

**FACTORS INFLUENCING OWNERSHIP OF MODERN HOUSES AMONG
HOUSEHOLDS IN IRINGA DISTRICT, TANZANIA**

BAKARI RAMADHANI HEMED

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

2015

ABSTRACT

Poor construction with temporary material exposes families to all kinds of health and safety risks, especially from ticks and insects concealed in unfinished mud walls and earthen floors, vermin and snakes in thatch, parasite seeking human host and malarial mosquitoes entering through unscreened windows and doorway. This study was conducted to identify factors influencing the ownership of modern houses among households in Iringa District. Specifically, the study examined the major factors and materials used in constructing modern houses, identified the time in which the households used to accomplish the construction of modern houses. The study involved 70 respondents and 10 key informants from government institutions in Iringa District. Purposeful sampling was used to identify households owning modern houses. Data were collected using a structured questionnaire, interview schedules and personal observations. In addition, secondary data from several sources were collected. Descriptive statistics such as frequencies, percentage and mean were determined. Qualitative data from personal observations and key informant interviews were summarized and reported. Also linear simple regression model was used to analyse data, particularly in determining major factors influencing rural household's ownership of a modern house. Findings from the study show that majority of modern houses were constructed using burnt bricks (68.5 %) and un-burnt brick (21.4 %). It was noted that factors like income, education, types of occupation, family size, cultural believes, land ownership, and prices of materials had a significant influence on the ownership of modern houses. It was also found that materials used in the construction of houses were locally available in the study area. On the basis of the study findings, it is recommended that the task of constructing modern houses in rural and urban areas should be carried in such a way government provides loan with low interest and trains more masons by using VETA in order to smoothen the construction of modern house.

DECLARATION

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

Bakari Ramadhani Hemed
(M.A Rural Development Candidate)

Date

The above declaration is confirmed

Dr. E. E. Chingonikaya
(Supervisor)

Date

COPYRIGHT

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form or by any means without prior written permission of the author or Sokoine University of Agriculture in that behalf.

ACKNOWLEDGEMENTS

My special gratitude should go to my family for their financial and moral support rendered to me throughout the period of this programme at Sokoine University of Agriculture.

I would like to give my thanks to my supervisor, Dr E. E. Chingonikaya, for guiding me in doing this work. Also, I would like to extend my thanks to the Development Studies Institute (DSI) staff for providing me with constructive comments during the research findings seminar presentation.

Lastly, by no means the least, I wish to express my heartfelt appreciation to my lovely wife, Monge Lubuva, my fellow students (MARD 2010 Intake), head of department at Idodi secondary school and other members of staff for their encouragement during my study.

DEDICATION

This work is dedicated to the Almighty God for granting me life and ability to study from the lower to this higher level. Also, this work is dedicated to my lovely father and brother who laid the strong foundation of my education.

TABLE OF CONTENTS

ABSTRACT	ii
DECLARATION	iii
COPYRIGHT	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
FIGURE	xii
LIST OF PLATES	xiii
LIST OF APPENDICES	xiv
ABBREVIATIONS	xv
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background.....	1
1.2 Problem Statement and Justification for the Study	4
1.2.1 Problem statement.....	4
1.2.2 Justification for the study.....	4
1.3 Objectives of the Study.....	5
1.3.1 General Objective.....	5
1.3.2 Specific objectives of the study.....	5
1.4 Research Questions	5
1.5 Conceptual Framework.....	6

CHAPTER TWO	8
2.0 LITERATURE REVIEW.....	8
2.1 Conceptualization	8
2.1.1 The concept of house.....	8
2.1.2 Housing	9
2.1.3 The concept of household	10
2.1.4 Rural housing.....	10
2.2 History of Housing Development in Tanzania	10
2.3 Traditional Building Materials and Extent of Their Use.....	11
2.3.1 The development of villages as settlements	12
2.3.2 Population growth and housing development	12
2.3.3 Negative attention to rural housing development	13
2.3.4 Improvement of rural dwelling and built environment	13
2.4 Effect of Poor House	14
2.5 Micro-finance and housing.....	19
2.6 Housing Micro-finance Characteristics and Products	20
2.7 Mortgage.....	21
2.7.1 Mortgage demand-side impediments.....	21
2.7.2 Mortgage supply-side impediments.....	22
2.7.3 Mortgage subsidies	22
2.8 Theories of Housing	23
2.8.1 Theory of housing adjustment	23
2.8.2 Theory of human motivation.....	23
2.8.3 Person-environment congruence theory	24
2.9 Indicators of Modern House.....	25

CHAPTER THREE	26
3.0 METHODOLOGY	26
3.1 Description of Study Area.....	26
3.1.1 Population of Study Area.....	26
3.1.2 Climate.....	26
3.1.3 Ethnic groups.....	27
3.1.4 Soil.....	27
3.1.5 Economic Activities.....	27
3.1.5.1 Agriculture.....	27
3.1.5.2 Livestock.....	28
3.1.5.3 Fisheries.....	28
3.1.5.4 Beekeeping.....	28
3.1.6 Women participation.....	29
3.2 Research Design.....	29
3.3 Sampling Procedure and Sample Size.....	29
3.4 Data Collection.....	30
3.4.1 Primary data.....	30
3.4.3 Observation.....	30
3.4.4 Secondary data.....	31
3.5 Data Analysis.....	31
 CHAPTER FOUR	 33
4.0 RESULTS AND DISCUSSION	33
4.1 Respondents Socio economic characteristics.....	33
4.1.1 Age of respondents.....	33
4.1.2 Marital Status.....	33

4.1.3	Level of education.....	34
4.1.4	Households size	35
4.1.5	Respondent's income	35
4.1.6	Occupation of respondent	36
4.2	Cultural Beliefs to the Ownership of Modern House	37
4.3	Availability of Construction Materials	37
4.4	Price of Material	38
4.5	Access to Land	38
4.6	Materials Used in the Construction of Modern Houses in Iringa District	39
4.6.1	Bricks	39
4.6.2	Stones.....	40
4.6.3	Aggregates.....	40
4.6.4	Wood.....	41
4.6.5	Portland cement	41
4.8	Duration used to accomplish the Construction of Modern Houses in Iringa District.....	42
CHAPTER FIVE		43
5.0 CONCLUSIONS AND RECOMMENDATIONS.....		43
5.1	Conclusions	43
5.2	Recommendations	44
REFERENCES.....		45
APPENDICES		51

LIST OF TABLES

Table 1:	Age of Respondents	33
Table 2:	Marital status of respondents	34
Table 3:	Level of Education	34
Table 4:	Family size	35
Table 5:	Income of Respondents	36
Table 6:	Occupation of respondents	36
Table 7:	Regression Analysis for Factors Affecting Ownership of Modern House	37
Table 8:	Other factors influencing ownership of modern house in Iringa district	38
Table 9:	Types of brick used in construction Iringa District.....	39
Table 10:	Material used to Construct House Foundations in Iringa District	40
Table 11:	Other material used in construction	41
Table 12:	Cement use according to types of brick	42

FIGURE

Figure 1: Conceptual frame work7

LIST OF PLATES

Plate 1:	Burnt bricks on site at Mapogoro Village.....	39
Plate 2:	Stones on site at Idodi Village	40
Plate 3:	Aggregate on site at Idodi Village	41

LIST OF APPENDICES

Appendix 1:	Questionnaire	51
Appendix 2:	Checklist to key informant.....	55

ABBREVIATIONS

AADIPO	Addis Ababa Development Improvement Project Office
ASCA	Accumulating Savings and Credit Association
CUDS	Centre for Urban Development Studies
COHRE	Centre on Housing Right and Evictions
DETR	Department of Environment, Transport and Regions
GNP	Gross National Product
HAC	Housing Assistance Council
HBS	Households Budget Survey
HIV / AIDS	Human Immune Virus / Acquired Immune Deficiency Syndrome
HTA	House Town Voluntary Association
IHC	International Housing Coalition
IDP	Internally Displaced Person
MDG	Millennium Development Goals
MFI	Micro-Finance Institution
NBS	National Bureau of Statistics
PADCO	Planning and Development Collaborative
RosCA	Rotating saving and Credit Association
TGNP	Tanzania Gender Networking Program
TSH	Tanzania Shillings.
URT	United Republic of Tanzania
UN	United Nation
UN-HABITAT	United Nations Human Settlements Programme
UNCHS	United Nation Centre for Human Settlement
UNDP	United Nation Development Program

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

By the beginning of the third millennium house and housing become the world's major problem; UNCHS (Habitat, 2001) has estimated that 1.1 billion people are living in inadequate housing conditions in urban areas alone. If rural areas are included, the number of people living in 'housing poverty' may well be twice as high. In addition, UNCHS (Habitat) shows that some 21 million new house units are required annually in developing countries to accommodate the growth in number of households during the 2000-2010 periods. Moreover, some 14 million additional units are required each year for the next 20 years if the current housing deficit will not cover (UN-HABITAT, 2001). World Bank (2008) estimates show that over 50% of the third world population live in conditions of extreme poverty and that nearly one quarter of the worlds' population live in shelters that do not satisfy the basic needs of housing. Housing is the largest item in poor family expenditure after food. Literature shows that 45% and 50% of family expenditure is directed to housing in Africa and Latin America respectively (UNCHS, 1994).

