FACTORS CONTRIBUTING TO THE WITCHCRAFT RELATED KILLINGS IN BARIADI DISTRICT, SHINYANGA

BY

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ABSTRACT

Witch killings have been a problem facing the world especially African countries. In particular, African witches are widely thought to use their accult powers to inflict harm on other community members. In Tanzania, 3,693 people were killed for witchcraft related accusations. There are many efforts made by the Government, NGOs, training programmes, radio programmes to stop the witch killings. These include: TAMWA, Amnesty International, radio programmes like Radio Faraja (Shinyanga) and Radio Sauti (Mwanza). Together with all the efforts made to address the witchcraft killings, the problem is still rapidly increasing throughout the country and Bariadi district in particular. Overall objective of this study was to investigate factors contributing to the killings of old women. Study adopted a cross sectional design by using open and closed ended questionnaires administered to a sample of 30 villages as sampling unit. Stratified sampling technique was used whereby 30 villages were divided into two strata based on remoteness and township criterion. Stratification resulted into 15 villages selected from remote areas and 15 from town centres. Interviews with key informants and Focus Group Discussions (FGD) were used. Analysis was done using the Statistical Package for Social Sciences (SPSS). A Probit regression model was run using STATA software. Findings revealed that, witchcraft related killings in Bariadi is negatively contributed by infant mortality rate, under five mortality rate, religion affiliation and natural calamity as hypothesized earlier. Witch killings were positively contributed by education status of the village, health services provision, poverty level of the village and scramble for resources. This suggests that in order to eliminate this situation, education to community should be provided, to improve economic well being of the people. Organizations which advocate anti-witchcraft killings should empower the community in dealing with the problem. Traditional songs could help to speed up the education to community.

DECLARATION

I, Beatrice Sospeter Rumbeli, do hereby declare to the Senate of Sokoine University of Agriculture that, this dissertation is my own original work and has neither been submitted nor concurrently being submitted for a degree award in any other University.

30. 09. 2010

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Date

The above declaration is confirmed

30. 09. 2010

Dr. A.B.S. Mwakalobo
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Date

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DEDICATION

This work is dedicated to my beloved Mummy Hellena Kyobya who taught me how to have a good relationship with other people. God bless her abundantly.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

LIST OF ABBREVIATIONS

AIDS	-	Acquired Immune-Deficiency Syndrome
CBOs	-	Community Based Organizations
COEL	-	Concern for Elderly
CSOs	-	Community Society Organizations
EDI	-	Economic Development Initiatives
EWD	-	Empowering Widows in Development
FGD	-	Focus Group Discussion
HAI	-	Help Age International
HIV	-	Human Immune-Deficiency Syndrome
NGOs	-	Non-Government Organisations
NSGRP	-	National Strategy for Growth and Reduction of Poverty
PRA	-	Participatory Rural Appraisal
SACCOS	-	Saving and Credit Cooperative Societies
SNAL	-	Sokoine National Agricultural Library
SPSS	-	Statistical Package for Social Science
STATA	-	Data analysis software programme
SUA	-	Sokoine University of Agriculture
TAMWA	-	Tanzania Media Women's Association
UNDP	-	United Nations Development Programme
UNICEF	-	United Nations Children's Fund
URT	-	United Republic of Tanzania
VEOs	-	Village Executive Officers
WEOs	-	Ward Executive Officers

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Witchcraft related killings are wide spread throughout the world. Holland, England, Scotland witchcraft beliefs had existed and that an estimate of 200000 to 1000000 suspected witches were burned especially in western countries (Tomric Agency, 2000). In developing countries similar beliefs had existed, for instance, 200 villagers hacked to death for being suspected witches in rebel-held Northern Congo (Henry, 2001). Over 400 witches have been killed since 1985 in South Africa's poor Northern Province (Niehaus, 2001). Witchcraft is a socially constructed reality which baffles many of the ruling elites in Africa (Mesaki, 1993). Witchcraft presents paradoxes and dilemmas. By paradox here it means the contradictions arising from the reality of witchcraft and its consequences. For example, a country is faced with the widespread killing of suspected witches when it is an avowed adherent to the principles of the Rule of Law (Mesaki, 1993).

Therefore, witchcraft related killings are not only unique to Tanzania. In addition, the attacks that happen in Tanzania follow a similar pattern as that happening in northern Ghana, where thousands of women have been attacked or driven out of their villages in the past decade, often following struggles over household resources (BBC, 200; EWD, 2002). Witch killings of elderly women have also been documented in Kenya, Mozambique, Uganda, and Zimbabwe (EWD,2002; Otieno 2003).

Nevertheless, the rate of witchcraft related killings to some countries has been decreasing, for instance, witch killings in Northern Province, South Africa, have dropped dramatically

since the introduction of an old age pension in the early 1990's (Singer, 2000). However, in other countries like Tanzania the condition is worsening

In Tanzania, particularly the lake zone regions of Mwanza, Tabora and Shinyanga the condition is alarming. Mongella Commission of 1988 came out with some startling revelations that, between 1970 and 1984, 3,693 people were killed for witchcraft related accusations in Tanzania. In these killings women aare the mostly affected as statistics shows that only 1,407 were men and 2,286 were women. Out of 2346, 63.5 per cent deaths occurred in the regions of Mwanza, Shinyanga and Tabora (Mesaki, 1993). Mesaki quoted the Mzalendo newspaper of 4th October 1998 which reported that between 1996 and 1998, a total of 325 people were killed in Shinyanga. For the year 2005/06 only 36 people were killed and up to July 2006/07, 34 people were killed in Shinyanga.

There are assumptions that the increasing witchcraft related killings are due to resurgence of a pre-colonial village political institution, called Sungu-sungu, the male elders council. The Sungu-sungu first appeared in western Tanzania in response to a wave of cattle theft that exploded during the severe national economic crisis in the early 1980's, and is popularly credited with having put an end to rural disorder by organizing village patrols to punish suspected thieves and recover stolen properties (Abrahams and Bukurura, 1992). But in addition to these activities, all male Sungu-sungu, the traditional soldiers/army considered combating witches as central to their mission of promoting village security. They have been implicated in the expulsion of suspected witches from their villages, as well as in some witch killings, after receiving "credible" information on the witchcraft activities of a particular individual usually from a traditional healer hired by the purported witchcraft victim (Abrahams, 1994).

Although public witchcraft accusations have been illegal since the British Witchcraft Ordinance of 1928, and this law remains largely unchanged to the present day (Green, 1994), Tanzanian government efforts to stop the killings have been limited and unsuccessful. In one notable episode in the late 1970's, the Shinyanga regional government arrested 897 individuals suspected of carrying out witch killings, yet the campaign was quickly called off after deaths of 12 suspects in the police custody. The remaining suspects were later released for the same reason (Mesaki, 1994).

The major assumption of this study was that, the continued problem of witchcraft related killings in the face of all the Government and Non Governmental Organizations efforts could emanate from the fact that, efforts have not worked against the appropriate areas and factors that continue to propagate the problem. Therefore, the proposed study intended to identify the factors that contribute to the witchcraft related killings in the study area.

1.2 Problem Statement and Justification

There are many efforts made by the Government and Non-Governmental Organisations in terms of policy, training programmes, campaigns to stop the witch related killings of old women. The organization like TAMWA for instance, in the year 2000 conducted a training programme that was organized in Shinyanga to sensitize on the violation of the human rights of the old women; Amnesty International also advocates on human rights; Religious organizations such as Catholic church designed radio programmes like Radio Faraja (Shinyanga), Radio Sauti (Mwanza) specifically targeted to combat witch killings; Universal declaration of human rights under Article 3 stipulates that everyone has the right to life, liberty and security of person.

Despite all the above efforts the witchcraft related killings and other suspected witches continues to increase at alarming situation. This situation implies that, available strategies are not based on empirical recommendations that could lead to development of appropriate strategies for solving a problem. As a consequence there is a need for in depth analysis and putting forward recommendations that could be used by policy makers, human right practitioners to stop such killings.

In the effort to deal with witchcraft related killings many research have been undertaken. For instance research on witchcraft killings by Mesaki (1994) has observed that due to lack of source of energy old women use cow dung, the excessive use of it make eyes look red hence being suspected as witches and being killed. Surprisingly, there are different areas elsewhere where the use of cow dung is not common hence women do not have red eyes. But witchcraft related killings continue at a higher rate just like what happen in Tanzania. There are matters such as political representation, gender equality and property rights which result in witch-hunts, where the victims are often women (Rajalakshmi, 2000). Nevertheless, there is little information on factors that assumed to contribute to witchcraft related killings in Tanzania. The analysis will suggest the underlying cause of the witchcraft related killings in Tanzania and hence suggest solutions to the problem.

This study is important because it is in line with the government programme on the third clusters of National Strategy for Growth and Reduction of Poverty (NSGRP) under Cluster 3; goal 6.1.6 that stipulates the pursue of legislative and administrative actions to protect women against violence, promote right to seek redress, protection and mechanism to dispense justice to perpetrators (URT, 2005). The study provides input to local authority on how to solve the problem; it also generates recommendations that aimed at helping

decision makers to make rational decisions on how to stop out-rageous actions as well it acts as a stimulant to academicians for further research.

1.3 Objectives of the Study

1.3.1General objective

The main objective of the study is to investigate factors contributing to the witchcraft related killings in Bariadi district.

1.3.2 Specific objectives

The study was guided by the following specific objectives:

i. To examine education status of the village and witchcraft related killings
ii. To compare relationship between witchcraft related killings and health services provision in the study area
iii. To determine the relationship between witchcraft related killings and poverty level of the village
iv. To determine the relationship between natural calamities in the village and witchcraft related killings
v. To determine the relationship between witchcraft related killings and traditional beliefs of the village
vi. To determine the relationship between witchcraft related killings and scramble for land/ livestock in the village
vii. To determine the relationship between witchcraft related killings and level of commitment to the religion in the village
viii. To determine relationship between witchcraft related killings and remoteness
ix. To determine factors contributing to witchcraft related killings

1.3.3 Research questions

This study seeks to answer the following questions:

i. What is the education status of the village in relation to witchcraft killings in Bariadi district?

ii. What is the relationship between health services provision and witchcraft related killings?

iii. What is the relationship between witchcraft related killings and poverty level of the village?

iv. What is the relationship between natural calamities in the village and witchcraft related killings?

v. What is the relationship between witch related killings and scramble for land/ livestock in the village?

vi. What is the commitment to religion affiliation in the village?

1.3.4 The conceptual framework

Fig.1 shows the conceptual framework for the study on factors contributing to witchcraft related killings. It is based on the assumption that poverty is the first and fore most factor which may influence other factors that directly contribute to the killings. When we say poverty we refer to income poverty. Without income people may not be able to satisfy the cash needs for health services including buying of drugs and hiring transport facilities to hospitals and health centres in case the above services are at a remarkable distance from their domiciles. As a result infant mortality and children under 5 years deaths are high increases. The increasing number of under five deaths can be taken as they have been bewitched a solution of which is by killing the accused person. Without income children may not be able to be brought to school hence education status of the entire society may be

low. People with low education tend to have negative belief against anything whereby killing a person could be the last and simple solution to such problems. The other factor that may lead to witchcraft killing is the failure to recognize the presence of calamities like cause of deaths. People do not believe on natural calamities. The effects of natural disasters are sometimes associated with witchcraft beliefs hence people may be killed being suspected as the cause of such calamities lower extent of religion affiliation is assumed to be another factor contributing to the killings of old women in the sense that, people who are not committed to modern religion are most likely to believe on witchcraft, hence killing each other is normal practice to them. It is further assumed that the struggle or fight for resources like land or livestock has a direct effect to the witchcraft related killings of old women in the sense that if husbands die the elder child, even other relatives may demand the land/livestock hence decide to kill the wife of the deceased so as to acquire properties.

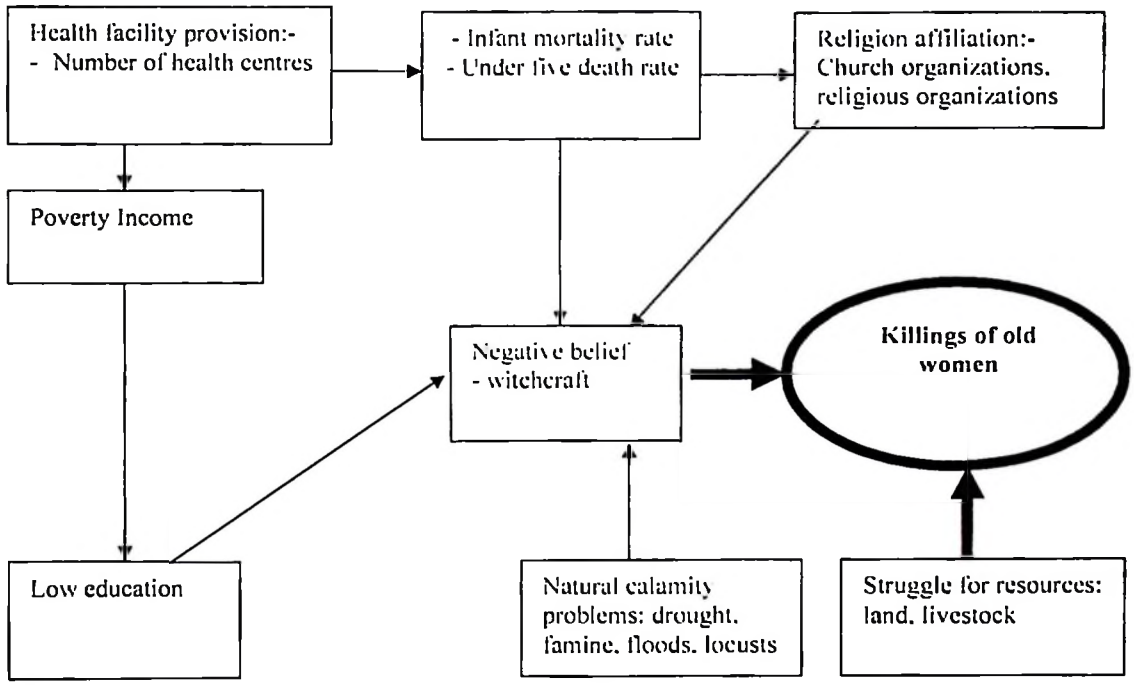

Figure 1: Conceptual framework for examining factors contributing to the witchcraft related killings

CHAPTER TWO

2.0 THEORY AND LITERATURE REVIEW

2.1 Theoretical explanations for witch killings

Miguel (2003) observed that there is a number of possible theoretical explanations for the empirical findings that extreme weather shocks lead to violence against witches in Tanzania. One hypothesis consistent with the main empirical patterns is that, the large negative income shocks associated with extreme weather are the driving force behind witch attacks. The income shock theory highlights economic motivations as a cause of witch killing. However, it does not imply that individuals in western Tanzania do not genuinely believe in witchcraft. Baron (2001) argued that people tend to hold views consistently with their self-interest, this may further contribute to the belief that certain individuals truly are witches and must be killed. The belief that the murder victim truly is a witch is important since it may alleviate the psychological trauma and social stigma associated with the murder of a relative, allowing killers to justify their actions both to themselves and to the community (Miguel, 2003). Tomric Agency (2000) argues that killings of elderly women could be because of low education.

2.2 Historical context underpinning the trends in witchcraft related killings

Abrahams (1987) reported that government statistics show a rise in witch killings in western Tanzania since the 1960's. Some have tied this to the radical economic reforms pursued by Tanzania's socialist regime in the decades after independence. The government reported that 3,072 accused witches were killed in Sukumaland from 1970 to 1988, according to these figures, approximately 80 percent of victims were women and their median age was between 50 and 60 years. where life expectancy is only 51 years (UNDP, 2002). Geschiere (1997) reported that anthropologists say that relatives, kin, and

neighbours are typically behind the murders. There are also parallels incidences of witch killings between contemporary Tanzania and Europe in the 16th-18th century, when at least 40,000 individuals were murdered (Rowlands, 1998). Most European victims were women, often widows, and were predominantly poor and elderly (Rowlands, 1998). As in Tanzania, witches in early modern Europe were credited with power over health, weather and crops (Behringer, 1999). Witch killings continued despite the opposition of Europe's leading political and church authorities, and were concentrated in poor and outlying agrarian regions (Behringer, 1999).

