migrant in the immediate hinterland? Why are they leaving there? What makes them not to shift to urban areas?

C: Commodity links

What are main agricultural commodity products coming from the immediate hinterland areas?

Give the names of the villages bringing the mentioned agricultural commodity products to the centre.

Which village(s) is/are leading in bringing agricultural commodity products?

What other major consumer goods are imported and sold in this settlement? From where?

Who are the traders? (Locals or outsiders, gender, age and ethnic groups.)

D: Service linkages

Number of social service facilities available

Government school

Secondary

Primary

Private schools

Secondary

Primary

Number of Health/Hospital facilities (specify kind and subsequent health facilities)

Government

Private

Financial flow links

How many SACCOS, Banks?

With reference to financial markets, especially the informal ones and solidarity groups are there any element of ethnicity in social networks prevailing in an area?

Does seasonal migrants (Do they have access to financial markets prevailing in study area?

What are the factors which determine access to these finance markets?
What are the migrants' perception towards financial services?
Are the financial institutions provide services to transfer cash (remittance)?
What are other ways in which people transfer money as remittance?

E: Other services:

F: Investment with respect to ethnicity

Who own businesses (shops, petrol station, hotels, guest houses)

Which ethnic group has high affinity of investing? Why?

Appendix 3: Social economic status of the EUC population

Identified characteristics of relative wealth categories

Very rich	Rich	Better off	Poor
<p>Characterized by having modern houses with cement brick walls, roofed by tiles or Iron and connected with electricity and piped water. Own transport facilities like modern car and cargo car. Own assets like land with size up to more than 50 acres; tractors and livestock's. Have high farming ability that can cultivate up to 50 acres. Can own big business. Can afford to meet education costs high quality schools</p>	<p>Own modern house built by cement block walls, roofed with iron sheet and have electricity and piped water. Also own transport facilities like motorbike and ordinary car. Can own business. Have land with an average size of 5-10 acres and farming ability of cultivating 5-10 acres. Own cattle i.e. 50-100. Can afford health services and education cost for ordinary school</p>	<p>Own House built by burnt bricks/Mud bricks and roofed by iron sheets. House connected with electricity. Have transport facilities like motor bike and bicycle. Own land with an average size of 1.5 acre and have farming ability of cultivating 1.5 acre of different crops like Pease, maize and sunflower. Also own small number livestock like; Chicken less than 10; ducks less than 10; Goats 3-10; pigs 1-2. Can also afford education costs for ordinary school and health services. Can afford three meals a day</p>	<p>Own house with poor quality. Built up with mud walls and roofed with Grasses. Have no transport facility. Have no farming ability. Cannot afford to pay/contribute for basic services like health and education services and thus relay on other people for support</p>

Appendix 4: Household survey questionnaire for EUC

NAME OF INTERVIEWER:.....DATE OF
INTERVIEW.....

A: Household identification:

District	Division	Ward	Village	Sub-Village

A1: Name of respondent:Tel no.....

A2: Sex (1) Male..... (2) Female.....: Respondent age.....

A3: Household head Sex (1) Male..... (2) Female.....

A4: Age of household head (years).....

A5: Household head marital status (Tick appropriate answer)

(1) Single (2) Married (3) Widow (4) Widower (5) Divorced (6) Other
(specify).....

A6: How many members are you in your household? (Total number of people living
together).....

A7: Can you read and write?

Can read and write (2) Cannot read and write

A8: What's your highest level of formal Education?

(1) None (2) Primary (3) Secondary (4) Post secondary (5) Other
(specify)...

B: Settlement/Migration

B1: Were you born in this village? (1)Yes (2) No

If the answer to B1 is YES go to C

B2: If you were born outside this village, where did you come from?

Region.....	District.....
Division.....	Ward.....
Village.....	Sub village.....

B4: How old were you when migrating to this village for the first time? (.....)

B5: When (year) did you permanently settle in the current place (village).....?

B6: Did you migrate alone? (1)Yes (2) No

If the answer to B6 is No go to B8

B7: If yes, where is the rest of your family?.....

Household Members Residence	Location Name
Far from this Village (Within Iringa)
Nearby this village (Within Township)
Outside Iringa

B8: Who did you come with for the first time in this village?.....