A house is a home, building or structure that is a dwelling or place for habitation by human beings. The term house includes much kind of dwellings ranging from rudimentary huts of nomadic ethnic group to free standing individual structure. In some context "house" may mean the same as dwelling, residence, home, abode, lodging, among other meaning. The social unit that lives in a house is known as a household. Most commonly, a household is a family unit of the same kind, though households can be other social groups such as single persons, or group of unrelated individuals (Norbert, 2000).

The right to adequate house is considered a core human right. The housing rights were first universally codified in the Universal Declaration of human Rights adopted and proclaimed by UN- General Assembly in 1948. Article 25 of the Declaration which states that “Everyone has the right to a standard of living adequate for the health and well-being for himself and for his family, and this includes food, clothing, housing and medical care and necessary social services and right to social security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control” (UN HABITAT, 2014).

The 1976 International Covenant on Economic, Social and Cultural Rights, which is now binding on more than 149 countries, includes the most legally significant universal codification provision of the right to adequate housing. Article 11(1) states that “*The state parties to present covenant recognize the right to everyone to an adequate standard of living and for his family, including food, clothing, and housing and to the continuous improvement of living conditions*”. The state parties will make appropriate steps to ensure the realization of such adequate standard of living.

All African countries, regardless of their social, economic and political conditions, are confronted with an acute problem of housing, especially rural communities because they all face similar developmental challenges. In Africa as in most developing regions, there are large numbers of people with poor shelter or living in deteriorated or un-improvable shelter conditions. While the situation is felt by the majority of the population, the most affected are the low-income earners, the unemployed and underemployed (Hammond, 1990).

Tanzania is highly a rural country, Tanzania Mainland population is predominantly rural with 71 percent of total population living in Rural (NBS, 2014). The government of Tanzania estimates that nearly 20% of the populations fail to meet basic need that is food (HBS, 2007). Food alone costs 65% of household expenditures, leaving little for housing, clothing, healthcare and education. Poverty is more severe in rural areas home where up to 75% of the population is poor. In Tanzania, housing backlog is between 1.8 and 2.2 million units. The annual demand for the new unit is estimated at 600 000, and the demand for new land plots for housing estimated 150 000 hectares (Msangya, 2001).

In rural Tanzania the quantity of housing is sufficiently but the quality is very poor. The rural homes ownership rate is estimated at 90% in contrast to urban rental rates of 68% (World Bank, 2002). In rural areas, majority of families live in “*tembe*” or “*mbavu za mbwa*” houses means the house made of basic wooden frames covered with mud. Almost, 80% of all households live in houses with bare earthen floors. Leaking thatched roofs leave pools of water inside the house, providing localized breeding ground for mosquitoes. Houses require tremendous amount of maintenance and entire walls often collapse in the rain seasons. The estimated life span for rural houses is seven to eight years (MLHS, 2000).

Poor construction with temporary material exposes families to all kinds of health and safety risks, especially from ticks and insects concealed in unfinished mud walls and earthen floors, vermin and snakes in thatch, parasite seeking human host and malarial mosquitoes entering through unscreened windows and doorway (AIDB/OECD, 2005).

Tanzania housing situation is poor in the whole country, especially in rural areas where the main part of the population (80%) lives in mud houses. In rural Tanzania two types of

houses can be identified, the traditional mud houses and modern houses. The traditional mud houses are poorly constructed and do not provide a decent standard of living. The living conditions are extremely primitive in these houses and pose a health risk to the occupants. Modern houses provide a better standard of living and a good investment for future generations (Mattson, 2009).

1.2 Problem Statement and Justification for the Study

1.2.1 Problem statement

Although Iringa is one of the regions where the level of poverty is not that bad as it is in most other regions, literature shows that in 2007, the per capita income was 217 041 Tshs. while in 2006, the per capita income increased to 492 792 Tshs (Ngasongwa, 2007). Most households do not have modern houses as only 20% of the households own modern houses. The traditional houses are constructed using non-durable materials, such as mud, weak pole walls and grass thatched roofs, hence short life span of an average of seven to eight years (TNHSP, 2000). A number of studies have been conducted on house and housing in Tanzania. For example, Mwakyusa (2006) conducted a study on how to improve the tradition house in rural areas and Mattson, (2009), Komu (2011), on building technique in rural areas as well as decay and maintenance of public house. However, none of those studies focused on factors influencing the ownership of modern houses in rural areas. Thus, this study was designed to bridge this knowledge gap.

1.2.2 Justification for the study

Housing is the key input in economic, social and civic development. This is because many housing related activities contribute directly to achieve broader socio-economic development goals. Better data permit more precise estimates in development of the country (Duane *et al.*, 2006). But little is known about the factors influencing the

ownership of modern house. Therefore, information in this study would be useful not only to other researchers but also the government, non-governmental organizations and other Community-Based organizations. The government could use the findings of this study to review policy and prepare short-term and long-term plans for the purpose of improving living standard in all aspects of housing. This study was also in line with Tanzania National Development Vision 2025 and the National Settlement Policy of 2000 which promote the development, improved and sustainable human settlement that is sustainable.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to explore the major factors influencing ownership of modern houses by rural households in Iringa District.

1.3.2 Specific objectives of the study

- (i) To identify the nature of material used to construct modern houses in Iringa District
- (ii) To determine duration taken by households in constructing modern houses in Iringa District.
- (iii) To determine major factors influencing rural household's ownership of modern houses.

1.4 Research Questions

This study had three research questions:

- (i) Why do some people manage to own modern houses and others in the same locality own poor houses?
- (ii) To what extent does education level contribute to ownership of modern houses?

- (iii) How long does it take to construct a modern house in rural area?
- (iv) Does a household's income status affect its ownership of a modern house?

1.5 Conceptual Framework

In this study, ownership of modern house was the dependent variable. A modern house is determined by the materials used to construct it including use of bricks, stones, concrete/aggregate, corrugated iron sheet, tiles roofing and cement. In addition, it has good ventilation. It was also presumed that background variables, intervening variables and independent variables could influence the ownership of modern houses. For that case, a modern house ownership depends on either increase or decrease in a unit of independent variable. Independent variables included, education level, age of respondent, household's income, price of materials, family size, occupation and cultural practice. The intervening variables for this study included economic activities such as farming, livestock keeping, trade, fishing and beekeeping. It was considered that these would in one way or another influence the ownership of modern houses.

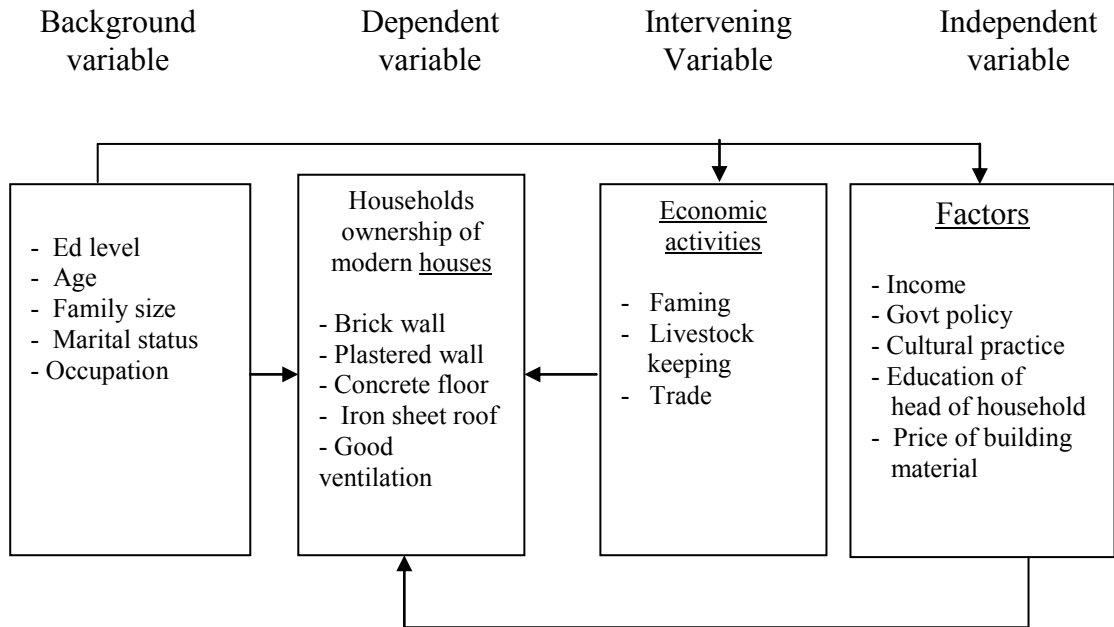


Figure 1: Conceptual frame work

CHAPTER TWO

2.0 LITERATURE REVIEW

Hart (1999) and Barnes (2005) pointed out the importance of making review, that “it shows how the new research fits into the established scholarship in the field, also works as a guide and references to further reading in the area and also provides alternative views”. This chapter presents what has been done about the topic and what remained to be a gap of knowledge on the topic of this study.

2.1 Conceptualization

2.1.1 The concept of house

It is important to understand and define the meaning of the term "housing". According to NBS (2002), modern house refers to one made up of more permanent material which guarantee such house to last longer. Literature continues to hold that, there has been a rise in the proportion of household living in a house built with modern materials such as concrete, stone, cement and metal (NBS, 2002).