2.3 Cause of killings apart from witchcraft

Brogden (2000) reported that poor pre-industrial societies responded to acute environmental stress by killing the elderly geronticide. They were seen as a burden to community. Over one-third of the pre-industrial societies surveyed by Silverman and Maxwell (1984), Glascock (1987) engaged in death-hastening activities for elderly, including food being withdrawn, abandonment or murder. Authors found that unavailability of food resources is often the key determinant of the treatment of the elderly. Where resources were meager, old people were perceived as a community burden, they were abandoned on an ice floe and being accused of witchcraft. Behringer (1999), Baten and Woitek (2001) and Oster (2004) reported that extreme weather mainly heavy precipitation and low temperatures which reduced crop yields was often a proximate cause of witchcraft accusations in Europe and North America. Silverman and Maxwell (1984) argued that geronticide is usually the result of decisions made by an intimate group of kinsmen. Ray (1998) reported that elderly women have the lowest future income of all household members, thus are most likely to be chosen for zero consumption that is starving them to death, driving them out of the household or murdering them.

A variety of norms have developed to justify violence against the elderly in extremely poor societies, and witch killing in Tanzania can possibly be seen as one manifestation of this phenomenon. Yet it is not only witches who are sometimes killed in these communities, there are also cases where the community practice to kill or abandon infant twins or babies born handicapped, female or to large families, as well as old or very sick people, because they are considered to be a burden on the community (Von Cott, 2000)

One variant of the income shock theory is the extreme scarcity theory, in which households which are subsistence consumption levels kill, expel, or starve unproductive elderly household members to safeguard the nutritional status of other members (Dasgupta and Ray, 1986). If a minimum caloric threshold is required for survival or for minimal labour productivity, then when there is insufficient income to meet the minimum nutritional needs of all household members, spreading resources equally among all members puts all at risk of starvation (Dasgupta and Ray, 1986).

Ray (1998) reported that unequal division of resources helps some individuals in the household to be minimally productive under extreme circumstances. The elderly have the lowest future income of all household members, and by the above logic are thus most likely to be chosen for zero consumption. Reducing someone to zero consumption can be thought of as literally starving her to death, driving her out of the household, or murdering her. Negative income shocks lead to increased violence against elderly women in rural Tanzania, they are likely to do so through channels other than the extreme scarcity channel emphasized by Dasgupta and Ray (1986).

2.4 The witch murders

Miguel (2003) observed that, the view that economic conditions are a driving force behind witch murders is bolstered by the fact that most witch killings in Tanzania takes place in poor rural areas largely dependent on rain-fed agriculture, and that most victims in the sample are from poor households.

2.5 Attitude towards old women

Attitude towards old women might be a factor that contributes to killing of elderly women. Attitude is defined as one's positiveness or negativeness towards an idea or object (Robins, 2002). While the people's attitude towards old women is on witchcraft beliefs which contributes to the killings of the accused witches, the study by Stephen and Gerrier (2004) found that scholars say economics may be the real force in the growing number of attacks on old women, who traditionally singled out in societies that believe in witchcraft.

2.6 The Negative Effects of Witchcraft Related Killings

The witchcraft related killings result into a number of negative effects, these are such as violation of human rights, which stipulates that every one has the right to life, liberty and security of person and no one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment (Bahadur, 2001). A survey conducted in September, 1999 by the Tanzania Media Women's Association (TAMWA), an organization which has been very vocal against the killings, found that more than 100 old women were loitering and begging in the street of Shinyanga region with no place to lay their heads at night (Nkya, 2000). Killing of people is a set back of development of the country, because instead of people being engaged in development activities, they have to attend to the family of the one who has been killed. People fail to participate in economic activities

they hide away from killers, derailing strategies for solving problems as it has been reported by Nkya (2000) that as a result of the insecurity elderly women flee their homes and live elsewhere. HelpAge International (2000) has reported that older people are being subjected to physical, emotional, psychological and financial abuse and neglect by their families, communities and their institutions responsible for their care and protection.

A review of conceptual frameworks on witchcraft killings as presented by other studies; Miguel (2003) used variables like natural calamity, income shocks, traditional religion. Tomric Agency (200) used income and level of education, he observed that killings of elderly women could be because of low education. While much have been said on income and education being factors contributing to the killings, there has been no information on factors like scramble for natural resources, natural calamities, and religion affiliation in relation to witchcraft related killings which will be analyzed in the study..

2.7 Review of Methodological Aspect

The study conducted by Miguel (2003) was about poverty and witch killings in Tanzania. He used probit model to examine the relationship between village characteristics and the number of murders. He found that villages with higher education levels have significantly few witch murders. He also found that income shocks are a key underlying cause of the murder of elderly women as witches in Tanzania, extreme rainfall leads to large income drops and a doubling of witch murders. A study by Dreze and Khera (2000) used probit model to analyse murder and socio-economic measures. He found that there is a relationship between income and murder. Since the model has been statistically significant it has been selected as well selected for this study.

2.7.1 Likert scale

Likert scale was used and not any other alternative in order to estimate the level of villagers towards witchcraft related killings, as well it measures perception of villagers toward witchcraft related killings and the attitude towards education in the village. These criteria were used to select likert scale which has been used in the study. For each statement villagers were asked to express one of the following five responses: strongly agree, agree undecided, disagree or strongly disagree on a five point scale. Each degree of agreement was given a numerical value from one to five. Thus a mean distribution value was calculated from all the responses of each village. Statements indicating witchcraft related killings were assigned values 1, 2, 3, 4 and 5 for strongly disagree, disagree, undecided, agree and strongly agree, respectively.

2.7.2 Logit/Probit Model

The logistic (logit) and normal (Probit) curves are so similar to yield essentially identical results. The only essential difference is the thickness of the tails of the curves that show how rapidly the curves approach 0 and 1 (Aldrich and Nelson, 1990). In practice, logit and probit models yield estimated choice probabilities that differ by less than 0.02 and which can be distinguished in the sense of statistical significance, only with very large samples (Aldrich and Nelson, 1990). Consequently, there is little to guide between the two. Therefore, the choice of specification remains fairly arbitrary revolving around practical concerns such as the availability and flexibility of computer programmes and personal preference and experience (Aldrich and Nelson, 1990). Hanushek and Jackson (1997) and Maddala (1989) stress that the choice between probit and logit models comes down to convenience. The criteria for the choice of any one between probit and logit models must be based on statistical grounds (Amemiya, 1981). Consequently, Polson and

Spenser (1991) suggested use of correct predictions, McFadden's R2 and the likelihood ratio test as the criteria for evaluating the alternative specification between logit and probit models. The decision to choose probit model was dictated by its ability of providing statistical significance of the coefficients for explanatory variables included in the empirical model. These criteria were used to select the probit model which has been used in the present study to determine factors contributing to the witchcraft related killings.

Statistically, it has been noted a bit difficult to distinguish the logit and probit models because in most cases they tend to give similar results (Senkondo *et al.*, 2005). Probit use the cumulative normal distribution while logit analysis is based on log odds. Probit is the more appropriate choice when the categories are assumed to reflect an underline normal distribution of the dependent variable even if there are just two categories.

However, probit model has been highly preferred for this study because similar studies used this model. For example Miguel (2003) used probit model to examine the relationship between village characteristics and the number of murders. He found that villages with higher education levels have significantly few witch murders, he also found that income shocks are a key underlying cause of the murder of elderly women as witches in Tanzania, extreme rainfall leads to large income drops and a doubling of witch murders.

Oster (2004) used both logit and probit models in the analysis of witchcraft, weather and economic growth. He found that weather mainly heavy precipitation and low temperatures, which reduced crop yields was often a proximate cause of witchcraft accusations. Similarly, a study by Dreze and Khera (2000) used probit model to analyse

murder and socio-economic measures. He found that there is a relationship between income and murder.

2.7.3 Description of the probit model

The probit model is associated with the standard cumulative distribution function while the logit model is associated with logistic cumulative distribution (Hanushek and Jackson, 1977).

Parameters in probit regression are not easily interpretable as parameters in OLS regression. The probit regression model can be expressed as follows:-

$\ln [P(Y_i=1)/1-P(Y_i=1)] = a + \sum B_k X_{ik}) = Z_i = \ln (Odds_i)$

Note that the left hand side stands for the log odds and also as the logit. As result a one-unit increase in X_1 will result in B_1 increase in the log Odds. Z_i is used as a convenient short hand for $(a + \sum B_k - Xik)$.

However, most of us are not used to thinking in terms of Log Odds, so let us express the model in terms of Odds. By taking the antilogs of both sides the model will be expressed in odds rather than Log Odds i.e

$Odds_i = (Y_i=1)/1-P(Y_i=1) = \exp[(a + \sum B_k - X_{ik})] = \exp (Z_i) = e^{Zi}$

That is, $P(Y_i=1)/1-P(Y_i=1)= e^{(a+ \sum Bk - Xik)}$

$= e^a e^{BX11} eB2X12$ -------e^{BkXk}

The Odds Ratios (O.R) gives the relative amount by which the Odds of the outcome increase (O.R greater than 1) or decrease (O.R less than 1) when the value of the independent variable increase by 1 unit. Definition of the Odds of an event is P(event)/[1-

P(event)] or the probability that the even occurs divided by the probability that an even does not occur. Then the definition of Odds Ratio (O.R)

$O.R = Oddsi\ (Y = 1 \mid X = 1)/Odds\ (Y = 1 \mid X = 0)$

$Odds_i = P_i/1\text{-}P_i$

= Probability of presence of Characteristics/Probability of absence of characteristics

$Log\ (P_i) = ln\ (P_i/1\text{-}P_i)$

That is, Odds of the event for the X=1 group divided by the Odds of event for the non-exposed group. If Xi increases by 1, the Odds will increase by exp (B_1). However, the exp (B_1) value does not represent the likelihood that an event will occur.

Multiplying Odds Ratio with 2.7182 you get a probability of a unit increase in a level of a variable X (probability is expressed in percentage).

Take the equation $P_i/1\text{-}P_i = Odds_i = exp[(a + \sum B_k - X_{ik})] = exp\ (Z_i)$

Multiply the above equation by $1 - P_i$

$$P_i = (1\text{-}P_i)\ Odds_i$$

Open brackets and then add $P_i \cdot Odds_i$ both sides

$$P_i + P_i * Odds_i$$

Divide both sides by $1 + Odds_i$ then divide top and bottom by exp (Z_i)

$P_i = Odds_i/1 - Odds_i = exp\ (Z_i)/1 + exp\ (Z_i) = 1/1 + exp\ (-Z_i)$

Therefore, the corresponding probability is obtained by putting value of probit (Log $Odds_i$) into the equation

$P_i = 1/1 + exp\ (-Z_i)$

Where Z_i = Log $Odds_i$ or probit value obtained in the previous equations.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Overview

This chapter presents the methods used to collect organise and analyse data in order to investigate factors contributing to the witchcraft related killings in the study area. The chapter is divided presents the study location and justification of its selection; it discusses the research design which includes the type of villages involved in the study; It presents the sampling procedures employed; Describes the methods for data collection; and section five presents procedures for data processing and analysis.

3.2 Research Design

The cross-sectional research design was used in this study. According to Simon and Bursten (1985) a cross sectional case study design allows for collection of in depth information on specific cases at one point in time. It also helps to establish relationships between variables for the purpose of testing the hypothesis (Bailey, 1994). The study is useful for the type of research with data that do not exhibit trend relations. It is also useful in case of time limitation and resource constraints which were also experienced in this research.

3.3 Sampling Procedure

3.3.1 Village sampling

A sampling frame consisting of a list of 124 village names was obtained from the District Council. Stratified sampling was employed to select 30 villages. Stratification was necessary because of clear differences that exist between the rate of witchcraft related killings in remote areas and sub-urban areas. Two sampling frames were obtained from the

District Council's office. The first sampling frame had villages from remote areas while the second sampling frame had villages which are close to town and sub-urban. Then simple random sampling was employed to get 15 villages from each sampling frame (strata).

3.3.2 Respondent sampling

Selection of study units was based on the nature of data required for this study. It was based on village perspectives as it is assumed that it is infrastructures and other services present in the village that contribute to the killings of old women. The major assumption of this study is that witchcraft related killings differ in different areas basing on the availability of services like health facilities, education infrastructures, religious facilities and so on. It is difficult to measure the rate of killings at family level. First of all a person who is killed is not the planner of the activity. Again a killer usually stays in the hide out hence it was difficult to identify the mastermind of the killing. Therefore, to compare witchcraft related killings, a village was taken as a unit of measure and not individual person.

The nature of variables to analyze factors contributing to witchcraft related killings could not be easily obtained from individual person that is why key informants such as village leaders and professionals acted as source of major information. Village leaders included Village Executive Officers (VEOs), Ward Executive Officers (WEOs), Village chairpersons, sub village leaders and influential people. Professionals that were involved are from agriculture, education, and health departments. Each of those responded to a specific area of a questionnaire where they are more associated and considered to be experts.

Information was further complemented by Focus Group Discussion (FGD) whereby four groups were formulated. The first group was comprised of elder women: the second group comprised elder men; the third group comprised of young women and the fourth group comprised of young men, and member in the groups was interviewed individually from four villages. Information gathered were to indicate how witches can be identified. Majority of FGD members indicated that withes in the village can be identified by looking at their eyes if they are red as well witches can be identified after being told by the diviners. Information gathered was on whether the accused of being witches should be killed. It was agreed by FGD members that the witches should be killed because of bad evils they are doing of killing others. Some other information was to indicate why old women are killed; it was observed that most of old women are killed because of land or livestock scrambling, practicing witchcraft and telling lies.

3.4 Study Area

3.4.1 Geographical, administration set up and population

The research was conducted in Bariadi District in Shinyanga region. The reason for selecting Shinyanga Region and Bariadi district is due to highest rate of old men killings. Bariadi is among the eight Districts of Shinyanga Region. Together with higher rates of old women killings the study area was selected because similar study has not been undertaken in this district. Another reason is to determine whether others studies that have been done to examine factors contributing to killings of old women in other districts like Meatu, Magu can also apply at Bariadi district.

3.4.2 Geographical location and topography

3.4.2.1 Topography

Bariadi district has few non-volcanic plains intercepted by scattered rocky and stony hills. Most of the district has greatly undulating land and form of sediment plains. It lies between latitude 20015' south of equator and between longitudes latitude 33040' and 35010' east of Greenwich meridian. The altitude is 1200m above sea level.

3.4.3 Area

The district covers a total area of 9,445.739 square kilometres (944.57ha), of which 4,591.70 square kilometres (459.170ha) is covered by an arable land suitable for both agriculture activities and livestock keeping, while 3,950 square kilometres (395.000ha) is covered by the Serengeti National Park and the remaining area of 11.489 square kilometres (1.1400ha) is covered by water bodies, forest and hilly area.

3.4.4 Climate

The climate in the district is generally tropical type. The District receives rainfall ranging from 700mm to 950mm. There are two periods of rainfall reasons. The short rain period is between October and December, while long rainfall is between March and mid May every year. The period from June to September is hot and dry. The average temperature during the day is 20^0C and 19^0C at night.

3.4.5 Administration

Administratively, Bariadi District is divided into four divisions namely; Dutwa, Ntuzu, Kanadi and Itilima. There are 26 wards, 124 registered villages and 968 hamlets. Bariadi district is bordered by Kwimba and Magu district (Mwanza Region) to the West, Bunda

and Serengeti district (Mara Region) to the North, Ngorongoro district (Manyara Region) to the East, Maswa and Meatu districts to the South.

3.4.6 Population

The estimated population of Bariadi District, according to the Population and Housing Census General Report (2002), was 603,604 with annual growth rate of 3.3 percent (URT, 2004) which is below the average growth rate of Tanzania 2.9 percent. The population comprises different ethnic groups namely Sukuma, Jita, Kurya and Jaluo.