B9: If you were not born in *in this village* what are the main factors that facilitated your movement

- | | |
|---|---|
| (1) Returns I got/income from farming (tomato,) | (2) Moved with parents/relatives |
| (3) Credit from Institutions | (4) Marriage |
| (5) Credit from relatives | (6) Support from friend |
| (7) Salary from employment | (8) Returns from/income non-agriculture/ business |
| (9) Others (specify)..... | |

B10: If you were not born in this *village*, what were the main factors that made it possible for you to settle in this area?

- | | |
|---|---|
| (1) Returns I got/income from farming (tomato,) | (2) Moved with parents/relatives |
| (3) Credit from Institutions | (4) Marriage |
| (5) Credit from relatives | (6) Support from friend |
| (7) Salary from employment | (8) Returns from/income non-agriculture/ business |
| (9) Others (specify)..... | |

B11: If you were not born in this *village*, where did you stay on your arrival to this village?

- (1) With relatives
- (2) With friends
- (3) Rented a house
- (4) Government quarters
- (5) Own house

B12: If you were not born in this village, why did you move into this village and not to any other *village/ emerging urban centre*?.....

Reasons for migrating (multiple answers)	0= No 1=yes
This <i>emerging urban centre</i> is close to my original home village	
Invited by relatives/friends in this <i>emerging urban centre</i>	
To acquire land for agriculture	
To acquire land for construction	
To find employment	
Transfer (civil servant)	
To join relatives/family	
Marriage	
To access financial facilities/services	
To Access tomato market	
To access other markets	
To establish business	
To accumulate capital for establishment of business	
I noted that relatives/friends who left the original home village had better life than mine	
I have land to cultivate but very low productivity and returns to agriculture in my original home village	
Access to School	
Access to hospital/health services	

B13: Did you have any mission(s) during your migration mission (s)? (1) Yes (2) No
If the answer to B13 is No go to B15

B14: If yes how long did it take to accomplish your mission (months)

Mission accomplishment	Months
To acquire land for agriculture	
To acquire land for construction	
To find employment	
To join relatives/family	
Marriage	
To access financial facilities/services	
To Access tomato market	
To access other markets	
To establish business	
To accumulate capital for establishment of business	
To have better life than previous one	
To have access to School	
To have access to hospital/health services	

B15: What are the reasons for unaccomplished migration mission (s)?

Mission	Reasons
To acquire land for agriculture	
To acquire land for construction	
To find employment	
To join relatives/family	
Marriage	
To access financial facilities/services	
To Access tomato market	
To access other markets	
To establish business	
To accumulate capital for establishment of business	
To have better life than previous one	
To have access to School	
To have access to hospital/health services	

B16: Do you have contacts with your original home village? (1)=Yes (2)=No *If the answer to B is No go to C*

B17: If yes in what kind of contacts do you have with your home *village*? [Read through the list and tick what applies]

- (1) Own house in *village*
- (2) Own farm in *village*
- (3) Own business (e.g shop) in *village*
- (4) Own livestock in *village*
- (5) Buy goods (agricultural products) from *village*
- (6) Buy goods (consumer) from *village*
- (7) Part of family/household live in *village*
- (8) Home visit
- (9) Phone call
- (10) Remittances
- (11) Other specify

C: URBAN LIVELIHOODS

C1: What are the major sources of household's income? (Specify kind of activity; location and period by using the table below)

[illegible]

C2: With the mentioned major sources of household's income please rank 3 top reliable sources of household income.

.....

C3: What is the average annual income for the mentioned top 3

1:.....(Average income Tsh per.....)

2:.....(Average income Tsh per.....)

3:.....(Average income Tsh per.....)

C4: Do you own livestock? (1) Yes (2) No If Yes;

What type of livestock do you have/keep?

What is the number of each type that you have mentioned?

What is the estimated value (ref current price)?

What is the number of livestock sold in 2010/2011?

What were the reasons for selling livestock?

Type of livestock	Number in		Number sold 2010/2011	Estimated price (Tsh)	Reasons for selling	Who has control on income generated?
	EU C	RUR AL				
Pigs						
Cattle						
Chicken						
Ducks						
Goats						
Sheep						
Other (specify)						

C5: Are you involved in tomato sub sector? (1) Yes (2) No If the answer is No go to D

C6: If yes, when did start involving yourself in tomato sub sector? (Year.....)