A house is a home, building or structure that is a dwelling or place for habitation by human beings. The term house includes a variety of dwellings ranging from rudimentary huts of nomadic ethnic group to free standing individual structure. In some context “house” may mean the same as dwelling, residence, home, abode, lodging, among other meaning. The social unit that lives in a house is known as a household. Most commonly, a household is a family unit of the same kind, though households can be other social groups such as single persons, or group of unrelated individuals (Norbert, 2000).

Non-permanent (or 'temporary') dwellings are included if they are the occupant's main residence and council tax is payable on them as a main residence. These include caravans, mobile homes, converted railway carriages and houseboats. Permanent Gypsy and traveller pitches should also be counted if they are, or likely to become, the occupants' main residence.

Housing is much more than just the physical dwelling units. It must be seen not only as an integral part of the physical environment, but also as a process within the socio-economic fabric of society. Taken in this context, housing must be seen as an indicator of social development for it provides a vehicle through which people can improve, in absolute terms, their material condition as well as their social and psychological well-being. This implies that housing must be seen as a means of job creation, employment stimulation, training and so on and not merely as a shelter (Chenga, 1986).

2.1.2 Housing

Housing may be broadly perceived in two dimensions - firstly as a physical shelter stock of dwelling units and secondly as the process by which that stock is created. All too often the house structure itself is equated with housing. But housing is much more than just the physical dwelling units: it must be seen not only as an integral part of the physical environment, but also as a process within the socio-economic fabric of society. Taken in this context, housing must be seen as an indicator of social development for it provides a vehicle through which people can improve, in absolute terms, their material condition as well as their social and psychological well-being.

2.1.3 The concept of household

A household can be defined as the group of individuals occupying a housing unit. A “family” consists of a householder and all other persons living in the same household, by blood, marriage, or adoption. A household may consist of family, no family (i.e. one or more single unrelated individuals) or more than one family. The “householder” (sometime called the “head of household”) is the household member whose age is 18 years and above and is the owner or renter of the sampled housing unit (AHS, 2003). However, URT (2004) defines a household as one or more persons who make themselves provision for essentials of living. The persons in the group may be related, unrelated or both. But usually this type of household includes a husband, wife, children and other relatives.

2.1.4 Rural housing

Rural housing is worse than urban housing condition which is a reflection to the rural-urban gap in access to social services such as water, sanitation and electricity. The primary reasons that rural areas are worse is that poverty is more extreme and affects more people in rural areas of Africa (UN, 2001). Absence of recognized transferable right to land and housing among the rural poor contributes to extreme poverty in rural areas. Because the rural poor lack the clear right to land and housing. They are unable to generate wealth by transferring these rights upon migration to urban centre (Magobunje, 2005).

2.2 History of Housing Development in Tanzania

According to the prints of the National Museum of Tanzania, the history of constructing permanent houses for human settlement in Tanzania started some six thousand years ago (10 000 years ago in some other places). This came up as a result of the developed early

man *Homo Sapiens* who had emerged from *Australopithecus* four million years ago. The remains of *Australopithecus* group (together with groups *Afarensis*, *Agricamus*, *Boisei* and *Robustus*), have been found in Africa, Awash, Ethiopia, Turkana, Kenya, Lake Eyasi, Laeroli and Olduvai in Tanzania and South Africa. Prior to all this, there had been the chimpanzee family who developed through 12 stages to mankind of to-day passing through the *Australopithecus* (*Pliopithecus*, *Proconsul*, *Dryopithecus*, *Oreopithecus*, *Ramapithecus*, *Australopithecus*, *Homo habilis*, *Homo erectus*, *Homo sapiens* of the Original - *Archaic. Homo sapiens* and *Sapiens* (means Human being).

2.3 Traditional Building Materials and Extent of Their Use

Traditional materials are those that have been handed down from generation to generation within the context of customs and availability. They are readily available for use with respect to specific locations and they may undergo modifications and sometimes extinction. They are commonly used in rural areas throughout Tanzania covering earth, poles, sticks, grass, palm leaves and banana leaves and timber backs. The major building materials are those used for building foundations, floors, walls, roofs and shutters in houses and those used for building infrastructure, such as water and electricity supply and roads (Hommel, 2006).

Traditionally, Tanzania developed around the architecture of mud, pole and thatch. A good number of houses constructed by traditional materials still exist both in urban, to a lesser extent, and rural areas. While housing problems in urban areas are centred around the availability of decent and affordable housing, in rural areas the problem is associated with quality whose solution require availability of building materials coupled with technology which is the systematic application of knowledge/science to practical tasks in the system, know-how in production of materials and converting them into a building.

The importance of building materials in all types of construction is very great, especially when considering that in Tanzania, materials account for as much as 60 per cent of the total costs of construction of domestic buildings (Hommel, 2006).

2.3.1 The development of villages as settlements

The settlement of people in the country came in different groups in various forms of activities like trade, refugees needing to settle down and carry out farming instead of hunting, and settled not in villages but in undefined pattern of location each one having his own choice where to live, in different parts of the country, ending up with a nation of 120 tribes of different social groups and cultures (Mwakyusa, 2006).

2.3.2 Population growth and housing development

The population of Tanzania increased at a rate of 2.8% per annum between 1978 and 1988 which is a lower growth rate than that of 3.0% per annum over the 1967 – 1988 periods. The population increased from 11 958 000 people in 1967 to 22 533 800 in 1988. The 2002 census is saying that the population of Tanzania is now 44 568 609 people with growth rate of 2.9%, with a density of 38 people per km² (mainland Tanzania), and 3.1% with a population density of 398 people per km² (in Zanzibar). According to World Bank Report, in 1993, 75% of Tanzanian population was living in rural areas (Mwakyusa, 2006).

Rural-urban migration as a better life chasing behaviour from the poor state of living in the rural areas. This in turn, many towns in Tanzania are now being threatened by the unwanted growth of squatter houses in the country. The rise of rural population in Tanzania as time goes by, and also as given under the (Tanzania Rural and Urban Growth), in turn, threatens the swelling of urban centre due to rural-to-urban immigration

if immediate measures are not taken. Looking from the broader context, we are told that Africa with 460 million rural inhabitants in 2000 is expected to see its rural population rise to 487 million by 2030 remaining the second largest during the period. All major areas are expected to experience a reduction of the rural population between 2000 and 2030 except for Africa and Oceania (Mwakyusa, 2006).

2.3.3 Negative attention to rural housing development

All the way through, practically notable attention has been given to the development of houses in urban centres. And this has been the hub of consideration with general development and policies concern. Provision, improvement and upgrading of housing by the government or external assistance has always been focused to urban centres, as we have already seen, not realizing the rural settlement impact it has on the growth of urban centres. Even where the government embarks itself in providing basic infrastructure like roads, water and electricity and accessibility to housing finance; not done in the rural areas, it indirectly enables people to actually what people can do in the absence of government involvement.

2.3.4 Improvement of rural dwelling and built environment

Usually when experts talk about housing or housing development within the subject of public housing take the issue in a broader context, as the entire residential neighbourhoods or living environment. Such a wider definition, highly appreciated, includes amenities and services that a community requires in a given residential neighbourhood. These include water supply, sanitation, roads, drainage, electricity, schools, health clinics, community centre and recreation facilities. Despite the need and essentiality of the afore mentioned, the submission of this will limit itself to what a rural person can do for himself, the improvement of a dwelling house as a unit possessing

qualities of, not costly and complex, but be fitting durability, functionalism, healthy, strength/stability and easily maintained with some aesthetic qualities with anticipation that a rural person can build for himself, as usually is the case for rural families, getting away from cash paid labour.

2.4 Effect of Poor House

Poor housing reinforce poverty cycles, increasing poverty, decreasing access to modern house, and decline in physical and mental health operates cyclical, each factor influences the other, while other consider poor housing to be a result of poverty. In Africa, Tanzania included poor housing has particularly harmful impact on poverty for women and women headed households, due to the combination (a) discrimination against women in housing right and access and (b) high number of women living in extremely poverty. Rising cost for housing result in less household money being available for other basic needs. Families must choose between losing their housing or cutting back food, healthcare, clothing and education for their children (World Bank, 2005). Reduction in housing costs would result in reduction in poverty (Baharoglu, 2005). When households must decide whether to pay rent or to pay for their children's expenses they usually choose the former. UN habitat recently reported that a majority of parents settling in slums postpone sending their children to schools especially girls until they manage other expenses such as food, rent, and transport (UN Habitat, 2006).

A recent study in England demonstrated a correlation between bad housing and damage to children, including lower education attainment, greater likelihood of -unemployment, and poverty (Harker, 2006). Poor housing further limits financial coping strategies for people without family support such as women seeking divorce, families in transition and families in crises addressing housing needs provides an entry point into breaking a cyclical

poverty loops. UN habitat notice the importance of improving poor housing as an entry into achieving a broad range of goals related to poverty alleviation. As summarized by UN Habitat writer (UN Habitat, 2005):

“By improving the lives of poor housing dwellers, one is also combating HIV, Improving environmental sustainability, addressing gender inequality and all the MDGS (Millennium development goals) in the most efficient manner”

Poor housing undermines social and political stability, poor house are closely tied to social fragmentation, instability and violence (Cook, 2006). Lux (2003) perceives housing as basic social need of human and its standard greatly influences the standard of welfare of whole society. Housing insecurity can have far reaching consequences for the labour market as well as for the political stability of a particular country. Where wealth disparity is high relative shelters deprivation may cause or contribute to violent social protest, as evident 800 protest reported in south Africa slums in 2005 (UN Habitat, 2006).