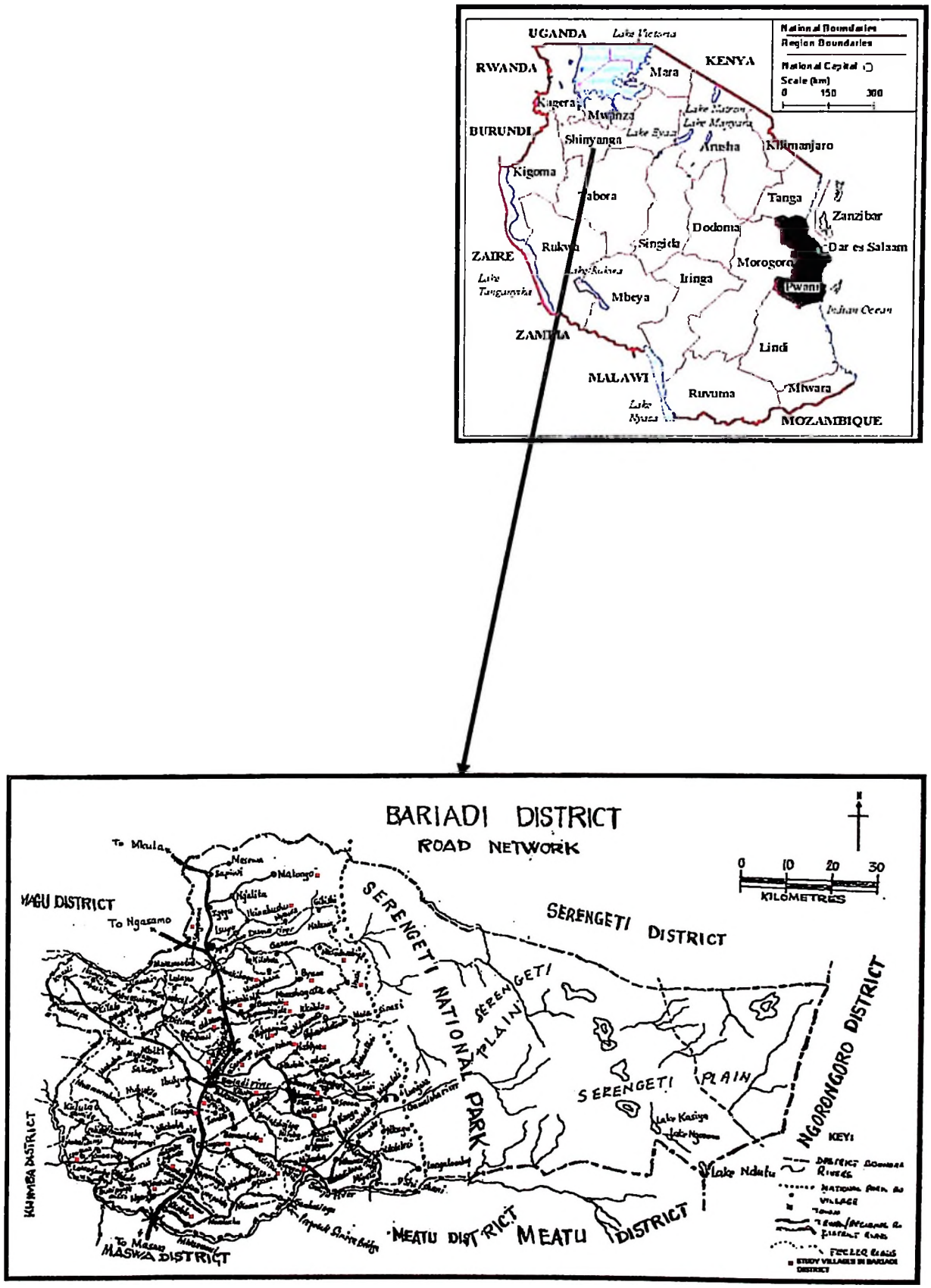

Figure 2: Map showing the study areas (Bariadi District)

3.5 Limitations of the Study

(i) Lack of data on witchcraft related killings in the villages was experienced in this study. The alternative way was to use data obtained in District head quarter especially on the number of people killed due to witchcraft accusation.

(ii) In some villages respondents were reluctant to cooperate during data collection fearing that the research was looking for those who are being hired for killing exercise. To solve this problem the researcher was to give more clarification on the study objectives and inform them that, the findings will have benefits and contribute towards their efforts to stop witchcraft related killings.

(iii) The research period collided with other development activities such as construction of Ward Secondary School classrooms, it was sometimes difficult to get the Village Executive Officers because they were moving around the villages collecting financial contributions for Ward Secondary Classrooms despite the invitation letters that were presented to them before. The solution was to follow them where they were and discuss with them on the witch killings.

(iv) The research period collided with rainy season, therefore it was difficult to go to some villages because many of the villages are located in remote rural areas that are difficult to reach especially during rainy season. In order to solve the problem the time table was rescheduled.

3.6 Data Collection

3.6.1 Types of data

3.6.1.1 Primary data

Primary data were collected aiming at getting information such as village population, gender, number of households, distance from the district headquarter to the village, health services, enrolment rate, drop out rate, and illiteracy rate.

3.6.1.2 Secondary data

Secondary data were collected to enrich the primary data but also to know the level of killings in different areas of Tanzania as well other countries particularly in Africa. The secondary data will be on different models used in other studies to analyze data.

3.6.2 Sources of data

Different methods for collecting primary and secondary data were employed. These include interviews, Focus Group Discussion, reports from the district offices and various institutions were used to enrich the report.

3.6.2.1 Primary data

Primary data were collected by interviewing key informants like village leaders, agricultural extension officers, ward education officers, head teachers and dispensary medical in-charge. Focus Group discussions were also used whereby a total of four Focus Group Discussion of Majahida, Nyangokolwa, Nyaumata and Matale villages were formed whereby each group comprised of 8-10 people.

3.6.2.2 Secondary data

Secondary data were collected from various sources like District Planning Office where data on District profile were obtained. Ward offices, Village Offices, schools and health centres were also visited. District police office provided information on the number of cases related to witchcraft killings. Reports from various institutions were also used to enrich the report. Additionally secondary information was collected from Sokoine National Agricultural Library (SNAL).

3.7 Tools of data collection

3.7.1 Questionnaire

A structured questionnaire containing both open and closed ended questions was administered to key informants (Appendix 1). The questionnaire covered areas like general information, education level of the village, health centre provision, infant mortality rate, under five mortality rate, poverty level of the village, natural calamities, belief in witchcraft, scramble for resources and religion affiliation

3.7.2 Guidelines

3.7.3 Focus Group Discussion

The guideline for focus group discussion was used in the study so as to guide discussions where groups were required to give their views on the matter introduced before them. The guideline for focus group discussion is presented as Appendix 1. All the discussions were conducted in Kiswahili except in rare cases Kisukuma (a vernacular language of Bariadi people) was used in case a respondent did not understand kiswahili. The facilitator introduced the topic and allowed the group members to discuss the issues. The discussions

were held for about two hours for each session and all details of discussions were recorded. The FGD were guided by focused topics including witchcraft related killings in the village.

3.8 Data Analysis

3.8.1 Descriptive statistics

Data from field survey were coded and analysed using the Statistical Package for Social Sciences (SPSS 11.5). SPSS was used for descriptive statistics such as frequency, mean, standard deviation, minimum, maximum, and range of different variables. Variables which were analysed by descriptive statistics included rate of killings per village, education level of the village, poverty level of the village, health services provision, scramble for resources, children under five death rate and natural calamity.

3.8.2 Likert scale

Likert scale was used in the analysis of communities' perception towards witchcraft related killings and perception on importance of education. Statements were developed and the villagers were required to respond on strongly agree, agree undecided, disagree or strongly disagree on a five point scale.

Table 1: A Likert scale for witchcraft related killings

Variable	Mean	Percent (n = 30)				
		1	2	3	4	5
1. It is assumed that once witches are eliminated then misfortune will cease in the village						
2. If you kill a witch it is not really considered as a crime						
3. Killing a witch is to get rid of her/him on the aggressive behaviour s/he deserves in the village						
4. Killing of witches are steps that are expected to will deter other witches from practicing						
5. Killing witches is culturally acceptable because you are doing something for the community in the village						

Note: *Data set were based on strongly disagree (1), disagree (2), undecided (3), agree (4) strongly agree (5)*

For analytical convenience, the scale in Table 1 and Table 2, for each statement the village was required to respond to the statement by indicating whether they strong agree (SA), agree (A), undecided (UD), disagree (DA) or strongly disagree (SD).

Table 2: A Likert scale on the extent of feeling towards education in the village

Variable	Mean	Percent (n = 30)				
		1	2	3	4	5
1. I don't think that education is useful to the village.						
2. Education cannot help me to learn new skills						
3. Education cannot improve my living standard in the village						
4. Its not important to enroll children to school in our village						
5. Education is useful to the village						
6. There is a need of enrolling children to school in our village						
7. Education can help me to learn new skills						
8. Education can improve living standard in the village						

Note: *Data set were based on strongly disagree (1), disagree (2), undecided (3), agree (4) strongly agree (5)*

3.9 Measurements of Variables

3.9.1 Measuring village perception on witchcraft related killings

Likert scale was used to measure perception of villagers toward witchcraft related killings. The statements were developed from key informants during preliminary survey. They included the following statements; It is assumed that once witches are eliminated then misfortune will cease in the village; If you kill a witch it is not really considered as a crime; Killing a witch is to get rid of her/him on the aggressive behaviour s/he deserves in the village; Killing of witches are steps that are expected to deter other witches from

practicing; Killing witches is culturally acceptable because you are doing something for the community in the village. For each statement key informants were asked to express one of the following five responses: strongly agree, agree undecided, disagree or strongly disagree on a five point scale. Each degree of agreement was given a numerical value from one to five. Strongly agree was given numerical value 5, agree was given numerical value 4, undecided was given numerical value 3, disagree was given numerical value 2 and strongly disagree was given numerical value 1. When it happened that there is no consensus among the key informants, they were requested to reach consensus by counting number of the supporters of each response. The biggest number was taken to be the major agreement. The index was developed by summing up the numeric value of all the responses to the witchcraft perception statements.

3.9.2 Measuring of village perception on importance of education

Likert scale was used to measure perception of villagers toward village perception on importance of education. The statements were developed from key informants during preliminary survey. They included the following statements: I do not think that education is useful to the village; Education cannot help me to learn new skills; Education cannot improve my living standard in the village; Its not important to enroll children to school in our village; Education is useful to the village; There is a need of enrolling children to school in our village; Education can help me to learn new skills; Education can improve living standard in the village. Each degree of agreement was given a numerical value from one to five. Strongly agree was given numerical value 5, agree was given numerical value 4, undecided was given numerical value 3, disagree was given numerical value 2 and

strongly disagree was given numerical value 1. The index was developed by summing up the numeric value of all the responses to the importance of education statements.

3.9.3 Measuring education status of the village

Descriptive statistics was used to measure education status of the village whereby frequency distribution tables were constructed to simplify interpretation of results. In order to know education status of the village, enrolment rate, dropout rate, illiteracy rate and provision of enough teachers' variables were taken into consideration. Distribution table of villages by people with primary education, secondary education and college education were also developed by obtaining the lowest average and the highest average.

3.9.4 Measuring poverty level of the village

Poverty level of the village was measured by using results of Participatory Rural Appraisal (PRA) exercise which was conducted in the previous year for all villages in Bariadi district. During the exercise wealth ranking method was used to determine poor households in the village. The results of the exercise indicated number of rich households, number of poor households as well number of absolutely poor in the village. As the exercise of wealth ranking was done by the District before the results were taken without repeating the same exercise. Questions were developed which required villagers to indicate number of absolutely poor households obtained during PRA exercise. A list of poor households was divided into three categories; the first category was 0-40 households, the second category was 41-80 households, and the third category was 81-100 households. The index was developed by finding the lowest average of poor households and the highest average of poor households.

3.9.5 Measuring health services provision

Health services provision was measured by using questionnaire which needed villagers to indicate if there is health centre. The quality of health services provided was obtained by developing the following words: good, better or worse. The reasons for not going to health centre were given by the villagers as follows: too high cost, bureaucracy to health centre, poor medical services and long distance to health centre. The index was developed by construction distribution table which indicate frequencies and percentages.

3.9.6 Measuring scramble for resources

Scrambling for resources like land or livestock was measured by asking respondents questions which required villagers to indicate if there are conflicts on land or livestock. They were required to answer yes or no. A table of frequencies was developed and percentages indicated. The index was developed by calculating highest and lowest number of conflicts as well the overall average.

3.9.7 Measuring village natural calamities

The natural calamities of villages were measured by frequencies and percentage by which natural calamities occurred. Villagers were asked to indicate the type of natural calamities that they experienced in their areas. Two types of natural calamities were mentioned as major ones, these include famine and drought respectively. The index was developed by using a distribution table whereby frequencies and percentages were calculated.

3.10 Specification of the Probit regression model

This study assumed that, the decision to kill a person who is claimed to be a witch is distributed based on probit relationship. The factors assumed to influence witchcraft

related killings included education status, health services provision, poverty status, scramble for resources, under five mortality rate, traditional belief and natural calamities. Therefore, the empirical model to analyse factors that lead to the decision to kill is as follows:

$$Y = a + \beta_1 EDU + \beta_2 HEALTH + \beta_3 U5DEATH + \beta_4 POV + \beta_5 SCRAMBLE + \beta_6 INFANTMORT + \beta_7 NATURCALAM + RELIAFF\ \beta_8 + ui$$

Where: Y = Dependent variable that stands for "1" if the killings per population density is above 5.8 and 0 otherwise.

3.10.1 Operationalisation of model variables

The witchcraft related accusations were hypothesized as function of old women. Those who were mostly hypothesized to be witches are old women and old men who are between the ages of 45-70 years. According to Miguel, (2003) reported that approximately 80 per cent of victims were women and their median age was between 50 and 60 years old. Therefore, positive relationship was hypothesized between old people and witchcraft related killings.

Witchcraft related killings of old women bring a family into loss of productive human resource. The household is also subjected to higher risks of poverty because some times people who are killed are the bread earners of the family. It is well known in African societies that in most societies women do most of the productive activities while men control the products.

Natural calamity like famine and drought were hypothesized to have positive influence on witchcraft related killings, because some people do not believe on natural calamities whereby the effects are sometimes being associated with witchcraft beliefs hence people might be killed due to being suspected on the effects. This supports the findings by Mesaki (1994) that witchcraft is held responsible for almost any calamity or misfortune.

Regarding other variables, struggle or fight for resources like land or livestock was hypothesized that if husband dies the elder child or other relatives might demand the land or livestock and decide to kill the wife of the deceased so as to acquire properties. This assertion is supported by Mesaki (1994) who reported that witchcraft may be used as a ploy to attain certain ends, such as the resolution of misunderstandings, quarrels and conflicts over matters such as land, property or inheritance.

3.10.2 Measuring Performance of the Probit Models

The goal of logistic regressions is to find the best fitting (yet reasonable) model to dispel the relationship between the dichotomous characteristic of interest (dependent variable response or outcome variable) and a set of independent (predictor or explanatory) variable.

Logistic/probit regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logit transformation of the probability of presence of the characteristic of interest.

The Probit regression model was estimated using STATA software to establish the relationship between the dependent (witchcraft related killings) and independent variables.

The empirical model was specified as follows:

Where

EDU= '1' if those who are educated were more than 60% of the village respondents '0' otherwise.

HEALTH= Number of health facilities if the village

U5DEATH= If the village has less than 0.2% and '0' otherwise

POV= 1'' if the village has less than 57% poor household and '0' otherwise

SCRAMBLE= Number conflicts for land and livestock per village

NATURCALAM= Number of natural disasters are drought, famine per village

TRADBELIEF= 1 if believers were more than 65% of the village respondents '0' otherwise

RELIAFF= 1 if commitment to religion is more than 60% per village and '0' otherwise

a = Intercept of the computed values

βi = Parameters to be estimated

u_i =Random error term

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Overview

In this chapter, the results of the study are presented and discussed in line with the study objectives. The main purpose of this chapter is to provide detailed information on the factors contributing to witchcraft related killings. The chapter includes sub-sections on characteristics of villages, comparison between variables and relationship between witchcraft killings and study variables. Section one of this chapter presents the distribution of village characteristics. Throughout the discussion village with more than the mean incidence of killings will be put in the brackets to easen identification of the village.

4.2 Characteristics of Villages

4.2.1 Remoteness

Table 3 shows the categorization of village by remoteness in terms of town centres, periurban, remote and very remote. Categorization was based on distance from the district head quarter. Villages less than 10 kilometres from town centres were taken to be close to town centre because at this distance people can any time access services. Villages which were considered to be remote are more than 10 kilometres because at this distance access of services available at town centre is by use of transport. It is expected that people from these areas cannot frequent access to town centre any time they want due to transport cost limitation and lack of transport itself. It reveals that about 20% of the villages are close to town hence can access services any time. However, based on cumulative distribution more than 50% of surveyed villages are in remote areas.