C7: If you are involved in tomato sub sector indicate the following;

Field ID	Plot-1 (main field)	Plot-2	Plot-3	Plot-4	Plot-5
Field size (acreage)					
Acquisition of plot (1= inherited 2= purchased 3= borrowed 4= rented in 5= given by village government 6= Other (specify))					
When did you acquire this land (Year)					
Location (1. Within Emerging Urban Centre 2=Outside Emerging urban Centre (Please Mention))					
Mention other uses of plot					
Location of field plots with reference to topography Valley bottom Upland rain fed Upland irrigated					
Type of seeds used (1= local 2= improved 3= other -specify)					
Land clearance (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
Average cost for land preparation?					
How many labours did you hire last season for land preparation?					
Digging by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for digging?					
Nursery preparation (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for nursery preparation?					
Transplanting/Sowing done by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for transplanting?					
Weeding by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for weeding?					
Used fertilizer? (1= Yes; 2= No)					
Type of fertilizer					
Did you use pesticide (1=Yes; 2= No)					
Type of pesticide					
Harvesting done by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labourers did you hire last season for harvesting?					

C8: What is average tomato yields and income generated (2010/2011)

Field ID	1 st harvest	2 nd harvest	3 rd harvest	4 th harvest	5 th harvest	Unit	Average price				
							P1	P2	P3	P4	P5
Plot-1											
Plot-2											
Plot-3											
Plot-4											
Plot-5											

C9: What are the costs of input used (variable input costs).....

Main crop grown	Input used	Quantity used (K)	Price per unit (L)

C10: Indicate household land uses for other crops;

Field ID	Plot-1	Plot-2	Plot-3	Plot-4	Plot-5
Field size (acreage)					
Acquisition of plot (1= inherited 2= purchased 3= borrowed 4= rented in 5= given by village government 6= Other (specify))					
When did you acquire this land (Year)					
Location (1. Within Emerging Urban Centre 2=Outside Emerging urban Centre (Please Mention))					
What is the main use of each plot					
Location of field plots with reference to topography Valley bottom Upland rain fed Upland irrigated					
Primary crop grown					
Type of seeds used (1= local 2= improved 3= other -specify)					
Secondary crop grown					
Type of seeds used (1= local 2= improved 3= other -specify)					
Third crop grown					
Type of seeds used (1= local 2= improved 3= other -specify)					
Land clearing by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
Average cost for land preparation?					
How many labours did you hire last season for land preparation?					
Digging by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for land preparation?					
Nursery preparation (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					

How many labours did you hire last season for nursery preparation?					
Transplanting/Sowing done by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for transplanting?					
Weeding by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for weeding?					
Used fertilizer? (1= Yes; 2= No)					
Type of fertilizer					
Did you use pesticide (1=Yes; 2= No)					
Type of pesticide					
Harvesting done by (1= Family adult men 2= Family adult women 3= Female children 4= Male Children 5= Hired labour same village 6= Hired labour outside this village 7= Other-mention)					
How many labours did you hire last season for harvesting?					

C11: What is average crop yields and income generated (2010/2011)

Main crop grown	Acreege	Unit	Quantity consumed	Quantity sold	Average price (Tsh)

C12: What are the costs of input used (variable input costs).....

Main crop grown	Input used	Quantity used (K)	Price per unit (L)

C13: Does labour amount in your household meet the farming requirements? (1)Yes
(2) No *If the answer to C13 is No go to C15*

C14: If yes why?

.....
.....
.....

C15: If the answer to C13 (above) is no, at which period does this shortage mostly occur? (Fill in the answers for C15 and C16 in the table below)

C16: Why do experience labour shortage for your farming requirement on such particular mentioned period(s)?

Critical Period	Accompanying reason

C17: What strategies do you take to cope with labour shortage (s)?
 (i) Hiring-in labour (ii) Relying on self help social networks
 (iii) Asking assistance from relatives/neighbours (without any kind of payments) Other:.....

D: Extension services accessibility

D1: Have you ever had access to extension service? (1) Yes (2) No *If "No", go to D8*

D2: When was your last time since you have received extension services?.....

D3: If the answer to D1 is Yes, mention number (times) visited by extension officer last year (2011).....

D4: Who offered the extension service?

D5: If the answer to D1 is Yes, list type of services you were offered in your last contacts?