Weir (2004), in a report titled Measuring Transformation through housing habitat for humanity found that improved shelter conditions especially through a particular approach in which the house hold takes active role in the improvement services to enhance a broad range of factors affecting quality of life and strengthening civil society. These factors include increased participation in civil society by marginalized groups, increased school attendance by children, heightened self-confidence of women, fewer days work missed due to poor health and greater house economy activity.

Poor housing jeopardizes health of its inhabitant; approximately 40% of African slums residents live in extreme poverty that is life threatening (COHRE, 2006). Higher mortality

rates in poor house especially for children are linked to the hazardous location of slums, poor water and sanitation services and poor air qualities (World Bank, 2004).

The combination of poorly-ventilated house and the use of solid fuel such as wood, charcoal, and dung imperil the health of many low income people in Africa. This is also true to sub-Saharan Africa, host to highest per capita proportion of biomass (solid fuel) use in the world (UN Habitat, 2006) Two pervasive diseases, pneumonia and diarrhoea, are responsible for killing 4 million children in developing countries each year (UN Habitat, 2006). Pneumonia related to overcrowding and poor ventilation, diarrhoea is likely to inadequate water and sanitation, especially the use of pit latrines shared by hundreds of households (UNDP, 2006).

Poor housing compromises economic and well-being: improving house condition can be powerful catalyst for both individual household and broader community. Housing activities states analyst Schlonio Angel, has important effect on among others thing gross national products (GNP), saving, accumulation of wealth and wages (Angel, 2000). Housing investment is the primary determinant of economic growth in developed countries. Housing expenditure is often considered a “wealth building investment” because it; increase in value over time, provide protection against inflation, Provide a secure location for small business operation and increases credit opportunity (IHC, 2007) citing by PADCO (2006) and even very poor house hold can increase wealth over time through incremental investment in housing, which in turn can boost the development of consumer market (IHC, 2007).

Poor housing on the other hand is the financial crippling: according to one study, without modern housing are unable to partake in either of the following two generating potentials associated with housing: The use of housing for micro-enterprises. Land and building

account for an average of 25 - 45% of investment required to establish the micro-enterprises. The use of housing as an income producing asset households may capture gains either through renting out properly or through increases in market value at the time of sale (Centre for Urban Development Studies, 2002).

The burden of poor housing in Africa falls most heavily on children: bad housing directly harms children and it renders them more vulnerable to violation of other essentials includes the right to person security, education, health care and life itself. A COHRE (2006) underscores the following specific effects:

Increases number of street children: an estimate 10 million children living on the street in Africa of which approximately 40% are without homes. In Nairobi over 60 000 children live or work on the street. In Addis Ababa 40 000 live on the street, of these an estimated 10 000 have no care support. Poor housing is one of the factors along with rural- urban migration, armed conflicts, poverty and unemployment, family trauma such as drug abuse, illness or divorce and domestic violence, contributing to growing number of street children in Africa (COHRE, 2006).

Heightened levels of sickness and mortality children in Africa bear the greatest burden of illness and death from bad housing condition. Mortality rates for children under five years old are much higher for slums areas than non-slums and good house areas (UN Habitat, 2006). The recent studies linking high child mortality rates to slums bode poor for children in sub-Saharan African given high and rising slums growth rates.

Homelessness and shelter deprivation related to HIV/AIDS death: in sub-Saharan Africa 11 million children younger than 15 year have lost one or both parents due to HIV/AIDS.

This number is predicted to rise to 20-25 million by 2010. Death of one of the parents forced a child into deeper poverty, often accompanied by reductions in housing quality. When both parents die a child must find shelter with relatives, intensifying conditions that are already overcrowded and inadequate. Although 90% of child orphans do find housing with relatives, poverty caused a rising number of extended families to reject HIV/AIDS orphans who may end up on the streets.

Disproportionate harm to girl children because of discrimination in education, inheritance and land rights systems, female children are more likely to suffer the effects of poor housing. These effects include; (a) poorer access to education (b) higher rates of sexual exploitation and abuse, sexual transmitted diseases and unwanted pregnancies experienced by girls living on the street, and in refugees camps and (c) extreme tenure insecurity of female children who become head of household upon HIV/AIDS death of their parents.

Educational delays and losses: poor housing is related to lower educational attainment for children and greater likelihood of unemployment and poverty as adults (Harker, 2006). Upheaval related to forced eviction. Research shows that forced eviction can devastate children's physical, mental, and emotional health. Forced eviction creates a level of trauma for children similar to that experienced in war, according to a number of recent studies. Violence against women and children is a common upheaval related to war. In Africa as the rest of the world, children suffer disproportionately when their homes are threatened or destroyed by war. One half of all Internally Displaced Person (IDP) are children. When displacement occurs, children are most likely to suffer violence, disease, malnutrition and death.

Shelter conditions and the natural environment closely to one another: Natural disasters and other hazardous environmental factors can imperil both the housing and lives of low income families in Africa and Tanzania in particular. On other hand, socio-economic factors push low-income households to find shelter in places and in ways that further destruction of natural environment. In many cases the result is even worse living condition for poor.

2.5 Micro-finance and housing

The tradition of small-scale lending is not new to Africa and Tanzania in particular. During the colonial era, Africans developed hometown voluntary association (HTA) help to provide a social safety net for community members. One of the functions of HTA was to extend the interest, free loans or grant to community member with emergent need to pay rent, educational expenses etc (Magobunje, 2005). These institutions have decreased in importance post-independence. Another institution with roots in African response to urban poverty during colonization is the “rotating credit” scheme. Faced with inability to access formal financial institutions, the urban poor drew upon tradition community credit schemes to generate funds for housing improvement and other needs. These community based savings and credit schemes exist throughout Africa, and are now known as Rotating Saving and Credit Associations (RoSCAs) or Accumulating Saving and Credit Associations (ASCAs). Unlike RoSCA, ASCAs do not distribute regular pay-outs, but rather build a pool of savings from which members can take loans upon demand (Baumann 2003). Benefits of RoSCAs and ASCAs include: they are inexpensive, with no direct NGO management costs stay low; they provide member with collective access to banks; and they help poor to build social assets (Friedman, 2010).

2.6 Housing Micro-finance Characteristics and Products

Innovation and diversity characterize the housing micro-finance industry and its products. Housing micro-finance providers include NGOs, commercial banks, government (Ferguson, 2004). Typical characteristics of housing micro-finance products include the following:

Small loan size: loan size varies greatly, depending on the capacity to repay, but typically ranges from Tsh. 450 000 to Tsh, 900 000. In Africa this amount is often much lower compared to Europe. Federation of community based savings and credit groups in Africa have found that it is important to avoid the excessive use of credit wherever possible because this way imposes financial burdens on low income households. **Short repayment period:** Repayment terms generally range from one to ten years, but can be even shorter.

Cost recovery goal: loans pricing often aims to cover the real costs of providing the service. However, some MFIs offer lower interest rates on housing loans than on micro-enterprise loans, effectively cross-subsidizing one program with the other. Also many housing Micro-Finance Institution (MFIs) rely on blended funding strategies that include public or donor subsidies, although the trend may be toward greater independent and linkages with commercial finance institutions (Ibid, 2004).

Alternative collateral requirements: MFIs rely on a client's history, such as successful repayment of a micro enterprise loan, prior to lending for housing. Co-signing is another practice (Ibid, 2004). Another way that MFIs establish both the ability to pay and collateral base is through mandatory savings requirement. Although group lending strategies may still be used to reach the poorest people, these strategies are less popular for housing microfinance than they have been for enterprises micro-finance (Escobar and

Merrill, 2004). Promotion of incremental building: Loan usually goes to finance shelter needs incrementally and so accommodates progressive building methods. This is one of the chief advantages of housing micro-finance over traditional mortgages.

Linkages to micro enterprise lending: beginning with a very small micro enterprise loan, even extremely poor households may be able to establish a payment history while simultaneously improving their economic status, eventually making them eligible for larger, longer-term housing loans. Some house upgrading programs have included a micro-finance component. In this case the government typically provides basic infrastructure to the poor housing commodity, and the government or an independent MFIs offers small loans for house improvements (UN-Habitat, 2005).

2.7 Mortgage

2.7.1 Mortgage demand-side impediments

Housing finance has often been equated with mortgage, but mortgage financing has little relevance to poor. “For poor families, mortgage finance remains a distant reality even if market-based finances were available” (World Bank, 2006). In most developing countries a traditional mortgage is only affordable to the wealthiest 10-20% of households (Ferguson, 2004). Given high interest rates and the breadth of poverty in many sub-Saharan Africa countries, this mortgage is probably even lower. Furthermore, traditional mortgage institutions require borrowers to provide formal document for both (1) ownership rights to land and house and (2) ability to pay (e.g. proof of formal employment). These requirements disqualify any potential borrowers who lack title to their land and house or who do not work in the formal sector.