4.2.2 Remoteness and the rate of witchcraft killings

Table 3 shows the relationship between remoteness and average rate of witchcraft related killings. Results reveal that the higher you move from the town centres towards periurban areas the higher the average of killings. Higher killings could be observed to relatively remote areas. This could imply that as you move away from the district police post towards remote areas crimes and criminals like witch killings increases. However, as you move towards very remote areas the average killings decreases, this could be due to inaccessible, little information exchange among the people and togetherness of the people becomes higher.

Table 3: Relationship between remoteness and the rate of witchcraft killings

Distance in Km.	Category	Average witchcraft killings
3-10	Town centre	10
11-20	Periurban	12
21-30	Relative remote	26
31-41	Remote	17
41and above	Very remote	13

4.2.3 Remoteness and average rate of population

Table 4 shows the relationship between remoteness and average rate of population. Results reveal that the higher you move from the town centres towards periurban areas the higher the average rate of population. This could imply that high concentration of people is in periurban and remote areas for economic activities like cultivation.

Table 4: Relationship between remoteness and the rate of witchcraft killings

Distance in Km.	Category	Average population
3-10	Town centre	1728
11-20	Periurban	2713.3
21-30	Relative remote	3616.4
31-41	Remote	4562
41 and above	Very remote	7366.9

4.2.4 Remoteness and range of population density

Table 5 shows the relationship between remoteness and range of population density. Results reveal that more than 70% of the villages have more than 1.1 population density and these villages are found in periurban and in relative remote areas. This could imply that as you move to remote areas the population density is high probably it could be because of economic activities such as cultivation.

Table 5: Relationship between remoteness and the range of population density

Distance in Km	Category	Range of population density	Freq.	%age	Cum.	Associate village
3-10	Town centre	0 – 1	4	13.3	13.3	Nyangokolwa, Isengwa, Igaganulwa, Bunamhala
11-20	Periurban	1.1 – 2	17	56.7	70	Sima, Mwakibuga, Matale, Bupandagila, Sanungu, Ikinabushu, Kashishi, Nkindwabiye, Matongo, Sengerema, Byuna, Ihusi, Nkololo, Mwabuki, Luguru, Bumera, Giriku
21-30	Relative remote	2.1 – 3	7	23.3	93.3	Isanga, Majahida, Habiya, Old Maswa, Nyakabindi, Kilulu, Nyaumata
31-40	Very remote	3.1 - 4	2	6.7	100	Imalilo, Ng'wang'wali

4.2.3 Education level

4.2.3.1 Illiteracy rate

Table 6 shows the relationship between remoteness and range of illiteracy rate. Result reveals that high illiteracy rate are found in town centres and periurban areas. The higher illiteracy rate in town centres could be due to children with school age being engaged in other activities such as selling groundnuts, sweets, plastic bags and other small business instead of attending to school. This support the findings by UNICEF (2000) which reports that while about 200 million children are estimated to be involved in child labour in

Africa, about 5% of the 9 million Tanzanian children under the age of 15 are engaged in child labour. In turn, it also contradicts with the report by EDI (2006) that remote clusters report a higher share of population with no formal education.

Table 6: Relationship between remoteness and average of illiteracy rate

Distance in Km.	Category	Average of illiteracy rate
3-10	Town centre	28.5
11-20	Periurban	29.1
21-30	Relative remote	20.0
31-41	Remote	16.8
41 and above	Very remote	15.0

4.2.3.2 Enrolment rate

Table 7 shows the relationship between remoteness and average rate of enrolment. Results reveal that the higher you move from the town centres towards peri-urban areas the higher the enrolment. As you go further to remote areas the enrolment rate becomes high. The overall enrolment rate was 96.6% indicating that the enrolment rate was positive encouragingly highly. Villages which are below average are considered to have low enrolment rate As we have seen above the illiteracy rate is decrease towards remote areas it could be because of high enrolment rate towards remote areas.

Table 7: Relationship between remoteness and average of enrolment rate

Distance in Km.	Category	Average of enrolment rate
3-10	Town centre	93.7
11-20	Periurban	95.0
21-30	Relative remote	98.0
31-41	Remote	99.0
41 and above	Very remote	98.3

4.2.3.3 Dropout rate

Table 8 shows the relationship between remoteness and dropout rate. Results reveals that at the town centres the dropout is high, the same applies to periurban areas. As you move toward relative remote to very remote areas the dropout rate decreases. As discussed above in town centres children dropout from school instead are engaged in other activities such as selling groundnuts, sweets, plastic bags and other small business.

Table 8: Relationship between remoteness and average of dropout rate

Distance in Km.	Category	Average of dropout rate
3-10	Town centre	19.5
11-20	Periurban	10.8
21-30	Relative remote	3.6
31-41	Remote	0.5
41 and above	Very remote	0.282

Moreover, villagers were asked to give reasons for dropout. Five reasons were given for the dropout of children, these include transfer of parents without school permission for their children, standard of living hardships of parents, ignorance of parents towards education, escape of children from their homes and migration of parents to look green pastures. More than a half (50%) of the mentioned reasons was the transfer of parents without school permission for their children.

Table 9: Distribution of villages by reasons for dropout

Reasons for dropout	Percent (n = 30)	
	Frequency	Percentage
Transfer of parents without school permission for their children	15.6	52.0
Standard of living hardships	6	20.0
Ignorance of parents towards education	3.6	12.0
Escape of children from their homes	1.2	4.0
Migration of parents	3.6	12.0

Note: *Data set were based on multiple responses*

4.2.3.4 Provision of enough teachers

Villagers were asked if there are enough teachers to their schools. Results shows that majority of villages (90%) had no enough teachers to school. It is only 10% of villagers who responded that they have enough teachers. These results suggest that with lack of enough teachers probably the quality of education provided will not be satisfactorily hence high illiteracy rate and eventually more witchcraft related killings are likely to happen.

4.2.3.5 Attitude towards education in the village

The main objective of this section was to identify and estimate the attitude towards education in the villages. Since the extent of the problem cannot be directly observed, a likert scale (Mogey, 1999). A table of 8 statements as described in the methodology section was employed. Results in Table 12 indicate that, more than a half of villages (50%) strongly disagreed that education cannot improve my living standard in the village, this was based on the mean. Therefore, basing on the above explanations the extent of feelings toward usefulness of education was high in the most of the villages.

Table 10: Attitude towards education in the village

Statement	Mean	Std deviation	Min.	Max.	Range
I don't think that education is useful to the village.	1.63	0.85	1.0	4.0	3.0
Education cannot help me to learn new skills	1.47	0.63	1.0	3.0	2.0
Education cannot improve my living standard in the village	1.53	0.78	1.0	4.0	3.0
Its not important to enroll children to school in our village	1.40	0.62	1.0	3.0	2.0
Education is not useful to the village	4.73	0.78	1.0	5.0	4.0
There is a no need of enrolling children to school in our village	4.77	0.50	3.0	5.0	2.0
Education can not help me in my life	4.77	0.43	4.0	5.0	1.0
Education can not improve living standard in the village	4.80	0.41	4.0	5.0	1.0

Note: *Data set were based on strongly disagree (1), disagree (2), undecided (3), agree (4) strongly agree (5)*

4.2.4 Health

4.2.4.1 Health centre provision

The distribution of health centre provision shows that 46.7% of surveyed villages had health centre while majority of surveyed villages had no health centre. When villagers were asked if they go to health centre when they fall sick, it is only 6.7% of surveyed villages indicated that they don't go to health centre when they fall sick as shown on Table 13. However, when they were asked to respond on where they go when they fall sick 86.7% indicated that they go herbalists/use of herbs while the rest go to traditional healers.

Table 11: Provision of health centre

Item	Positive		Negative	
	Freq.	%age	Freq.	%age
Provision of health centre	16	53.3	14	46.7
Do you go to health centre	28	93.3	2	6.7

For those who responded that they don't go to health centre when they fall sick, were required to give reasons. Five reasons were provided which include too high cost, bureaucracy to health centre, poor medical services, lack of education to people about health as well as long distance to reach health centre (Table 12). Majority of villagers indicated that too high cost is the major reason which hinders them to attend to the health centre.

Table 12: Villages by reasons for not going to health centre when they fall sick

Parameter	(N=30)	
	Frequency	Percentage
Reasons for not going to health centre when fall sick		
Too high cost	12	40.0
Bureaucracy to health centre	9	30.0
Poor medical services	5	16.7
Lack of education to people about health	3	10.0
Long distance to reach health centre	1	3.3
Total	**30**	**100**

As it is observed that high percentage of people go to health centre when fall sick, villagers were needed to indicate the quality of health services provided. Result shows that more than (70%) of surveyed villages responded that the quality of health services

provided was better. This implies that with better quality of health services provided many people might be encouraged to continue attending to health centre and probably few attend to traditional healers could lead to less witchcraft killings.

Table 13: Distribution of villages by quality of health services provision

Parameter	(N=30)	
	Frequency	Percentage
Quality of health services provision		
Good	5	16.7
Better	23	76.7
Worse	1	3.3
Don't know	1	3.3
Total	**30**	**100**

4.2.4.2 Distribution of villages by reasons for not going to the health centre

Figure 3 shows the distribution of village by reasons for not going to health centre when people fall sick. The result shows that the majority of people don't go to health centre because of the high cost of health services. This can imply that those who cannot afford the cost for health services are the poor. It also implies that if people don't go to health centres it is probably they to go traditional healers as well to witch doctors.

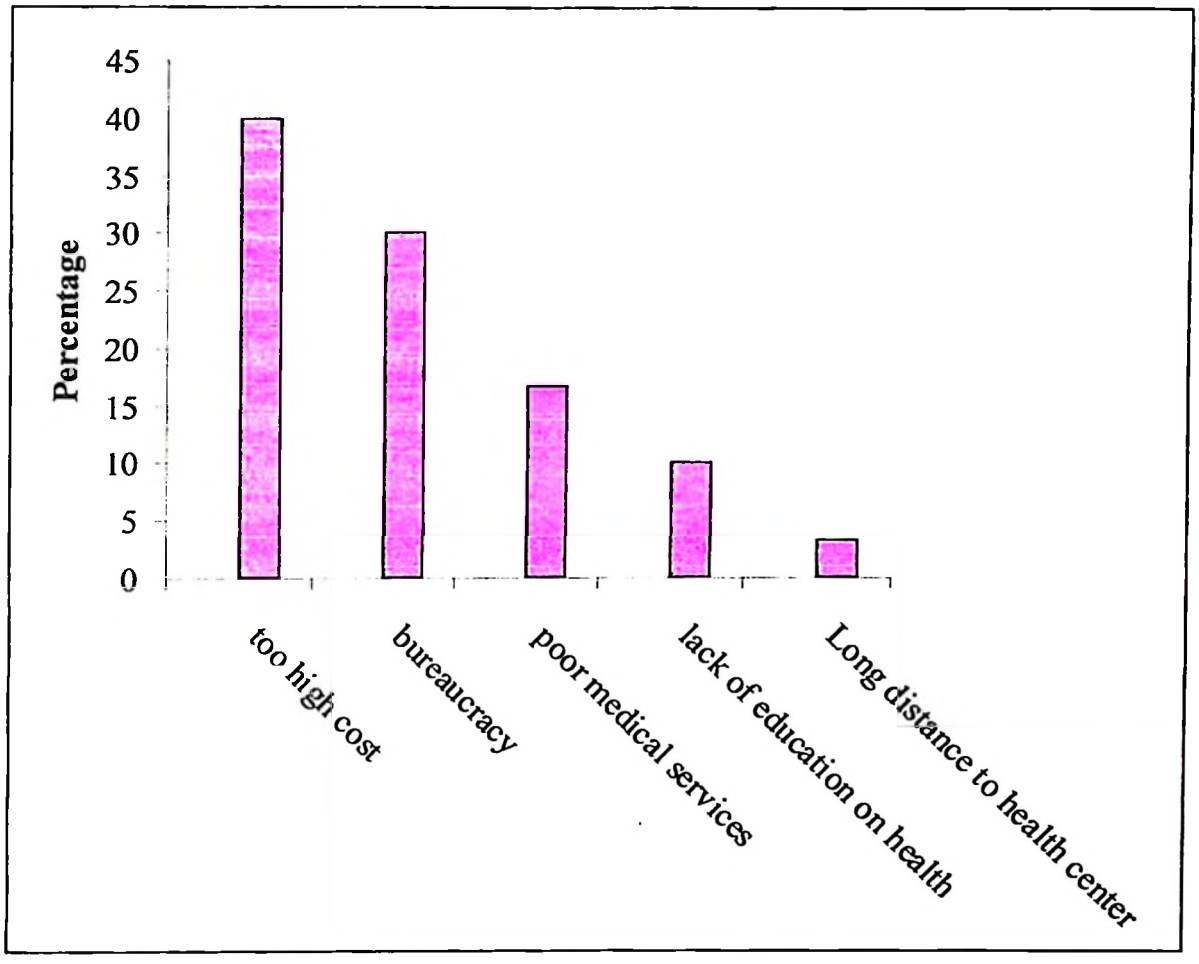

Figure 3: Reasons for not going to health centre

4.2.4.3 Infant mortality rate

The infant mortality rate in this study refers to babies who die before their first birthday. Figure 4 indicate that the majority more than (80%) of villages had very low infant mortality of about 0.0%. The lowest infant mortality rate was 0.0% and the highest was 5.0%. The overall average infant mortality rate is 0.35% which is encouragingly highly.

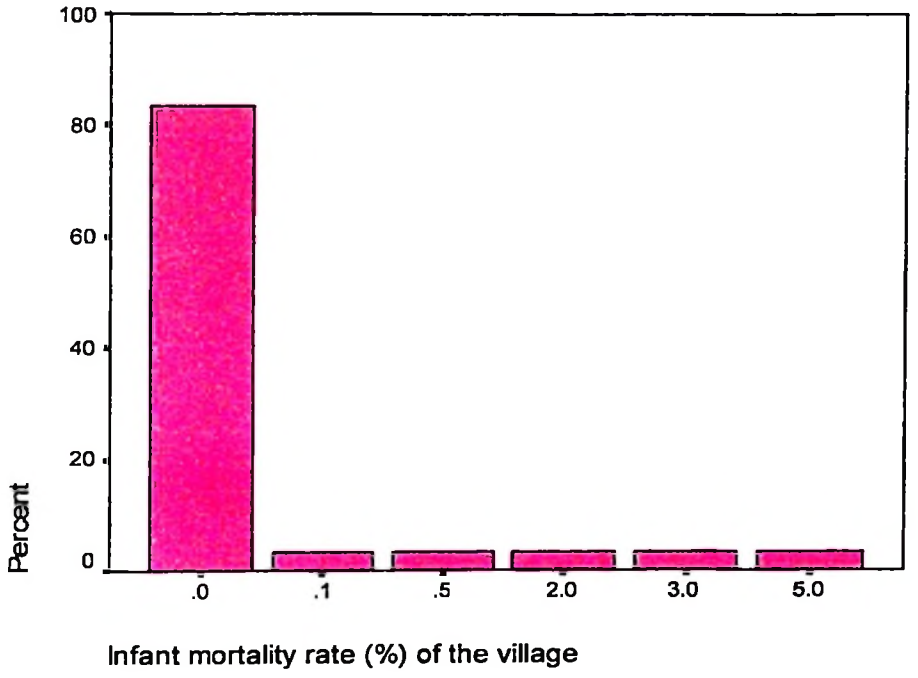

Figure 4: Infant mortality rate in percent

Table 14 shows the distribution of villages by causes of diseases for infants in the village. Three causes of diseases for infants were mentioned, these include absence of medical care, nutritional problem and lack of knowledge about health. The result shows that nutritional problem was the main cause of diseases for infants.

Table 14: Distribution of villages showing causes of diseases for infants

Parameter	**(N=30)**	
Causes of diseases for infants in the villages	**Frequency**	**Percentage**
Absence of medical care	12	40.0
Nutrition problem	15	50.0
Lack of knowledge about health	2	6.7
Unknown	1	3.3
Total	**30**	**100**

4.2.4.4 Under five mortality rate

Table 15 shows the relationship between remoteness and under five mortality rate. Results reveals that under five years children mortality rate is approximately to zero. The lowest under five mortality rate is 0.2% at Matale village and the highest is 20.0%. in Mwakibuga village. The average of under five mortality rate is 0.77%. The result indicates that the majority more than (80%) of villages had very low under five mortality of about 0.0%.