D6: Did you pay for the extension service? (1) Yes (2) No

D7: How much did you pay for the service?

D8: What are reasons for not accessing extension services?

E: SAVINGS AND CREDIT ACCESSIBILITY

E1: Are you a member of any formal or informal financial institution (e.g. NGO, SACCOS, Cooperative or solidarity group)? (1)Yes (2) No

E2: If the answer is No, what are the reasons for you not being a member of any financial institution?

E3: If the answer to is Yes, mention the institution(s) that you are a member (both formal and informal)

(1)(2)
 (3)(4)

E4: When did you join the financial institution?

NAME OF FINANCIAL INSTITUTION	YEAR JOINED

E5: How far are these financial institutions from your residential area?

NAME OF FINANCIAL INSTITUTION	Distance Km to financial institution

E6: What were the reasons for you to join the financial institution?

.....

E7: Is there any other member of your household who has a membership in any of the financial institution? (1)Yes (2) No. *If the answer to E7 is No go to E9*

E8: If yes mention the institution(s) that he/she is member (both formal and informal)

Relation with household head	Name of financial institution	Year joined

CODES: Relation to household head

- (1) Spouse (2) Child
 (3) Parent (3) Uncle
 (4) Aunt (5) Nephew
 (6) In-laws(7) Grand parents (8) others (Mention)

E9: Have you ever had any credit? (1)Yes (2) No
If the answer is No go to E.17 and If the answer to E9 is Yes, fill in the answers for E10 to E16 in the table below

E10: What was the source of credit?

E11: How much did you borrow?

E12: When did you acquire credit? (Year)

E13: What was the loan/credit duration?

E14: What was the interest charge per duration?

E15: How the credit was used?

E16: Where did you investment the loan?

SOURCES OF CREDIT	AMOUNT (Tsh)	YEAR	LOAN DURATION	INTEREST CHARGED	USE OF CREDIT	NAME OF INVESTMENT LOCATION
NGO's						
SACCOS						
SOLIDARITY GROUPS						
RELATIVE						
FRIEND						
OTHERS (Mention)						

Codes For Credit Uses

- | | | |
|---|---------------------------|---|
| (1) Invested in farming (tomato) | (2) Bought farm land | (3) Built a residential house |
| (4) Built a commercial house | (5) Bought a car | (6) Bought farm implement (tractor/power tiller) |
| (7) Established shop for consumer products | (8) Established farm | (9) Established marketing agricultural product (tomato) |
| (10) Established timber harvesting business | (11) Sent child to school | (12) Spent on health services |
| (13) Others | | |

E17: Have you managed to payback the credit? (Yes/No) If the answer is No go to E18

E18: Why have you failed to payback?

E19: Did anyone in your household receive any loan/credit ? (Yes/No)

E20: If yes what was the amount received?

Relation to Household Head	Sources Of Credit	Amount (Tsh)	Year	Loan Duration	Interest Charged	Use Of Credit(Codes)	Name Of Investment Location
	NGO's						
	SACCOS						
	SOLIDARITY GROUPS						
	RELATIVE						
	FRIEND						
	OTHERS (Mention)						

Codes For Credit Uses

- | | | |
|---|---------------------------|---|
| (1) Invested in farming (tomato) | (2) Bought farm land | (3) Built a residential house |
| (4) Built a commercial house | (5) Bought a car | (6) Bought farm implement (tractor/power tiller) |
| (7) Established shop for consumer products | (8) Established farm | (9) Established marketing agricultural product (tomato) |
| (10) Established timber harvesting business | (11) Sent child to school | (12) Spent on health services |
| (13) Others | | |

E21: Has she/he managed to refund the borrowed amount? (Yes/No) If the answer to E21 is No go to E22

E22: Why she/he has failed to refund?

.....

E23: What are the reasons for you not getting any credit?

.....

E24: What coping strategies did you/ do you use to solve financial problems?

.....

SAVINGS

E25: What kind/type of saving strategies does your household have? Tick appropriate answer

Cash

- (1) Buying crops.....
- (2) Buying livestock.....
- (3) Buying asset.....

E26: Do you have savings? (1) Yes (2) No) *If the answer to E26 is No go to F*

E27: If 'yes' please, mention a balance to date.

s/n	Type of saving	Value (Tsh)
	Cash	
	Buying crops.....	
	Buying livestock.....	
	Buying assets.....	