2.7.2 Mortgage supply-side impediments

Another factor impeding mortgage finance in the region has been the absence of commercial banks and other mortgage institutions with access to long-term lending capital. Many well-established banks in Africa region have increased their liquidity as macro-economic stability has returned to the region and several countries have begun to deregulate their finance industry (International Housing Coalition, 2007). These banks however are often reluctant to use their liquidity position to engage in mortgage in the absence of clear land and housing rights registration systems and enforceable foreclosure procedures. In the face of such perceived risks, interest rates remain high, precluding mortgage as an option for all but the wealthy. Also liquidity does not necessarily translate into greater resources for mortgage loans, long-term lending capital remains scarce for most banks.

2.7.3 Mortgage subsidies

Some government in Africa and Asia region subsidize mortgages in an attempt to fulfil a number of policy objectives, including increased economic growth and reduced barriers to home ownership. Attempts to extend mortgage financing to lower income groups includes reducing interest rates, expanding secondary markets, adopting measures to minimize risks to lenders, an offering down payment subsidies to reduce mortgage size (Habitat for Humanity Asia and Pacific, 2007). These subsidies, however, are non-transparent and poorly targeted, and therefore unlikely to help the poor. Even where housing finance institutions, NGOs and others have actively sought expansion into lower-income markets, they have rarely succeeded in doing so. At donors urging, some governments in Asia have abandoned mortgage subsidies (Ferguson, 2004).

2.8 Theories of Housing

2.8.1 Theory of housing adjustment

Theory of housing adjustment deals with “how households think and behave in performing their housing behavior” (Morris and Winter, 1996). The theory is useful in examining ‘the complex process by which families make decisions about their housing and the ways in which the structure of the society determines how families make’ (Steggell *et al*, 2003).

Developed from a systemic function model, the theory takes a sociological perspective and is focused on the ‘micro-sociology’ of the household and its housing. In the sociological model of human behaviour, people seek respect from self and others. Morris’ and Winter’s theory shows that if a household believes that its housing is below the norms of the society (a threat to respect), that household will feel dissatisfied and seek to change its situation. Major components of the theory define housing norms, constraints that affect the households ability to act, and resulting housing decisions and behaviours. When the household recognizes a housing deficit, possible corrective measure includes; (a) housing adjustment, such as moving to a different dwelling or altering the current house; (b) housing adaptation, in which the household itself makes change such as reducing needs, removing constraints, or re-allocating current resources and (c) generation, which could include disintegration and reorganization of the household or in a social action focused on reorganization of the society (Steggell *et al*, 2003)

2.8.2 Theory of human motivation

Abraham Maslow is the most known for his theory of human motivation (Maslow, 1987). The theory suggests that people are motivated by a quest to fulfil their own needs and that they will strive to reach the highest levels of their capabilities. Human needs are arranged

in a hierarchy, ranging from the most basic, physiological needs to higher, more creative ones. Maslow's hierarchy of needs includes (a) physiological, (b) safety and security, (c) love and belonging, (d) self-esteem, and (e) self-actualization needs. The theory posits it is necessary to satisfy the lower needs on the hierarchy before an individual can focus on satisfying the higher ones (Maslow, 1987).

In the study of housing costs and housing satisfaction, Maslow's theory of human motivation was implicitly expressed in the relationship between costs and satisfaction by elderly homeowners Zhu and Shelton (1996) and in the disparity in housing quality between races. Diverse income, housing cost burdens, and racial disparities in housing quality may indicate various levels of fulfilment on the human needs hierarchy (Steggell *et al*, 2003).

2.8.3 Person-environment congruence theory

Person-environment congruence is one of a number of theories that draw from environmental psychology. Environmental psychology theories generally focus on the dynamic relationship between human behaviour and the physical environment. People, as goal-directed beings, act upon the environment and are in turn influenced by the environment (Ittelson, Proshansky, and Rivlin, 1970). However, Kahana (1982) and Lawton (1983) further developed the person-environment congruence to explain appropriate care option for older people by examining the fit between the environment and the person. Behaviours are seen as a constant interchange between individual and the environment. The environment consists of more than just physical surroundings; it also includes other people, the physical remainders of their behaviours, and interactions of two or more individuals (Steggell *et al*, 2003).

2.9 Indicators of Modern House

Security of tenure: house is not modern if its occupants do not have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats. Since forced eviction is world problem this supported by UN HABITAT (2014), the sheet shows that millions people in the world are forcibly evicted, or threatened with forced eviction from their home every year.

Availability of services, materials, facilities and infrastructure: house is not modern if its occupants do not have safe drinking water, adequate sanitation, and energy for cooking, heating, lighting, food storage or refuse disposal. For example, ensuring sanitation facilities is another MDG that Tanzania shares with other countries. A household is classified as having an improved toilet if the toilet is used only by members of one household and not shared (NBS, 2011).

Habitability: house is not modern if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind, other threats to health and structural hazards. Accessibility: house is not modern if the specific needs of disadvantaged and marginalized groups are not taken into account.

According to UN HABITAT, (2014) location is important indicator, this means that house is not modern if it is cut off from employment opportunities, health-care services, schools, childcare centers and other social facilities, or if located in polluted or dangerous areas.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Description of Study Area

This study was conducted in Iringa District, one of the four districts of Iringa Region, in Tanzania. North is bordered by Dodoma Region while Kilolo District in East. Iringa District is bordered by Mufindi District in south while Mbeya Region and Singida Region are found in the southwest and northwest respectively (NBS, 2013).

3.1.1 Population of Study Area

From 2002 to 2012 the district population increased by about 8999 people from 245 033 in 2002 to 254 032 in 2012. At division level, there were insignificant differences in the level of population change ranging from negative 10.3 percent (Isimani division) to 61.3 percent in Pawaga Division. The negative population increase observed in Kalenga and Isimani divisions was due to shifting of Mkoga, Mgongo, Nduli and Kigonzi villages from the two divisions in Iringa District to Iringa Municipal. In 2012, Iringa Rural District had a population of 245 032 persons and 60 484 households. It had the second largest number of households. Its average household size was 4.2 persons per household (NBS, 2013)

3.1.2 Climate

The climate of Iringa District is influenced by several factors leading the region into the categorization of three distinctive climatic zones. These are the Highlands zone, the Midland zone and the Lowlands zone. The Lowlands zone has an altitude ranging from 900 meters to 1200 above sea level. This zone includes the low lying northern part of the Iringa District along the Ruaha River. Iringa District is within low lands which include Pawaga and Idodi Division, Katanza, Izazi and Malengamakali ward. The area

temperature ranges from 20° C and 30° C with low rainfall between 500 and 600mm per annum (NBS, 2013).

3.1.3 Ethnic groups

The main ethnic group in Iringa District is the Hehe. They constitute almost 90 percent of the entire population. Their major occupation is farming while livestock keeping is practiced on a small scale. Other ethnicity groups found in the district include the Bena, Kinga, Pangwa and Wanji mainly found in and around large tobacco plantations owned by Greek settlers in the north, central and south eastern parts of the district which covers Kalenga, Mlolo, Kiponzelo, Idodi, Pawaga and Isimani divisions, while other minority tribes include, Gogo, Sukuma, Barbaig and Masaai found in the lowland zone of Pawaga, Idodi Isimani and Izazi and Malengamkali wards. These lowlands are rich in pastures which have attracted these pastoralists to come along with their livestock and settle there (NBS, 2013)

3.1.4 Soil

Iringa district has red/yellow, well drained and highly weathered and leached clay soils in high altitude areas. The midland areas are occupied by intermediate clay soils which are characterized by being moderately drained and leached. The lowlands are occupied dominantly by red brown loams and are highly fertile.

3.1.5 Economic Activities

3.1.5.1 Agriculture

Agriculture is the largest sector in the economy of Iringa District. Maize is the major staple food crop. Other food crops of great importance include round potatoes, sweet potatoes and beans. Cash crops of significant economic importance are tobacco,

sunflower and rice. The agricultural sector contributes over 75 % to the regional economy and employs about 90 % of the working population in the region. The sector is dominated by subsistence farming. Maize production accounted for about 53 % of the total volume of major food crops harvested in the region followed by round potatoes which counts for 27 % (Mawalla, 2011).

3.1.5.2 Livestock

Livestock keeping in Iringa district is predominantly traditional and comprises almost entirely of indigenous cattle. Livestock keeping is an important economic activity in the region and plays the most significant economic role in the lives of the region's rural population after agriculture. Livestock distribution in the region shows that Iringa Rural district, in 2005, accounted for 35 % of all cattle, 52 % of all goats, 35 % of all sheep, 18 % of all pigs and 62 % of all donkeys in the region (NBS, 2013).

3.1.5.3 Fisheries

Fishing in Iringa Region takes place mainly in Mtera Dam of Iringa District. Some fishing activities take place also in both the Great Ruaha River and Little Ruaha. Fishing provides employment to many people living near or along the fishing areas in the region. Fishing in the region is carried out entirely at artisanal level. Generally, the volume of fish caught by fishermen in the region meets the region's consumption demand and the surplus finds a market in neighbouring regions of Mbeya, Morogoro and Dodoma (NBS, 2013).