Table 15: Relationship between remoteness and average of under five mortality rate

Distance in Km.	Category	Average of underfive mortality rate
3-10	Town centre	0
11-20	Periurban	0
21-30	Relative remote	20
31-41	Remote	2
41 and above	Very remote	1

4.2.5 Poverty status

4.2.5.1 Poverty level of the village

As it was explained under section 3.7.2.4 poverty level of the village was measured by using wealth ranking during Participatory Rural Appraisal (PRA) exercise which was conducted in the previous year for all villages in Bariadi district. During the exercise wealth ranking method was used to determine poor households in the village therefore the results were taken and used in this study. Table 16 shows relationship between remoteness and poor households. The result reveals that as you move from town centres towards periurban the average poor households increases. As you go further to remote and very remote areas the average of poor households increases rapidly. It implies that

majority of the villages have poor people. By being poor people may not be able to satisfy the cash needs fro health services including buying of drugs and hiring transport facilities to hospital and health centres eventually they can decide to go to traditional healers of diviners.

Table 16: Relationship between remoteness and average poor households

Distance in Km.	Category	Average of poor households
3-10	Town centre	22.5
11-20	Periurban	72.8
21-30	Relative remote	88.0
31-41	Remote	97.5
41 and above	Very remote	98.0

4.2.5.2 Natural calamities

Table 17 shows distribution of villages if there are natural calamities in the villages. It was indicated that all the villages (100%) had experienced natural calamities and mostly is famine. The seriousness of the problem was also indicated highly.

Table 17: Natural calamities

Item	Positive		Negative	
	Freq.	%age	Freq.	%age
Experience of natural calamities	30	100.0	0	0
Drought	14	46.7	0	0
Famine	16	53.3	0	0
Seriousness of the problem	24	80.0	6	20

4.2.5.3 Belief in witchcraft

Table 18 shows the distribution of villages if they believe in witchcraft. The results indicate that (100%) of villagers interviewed in the study area believe on witchcraft.

Moreover, when villagers asked on having witches in their villages, majority (86.7%) agreed that villages have witches. This supports the findings by Ashforth (2002) that a belief in witchcraft allows people to make sense of the arbitrary misfortunes that govern their lives, and to pin blame these events on a particular person rather than on chance.

Furthermore, when villagers were asked to indicate whether the illness and deaths are caused by witchcraft in the villages, more than 50% indicated that illness and deaths are caused by witchcraft while the rest were on the opinion that illness and deaths are not caused by witchcraft in the village. More than (80%) indicated that a witch can be identified after a person being told by witch doctors or diviners. This suggests that witch doctors have been more devoted increasingly to the detection of and counteraction against witches. This supports the findings by Mesaki (2006) who quoted the former Regional Commissioner for Mwanza region, Major General (Retired) James Luhanga that the Sukuma still have great trust in diviners, many of them do not realize that some of these diviners are more interested in making money than in offering legitimate services. The results also support the findings by EDI (2006) that traditional healers especially the diviners (Wapiga ramli), usually make the witchcraft accusations.

It was also indicated during Focus Group Discussion that witches in the village can be identified by; firstly by looking at their eyes if they are red, secondly; after being told by the diviners.

Table 18: Distribution of villages indicating belief in witchcraft

Item	Positive belief		Negative belief	
	Freq.	%age	Freq.	%age
Belief on witchcraft	30	100	0	0
Presence of witches in the village	26	86.7	4	13.3
Illness being caused by witchcraft	17	56.7	13	43.3
Red eyes is an indicator of witches	4	13.3	26	86.3
Witch doctors have power to identify witches	26	86.7	4	13.3

Table 19 shows distribution of villages showing the most witches in the village. When villagers were asked to indicate the most witches in the village, the old women aged 45-70 years scored the highest percentage as presented in Table 21. These results support the findings by Miguel (2003) that approximately 80% of victims were women and their median age was between 50 and 60 years old, where life expectancy is only 51 years (UNDP, 2002). The results also supports the findings by Mesaki (2003) that common belief about witches in Africa has it that witches are female.

Table 19: Distribution of villages indicating the most witches in the village

The most witches in the village	(N = 30)		
	Frequency	Percentage	Cumulative
Old women aged 45-70 years	15	50.0	50.0
Old women and young women aged 35-70 years	11	36.7	86.7
Old women and old men aged 45-70 years	4	13.3	100
Total	**30**	**100**	

Table 20 shows distribution of villages showing the action about the person who is accused of witchcraft in the village. When villagers were asked to give their suggestions on a person who is accused of being a witch, more than 70% of surveyed villages suggested on killing a witch, other villagers suggested on alienating the accused from the village while others indicated that there is no chance to discuss about the witch. This suggests that, majority of villages belief on witchcraft and the only solution is to kill the witch.

Results obtained from FGD also revealed the same that for those accused of being witches should be killed because of bad evils they are doing by practicing witchcraft.

Table 20: Suggested action to deal with accused person of witchcraft

Suggested action to accused person of witchcraft in the village	(N = 30)	
	Frequency	Percentage
Killing the witch	22	73.4
Alienating him/her from the village	4	13.5
No chance to discuss about the witch	4	13.1
Total	**30**	**100**

Furthermore, when villagers were asked to indicate those who take action of killing accused of witches, more than 90% responded that young men of 15-45 years old are the mostly who take action of killings the accused witches in the village.

4.2.5.4 The time for action of killing witches

Table 21 shows distribution of villages showing the time for action of killing witchcraft related people in the village. Majority of surveyed villages reveal that most of the killings

of witches take place during the night. This suggests that, even those who take the action of killing the witches are aware that they commit crime that is why they dare to take action during the night. The results supports the findings by Mesaki (1994) that hired assassins, using sharp weapons, particularly machetes, carry out the witch murders within the victims' household at night.

Table 21: Distribution of villages indicating the time for action of killing witches

The time for action of killings witches in the village	(N = 30)	
	Frequency	Percentage
During the day	2	6.7
During the night	27	90.0
Both night and day	1	3.3
Total	**30**	**100**

4.2.5.5 Attitude towards witches in the village

Table 22 shows the attitude of people towards witches in the village. The result reveals that more than 40.0% of villages strongly disagreed that it is a assumed that once witches are eliminated then misfortune will cease the village. Furthermore, about 40.0% of villages strongly disagreed that killing of witches are steps that are expected to will deter other witches from practicing, while more than a half of villages (50.0%) strongly disagreed that killing witches is culturally acceptable because you are doing something for community. Results are based on the mean. Therefore, basing on the above explanations the attitude toward witchcraft belief was not higher as more than a half of the expected highest percentage in the most of the villages.

Table 22: Attitude towards witches in the village

Statement	Mean	Std deviation	Min.	Max.	Range
It is assumed that once witches are eliminated then misfortune will cease the village.	2.33	1.3	1.0	5.0	4.0
If you kill a witch it is not really considered as a crime	1.77	1.04	1.0	5.0	4.0
Killing a witch it is to get rid of her/him on the aggressive behaviour s/he deserve	2.00	1.08	1.0	5.0	4.0
Killing of witches are steps that are expected to will deter other witches from practicing	2.13	1.25	1.0	5.0	4.0
Killing witches is culturally acceptable because you are doing something for community	1.77	1.00	1.0	5.0	4.0

4.3 Experience of scramble for resources (land or livestock)

It was indicated that (100%) of surveyed villages had experienced conflicts on land or livestock. The implications of these findings are that conflicts might have been much contributed to the high rate of killings and could also have threatened social stability creating a climate of fear and uncertainty. The result supports the findings by Mesaki (1994) who reported that witchcraft may be used as a ploy to attain certain ends, such as the resolution of misunderstandings, quarrels and conflicts over matters such as land, property or inheritance.

Moreover, villagers were asked if scrambling for resources can cause witchcraft related killings in the villages. Results reveal that majority (93.3%) which is far higher than half of the expected percentage indicated that scrambling for resources can cause witchcraft related killings in the village. However, the chi-square test indicated statistical significant ($P<0.05$) with respect to whether scrambling for resources can cause killings of witchcraft in the village.

Furthermore, it was observed in FGDs that most of old women are killed because of demanding land or livestock, practicing witchcraft and telling lies. These statements were observed from the group of women in Nyaumata and Nyangokolwa villages.

4.3.1 Solution to conflicts on scramble for resources (land or livestock)

Table 23 shows distribution of villages with respect to solution to the conflicts on land/livestock in the village. The results reveal that most of the conflicts were resolved by village land disputes committees. This implies that committees had played their role which may have contributed to the fewer killings to some of the villages.

Table 23: Distribution of villages by solutions to the conflicts

Parameter	(N=30)	
	Frequency	**Percentage**
Solution to the conflicts on land/livestock in the village		
Given another land	1	3.3
The case is in the court	11	36.7
The who was involved in the conflict was dead	1	3.3
No solution still in conflict	2	6.7
Village land disputes committee resolved the disputes	15	50.0
Total	**30**	**100**

Villagers were asked on knowing any organization that advocacy to stop killings of witchcraft. The result shows that majority of surveyed villages more than 70% were not aware about any organization which advocate on stopping witchcraft killings. Nevertheless, villages which were aware of some organizations were less than 30% which is far lower than half of the expected highest percentage. This suggests that. villages lack awareness support that could probably reduced the prevailing problem. However, fewer organizations were indicated to be working (Table 26). It implies that those organizations have not reached the majority of villages.

Table 24: Organizations that advocate antiwitchcraft killings

Organizations that advocate untwitchcraft killings	(N = 30)	
	Frequency	Percentage
CARE International	1	3.3
Kamati ya ulinzi na usalama	1	3.3
Sungusungu	3	10.0
Sungusungu, Dagashida, and COEL	2	6.7
Don't know	23	76.7
Total	**30**	**100**

4.3.2 Religion affiliation

Table 25 shows the distribution of villages by provision of churches and mosques. The result in the table shows that majority of villages have churches and mosques. It is only 6.7% of villages which do not have churches or mosques. The results contradict findings by Miguel (2003) who argued that witchcraft beliefs are strong in ethnically Sukuma

western Tanzania (Sukumaland), where a large proportion of the population follows traditional religions and have never adopted Christianity or Islam.

Table 25: Distribution of villages by provision of churches or mosques

Parameter	(N = 50)	
Provision of churches or mosque in the village	**Frequency**	**Percentage**
Have churches or mosque	46.5	93.3
Have no churches or mosque	3.5	6.7

4.4 Comparison between variables

4.4.1 Relationship between distance and enrolment rate

Table 26 shows the relationship between distance and enrolment rate. Result reveals that the higher you move to remote areas the higher the enrolment rate. There is relative distribution of distance and enrolment rate. However, the chi-square test indicated statistically significant ($P<0.05$) with respect to enrolment rate. Hence it implies that distance was associated with enrolment rate.

Table 26: Distribution of villages by enrolment rate and distance

Distance (Km)	Associated villages	Average enrolment rate (%)
0-20	Sanungu, Nyaumata, Imalilo, Kilulu,, Nyangokolwa, Matale, Sima, Majahida, Luguru, Old Maswa, Nyakabindi, Ng'wang'wali, Bunamhala, Isanga, Bupandagila	99.1
21-40	Habiya, Mwabuki, Bumera, Giriku, Nkololo, Isengwa, Mwakibuga, Byuna,	97.1
41-60	Igaganulwa, Sengerema, Kashishi, Nkindwabiye, Ihusi, Ikinabushu,	98
61 and above	Matongo	100

4.4.1 Relationship between distance and illiteracy rate

Table 27 shows the relationship between distance and illiteracy rate. Result reveals that the far the village the lower the illiteracy rate and the closer the town the higher the illiteracy this could be due to children with school age being engaged in other activities such as selling groundnuts, sweets, plastic bags and other small business instead of attending to school in town. This support the findings by UNICEF (2000) which reports that while about 200 million children are estimated to be involved in child labour in Africa, about 5% of the 9 million Tanzanian children under the age of 15 are engaged in child labour. In turn, it also supports the report by EDI (2006) that remote clusters report a higher share of population with no formal education. However, the chi-square test indicated statistically significant ($P<0.05$) with respect to illiteracy rate. This implies that distance has influence on illiteracy rate.

Table 27: Distribution of villages by distance and illiteracy rate

Associated villages	Distance (Km)	Average illiteracy rate (%)
Sanungu,Nyaumata, Imalilo, Sima,Kilulu, Majahida	0-10	28.5
Nyangokolwa, Matale, Luguru, Nyakabindi, Isanga, Old Maswa, Nyakabindi, Ng'wang'wali, Isanga, Bunamhala, Bupandagila	11-20	29.2
Habiya, Mwabuki, Bumera, Giriku, Mwakibuga, Byuna Nkololo, Isengwa,	21-30	18.1
Igaganulwa, Sengerema, Kashishi, Nkindwabiye, Ihusi, Ikinabushu	31-40	14

Source: Survey data, 2007

4.4.2 Relationship between distance and witchcraft killings

Table 28 shows the relationship between distance and witchcraft killings. Result reveals that the average killings was increasing at the increasing rate of distance then eventually there was a sharp decrease of average killings as the distance was increasing. However, the chi-square test indicated statistically significant ($P<0.05$) with respect to the witch killings. This implies that distance has influence on witchcraft killings.

Table 28: Rate of witchcraft killings and distance from head quarter

Associate village	Rate of witchcraft killings	Distance (Km)
Sima, Ng'wang'wali, Bupandagila, Sanungu, Lugulu, Matale, Isanga, Bunamhala. Imalilo, Majahida, Nyakabindi, Kilulu, Nyaumata, Old Maswa, Nyangokolwa	0-10	0-20
Bumera, Habiya, Giriku, Mwabuki, Byuna Mwakibuga, Nkololo, Isengwa	11-20	21-40
Igaganulwa, Sengerema, Kashishi, Ihusi, Ikinabushu, Nkinwabiye, Matongo	21-30	41 and above

4.4.3 Relationship between the population density and distance

Table 29 shows the relationship between the population density and distance. Results reveal that more than 70% of the villages have lower population density. The village with lowest population density is Sima (0.16) with the lowest distance of 3 kilometers. The village with highest population density is Byuna (5.83) with the distance of 39 kilometers. Therefore, the lower the population density the lower the distance and the higher the population density the higher the distance. However, villages in brackets show the village with lowest population density (Sima) and the village with highest population density (Byuna).

Table 29: Relationship between the population density and distance

Village	Population density	Distance (Km)
Sanungu, Majahida, Imalilo, Nyakabindi, Luguru,Ikinabushu, Matongo, Ihusi, Old Maswa, Nyaumata, Bunamhala, Bupandagila,(Sima), Igaganulwa, Bumera, Habiya, Giriku, Mwakibuga, Isengwa, Sengerama	0-2	0-20
Isanga, Matale, Mwabuki, (Nkololo), Kilulu	2-4	21-40
(Byuna), Nyangokolwa	>4	>41

4.5.4 Relationship between dropout and distance

Table 30 shows the distribution of villages by dropout rate and distance. Results reveal that the average dropout decreases as distance increases. The chi-square test indicated no statistical significant ($P>0.05$) on the dropout rate. However, the coefficient of distance was positive implying that the far the village had unfavorable influence on dropout.

Table 30: Distribution of villages by dropout rate and distance

Distance (Km)	Associated villages	Average dropout rate (%)
Sanungu, Nyaumata, Imalilo, Bunamhala, Kilulu,Bupandagila, Bunamhala, Sima, Isanga Majahida, Nyngokolwa, Matale, Luguru, Old Maswa	0-20	19.5
Habiya, Mwabuki, Bumera, Giriku, Sengerema, Ihusi Kashishi, Nkindwabiye, Ikinabushu, Igaganulwa	21-40	14
Nkololo,Isengwa, Mwakibuga, Matongo	41 and above	3.6

Source: Survey data, 2007

illiteracy people may not know their rights hence scramble for resources is likely to happen and eventually witchcraft killings are likely to happen. However, the chi-square test indicated no statistical significant (P>0.05) between illiteracy rate and witchcraft related killings.

4.6 Relationship between Witchcraft Killings and other Variables

4.6.1 Relationship between dropout rate and witchcraft related killings

Table 31 shows the distribution of villages by dropout rate and frequency of witchcraft related killings. Results indicate that villages with the lowest dropout rates are Isengwa (0.1), Nkindwabiye (0.1), Byuna (0.1), Matongo (0.1) and Sengerema (0.1) respectively. The village with the highest dropout rate is Imalilo (45). The cut point for dropout is 7.7

which is the mean. Villages with dropout greater than the cut point are put in brackets and they are considered to have high dropout rates. It reveals that the higher the average of dropout rate the higher the average of witchcraft killings. However, the chi-square test indicated statistical significant at ($P<0.05$) with respect to frequency of killings. This implies that dropout rate was associated with witchcraft killings because dropout makes people to have less education skills therefore instead of being engaged with development activities they deal with witch accusations and eventually witch killings.