F: INVESTMENT PRACTICES RELATED TO REMITTANCES SAVINGS AND CREDITS IN RURAL/URBAN SETTLEMENTS

F1: Do you send any remittances to your household members left back in village/town? (1) Yes (2) No. *If the answer to F1 is No go to F3*

F2: What kind of remittances have you sent to your household members left back in the village /town during last year (2011)?

s/n	Sent To (Codes)	Amount			F3: What Was The Main Use Of Remittances (Codes)
		Cash (Tsh)	In-kind (mention)	value (Tsh)	
1					
2					
3					
4					
5					
6					
7					
8					

CODES: Remittances receiver

- (1) Spouse (2) Child
 (3) Parent (3) Uncle
 (4) Aunt (5) Nephew
 (6) In-laws (7) Grand parents (8) others (Mention)

CODES: Main use of remittance (Investment)

- (1) Health treatment (2) Education
 (3) Pay off debts (4) Social functions
 (5) House construction (6) House repair
 (7) Small business (8) Consumer items (soap, match boxes, kerosene)

F3: What were the reasons for you not to sending any remittances to the members of your household left in village?

.....

F4: Do you receive any remittances from member(s) of your household left behind?

- (1) Yes (2) No *If the answer to F4 is No go to F7*

F5: If yes, what kind of remittances have you received from your household members last year (2011)?

s/n	Received from (Codes)	Amount			J6: What was the main use of remittances
		Cash (Tsh)	In-kind (mention)	Value (Tsh)	
1					
2					
3					
4					

CODES: Remittances sender

- | | |
|-------------|--|
| (1) Spouse | (2) Child |
| (3) Parent | (3) Uncle |
| (4) Aunt | (5) Nephew |
| (6) In-laws | (7) Grand parents (8) Others (mention) |

CODES: Use of remittance (Investment)

- | | |
|------------------------|--|
| (1) Health treatment | (2) Education |
| (3) Pay off debts | (4) Social functions |
| (5) House construction | (6) House repair |
| (7) Small business | (8) Consumer items (soap, match boxes, kerosene) |

F7: What were the reasons for you not to receiving any remittances to the members of your household left in village?

.....

G: HOUSEHOLD INVESTMENT BY INCOME SOURCES

Fill in the answers for G1 to G5 in the table below

G1: What kind of investments have you done since settling in this village?

G2: When did you establish each of the mentioned investments?

G3: What was the source of capital for each investment?

G4: What is the capital value of each investment? (Ref; At establishment stage and current)

G5: Where are these investments (name of places) located?

S/N	G1:Househol d Investment	G2:Year Established	G3:Source Capital	G4:Capital Value For Investment (Tsh)		G:5Investme nt Location
				INITIAL	CURRENT	
1						
2						
3						

Appendix 5: Household survey questionnaire for rural hinterland follow-ups

Site Identification

Date of interview-----

District-----

Emerging Urban Center -----

Village-----Sub-village-----

A. Household characteristics (composition, age, origin)

1. Name of head of household-----
2. Sex of head of household----- (1=Male; 2=Female)
3. Age of head of household----- (enter actual years)
4. Original home place----- (where respondent was born)

B. Household members' mobility and mobility patterns-e.g. seasonal, permanent etc

5. Are you a permanent resident of this village? Yes No
6. Is there any time of the year that you migrate temporarily to another place? Yes No

If your answer to question 5 is No go to question 11

7. Where do you migrate to?
 - a) Ilula Township
 - b) Dar es salaam
 - c) Iringa Town
 - d) Other rural village (name the village)-----
 - e) Other place specify name-----
8. What economic activity do you do in the area where you migrate to?
 - a) Work in Ilula tomato market
 - b) Work in tomato farms
 - c) Work on labour agent
 - d) Work in other crop farms
 - e) Hired as domestic worker
 - f) Other specify-----
9. At what time of the year do you migrate?----- (indicate season in months e.g. June-October) -----
10. What are the reasons that make you migrate?
 - a) Lack of economic activities in the village _____
 - b) Part of the household leave where I migrate to _____
 - c) Other specify-----
11. Is there any member of your household that migrated out in the past 2 year? Yes No

If your answer to question 11 is No go to question 19

Fill answers to question 12-18 in Table 1

12. Please provide names of the member(s) that have migrated in the past 2 years.
13. What is your relationship with the member(s) that have migrated?