3.1.5.4 Beekeeping

Iringa Rural contributes 26.3 % of beehives in the region contributes 27.9 % of honey production and 22.3 % of beeswax production in the region. The average number of modern beehives amount to 8.8 % of all beehives in the district (NBS, 2013).

3.1.6 Women participation

The emancipation and empowerment of women is crucial to overall economic and social development of the district, region and the nation. Women economic groupings are one way of achieving this. It is a mechanism for fighting poverty and building solidarity among women in their march towards equality and equity with men. Women constituted 32 % of all office workers available in the district in year 2005. Iringa District is leading by having 32 % women who were holding office posts compared to other district in the region. The participation of women in legislative bodies was fairly encouraging (TGNP, 2000).

3.2 Research Design

The study employed a non-experimental design where by a cross-sectional survey was adopted. Under this design data were collected at a single point in time and used for simple descriptive interpretation as well as for determination of relationship between variables (Mbwilo, 2002). According to Casley and Kumar (1998), this design is favourable in a situation where a researcher is constrained by time and resources for data collection.

3.3 Sampling Procedure and Sample Size

Three wards of Iringa District were involved in this study. These were Idodi, Mahuninga and Mlowa. Six villages were selected randomly, two villages from each ward. The villages were Malizanga and Mlowa from Mlowa ward, Mapogoro and Tungamalenga from Idodi ward and Makifu and Mahuninga from Mahuninga ward. A total of 70 households were selected purposively from the six villages on the basis of owning modern houses.

3.4 Data Collection

3.4.1 Primary data

Bugre (1984) maintains that no single technique is necessarily superior to any other in the data collection process thus; a combination of two or more methods would make data highly reliable in terms of consistency of results once similar questions were used. In view of this, primary data were collected from the field by using different methods namely questionnaire survey, key informant interviews, and personal observations. In this study, a questionnaire which consisted of open and closed-ended questions was administered to heads of households. In addition, key informant interviews were employed with the aid of a checklist tool in which village officials and district officials were involved. In addition, the researcher observed the nature of materials used to construct modern types of houses.

3.4.2 Focus group discussion (FGD)

Focus group discussion conducted with key informants was guided by a checklist formed of open ended questions (appendix 2). The key informants considered were the village leader's representatives, and social service committee of each village surveyed. The purpose of FGD was to obtain details and clarification of the collected data from households.

3.4.3 Observation

Few selected representative field were visited to access the existing process of modern housing and the modern house. Field observation done in order to verify and supplement information collected during household survey and focus group discussion. Documentation was mainly through photograph and plates.

3.4.4 Secondary data

Additional information obtained from various reports in Sokoine university of Agriculture (SUA) and village government office.

3.5 Data Analysis

Both quantitative and qualitative data methods of analysis were applied. The data collected through questionnaires were verified, coded and summarized before being analysed using Statistical Package for Social Science (SPSS). Both descriptive statistics and inferential statistics were employed. For descriptive statistics, frequencies, percentages and means were employed, while for inferential statistics, a multiple linear regression model was used. The model is as presented below:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \dots + \beta_n X_n + \epsilon$$

Y_i = modern house,

β_0 = constant

$\beta_1 \dots \beta_n$ = regression coefficient of the variable

$X_1, X_2, X_3, X_4, \dots$ and X_{15} are independent variables, where by

X_1 = Household income per year,

X_2 = Education level of household head,

X_3 = Household size.

X_4 = Age of head of household.

X_5 = Marital status

X_6 = Material used

X_7 = Absence of Infrastructure

X_8 = Formal Education

X_9 = Effort to build modern house

X10 = Financial Institution

X11 = Availability of Material

X12 = Year to build modern house

X13 = Source of Income

X14 = Government Policy

X15 = Cultural Practice

ε = the error term

Customarily, the degree to which two or more predictors, independent or X variables are related to the independent (Y) variable was expressed in the correlation coefficient R, which is the square root of R- square. The sign of regression coefficients β is used to interpret the direction of relationship, that is, if the coefficient is positive, then the relationship of this variable with the dependent variable is positive, (say the greater the income the greater the ownership of a modern house).

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Respondents Socio economic characteristics

Different household characteristics were considered in this study based on their importance on the process of construction of modern house and objectives of study. These characteristics includes, age, marital status, household size, level education respondents income and land access/ land tenure.

4.1.1 Age of respondents

The results from survey show that the majority (95.6 %) of respondents in the study area were of the age ranging from 18 to 60 years. The second group of respondents (4.4 %) had above 60 years while there was no household headed by a person under 18 years old. Table 1 shows the distribution of respondents according to their age. In addition, the model analyses (Table 7) support the findings with the value of 0.04 which shows that the age factor was significant in influencing household ownership of modern houses.

Table 1: Age of Respondents (n = 70)

Variables	Frequency	Percentage
Below 18	0	0.0
18-60	68	95.6
Above 60	2	4.4
Total	70	100

4.1.2 Marital Status

The distribution of ownership of modern houses shows that the married category of respondents was leading in the possession of modern houses by constituting 62.5 %. On the other hand, the single category of respondents constituted 21.2 % of respondents who owned modern houses while other groups accounted for 16.2 %. This implies that

family stability is also important to the ownership of modern houses. Tables 2 support the explanation.

Table 2: Marital status of respondents (n = 70)

Variables	Frequency	Percentage
Single	10	21.2
Married	50	62.5
Separated	8	10
Other	2	6.2
Total	70	100

4.1.3 Level of education

Results from the field show that 62.9% of the respondents in the sampled area had secondary education while 17.1% of respondents had attended primary level education and the remaining 5.7% of respondents had attended other levels of education. Furthermore, the field survey results showed that 14.3% of respondents had no formal education. Although the model analysis has indicated that level of education is insignificant, the descriptive statistics have shown that level of education plays a significant role in the ownership of modern houses. Makanki (1999) found that ability to read and write was an important factor in the adoption of technology whose dissemination demand simple leaflets, newspaper or any other simple written material. Okurut et al. (2002) found that the higher the educational attainment of household head the wealthier the household. Therefore, the household members with formal education are likely to own modern house.

Table 3: Level of Education (n = 70)

Variable	Frequency	Percentage
No formal education	10	14.3
Primary education	12	17.1
Secondary education	44	62.9
Other level	4	5.7
Total	70	100

4.1.4 Households size

Table 4 shows that more than half (72.8 %) of households had members between 4 and 6. In addition, 21.4 % of the households had 7 – 9 members while 2.8 % had 1 - 3 members. Large family is taken as an indicator of poverty (Kasanga, 2005). A big family affects the ownership of modern house due to fact that households with large sizes use the most of family income for other basic needs such as food and hence little is left for investing in house construction. The findings of this study agree with those of National Bureau of Statistics (2013) which indicated that the national household average members were 4.8. However, the findings are against those of Bounce (1981) which showed that large family was important in rural areas because as it provided labour force to the respective families and the larger the household size the poor the household (REPOA, 2014).

Table 4: Family size (n = 70)

Variable	Frequency	Percentage
1-3 member	2	2.8
4-6 member	51	72.8
7-9 member	15	21.4
Above 10 member	2	2.8
Total	70	100

4.1.5 Respondent's income

In this study, it has also been found that 40 % of the respondents had an income of above 1 000 000 Tshs per year while 30% of the respondents earned an income of 600 000 – 1 000 000Tshs. In addition, 15.7 % of the respondents had income which ranged from 200 000 to 500 000Tshs, while the last group (14.3 %) was that of respondents who earned income below 200 000 Tshs. The findings are as presented in the model analysis (Table 7) indicates that income of people was significant at $p = 0.016$. Generally the result

suggest that most household in study area 90 % earn low income compared to average per capita income of 430 USD (903 000Tsh) (World Bank, 2008).

Table 5: Income of Respondents (n = 70)

Variable (Tsh.)	Frequency	Percentage
Below 200 000	10	14.3
200 000 – 500 000	11	15.7
600 000 – 1 000 000	21	30
Above 1 000 000	28	40
Total	70	100

4.1.6 Occupation of respondent

Table 6 shows that more than half (62.5 %) of the respondents were farmers who engaged themselves in small scale by producing food crops and cash crops at a time. Those who are involved in trade constituted 17.5 % while livestock keepers accounted for 12.5% and other activities constituted 7.5 %. The model analysis (Table 7) shows that the occupation of respondents had influence on the ownership of modern houses at value of $p = 0.002$.