Table 31: Relationship between dropout rate and witchcraft related killings

Associated villages	Dropout rate (%)	witchcraft killings
Isengwa, Majahida, Ikinabushu, Nyakabindi, Bupandagila, (Nyangokolwa), Old Mswa, Byuna, Luguru, Nkololo, Bupandagila, Bumera, Nkindwabiye, Ng'wang'wali, Igaganulwa, Ihusi (Nyaumata), Kashishi, Matongo, Habiya, Mwakibuga, Sengerema, Mwabuki, Bynamhala,	1-15	0-10
(Isanga), (Giriku), (Sanungu), (Sima),(Matale)	16-30	11-20
(Kilulu), (Imalilo)	31-45	21-30

4.5.6 Relationship between enrolment rate and witchcraft related killings

Table 32 shows the distribution of villages by enrolment rate and frequency of witchcraft related killings. Results indicate that the lowest enrolment rate is 80% at Nyaumata village and the highest enrolment rate is 104% at Bupandagila village. It also reveals that the when the highest average enrolment rate was 95% the average witchcraft killings were higher by 24. The cut point for enrolment rate is 96.07% which is the mean, therefore the villages indicated in brackets are considered to have lower enrolment rate than the cut

point. Results shows that the lower the average enrolment the higher the average of witchcraft killings. This suggests that when school age children are not enrolled the illiteracy rate is likely to be higher hence beliefs in witchcraft are likely to increase whereby the solution to witches could be killings. However, the chi-square test indicated statistical significant at ($P<0.05$) between enrolment rate and frequency of witchcraft related killings. The correlation coefficient was negative implying that enrolment rate had favourable influence on witchcraft.

Table 32: Relationship between enrolment rate and witchcraft related killings

Associated villages	Enrolment rate (%)	witchcraft killings
Majahida, Ikinabushu, Bunamhala, Luguru, Nkololo, (Nyaumata), (Isanga), Mwakibuga,Ng'wang'wali, Nyakabindi	80-95	0-10
(Imalilo), nyangokolwa, Sanungu, Isengwa, Giriku, Ihusi, Old Maswa,Nkindwabiye, Byuna (Sima). (Kilulu), Mwabuki, Igaganulwa, Kashishi, Matongo, (Matale), Sengerema Habiya, Bumera	96-100	11-20
(Bupandagila)	100-105	21-30
Mean	96.07	26.03
St. deviation	5.889	18.807
Minimum	80	3
Maximum	104	76

4.5.7 Relationship between people with adult education and witchcraft killings

Table 33 shows the distribution of villages with adult education and frequency of witchcraft related killings. Result indicates that the village with very few people with adult education is Habiya and the village with many people with adult education is Sima. It reveals that the lowest average of people with adult education is 232 and the highest average of people with adult education is 478. The cut point for people with adult

education is 344.9 which is the mean. Basing on the cut point villages which have less people with adult education are put in brackets and are consider to have fewer people with adult education. However, people with adult education and witchcraft related killings was not statistical significant (P>0.05). This implies that adult education had no influence on witchcraft killings. The coefficient of adult education was positive implying that the there is unfavorable influence on witchcraft killings.

Table 33: Relationship between people with adult education and witchcraft killings

Associated villages	People with adult education	Witchcraft killings
Matale,Imalilo,(Sanungu) Nyakabindi Old Maswa, Kashishi, (Matongo), (Habiya),(Bumera),Sengerema Giriku Ng'wang'wali,	0-150	0-10
Nyaumata, Igaganulwa, Bunamhala, Isanga, Kilulu, Isengwa,	151-300	11-20
Nkindwabiye, Nkololo, Byuna Nyangokolwa, Matale,	301-450	21-30
Luguru, Mwakibuga, Mwabuki, Majahida, Ikinabushu, Bupandagila (Sima)	>450	>30
Mean	**344.86667**	

4.5.8 Relationship between people with primary education and witchcraft killings

Table 34 shows distribution of village by people with primary education and witchcraft related killings. Results indicate that Isengwa village had the lowest people with primary education (580) while Byuna village (5000) had highest people with primary education. It reveals that the lowest average of people with primary education is 1232 and the highest

average of people with adult education is 2825. The cut point for people with primary education is 1715 which is the mean. However, there was no statistical significant (P>0.05) between people with primary education and witchcraft related killings.

Table 34: Relationship between people with primary education and witchcraft killings

Associated villages	People with primary education	Witchcraft killings
Sima, Matale,Imalilo, Sanungu, Isengwa, Nyangokolwa, Majahida, Ikinabushu, Nyakabindi,Old Maswa, Bupandagila, Ng'wang'wali, Kashishi, Habiya, Bumera, Bunamhala, Luguru, Giriku, Isanga, Nkololo, Kilulu	0-2000	0-10
Matongo,Sengerema, Mwakibuga,	2001-4000	11-20
Igaganulwa, Nkindwabiye, Ihusi, Byuna, Mwabuki, Nyaumata	4001-6000	21-30
Mean	**1715**	
Minimum	**850**	
Maximum	**5000**	

4.5.9 Relationship between people with secondary education and witchcraft killings

Table 35 shows the distribution of villages by people with secondary education and witchcraft related killings of old women. Result shows that the village with lowest people with secondary education is Isengwa with (44) and the village with highest people with secondary education is Luguru with (1000). The results reveal that the lowest average of people with secondary education is 101 and the highest average of people with secondary education is 217. It shows that the lower the average of people with secondary education the higher the witchcraft killings. The cut point of people with secondary education is 129.5 which is the mean hence villages with fewer people with secondary education than

the cut point are indicated in brackets. It reveals that more than 50% of surveyed villages had few people with secondary education. However, there were no statistical significant (P>0.05) between people with secondary education and witchcraft related killings.

Table 35: Relationship between people with secondary education and witchcraft killings

Associated villages	People with secondary education	Witchcraft killings
Sima, (Imalilo), Matale, Sanungu, (Isengwa), Nyangokolwa, Majahida, Ikinabushu, Nyakabindi,Old Maswa, (Bupandagila),Isanga, Nkindwabiye,(Bunamhala),Igaganulwa, Kilulu (Sengerema),Bumera, Habiya, Matongo, Ihusi Kashishi, Nyaumata, Mwabuki, Ng'wang'wali Giriku, Nkololo	0-300	0-10
Mwakibuga, Byuna	301-600	11-20
(Luguru)	>600	21-30
Mean	**129.5**	
Range	**995.0**	
St. deviation	**197.4**	
Minimum	**30.0**	
Maximum	**1000.0**	

4.5.11 Relationship between people who have not attained any education and witchcraft related killings

Table 36 shows the distribution of villages by people with no education and witchcraft related killings. People with no education in the study area mean people who do not know to read and write in any language. The cut point for people who have not attained any education is 940.9 which is the mean. Villages with people below the cut point are put in brackets. Result shows that the village with the lowest people who have absolutely not attained any education is Kilulu and the village with the highest people who have absolutely

not attained any education is Nkololo which is also the village with the highest witchcraft related killings, therefore the more the people who have not attained any education the lower the witchcraft related killings. This suggests that people who have absolutely not attained any education are likely to associate natural disasters with witchcraft, they may also not be in a position of knowing their rights hence scramble for resources is likely to occur whereby witchcraft accusations are likely to happen. It implies that there is significant association between the people who have absolutely not attained any education and the witchcraft related killings.

Table 36: Relationship between people who have not attained any education and witchcraft related killings

Associated villages	People who have not attained any education	Witchcraft killings
Sima, Imalilo, Matale, Sanungu, Isengwa, Byuna, Mwabuki, Luguru, Nyangokolwa, Majahida, Matongo, Ikinabushu, Ng'wang'wali, (Kilulu) Nyakabindi,Old Maswa, Bupandagila, Mwakibuga, Luguru, Nkindwabiye, Bunamhala, Igaganulwa,Ihusi, Isanga, Mwabuki Sengerema,Bumera, Habiya, Giriku Kashishi, Nyaumata	0-2000	0-10
Matongo	2001-4000	11-20
(Nkololo)	4001-6000	21-30
Mean	**940.7**	**13.3**
Range	**5974.0**	**27.0**
St. deviation	**1275.3**	**6.3**
Minimum	**20.0**	**3.0**
Maximum	**5994.0**	**30.0**

4.6 Relationship between Health Services Provision and Witchcraft Related Killings

Table 37 shows relationship between provision of health services and witchcraft killings. Health centre in this study referred to dispensary or health centre. Result shows that the village with lowest witchcraft killings is Sima and the village with the highest witchcraft killings is Nkololo. It could be probably, villages with no health centre people tend to go to traditional healers or witch doctors where they may be told their sickness is associated with witchcraft and immediate solution could be killing people who witch others. However, the chi-square test indicated statistically significant ($P<0.05$) association between health centre and witchcraft related killings.

Table 37: Relationship between health services provision and witchcraft related killings

Associate villages	Provision of health centre	Witchcraft killings	Quality of health services
Sima	There is no health centre	3	Better
Matale	There is no health centre	6	Good
Imalilo	There is health centre	8	Better
Sanungu	There is health centre	8	Better
Nyangokolwa	There is health centre	8	Better
Isengwa	There is health centre	6	Better
Majahida	There is no health centre	7	Better
Ikinabushu	There is health centre	9	Worse
Nyakabindi	There is health centre	10	Better
Old Maswa	There is no health centre	10	Better
Bupandagila	There is no health centre	4	Better
Ng'wang'wali	There is health centre	11	Better
Ihusi	There is health centre	16	Better
Nyaumata	There is no health centre	12	Better
Kashishi	There is health centre	14	Better
Matongo	There is no health centre	14	Good
Habiya	There is no health centre	15	Better
Bumera	There is no health centre	15	Better
Sengerema	There is health centre	17	Better
Igaganulwa	There is no health centre	11	Better
Bunamhala	There is health centre	19	Better
Nkindwabiye	There is health centre	11	Good
Mwakibuga	There is health centre	17	Don't know
Luguru	There is no health centre	20	Good
Byuna	There is no health centre	13	Better
Mwabuki	There is health centre	18	Better
Giriku	There is health centre	24	Better
Isanga	There is health centre	21	Better
Kilulu	There is no health centre	22	Good
Nkololo	There is no health centre	30	Better
Mean	**0.47**	**13.3**	
Range	**1.0**	**27.0**	
St. deviation	**0.5**	**6.3**	
Minimum	**0.0**	**3.0**	
Maximum	**1.0**	**30.0**	

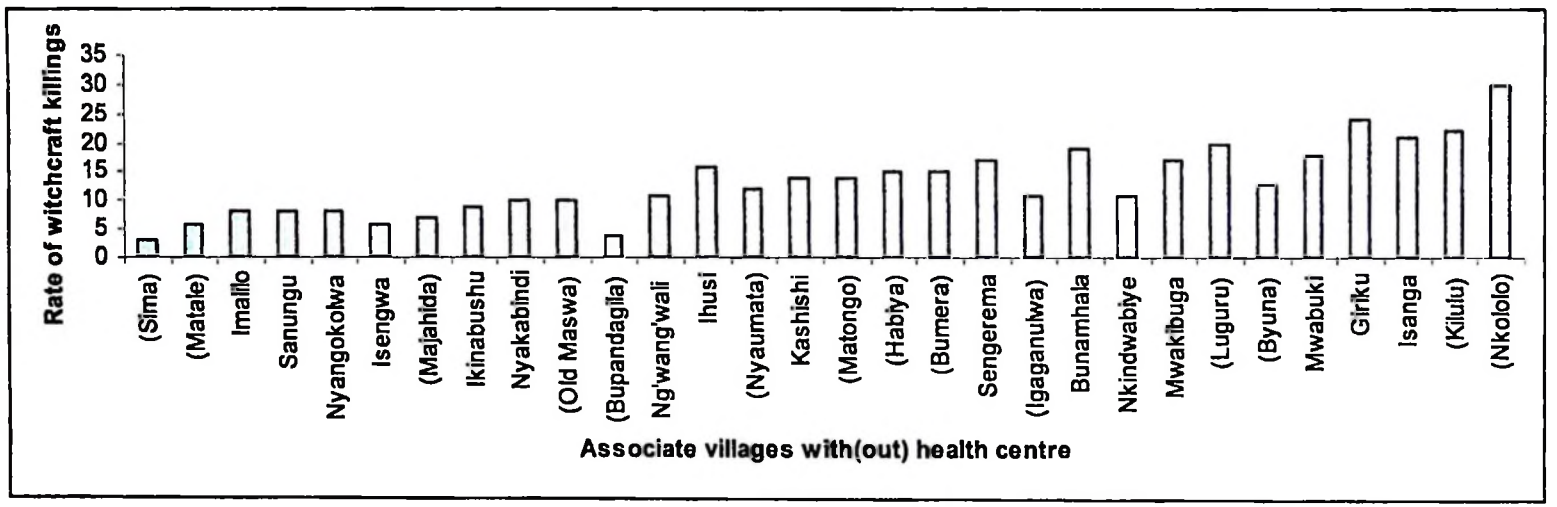

Figure 5: Relationship between health centre provision and witchcraft killings

4.6.1 Relationship between the quality of health services and witchcraft killings

Table 37 shows the distribution of villages by quality of health services and frequency of witchcraft related killings. It reveals that majority of villages indicated that the quality of health services provided is better. Very few villages which are Matale, Matongo, Luguru and Kilulu indicated that the quality of health services provided in good while the village put in bracket with star (Ikinabushu) indicated that the quality of health services is worse. It could be due to unsatisfactory of the services provided to the prevailing health centre. Despite of better quality of health services provided the rate of witchcraft killings increases this could be people do not attend to health centres rather they use herbs and sometimes go to traditional healers diviners (Wapiga ramli) to seek for the cause of their illness. Mesaki (1994) reported that witchcraft is usually held responsible for any calamity of misfortune sch as the sudden death of a health person.

4.6.2 Relationship between infant mortality rate and witchcraft related killings

Table 38 shows the distribution of villages by infant mortality rate and frequency of witchcraft related killings. The lowest infant mortality rate is (0.0%) and the highest infant mortality rate is (5%) at Nkindwabiye village, the cut point is 0.4 which is the mean. Therefore, villages which are put in brackets indicates that the rate of infant mortality is higher than the cut point as well the rate of witchcraft killings is higher with the range of (11-20) killings. Figure 17 show that infant mortality rate increases at increasing rate of witchcraft killings. It could be due to consultation of a diviner (kisukuma nfumu; kiswahili mpiga ramli) where people go to find the causes of the disease and deaths, eventually the solution could be a revenge by witchcraft killings as the answer to host the problem. It

implies that there is statistical relationship between infant mortality and witchcraft killings.

Table 38: Relationship between infant mortality rate and witchcraft related killings

Associated villages	Infant mortality rate (%)	Witchcraft killings
Sima, Imalilo, Matale, Sanungu, Isengwa Nyangokolwa, Majahida, Ikinabushu, Nyakabindi,Old Maswa, Bupandagila, Bunamhala, Igaganulwa, Ng'wang'wali, Ihusi,Nyaumata, Kashishi, Matongo, Habiya, Bumera, Sengerema, Mwakibuga, Luguru, Mwabuki, Giriku, Isanga, Kilulu, Nkololo	0-2	0-10
Byuna	2.1-4	11-21
Nkindwabiye	4.1-6	21-30
Mean	**0.4**	**13.3**
Range	**5.0**	**27.0**
St. deviation	**1.1**	**6.3**
Minimum	**0.0**	**3.0**
Maximum	**5.0**	**30.0**

4.7 Relationship between Poor Households and Witchcraft Related Killings

Table 39 shows the distribution of villages by poor households and the frequency of witchcraft related killings. The cut point for village with very poor households is 83.4 which is the mean. Villages which have more poor households than the cut point are indicated in brackets. Figure 7 show that villages with more poor households their rate of witchcraft killings is also higher, it could be probably the action of killing can be taken as a source of income to poor people as it was also revealed in the FGD that who kills

witches are being hired. The result corresponds with the earlier assumption that more killings are likely to happen to people who are absolutely poor. This supports the findings by Mesaki (1994) that people who are accused of witchcraft are poor.