- a) My son
- b) My daughter
- c) My husband
- d) My wife
- e) Other Specify (gender)-----
- 14. Which year did she/he migrate?-----
- 15. How old was she/he when migrated?-----(*Indicate years*)
- 16. Where did she/he migrate to?
 - a) Ilula Township
 - b) Dar es salaam
 - c) Iringa Town
 - d) Other rural village (*name the village*)-----
 - e) Other place specify name-----
- 17. What economic activity does the member do in the area where he/she has migrated?
 - a) Work in tomato market
 - b) Work in tomato fields
 - c) Employment by labour agent
 - d) Work in other crops farms
 - e) Hired as domestic worker
 - f) Other specify-----
- 18. How often has the migrated member returned home since she /he left? -----
 - a) Never returned home
 - b) Once a year
 - c) Once a Month
 - d) Once a week
 - e) Other specify-----

Table 1 Information of Household members who migrated out (Question 12 to 18)

No.	12.Name	13.Relation with head of Household	14.Year migrated	15.Age when migrated	16.Where migrated to	17.Economic Activity in new area	18.Frequency of visit	Educated when migrate
i)								
ii								
iii								
iv								
vi								
vii								
viii								

C. Households economic activities (livelihoods)

19. What is the main economic activity undertaken in this village that your household livelihood depends on (*emphasis on most reliable livelihood - only one answer*)?

20.

Table 2 Main economic activity in the village

Economic activity	√	Economic activity	√
a. Own tomato farming		h. Casual labour in other private farms	
b. Own maize farming		i. Own business in this village	
c. Other crop farming		guest/rental house	
		shop	
		vending at market	
		bicycle repair,	
		milling machine	
		hair salon /cut)	
d. Livestock keeping and selling		j. The main economic activity is not in this village	
e. Selling livestock products		k. Other (specify)-----	
f. Employment in tomato processing factory			
g. Casual labour in private tomato farms			

21. What are other economic activities undertaken in this village which contribute to your household's livelihood (multiple answers possible)?

Table 3 Other economic activity (ies) in the village

Economic activity	√	Economic activity	√
Own tomato farming		h. Casual labour in other private farms	
Own maize farming		i. Own business in this village	
Other crop farming		guest/rental house, ,	
		shop	
		vending at market	
		bicycle repair,	
		milling machine	
		hair salon /cut)	
Livestock keeping and selling		J. Craftsman/Artisan (e.g. carpenter, mason, tailor, etc	
Selling livestock products		k. No other economic activity in this village	
Employment in tomato processing factory		l. Other (specify)-----	
Casual labour in private tomato farms			

22. Do you have any economic activities in Ilula Township? Yes No
If your answer to question 21 is (No) go to question 24
23. What is the main economic activity undertaken in Ilula Township that your household livelihood depends on (emphasis on most reliable livelihood- only one answer)?

Table 4 Main Economic activity in Ilula Township

Economic activity	√	Economic activity	√
Own tomato farming		h. Casual labour in other private farms	
Own timber farm		i. Own business in this village	
Other crop farming		guest/rental house, ,	
		shop	
		vending at market	
		bicycle repair,	
		milling machine	
Livestock keeping and selling		J. Craftsman/Artisan (e.g. carpenter, mason, tailor, etc	
Selling livestock products		k. The main economic activity is not in Ilula Township	
Employment in tomato processing factory		l. Other (specify)-----	
Casual labour in private tomato farms			

24. What other economic activity (ies) do you have in Ilula Township? (*multiple answer possible*)

Table 5 Other Economic activities (ies) in Ilula Township

Economic activity	√	Economic activity	√
a. Own tomato farming		h. Casual labour in other private farms	
b. Own timber farming		i. Own business in Ilula township	
c. Other crop farming		guest/rental house	
		shop	
		vending at market	
		bicycle repair,	
		milling machine	
d. Livestock keeping and selling		j. Craftsman/Artisan (e.g. carpenter, mason, tailor, etc	
e. Selling livestock products		k. No other economic activity in Ilula Township	
f. Employment in tomato processing factory		l. Other (specify)-----	
g. Casual labour in private tomato farms			