Table 6: Occupation of respondents (n = 70)

Variable	Frequency	Percentage
Farming	48	62.5
Livestock keeping	8	12.5
Petty trade	12	17.5
Other activity	6	7.5
Total	70	100

Table 7: Regression Analysis for Factors Affecting Ownership of Modern House

Variable	Unstandardised coefficients		Standardised coefficients		
	B	std error	Beta	t	Sig
Material used Most used material	-0.372	0.057	-0.65	-6.535	0
Marital status	0.07	0.074	-0.084	-0.95	0.347
Head of family	-0.142	0.067	-0.204	-2.126	0.038
Level of education	-0.138	0.097	0.149	1.427	0.16
Income of respondents	-0.058	0.087	-0.076	-0.668	0.506
Absence of infrastructure	-0.142	0.057	-0.282	-2.463	0.016
Family size	-0.043	0.099	-0.039	-0.431	0.668
Formal education	-0.387	0.027	-0.037	-0.331	0.003
Effort to modern house	0.096	0.199	0.055	0.483	0.631
Financial institution	0.029	0.091	0.028	0.317	0.795
Age	-0.259	0.138	-0.17	-1.881	0.066
Availability of material	-0.012	0.006	-0.227	-2.012	0.048
Years to build modern house	0.028	0.105	0.025	0.261	0.795
Source of income	-0.103	0.081	-0.112	-1.271	0.21
Government policy	-0.138	0.057	-0.253	-2.259	0.019
Relationship between house and cultural practices	0.062	0.087	-0.064	0.719	0.475
	0	0.101	0	-0.001	0.997

4.2 Cultural Beliefs to the Ownership of Modern House

In addition to other factors, cultural practices seemed to be another factor which affects the ownership of modern houses as shown in Table 8. In this study, more than half (54%) of respondents indicated that cultural practices such as witchcraft had influence on the ownership of modern houses while 46 % did not support the idea.

4.3 Availability of Construction Materials

About 72% of the respondents indicated that the availability of materials had influence on the ownership of modern houses while 27 % of respondent did not support this idea.

4.4 Price of Material

On this factor, 68.6 % of the respondents reported that prices of building materials had influence on the ownership of modern houses while 31.4 % did not support the idea (Table 8). These findings are similar to those of the National Consumer Price Index (NCPI) (2009) which revealed that from 2006 - 2009 the rate of inflation increased from 7.3 % to 12.1 % respectively.

4.5 Access to Land

This study has revealed that there was no equality in land ownership in the study area between men and women since 68 % of all land was owned by men and the remaining 32% by women. (Table 8). The differences in the land ownership could be attributed to cultural practices in rural areas where women are not considered in the ownership and control over resources (Carpano, 2010). In Tanzania, all land is public land vested in President as trustee for and behalf of citizens. The occupancy of land explained in land Act of 1999 (Mwaisondola, 2007). Household are not likely to invest on the land in which security is not assured. Land tenure system has placed constraints on long term investment like house construction, (Senkoro, 2010).

Table 8: Other factors influencing ownership of modern house in Iringa district

Factor	Factor influencing		Not influencing	
	Frequency	Percentage	Frequency	Percentage
Cultural practices	68	54	2	46
Acces to land	62	88	8	12
Availability of material	51	72	19	28
Price of material	48	68.6	22	31.4

4.6 Materials Used in the Construction of Modern Houses in Iringa District

4.6.1. Bricks

Through observation, it was found that different types of bricks were among the materials used in building houses. The most used bricks are burnt bricks which counted for 68.5% of all bricks while unburnt bricks constituted 21.4 % and bricks made of sand and cement counted for 10.1 % (Table 9).

Table 9: Types of brick used in construction Iringa District

Types of Brick	Frequency	Percentage
Burnt Brick	48	68.5
Unburnt brick	15	21.4
Sand and Cement brick	7	10.1
Total	70	100



Plate 1: Burnt bricks on site at Mapogoro Village

4.6.2 Stones

It was also found that different types of stones were used in the construction of foundations for houses as follows: igneous (80 %), sedimentary 17.5 % and metamorphic 2.5 %. Plate 2 shows igneous stones in one of the sites at Idodi Village.

Table 10: Material used to Construct House Foundations in Iringa District

Material	Frequencies	Percentage
Igneous rock/stones	56	80.0
Sedimentary stone	12	17.5
Metamorphic rocks/stones	2	2.5
Total	70	100



Plate 2: Stones on site at Idodi Village

4.6.3 Aggregates

In this study, it was also found that the construction of modern houses in Iringa used aggregates/concrete as one of the construction materials for modern houses, especially in constructing beams and floors as shown in Plate 3. About 91 % of the respondents indicated that this was one of the materials used while 9 % of the respondents did not

support this. According to FAO, (2011) the use of concrete/aggregate in building process was important in increasing strength, hardness, durability and mouldability.



Plate 3: Aggregate on site at Idodi Village

4.6.4 Wood

It was also found that wood was another building material found in the study area. The finding showed that 88% of the respondents indicated that wood was used in the building of houses while 12% of the respondents did not admit that wood was another building material.

Table 11: Other material used in construction

Material	Yes	%	No	%
Wood	62	88.0	8	12.0
Iron Sheet	68	97.1	2	2.9
Glass	12	17.1	58	82.9
Wire marsh	45	64.3	25	35.7
Aggregate	64	91	4	9

4.6.5 Portland cement

Another material which was used in the construction of modern houses in Iringa District was Portland cement. On this aspect, the findings revealed that 55% of the respondents

used cement in the walling process and burnt brick, while 35 % of the respondents used this material for making sand and cement bricks and the remaining 10 % of the respondents used it in making unburnt bricks (Table 11).

Table 12: Cement use according to types of brick

Variable	Frequencies	Percentage
Cement and burnt brick	38	54.3
Cement and sand and cement (block) brick	24	34.3
Cement and unburnt brick	8	11.4
Total	70	100

4.8 Duration used to accomplish the Construction of Modern Houses in Iringa

District

In this study, it was found that the duration for the construction of modern houses varied from one household to another. For example the household with an average of 4 members accomplished to build a modern house in 2 – 5 years while households with the average of 7 – 8 members accomplished the same types of houses in 5 – 10 years. The findings of this study concur with those of Kasanga (2005) who found that when a family size is big, the house construction took longer to be completed. When respondent asked why it takes so long to accomplish one modern house they say that; usually the construction take long time because it carried out only during harvest season

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

First, the study shows that income is the major factor which influences the ownership of modern houses in rural households. This means that to rural areas construction of house is among the expensive asset in household expenditure, therefore the higher the income of household the higher the possibility of owning modern house.

Also, field survey showed that age, marital status, family size, and occupation of respondents had significant influences on the ownership of modern houses. On the other hand, regression analysis showed that the correlation between education level and ownership of modern houses had a positive significant.

In addition, the house construction materials used in the survey area were locally available and these included stones, burnt bricks, aggregates, and clay soil. However, industrial products were also used and these were cement and iron sheets.

Duration spent to construct a house, it has been revealed that the duration varied from one household to another and it was also affected by the family size. The high the family size the higher the expenditure of household which in turn affect the investment on construction of modern house.

5.2 Recommendations

- (i) The government should provide education to rural people on the importance of having modern houses for their own betterment. Greater investment in education and training of masons in rural areas to improve the capacity of young people to build knowledge about modern house
- (ii) The government should ensure that the prices of building materials such as cement and corrugated iron sheets are affordable. This could be done by, for instance improving infrastructure in rural areas for the smooth transportation of such materials. This will expand the access of construction and more ownership of modern house to rural household
- (iii) Another recommendation is that there should be an establishment of wider networks for micro credit schemes to serve the youth and women in rural areas so that they can be able to build and own modern houses.
- (iv) This study has not exhausted all aspect concerning modern houses in rural areas. It is clear that a lot of more research needs to be done, the suggestion relay on;
To undertake study on the correlation between modern house and level of education, how the size of households affecting the ownership of modern house and the women headed household and the ownership of modern house

REFERENCES

- AADIPO (2003). *Informal Settlement in Addis Ababa*. Development and Improvement Project Office, Addis Ababa, Ethiopia. 6pp.
- Abbott, J. (2002). An analysis of informal settlement upgrading and critique of existing methodological approaches, *habitat international*. Cape Town, South Africa 26(3): 303 – 315.
- Abera, H. (2002). Crowding in traditional rural housing Tukul in Ethiopia. Addis Ababa University. [www.ejhd.uib.no/ejhd16-n3/ejhdvol16] site visited on 16/4/2011.
- Aikael, J. (2010). *Determinants of Rural Income in Tanzania: Research Report No. 4. An Empirical Approach*, Dar es Salam, Tanzania. 11pp.
- Aikael, J. (2014). *Determinants of rural Income in Tanzania: Research Report No. 4. An Empirical Approach*, Dar es Salam, Tanzania. 13pp.
- Ali, A. and Suleman, R. (2006). *The Causes and Consequences of the Informal Settlements in Zanzibar*. Shaping the Change Paper No. 23. Congress Munich, Germany. 23pp.
- Angel, S. (2000). *Housing Policy Matter: A Global Analysis*, New York and Oxford; Oxford University Press. 426pp

- Arnott, R. (2008). *Housing Policy in Development Countries. The importance of Informal Economy*. Working Paper No. 13. World Bank, Washington, USA. 17pp.
- Bello, O. M. (2006). *Real Estate Values, Valuation practice and Urban Land Market under the Nigerian Land Law*. African Region Common Wealth Association of Surveyors and Land Economy Conference on Sustainable Land Management in Africa Held at Bagamoyo, Tanzania. pp. 329 – 341.
- Carmen, D. (2003). *Exploring Theories of Human Behavior in Housing Research*. Commonwealth for Agriculture Bureau International, London, UK. 14pp.
- Chenga, M. (1986). *Rural Housing Program in Zimbabwe. A Contribution to Social Development*, Harare, Zimbabwe. 47pp.
- Columbia Encyclopedia (2010). The Columbia Electronic Encyclopaedia, Six Edition [www.cc.columbia.edu/cu/cup] site visited on 9/4/2011.
- Cramer, D. (2004). *The Sage Dictionary of Statistics. A Practical Resource for Students in Social Sciences*, London, UK. 76pp.
- Davis, M. (2006). *Planet of Slums* .Verso, New York. 228pp.
- DETR (2000). Quality and Choice: A decent home for all, the housing green. [www.housing.detr.gsi.gov.uk] site visited on 16/4/2011.
- Duane, K. (2006). *The World Urban Forum III*. Vancouver, Canada. 13pp.