Table 39: Relationship between poor households and witchcraft related killings

Associated villages	Poor households	Witchcraft killings
Mwakibuga, Nkindwabiye	0-40	0-10
Ng'wang'wali, Kashishi, Mwabuki, Byuna, Isanga, Nkololo, Sima, Matale, Sanungu, Isengwa, Majahida, Ikinabushu, Bupandagila	41-80	11-20
Ihusi, Nyaumata, Matongo, Habiya, Sengerema, Igaganulwa, Luguru,Bumera, Giriku, Kilulu Imalilo, Nyangokolwa, Nyakabindi, Old Maswa, Bunamhala	81-120	21-30
Mean	**83.4**	**13.3**
Range	**83.0**	**27.0**
St. deviation	**19.4**	**6.3**
Minimum	**17.0**	**3.0**
Maximum	**100.0**	**30.0**

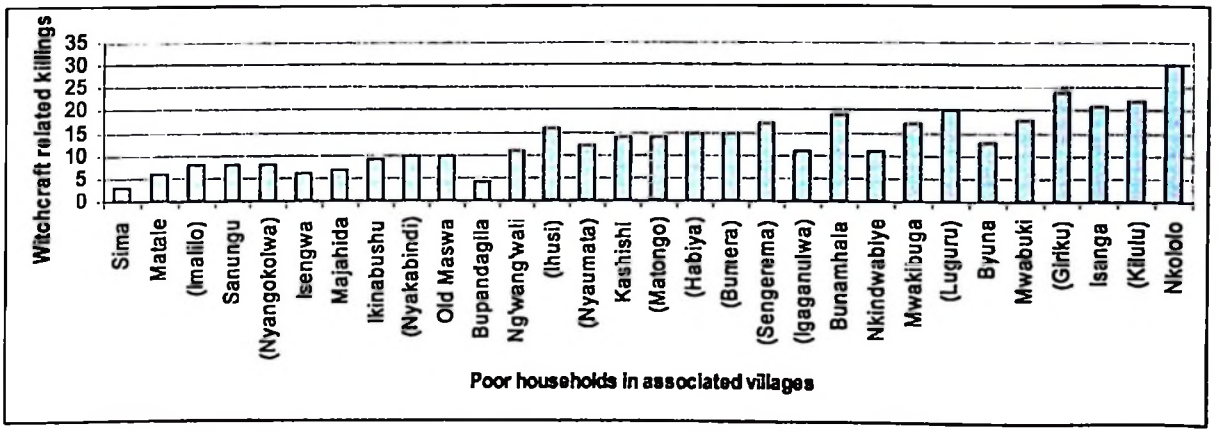

Figure 6: Relationship between poor households and witchcraft killings

4.8 Relationship between Natural Calamities and Witchcraft Related Killings

Table 40 shows distribution of villages showing type of natural calamities and witchcraft related killings in the villages. It was indicated that all the villages had experienced natural calamities but famine had the highest frequency while drought had the lowest frequency, it reveals that more than 50% of villages which experienced famine have higher killings of 21-30. The implications of these findings are that natural calamities might have been contributed much to the high rate of witchcraft related killings. This support the findings by Miguel (2003) that witch murders were concentrated in years where the region experienced floods or drought.

Table 40: Relationship between natural calamities and witchcraft related killings

Associated villages	Type of natural calamity	Witchcraft killings	Category of killings
Sima	Drought	3	0-10
Matale	Famine	6	
Imalilo	Drought	8	
Sanungu	Famine	8	
Nyangokolwa	Drought	8	
Isengwa	Famine	6	
Majahida	Famine	7	
Ikinabushu	Famine	9	
Nyakabindi	Famine	10	
Old Maswa	Drought	10	
Bupandagila	Drought	4	
Average		7	
Ng'wang'wali	Drought	11	11-20
Ihusi	Drought	16	
Nyaumata	Famine	12	
Kashishi	Drought	14	
Matongo	Famine	14	
Habiya	Famine	15	
Bumera	Famine	15	
Sengerema	Famine	17	
Igaganulwa	Famine	11	
Bunamhala	Drought	19	
Nkindwabiye	Famine	11	
Mwakibuga	Drought	17	
Luguru	Drought	20	
Byuna	Famine	13	
Mwabuki	Famine	18	
Average		**14**	
Giriku	Drought	24	21-30
Isanga	Drought	21	
Kilulu	Drought	22	
Nkololo	Famine	30	
Average		**24**	

Table 41: Relationship between natural calamities and category of witchcraft killings

Category of witchcraft killings	Famine			Drought		
	Freq.	%age	Cum.	Freq.	%age	Cum.
0 – 10	6	20.0	20	5	16.7	16.7
11 – 20	9	30.0	50	6	20.0	36.7
21 – 30	1	3.3	53.3	3	10.0	46.7

Moreover, Figure 8 shows the relationship between the type of natural calamity and the rate of witchcraft killings. It reveals that for villages where drought was experienced the trend for witch killing was tremendously increasing while where famine was experienced the rate of witchcraft killings was fluctuating as indicated in Figure 8. Escalating of the witchcraft killings in relation to natural calamities supports the findings by Mesaki (1994) that witchcraft in Sukumaland may be held responsible for almost any calamity or misfortune such as sudden storms on the lake, the sudden death of a healthy person, miscarriages and infertility, the failure of rain, death from snake bite, losing one's way, and various diseases.

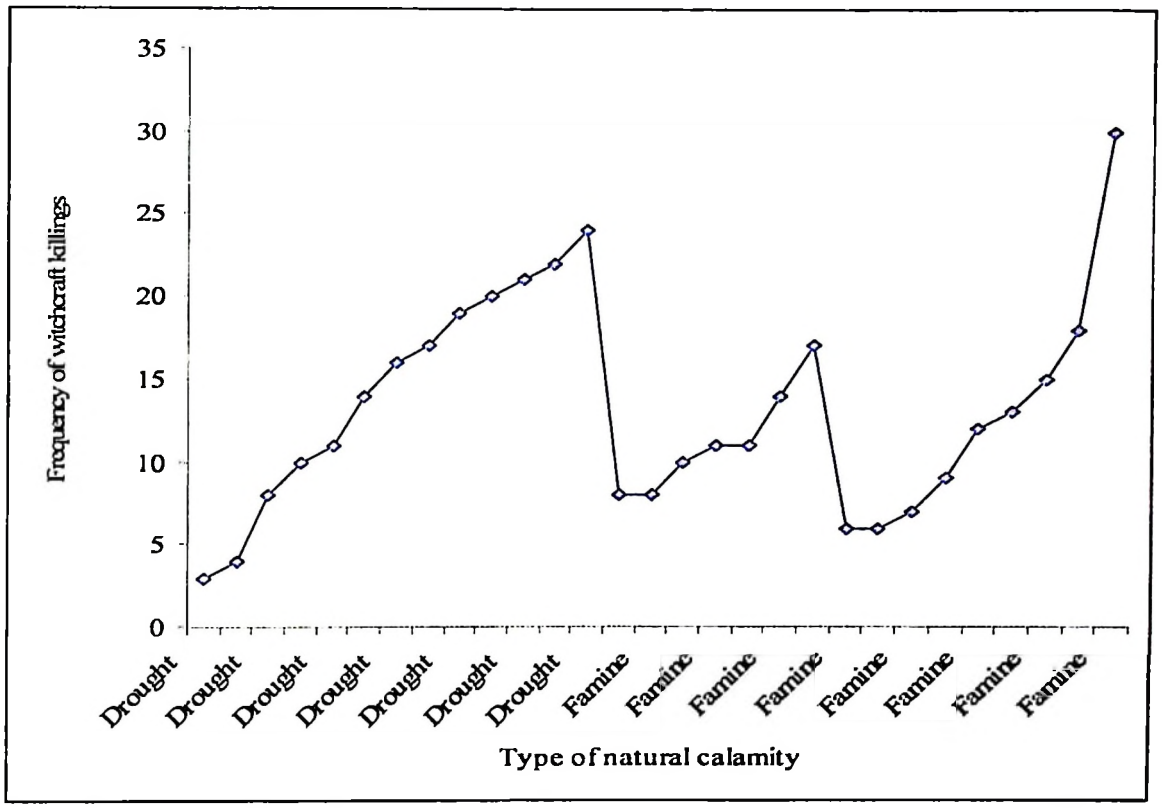

Figure 7: Relationship between natural calamity and rate of witchcraft killings

4.9 Relationship between number of conflict of land/livestock and witchcraft killings

Table 42 shows distribution of villages by number of conflict on land and livestock and witchcraft related killings in the villages. It was indicated that all the villages had experienced scrambling for resources on either land or livestock. It also reveals that the village with the highest number of conflicts is Nkololo with 5 conflicts while the village with lowest number of conflicts is Nyangokolwa with 1 conflict. The lowest average number of conflicts is 2 and the highest average is 4, while the overall average is 3 conflicts. Although scrambling for resources like land or livestock seem not to be high in some villages but the implications might have a direct effect on the killings of old women, this is vividly shown from the result that the higher the average number of conflicts the higher the average number of witchcraft related killings.

Table 42: Relationship between number of conflict of land/livestock and witchcraft killings

Associated villages	Number of conflicts	Witchcraft killings	Category of killings
Sima	3	3	0-10
Matale	2	6	
Imalilo	2	8	
Sanungu	3	8	
Nyangokolwa	1	8	
Isengwa	3	6	
Majahida	2	7	
Ikinabushu	2	9	
Nyakabindi	3	10	
Old Maswa	3	10	
Bupandagila	2	4	
Average	**2**	**7**	
Ng'wang'wali	2	11	11-20
Ihusi	3	16	
Nyaumata	3	12	
Kashishi	2	14	
Matongo	4	14	
Habiya	2	15	
Bumera	2	15	
Sengerema	3	17	
Igaganulwa	4	11	
Bunamhala	2	19	
Nkindwabiye	3	11	
Mwakibuga	3	17	
Luguru	3	20	
Byuna	2	13	
Mwabuki	2	18	
Average	**3**	**14**	
Giriku	4	24	21-30
Isanga	3	21	
Kilulu	4	22	
Nkololo	5	30	
Average	**4**	**24**	
Mean	**2.7**	**13.3**	
Range	**4.0**	**27.0**	
St. deviation	**0.9**	**6.3**	
Minimum	**1.0**	**3.0**	
Maximum	**5.0**	**30.0**	

4.10 Relationship between Provision of Churches or Mosques and Witchcraft Related Killings

Table 43 Shows the distribution of villages by provision of churches or mosques. The findings that there is high percentage of more than 90% of churches and mosques. The results contradicts findings by Miguel (2003) that witchcraft beliefs are strong in ethnically Sukuma western Tanzania (Sukumaland), where a large proportion of the population follows traditional religions and have never adopted Christianity or Islam. The results imply that not all the people who worship to these places (mosques and churches), this was vividly presented by 6.7% of the villages which indicated that there are no churches or mosques. However, for villages which indicated that no churches or mosques when were asked where they do worship they indicated that they worship to the graves of their ancestors. However, the goodness of fit chi-square test indicated statistical significant association ($P<0.05$) between religion affiliation and witchcraft related killings.

Table 43: Distribution of villages by provision of churches or mosques

Parameter	(N = 30)	
Are there any churches or mosque in the village	**Frequency**	**Percentage**
Yes	28	93.3
No	2	6.7
Total	**30**	**100**

Table 44 shows the distribution of villages if there are churches of mosques and the witchcraft related killings. The findings that witchcraft related killings increases despite the availability of churches and mosques where people go to worship and sometimes being preached that killing is a sin.

Table 44: Distribution of villages if there are churches or mosques and the rate of witchcraft killings

	Are there churches/mosque in the village	Frequency of witchcraft related killings
Sima	yes	3
Matale	yes	6
Imalilo	yes	8
Sanungu	yes	8
Nyangokolwa	yes	8
Isengwa	yes	6
Majahida	yes	7
Ikinabushu	yes	9
Nyakabindi	yes	10
Old Maswa	yes	10
Bupandagila	yes	4
Ng'wang'wali	yes	11
Ihusi	yes	16
Nyaumata	yes	12
Kashishi	yes	14
Matongo	yes	14
Habiya	yes	15
Bumera	yes	15
Sengerema	yes	17
Igaganulwa	yes	11
Bunamhala	yes	19
Nkindwabiye	yes	11
Mwakibuga	yes	17
Luguru	yes	20
Byuna	yes	13
Mwabuki	yes	18
Giriku	yes	24
Isanga	yes	21
Kilulu	no	22
Nkololo	no	30

4.10 Analysis of Factors Contribution to Witchcraft Related Killings

The analysis of factors contributing to the witchcraft related killings has been undertaken using probit model as described in section 3.9 Chapter III. Probit regression model was used in order to test how factors contribute to the witchcraft killings (when considered

simultaneously). Empirical results of the probit regression analysis are presented in Table 45. The model was statistically significant (P = 0.000) as suggested by the likelihood ratio test. Results show that education and health services provision were significant predictors (P<0.05) of witchcraft related killings. Similarly, for poverty level of the village and scramble for resources were statistically significant (P<0.05). The effect of other variables like children under five years death rate, infant mortality rate and natural calamity included in the model were not significant (P>0.05). The goodness of fit of the model is relatively high as measured using Pseudo R^2 of 86%. This shows that the variables included in the model explain 86% of more killings to occur.

Table 45: Results of the probit analysis

Variable	Coefficients	Standard Error	P value
EDU	-0.0110193	0.0119823	0.036
HEALTH	-1.937234	4.060292	0.063
RELIAFILAT	0.740747	1.296344	0.570
U5DEATH	18.20582	23783.71	0.999
POV	0.5505647	0.4047258	0.017
SCRAMBLE	0.9470745	1.418524	0.050
INFANTMORT	6.330781	12356.79	1.000
NATURALCALAM	-0.0468527	0.0446334	0.294
Cont-	-46.18948	34.70098	
Performance indicators for the probit model			
LR-Chi^2(7)	33.06		
Prob > chi^2	0.0000		
Pseudo R^2	0.8657		
Likelihood ratio	-2.5649167		

The coefficient for education (EDU) is statistically significant (P<0.05) with a negative sign which shows that there is inverse relationship with witchcraft killings. This implies that the more educated people the less the witchcraft killings.

Health provision (HEALTH) was found to be statistical significant ($P<0.05$). This suggests that with health services provision at reasonable cost of treatment people will be convinced to go to health centre instead of going to traditional healers/diviners who tell people that why they have been bewitched by others.

Religion affiliation (RELIAFILAT) had no significant influence ($P>0.05$) on the witchcraft killings. However, the coefficient of religion affiliation was positive implying that commitment to modern religion had unfavourable influence on witchcraft related killings.

Children under five death rate (U5DEATH) was not significant predictor ($P>0.05$) of witchcraft related killings. However, since the coefficient for children under five years deaths was positive, it indicates that the probability of witchcraft killings do increase with the children under five years death rate.

The coefficient of poverty (POV) agrees with a *priori* expectation that poverty level contributes to the killings of old women. Poverty was found to be statistical significant ($P<0.05$). This suggests that poor household might be hired for killing action and being paid for that, and therefore killing of witchcraft can be a source of income.

Scramble for resources (SCRAMBLE) like land and livestock was found to have positive relationship with witchcraft killings as expected and its coefficient was significant ($P<0.05$). This suggests that villages with more scrambling for resources have higher probability of having more conflicts and the rate of killings is probably high.

The coefficient of infant mortality (INFANTMORT) was found to have positive coefficient but no statistical association with witchcraft related killings. These results have a relationship with the results obtained from cross tabulation between infant mortality rate and frequency of witchcraft related killings, where there was no significant association (P>0.05).

The coefficient of natural calamity (NATURALCALAM) was not significant (P>0.05) and negatively related with witchcraft related killings as expected. This suggests that villages with natural calamity have a higher probability of having more killings because people do not believe on natural calamities, the effect of natural disasters is sometimes being associated with witchcraft beliefs hence people may be killed being suspected on the effects.