D. Resource/asset ownership

25. Do you own a house that your household is currently living in? Yes No

If your answer to question 24 is (No) go to question 26

26. What is the type of house that you own in this village?

- Cement block bricks wall, corrugated iron sheet roof and cemented/tiles floor
- Burned bricks wall, corrugated iron sheet roof and cemented/tiles floor
- Cement block bricks wall, thatched roof and cemented/tiles floor.
- Cement block bricks wall, corrugated iron sheet roof and mud floor
- Burnt bricks wall, Thatched roof and mud floor
- Mud bricks wall, Thatched roof and mud floor
- Other specify

27. Do you own a house (s) in Ilula Township? Yes No

If your answer to question 26 is No go to question 28

28. What type of house do you own in Ilula ?
- Cement block bricks wall, corrugated iron sheet roof and cemented/tiles floor
 - Burned bricks wall, corrugated iron sheet roof and cemented/tiles floor
 - Cement block bricks wall, thatched roof and cemented/tiles floor.
 - Cement block bricks wall, corrugated iron sheet roof and mud floor
 - Burnt bricks wall, Thatched roof and mud floor
 - Mud bricks wall, Thatched roof and mud floor
29. Do you own a farm (s)? Yes No
If your answer to question 28 is (No) go to question 32
- (Fill answers to questions 29 to 31 in Table 6)*
30. Where are the farms located?
31. What is the area of each farm?
32. What crops do you cultivate in each farm?
- Tomato
 - Timber
 - Maize
 - Sunflower
 - bananas
 - Other specify (include intercroops-----)

Table 6 Farm land detailed information (Question 29-30)

No.	29.Location of farm (name village)	30.Area/Size of farm (acres)	31.Crops grown	Remarks/intercropping
1				
2				
3				
4				

33. Do you own any farm equipment/implements? Yes No
If your answer to question 32 is (No) go to question 34
34. What type of equipment/implements do you own?
- Tractor
 - Harrow
 - Plough
 - Oxen (trained for ploughing)
 - Ox drawn plough
 - Ox cart
 - Other type of carts
 - Sprayer
 - Hand hoe and other hand held farm tools
 - Power tiller
35. Do you own any means of transport? Yes No
If your answer to question 34 is (No) go to question 38

36. What type of means of transport do you own?
- a) Mini bus
 - b) Saloon car
 - c) Land rover/Pick up
 - d) Lorry
 - e) Motorcycle
 - f) Bicycle
 - g) Ox drawn cart / Push cart
 - h) other specify
37. Do you have transportation business between this village and Ilula? Yes No
If your answer to question 36 is (No) go to question 38
38. What do you transport between this village and Ilula Township?
- a) Sugarcane
 - b) Other crops
 - c) People
 - d) Livestock
 - e) Other specify-----

E. Household income

You indicated that you have economic activities in 1.001.00Ilula Township (get a yes and no) If no Go to question 39

39. On average during last year how much did you earn per month from your economic activities in Ilula Township? (fill in table 7 for each economic activity mentioned)

Table 7 Income from economic activities in Ilula Township

No	Activity	Amount (Tsh/month)
i)		
ii)		
iii)		
iv		
v		
vi		

*You also indicated that you have economic activities in this village (get a yes and no)
 If no Go to question 40*

40. On average how much did you earn per month from your economic activities in this village during the last year? *(fill in table 8 for each economic activity mentioned)*

Table 8 Income from economic activities in the village

No	Activity	Amount (Tsh/month)
i)		
ii)		
iii)		
iv		
v		
vi		

F. Household remittances

You also indicated that you have some members of your household that have migrated out of this village (get a yes and no) If no Go to question 48

41. Did you send any remittances to members who migrated out in the last 2 years?
 Yes No
If your answer to question 40 is (No) go to question 42
42. On average how much did you send on monthly basis?
 a) Cash money-----
 b) In kind (food, clothing, etc) (indicate quantities)-----
43. Do any members of your household that have migrated out sent home any remittances in the past 2 year? Yes No
If your answer to question 42 is (No) go to question 44
44. On average how much did they send home per month in the last 2 years?
 a) Cash Money-----
 b) In kind (food or household items) (indicate quantities) -----

