

**INFLUENCE OF KHAT (MIRAA) PRODUCTION, TRADE AND CONSUMPTION
ON PRIMARY SCHOOL DROPOUT AMONG THE BOYS IN KANGETA DIVISION,
IGEMBE SOUTH DISTRICT, KENYA**

LUCY KAREGA NJERU

**A Thesis Submitted to Graduate School in Partial Fulfillment of the Requirements for
the Award of the Degree of Master of Science in Agricultural Education of Egerton
University**

EGERTON UNIVERSITY

FEBRUARY, 2013

DECLARATION AND RECOMMENDATION

Declaration

I declare that this research thesis is my original work and has not been previously submitted for award of a degree in this or any other University.

Signature.....

Date.....

Lucy Karega Njeru

EM11/3000/11

Recommendation

This research thesis has been submitted for examination with our approval as the university supervisors.

Signature.....

Date.....

Prof. John Gowland Mwangi

Department of Agricultural Education and Extension

Egerton University.

Signature.....

Date.....

Dr. Jacob J. J. Ochieng Konyango

Department of Agricultural Education and Extension

Egerton University.

ACKNOWLEDGEMENTS

I sincerely thank my creator, the almighty God who has always given me the physical, mental and good health to undertake and accomplish this task. Very special thanks to my supervisors Prof. John Gowland Mwangi and Dr. Jacob J. J. Ochieng Konyango, for the enthusiasm with which they provided support, advice and constructive critical comments as well as the unconditional sacrifices they made towards the success of this work. Their valuable and continuous guidance towards this work are highly appreciated. My special thanks are also directed to the administration of Egerton University and the Director of the Board of Post-Graduate studies, Prof M. A. Okiror for granting me the opportunity to advance my studies and knowledge in the university. I acknowledge with gratitude the support from my dear husband George Kiunga who saw the value of education, always reminded me that I should complete my studies on time; and supported me unconditionally. I am also grateful to my children Lorna, lenny and Lynn for their continued encouragement that kept me going over every academic bridge. My very deep appreciations go to sisters and brothers especially Philip, Mercy and Diana who tirelessly encouraged me to complete this work. Thanks for your prayers and encouragement. Finally, I wish to sincerely thank many other people who contributed in many small but significant ways, and whose names I may not have mentioned. You all contributed to the success of this work. God bless you all.

DEDICATION

This study is dedicated to my dear husband George Kiunga for his unconditional support; my children Lorna, Lenny and Lynn for many sacrifices and patience during my study; my father Zachary Njeru and my mother Sarah Njeru whose prayers, efforts and support were not in vain.

COPYRIGHT

All rights reserved. No part of this thesis may be produced, stored in any information retrieval system or transmitted in any form without prior written permission from the author or Egerton University.

Copyright © 2013, Lucy Karega Njeru.

ABSTRACT

Education for all is a global development need. Achievement of universal primary education is addressed by the second United Nations Millennium Development Goals (MDG). In a bid to achieve this goal, Kenya government initiated Free Primary Education (FPE) in January 2003. However, despite this effort, there has been educational wastage through declined enrolments and increased dropout rates, which are common phenomena in Kangeta Division, Igembe South District. The purpose of this study was to determine the influence of khat production, trade and consumption on primary school dropout among boys in the Division. The study focused on boys aged 6-16 years and was guided by 3 research questions. These were. does providing the required labour for khat production cause the primary school boys to drop out of school?; how does khat consumption by primary school boys influence boys' school dropout?; to what extent does khat trade by primary school boys influence their school dropout?. The study adopted a cross-sectional survey design. A sample size of 210 dropouts was used based on Balian's recommendation of having an average sample of 200 respondents adjusted by 10-15 % to cater for attrition. All the head teachers of the selected 10 schools were included in the sample to give a total of 220 respondents. Questionnaire and interview guide whose reliability coefficients were alpha 0.83 and 0.72 respectively were used for data collection. Validity of the instrument was ascertained by a panel of five experts from the department of Agricultural Education. Data was analyzed by a t-test and a chi-square test using the SPSS software package. Frequency tables and percentages summarized the results. The study findings indicated that the drop out of school among the primary school boys in the Division is as a result of providing cheap labour in miraa production. The findings revealed the effects of khat chewing to the behaviour of the user and it is this behaviour that causes the boys to drop out of school. The findings further indicated that the easy money these boys earn after engaging in khat business influence them to drop out of school. These findings of the study would be useful to the entire community, educationists and policy makers in finding ways of reducing the school dropout for the boys in Kangeta Division.