4.11 Suggestions on the initiatives to stop witchcraft killings

Villagers were asked to give their opinion on the initiatives that should be taken to ensure killings of elderly are stopped. Among other suggestions the following were indicated; village land dispute committee should not side to some people because it accelerates the conflict among individuals, education on the effects of killings should be provided to community, religious leaders should preach to stop the killings, sungusungu should take their responsibilities, education on various diseases should be provided, health centre should be provided, traditional healers should be educated, organizations that advocacy to stop killings should educate the community, children should be brought to school, traditional songs which condemn the witchcraft killings should be used to stage show and deliver the message, education on inheriting should be provided. Suggestions obtained from Focus Group Discussion (FGD) also revealed the same trend. Majority of FGDs members indicated that, education on the effects on killings should be provided to community.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

The main objective of the study was to investigate factors contributing to the killings of old women in Bariadi district. More specifically the study intended to achieve the following objectives (i) To examine education status of the village and witchcraft related killings of old women; (ii) To compare relationship between witchcraft related killings of old women and health services provision in the study area; (iii) To examine education status of the village and witchcraft related killings of old women; (iv) To compare relationship between witchcraft related killings of old women and health services provision in the study area; (v) To determine the relationship between witchcraft related killings of old women and poverty level of the village; (vi) To determine the relationship between natural calamities in the village and witchcraft related killings; (vii) To determine the relationship between witchcraft killings of old women and traditional beliefs of the village; (viii) To determine the relationship between witch related killings and scramble for land/ livestock in the village.

5.1 Conclusions

5.1.1 Factors contributing to witchcraft related killings

(i) Based on the probit analysis, factors that contribute to the killings of old women in Bariadi District can be categorized into two. On the basis of categorization, it can be concluded that, killings of old women is highly contributed by factors like education status of the village, health services provision, poverty level and scramble for resources like land and livestock.

On the other hand, infant mortality rate, under five mortality, religion affiliation and natural calamity are factors that have little influence to the contribution of witchcraft killings.

(ii) Villages with more people who have absolutely not attained any education the frequency of witchcraft killings was higher, it can be further concluded that people who have not attained any education are more likely to have more belief on witchcraft which is determined to be the source of killings of old women.

(iii) From the analysis the results revealed that majority of villages have either churches or mosques, but the rate of killings is increasing, the researcher is not convinced that religiosity has a strong influence over killings. It can be concluded that increasing of more killings imply that people are not committed to their religiosity.

(iv) Under five deaths was very lowly increasing that has no significant contribution to witchcraft killings. Among other factors the low rate of under five mortality could be due to health services provided to villages. This suggests that the low rate of deaths of children under fives years had led to decreasing of killings than ever it could be with higher deaths.

(v) Killings are much associated with poverty level, which is more likely to occur to villages with more poor households. However, even at the situation where there were less people who are poor the rate of killings was increasing, it can

be concluded that, poverty is a factor which positively cause witchcraft related killings.

(vi) Scramble for resources were significantly higher that contributed to more killings of old women. This suggests that, scramble for resources have direct effect to the killings of old women due to increased number of conflicts among the relatives who plundering or confiscating the property of the deceased husband. It can be further concluded that, the denied rights for women to inherit resources like land or livestock are the source of conflicts and eventually killings.

(vii) Natural calamity had significantly contribution to the witchcraft related killings. It can be concluded that people don't believe on natural calamities, whereby the effects of natural disasters are sometimes associated with witchcraft beliefs probably people are killed being suspected on the effects.

(viii) Traditional belief on witchcraft had made people resort to consulting traditional healers who often just tell them what they want to hear. It can be concluded that killings of old women will continue unless people change their attitudes towards witchcraft and realize the value of elderly people in the society.

(ix) The existence of Witchcraft Ordinance in Tanzania is not well known to traditional healers and militias whereby they can be prosecuted and sentenced for their crimes.

There should be purposely efforts in addressing the causes, symptoms and effects of witchcraft allegations which lead to the victimization and eventually killing of old women. There is need therefore to continue with the momentum in increased focus on the causes of the problem rather than the outcome itself in order to completely eliminate the killings of old women in Bariadi district.

5.2 Recommendations

In the view of the major findings and conclusions of the study, the following recommendations for policy and action can be made in order to alleviate the witchcraft related killings of old women if not to eradicate it in Bariadi district.

i. **Strengthening education, awareness creation and sensitization to community**

Low education status of the village was found to be a factor contributing to the witchcraft killings as reflected that villages with more households who have absolutely not attained any education had higher killings. This suggests the important role of education to community, awareness raising and sensitization as will enable community to have broader understanding of ageing issues, victimization and effects of witchcraft killings of old women and open up discussions on how to deal with the problem.

ii. **Improving health services**

The study found that some villages don't have health center, it is advisable that the government should increase health center and strengthen service provision at

health centers and dispensary level so as to bring closer to the people all necessary services.

iii. Enforcement of by-laws

The percentage of by-laws implementation in majority of villages was very discouragingly low. The acceleration of killings could be due to among others, lower by-law support in the study area. This suggests need for village government's by-laws to be strictly enforced and functional. It can be further suggested that effective awareness creation is important taking into consideration that killing is a criminal offense.

iv. Change in attitudes toward older people

Two main recommendations can be drawn from change in attitudes toward older people.

i) Education should be provided so as to have increased community recognition of old people as individuals who deserve their rights in the community.

ii) Village governments should form 'Protection Forces' to ensure safety of accused older people in their villages. Protection forces should include community leaders, the local militias (sungusungu) as well as religious institutions. One of the responsibilities of protection forces should be to determine threatening people who are suspected culprits and take required action.

v. **Increased partners' net-works with NGOs, CBOs CSOs, local government and religious institutions**

Networks should be established or strengthened with other organizations in the district thereby creating wider forums for discussing and achieving greater publicity of issues related to witchcraft killings.

vi. **Harmful believes and practices which lead to intimidation and victimization of old women should be challenged through:**

i) Awareness raising and training of community mobilizers

ii) Community sensitization through cultural groups and local media sensitization enabling them to highlight killing issues in their media.

vii. **Awareness campaigns on heritage**

It has been found that conflicts on scrambling for resources like land and livestock was a factor contributing to the witchcraft related killings. The people who are more killed are women than men. Ensuring sensitization campaigns on the rights for women to inherit will reduce the problem.

viii. **Strengthening traditional media**

The use of traditional media in particular traditional dances by kisukuma vernicular will be able to draw many audiences to meetings and public addresses about elimination of old women killings.

ix. Improving e conomic well being

Poverty was found to be a factor contributing in the witchcraft related killings of old women. The central and local government need to provide assistance on formulation of either SACCOS or small groups of farmers or businessman and provide to them adequate knowledge and financial assistance so as to make them have access to income.

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APPENDIXES

Appendix 1: Questionnaire

INTERVIEW SCHEDULE ON THE ANALYSIS ON FACTORS THAT CONTRIBUTE TO THE KILLINGS OF ELDERLY WOMEN IN BARIADI DISTRICT

GENERAL IDENTIFICATION VARIABLES

1. Date of interview ----------
2. Name of interviewer ----------
3. Name of respondent ----------
4. Respondent's number ----------
5. Village ----------
6. Ward ----------
7. Division ----------
8. District ----------

GENERAL VILLAGE INFORMATION

9. What is the total population of this village
   ----

10. What is the number of
    males ----------

    females ----------

11. What is the total number of households in this village

    ----

12. What is the distance of the village from the district headquarter in Km----------

    1= Below 5 km
    2= 5 or more km [ ]

A. EDUCATION STATUS OF THE VILLAGE

13. How many primary schools do you have in this village ----------

14. What is the enrolment rate of the village----------

15. For those not enrolled give reasons ----------
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16. What is the illiteracy rate of the village ----------

17. What is the drop out rate of the village----------

18. School drop out rate

How many pupils are going to school	How many are not going to school	Reasons for not going to school

19. Do you have enough teachers in your village?
1= Yes
2= No [ ]

20. What is the total number of population with the following level of education in the village
1= Population with adult education ----------
2= Population with primary education ----------
3= Population with secondary education----------
4= Population with college education ----------
5= Population with university ----------
6= People who have absolutely not attained any education----------
7= Others (specify) ----------

21. Circle one number based on whether you strong agree (SA), agree (A), undecided (UD), disagree (DA), or strongly disagree (SD) with the statement.
Please say how do you feel towards education in your village

Statements	SA	A	UD	D	SD
I don't think that education is useful to the village	5	4	3	2	1
Education cannot help me to learn new skills	5	4	3	2	1
Education cannot improve my living standard in the village	5	4	3	2	1
Its not important to enrol children to school in our village	5	4	3	2	1
Education is useful to the village	5	4	3	2	1
There is a need of enrolling children to school in our village	5	4	3	2	1
Education can help me to learn new skills	5	4	3	2	1
Education can improve living standard in the village	5	4	3	2	1

B. HEALTH CENTRE PROVISION IN THE VILLAGE

22.Do you have health centre in this village?
1= Yes
2= No [ ]

23. If No, how far is the health centre from your village? In (Km)---------
1= Below 5 km
2= 5 or more km [ ]

24. Are there any costs incurred to the hospital related to caring of sick persons?
1= Yes
2= No [ ]

25. Do you go to institutional health services when you fall sick?
1= Yes
2= No [ ]

26. If Yes, what is the quality of health services?
1= Good
2= Better
3= Worse
4= I don't know [ ]

27. If No, why ---------- [ ]
1= Too high costs
2= Bureaucracy
3= Poor medical services [ ]

28. If you don't go to the institutional health facility, where do you go when you get sick
1= Traditional healer
2= Herbalists/use herbs
3= Diviner [ ]

29. Do you think high costs of medical care contributes you go to the traditional healer?
1= Yes
2= No [ ]

C. INFANT MORTALITY RATE OF THE VILLAGE

30. What is the infant mortality rate of this village ----------

31. What causes more disease and death of infants in your village?
1= Absence of medical care
2= Environmental destruction
3= Wizard

4= Nutrition problem
5= Unknown
6= Other (specify) [ ]

32. Which disease kills more infants in the village

D. UNDER 5 MORTALITY RATE OF THE VILLAGE

33. What is the under 5 mortality rate of this village ----------

34. What are the most diseases that attack under 5 children
    1. Malaria [ ]
    2. Measles [ ]
    3. Typhoid [ ]
    4. Diarrhoea [ ]
    5. Malnutrition [ ]
    6. Cholera [ ]
    7. HIV/AIDS [ ]
    8. Other (specify)---------- [ ]

E. POVERTY STATUS OF THE VILLAGE

35. What is the main occupations of this village
    1= farming (peasant/cattle keepers)
    2= salary/wages employee
    3= business
    4= other (specify) ---------- [ ]

36. Is the income enough for households for their daily expenditure in this village?
    1= Yes
    2= No [ ]

37. Do the village have enough food to feed households for the whole year?
    1= Yes
    2= No

38. What is the total number of absolutely poor households in this village? ----------

39. What is the total number of poor households in this village? ----------

40. What is the total number of rich households in this village? ----------

F. NATURAL CALAMITIES/DISASTERS OF THE VILLAGE

41. Have you ever experienced any natural calamities in this village in the last ten years?
    1= Yes
    2= No [ ]

42. If Yes, rank the seriousness of the problem
    1= very serious problem
    2= moderate
    3= minor [ ]

43. Mention type of natural calamities which you have experienced
    1= drought [ ]
    2= floods [ ]
    3= famine [ ]
    4= locusts [ ]
    other (specify) ---------- [ ]

G. BELIEF IN WITCHCRAFT

44. Do people in this village believe on witchcrafts?

45. Does the village have witches?
    1= Yes
    2= No [ ]

46. Is the illness and death of some people caused by witches in this village?
    1= Yes
    2= No [ ]

47. How do people identify witches in the village
    1= By looking at the eyes
    2= After people being told by the witch doctor [ ]

48. Who are mostly witch in the village
    1= Old men
    2= Old women
    3= Both old women and young women
    4= Old women and old men
    5= Old men and young men
    6= Other (specify) [ ]

49. If someone dies in the village, do some people say that the death has been caused by witchcraft?
    1= Yes
    2= No [ ]

50. What do they comment to somebody who has caused death
    1= Killing the witch
    2= Alienating him/her from the village
    3= Other (specify) [ ]

51. Who take the action of the witchcraft killings in the village
    1= Young men 15 – 45 years of age
    2= Old men 45 – 70 years of age
    3= other (specify) [ ]

[ ]

52. If the family of someone who has died believe that the death has been caused by witchcraft, what action do they take to the one who has caused death in your village?----------

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53. At what time does the action of killing the witch take place in your village?
    1= during the day
    2= during the night
    3= Both night & day [ ]

54. Do you know any organization which advocacy to stop the killings of old women?
    1= Yes
    2= No [ ]

55. If Yes, mention them 1.---------- 2.----------
    3= ----------

56. Circle one number based on whether you strong agree (SA). agree (A), undecided (UD), disagree (DA), or strongly disagree (SD) with the statement.

Statements	SA	A	UD	D	SD
It is assumed that once witches are eliminated then misfortune will cease in the village	5	4	3	2	1
If you kill a witch it is not really considered a crime	5	4	3	2	1
Killing a witch is to get rid of her/him on the aggressive behaviour s/he deserves in the village	5	4	3	2	1
Killing of witches are steps that are expected to will deter other witches from practicing	5	4	3	2	1
Killing witches is culturally acceptable because you are doing something for the community in the village	5	4	3	2	1

57. Is there a by-law in the village that prevent witches from being killed?
    1= Yes
    2= No [ ]

58. If yes, rank the level of strictness on the follow up on the by law
    1= very strict [ ]
    2= moderate [ ]
    3= not strict [ ]

H. SCRAMBLING FOR RESOURCES (LAND/LIVESTOCK) IN THE VILLAGE

59. Have you ever experienced a conflict on land/livestock in this Village?
    1= Yes
    2= No [ ]

60. If Yes, what was the solution on that conflict?
    1= given another land
    2= the case is in the court
    3= the one who was involved in the conflict was dead
    4= no solution (still in conflict)
    5= other (specify)---------- [ ]

61. Can conflict be the source of witchcraft killings
    1= Yes
    2= No [ ]

I. RELIGION AFFILIATION OF THE VILLAGE

62. What are religions that are found in this village
    1= Christian
    2= Muslim
    3= Traditional
    4= Other (specify) [ ]

63. Are there any churches or mosques in your village?
    1= Yes
    2= No [ ]

64. If No, where do people worship in this village----------

65. What is your opinion/suggestions on the initiatives that should be taken to ensure witchcraft related killings is stopped? ----------
---

Thank you very much for your cooperation

INTERVIEW SCHEDULE FOR GUIDING FOCUSED GROUP DISCUSSION

WELL BEING CRITERIA OF THE VILLAGE

- Major economic activities in the village
- Indicators of well-being of a person in the village
- The attributes of a rich household, poor household and a very poor household based on the above indicators
- Main assets owned by very poor household in the village
- Main assets owned by very rich household in the village

WITCHCRAFT RELATED KILLINGS IN THE VILLAGE

- Causes to the killings of elderly women in the village
- How can you identify a witch in the village
- Do you think witches should be eliminated from the village
- Why do you think witchcraft should be eliminated from the village
- Existence of any NGO/CBO or government project dealing with stopping witchcraft related killings in this village
- Any suggestions on measures to stop witchcraft related killings in this village

Thank you very much for your cooperation

Appendix 2: Guidelines

GUIDELINES FOR THE INFORMAL AND KEY INFORMANTS SURVEY

1. Can you mention various factors that contribute to the witchcraft related killings in this village? by classifying into 5 if the factor is very high contributing, 4 if just highly contributing, 3 if moderately contributing, 2 if lowly contributing and 1 if negligibly or completely not contributing

Factors contributing to the killings of elderly in the village	**Level of contributing**
Low level of education of the village	
Unavailability of health centre in the village	
Conflicts among relatives within the village	
Poverty of people in the village	
Infant mortality rate of the village	
Scramble for resources in the village	
Other	

2. The role by government in ensuring the killings of elderly is stopped in this village and rank their level of involvement by putting 5 if very highly involved, 4 if highly involved, 3 if moderately involved, 2 if lowly involved, and 1 if negligibly or not involved

Role played by government in stopping killings of elderly	**Level of involvement**
Enforcement of by laws and regulations	
Awareness creation on the by laws to communities	
Taking actions against the suspects	
Taking to court those who are involved in the killings	
Increasing community participation in identifying the killers	

3. Is there existence of any NGO/CBO/government projects dealing with prohibiting elderly women from being killed in the village?

4. What is the frequency of occurrence of killings in the village?

5. What are the strategies to overcome the killings of elderly women in the village?

Thank you very much for your cooperation