G. Household major social events and extent of participation

45. Do any members of the household that migrated out participate in social events that take place in this village (rural based community events)? Yes No
If your answer to question 44 is (No) go to question 46
46. How often did they participate during last year?
 a) one time
 b) two times
 c) three times
 d) Other specify _____
47. Do any members of the household that migrated out participate in household based social events that take place in this village last year? Yes No
If your answer to question 46 is (No) go to question 48
48. How often did they participate during last year?
 a) one time

- b) two times
- c) three times
- d) Other specify _____

H. Financial services

49. Are there any financial services available in this village? (SACCOS, groups lending etc)? Yes No
50. Are you a member of any of these financial services in this village?
Yes No
If your answer to question 49 is (No) go to question 51
51. What are the benefits that you get as a member
a) Access to credit
b) Make saving
c) Social benefits (identify & list) (e.g group assistance during weddings, funeral etc.)-----
52. Is there any member of your household who is a member of any of these financial services in this village Yes No.

I. Current (up to 5 years) economic investments

53. During the last (up to 5 years) have you made any investments (e.g built a house, bought a farm, child education)? Yes No
If your answer to question 51 is (No) go to question 58

Fill answers to questions 52 to 55 in Table 9

54. What type of investment did you make?
55. Which year did you invest?
56. Where did you invest? -----(Name the village if Ilula Township indicate, If invested in children education mention the level, i.e secondary, college, etc)
57. What is an estimated value of investment?

Table 9 Investments

No.	Type of investment	Year	Location (name village)	Estimated value
1	Built house			
2	Bought farm			
3	Child (or a relative) education			
4	Established sugarcane farm			
5	Bought tractor			
6	Bought oxen			
7	Other			

58. What was the source of capital for the investment?
- a) Income from tomato farming in the village
 - b) Income from economic activities in Ilula township
 - c) Credit from financial services in the village
 - d) Credit from financial services in Ilula township
 - e) Remittances from household members who migrated

- f) Other specify-----
59. Is there any reason for you not to invest in the past 5 years?
- a) Did not harvest enough tomato
- b) Did not earn enough income from tomato sales
- c) Did not have enough income from off-farm activities
- d) Poor harvest from other crops
- e) I earn enough for consumption only
- f) No reason
- g) Illness in the family
- h) Other specify-----

J. Household food security

60. What is the staple food for your household?-----
61. What is the main source of the staple food for your household?
- a) Own farm in the village
- b) Own farm in another village
- c) Bought from Ilula
- d) Bought from other village
62. What is the kind of food that you like to eat the most in your household?-----
-
63. Has it happened that you could not eat the kind of foods that you like to eat the most in your household? Yes No
- If your answer to question 62 is (No) go to question 65*
64. What was the reason not to eat the food that you like ?
- a) the foods are not available in this area
- b) they are expensive and therefore don't afford
- c) Other reasons (specify).....
65. How frequent did you fail to eat the food that you like most in the past month (30 days)?
66. Have you ever experienced any food shortage in your household in the past 5 years? Yes NO
- If your answer to question 65 is (No) go to question 67*
67. During the time of food shortage what was the source of food for your household?-----
-
68. What is your strategy for ensuring food security for your household?
-

END OF INTERVIEW THANK YOU FOR YOUR TIME

Appendix 6: Model 3.1 Correlation test using Variance Inflation Factor (VIF)

Factors influencing access to credit	VIF
X ₁ Sex of household head	1.206
X ₂ Marital status of the household head	1.149
X ₃ Age of household head	2.140
X ₄ Migration duration in host area	2.076
X ₅ Involvement in tomato production	1.074
X ₆ House ownership	1.187
X ₇ Own land location	1.300
X ₈ Own business	1.133
X ₉ Access to credit	1.362

Appendix 7: Model 3.2 Correlation test using Variance Inflation Factor (VIF)

Factors influencing access to credit	VIF
X ₁ Sex of household head	2.257
X ₂ Age of household head	1.751
X ₃ Household size	1.199
X ₄ Dependants	1.062
X ₅ Household head education level	1.144
X ₆ Marital status of the household head	2.273
X ₇ Own land location	1.099
X ₈ Livestock value	1.163
X ₉ Migration duration in host area	1.992
X ₁₀ Member in social/community group	1.096
X ₁₁ Born in EUC	1.030
X ₁₂ House ownership	1.136