Edward, S. (2008). Right to decent home [www.habitat.org/hw/Sept_2008/notes.html] site visited 18/2/2012.

Ferguson, B. (2004).” *Housing Microfinance: Toward a Definition*” in *Housing Microfinance; A Guide to Practice*, New York. 11pp.

Gale Encyclopaedia of the Early Modern World (2004). Encyclopaedia of the Early. [<http://www.answers.com/topic/housing#ixzz1J3PZ0V00>] site visited on 9/4/2011.

Gutu, S. (2007). *Population and Housing Census*. Central Statistical Authority, Addis Ababa. Ethiopia. 10pp.

HABITAT (2001). *The Right to Adequate Housing: A major Commitment of Habitat Agenda*, Geneva, Switzerland. 120pp.

HAC (2001). Federal Programs and Local Organization: Meeting the housing needs of rural seniors. [www.ruralhome.org/storage/document/senioreeds.pdf] site visited on 15/4/ 2011.

HAC (2003). Rural Housing Issues: Rural seniors and their homes. [www.Ruralhome.org/sto rage/document/ruralseniors.pdf] site visited on 15/4/2011.

Hammond, A. (1990). *Housing in Africa, Problem, Prospects and Strategies*. Kumasi, Ghana. 2pp.

- John, K. (1997). *Affordable Community Housing Series*, No. 55. Rural Information Centre, USA. 51pp.
- Katila, P. (2008). Devolution of forestry – related right: comparative analysis of six developing countries. Thesis for Award of PhD Degree at University of Helsinki, Finland, 162pp.
- Kothari, C. (2004). *Research Methodology, Methods and Techniques*. (Second Edition), Publisher New Age International (P) Ltd., New Delhi, India. 33pp.
- Lamba, A. O. (2005). Land tenure management systems in informal settlement: The case of Nairobi. Dissertation for Award of MSc Degree at ITC, Netherlands, 125pp.
- Malinza, A. O. (2009). Socioeconomic factors efficient utilization of Micro-Credit among Woman in Morogoro Municipality. Dissertation for Award of MA Rural Development Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 54pp.
- Mattson, J. (2009). Study of Rural Housing in Mamba District Kilimanjaro, Tanzania. [www.essays.se/about/mamba+district] site visited on 15/4/2011.
- Mauro, S. (2001). *Vernacular Housing Construction*. University of Pisa, Italy. 96pp.
- McCarthy, P. (2006). Stonewall Building. Mellow Development Centre, Dublin. [www.scribd.com/research/science] site visited on 24/12/2011.

- Msangya, D. B. (2001). First lady leads crusade to resettle homeless people African church information services. [www.habitat.org/ame/pdf/mapping-poverty-housing] site visited on 7/3/2012.
- Mwaisondola, G. (2007). *The Modern Law of Mortgages in Tanzania, the Role of the Land Act, 1999*. School of Law The University of Birmingham, UK. 396pp.
- NBS (2013). *Population and Housing Census 2012*. National Bureau Statistics, Dar es Salam Tanzania. 105pp.
- Onibokum, A. G. (2003). *The State of Implementation. Report on Human Settlements in Africa*. Economics Commission for Africa, Geneva. 318pp.
- Sally, S. (2000). *Subduing Rural Housing building Craze*. Attitudes towards Housing Construction and Land Use Control, Zhejiang Villages, China. 934pp.
- Senkoro, A. (2010). Impact of Soil Erosion control practice on Household Food Security and Income: A case of East Usambara Highland, Tanzania. Dissertation for Award of MSc Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 123pp.
- Steggel *et al*, (2003). *Exploring Theories of Human Behavior in Housing Research*; Housing Society, Volume 30 no 1, Oregon State University, 30pp.
- Tenakoon, S. (1988). Environmental health: toward decent housing for all, world health forum. [www.who.int/whf/1988/vol9] site visited on 16/4/2011.

TGNP (2000). Women headed households in Tanzania: Facts, figures and recommendations. Dar es Salaam, Tanzania. [www.docstoc.com/doc/] site visited on 12/12/2011.

UN HABITAT (2014). *The Right to Adequate Housing*. Fact Sheet No. 21. United Nations High Commissioner For Human Right, Geneva, Switzerland. 4pp.

URT (2000). *National Settlement Development Policy*. Ministry of Lands and Human Settlements Development, Dar es Salaam, Tanzania. 115pp.

World Bank (2002). *Upgrading Low Income Urban Settlement: Country Assessment Dar es Salaam, Tanzania*. [www.mit.ed/urbanupgreeding/upgrading/country-assessment] site visited on 4/8/2011.

World Bank (2008). *Gross National Income per Capita*. [<http://www.worldbank.org/datastatistics/GNIPC>] visited on July 2010.

World Habitat (2007). *The Housing Needs Tanzania*. Habitat for humanity. Dar es Salaam, Tanzania. [www.unhabitat.org/pmss/electronicversion.aspx] site visited on 21/4/2012.

APPENDICES

Appendix 1: Questionnaire

This questionnaire prepared to collect information at Iringa District. The information will be treated confidently and used for research purpose. So you are required to give proper information for the sake of research. Basically, this questionnaire aim to serve for, **FACTORS INFLUENCING OWNERSHIP OF MODERN HOUSES AMONG HOUSEHOLD IN IRINGA DISTRICT.**

Name of respondent(Option).

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

Village.....

Demographic Information

1. Age of the respondent
2. SexMale/Female
3. How large is your (Family size in number.....
4. Have you attended any formal education.....Yes/No
5. Which level have you reached.....
 - (a) Primary level
 - (b) Secondary level
 - (c) Tertiary level
 - (d) Other level
6. Marital Status.....
 - (a) Single
 - (b) Married

- (c) Divorced/Separate
 - (d) Widow
7. Who is the head of the family.....Male/Female
8. What is the major source of income in your family.....
- (a) Farming
 - (b) Livestock keeping
 - (c) Trade
 - (d) Farming and keeping
 - (e) Trade and Farming
 - (f) Other (specify)
9. What is your income per year.....(mention amount in TSH)
- (a) Below 200 000
 - (b) Between 200 000 – 500 000
 - (c) 500 000 – 1 000 000
 - (d) Above 1 000 000

Information about house and housing

10. Do you think your house is modenYes/No
11. What kind of material used to construct your house.....
- (a) Mud and thatch
 - (b) Mud and Iron sheet
 - (c) Brick and iron sheet
 - (d) Other material
12. What kind of material is most used in modern houses construction in your area?.....
13. Is the material mentioned in 12 above available for all?.....Yes/No
14. What effort do your household made to construct modern house.....

15. Do you think the government make enough effort to assist rural people to own modern house?..... Yes/No
16. What factors influence the people to construct modern house in your village?
 - (i).....
 - (ii).....
17. How many years do you spend to construct your house.....
 - (a) Five year
 - (b) Five to Ten years
 - (c) Above ten years
18. Is there any relationship between modern house and cultural practice..Yes/No
19. If yes above, mention the practice.....
20. What major problem have you faced during the construction of modern house
 - (a) Material problem
 - (b) Money problem
 - (c) Other problem
21. Suppose the government address the problem above, will you manage to improve your house?.....Yes/No
22. To what extent will you manage to improve
 - (a) Mud and thatch to mud and iron sheet
 - (b) Mud and iron sheet to brick and iron sheet
 - (c) Mud and thatch to Brick and iron sheet
23. Do you think the family size (dependant) influence the ownership of traditional or modern house..... Yes/No
24. Is it affect negatively (large number of dependent Yes/No
25. How about small size, is it affect positively Yes/No

- 26. Do you know that, government has the policy related to house and housing
.....Yes/No
- 27. If yes, what is you position to support your government.....
- 28. Do you think the way/methods the government employ to educate people about the
importance of good house is appropriate..... Yes/No
- 29. If No in 28 above, what way/methods do you think is appropriate to educate the
majority about the importance of modern houses..... Yes/No
- 30. Is there any financial institution provide loan for house in your area.... Yes/No
- 31. If yes, mention the institution
- 32. Do you think absence of good infrastructures influence the construction of modern
houses in your area..... Yes/No
- 33. If yes, how does it affect

Thank you very much

Appendix 2: Checklist to key informant

1. What do you understand by the word house?
2. Do you think it's possible for all villagers to own modern house?
3. Why some people own modern house and others not in your village?
4. Do you think the formal education play an important role in this situation?
5. What factors influence the people to own modern house?
6. Explain the types of house found in your village
7. Suppose you are given the chance to advise the government about housing situation in your area.

Thank you very much