TABLE OF CONTENTS

	Page
DECLARATION AND RECOMMENDATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATION.....	iv
COPYRIGHT	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS AND ACRONYMS	xii
CHAPTER ONE	
INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	4
1.3 Purpose of the Study	4
1.4 Objectives of the Study	5
1.5 Research Questions	5
1.6 Significance of the Study	5
1.7 Scope of the Study	6
1.8 Limitation of the Study	6
1.9 Assumptions of the Study	6
1.10 Definitions of Terms	7
CHAPTER TWO	
LITERATURE REVIEW	8
2.1 Introduction.....	8
2.2 Importance of Education.....	8
2.3 Universal Primary Education (UPE).....	8
2.4 Free Primary Education (FPE) in Kenya	9

2.5 Production of Khat.....	11
2.6 Economic Importance of Khat.....	12
2.7 Socio-Cultural Importance of Khat.....	14
2.8 Labour in Khat Production and its Influence on Boys’ School Dropout.....	15
2.9 Khat Trade and Consumption and their Influence on Boys’ School Dropout.....	17
2.10 Mitigation against Khat Chewing by Youths.....	19
2.11 Theoretical Framework.....	20
2.12 Conceptual Framework.....	22

CHAPTER THREE

RESEARCH METHODOLOGY	24
3.1 Introduction.....	24
3.2 Research Design.....	24
3.3 Target Population.....	24
3.4 Sampling Procedures and Sample Size.....	24
3.5 Instrumentation	25
3.6 Validity	25
3.7 Reliability.....	26
3.8 Data Collection Procedure	26
3.9 Data Analysis	27

CHAPTER FOUR

RESULTS AND DISCUSSION	28
4.1 Introduction.....	28
4.2 Characteristics of the Respondents	28
4.3 Objective One	32
4.4 Objective Two.....	36
4.5 Objective Three.....	40
4.6 Mitigation Measures Suggested by Head Teachers	42
4.7 Youths’ Desire to Re – Enroll in School	42
4.8 How the School Dropouts Spent Money Earned from Khat Trade	43

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS	44
5.1 Introduction.....	44
5.2 Summary of the Study	44
5.3 Conclusions.....	46
5.4 Recommendations of the Study	47
5.5 Recommendations for Further Research.....	47
REFERENCES	48
APPENDIX A: Cover Letter for Head teachers	54
APPENDIX B: Head Teachers' Questionnaire	55
APPENDIX C: Interview Guide for the Primary School Dropouts	59
APPENDIX D: Enrolment in Primary Schools that were involved in the Study	61
APPENDIX E: Khat Plant.....	62
APPENDIX F: Meru North District Profile.....	63
APPENDIX G: Research Authorization from National Council for Science and Technology	64
APPENDIX H: Research Permit	65

LIST OF TABLES

Table 1. Enrolment of Pupils in Public Primary Schools in Kangeta Division 2004-2011.....	2
Table 2. Summary for Data Analysis.....	27
Table 3. Age Distribution of the Respondents.....	28
Table 4. Reasons for not Completing School	30
Table 5. Frequency of the Boys Engaging in Khat.....	30
Table 6. Perceptions of Head teachers on the Influence of Khat Production, Trade and Consumption on Boys School Dropout.	32
Table 7. Number and Percent of Boys at the Beginning of First Term and at End of Second Term (2012) in 10 Schools of Kangeta Division	33
Table 8. Paired t - test on the Mean Difference between the Boys That Enrolled and Those that Dropped out of School in Kangeta Division.....	34
Table 9. Paired t - Test on the Mean Difference between the Boys That Enrolled and Those that Dropped Out of the 8 Classes	34
Table 10. Reasons for Dropping Out of School.....	35
Table 11. Chi-square Test for the Different Reasons for Dropping out of School	366
Table 12. Frequency Distribution of Age at which the Boys Started Chewing Khat and When They Left School	36
Table 13. Class at Which the Boys started Chewing Khat and Class when they left School	37
Table 14. Chi-square Test on the Age at Which Dropouts Started Chewing Khat	388
Table 15. Chi-Square Test on the Age at Which Dropouts Left School.....	38
Table 16. Chi-Square Test on the Class at Which Dropouts Started Chewing Khat.....	399
Table 17. Chi-Square Test on the Class at Which Dropouts Left School.....	39
Table 18. Ways in which Khat lead to School Dropout by Boys	40
Table 19. Causes of School Dropout	40
Table 20. Activities Which School Dropouts Are Currently Engaged in.....	41
Table 21. Chi-Square Test Comparing the Dropout Activities.....	422
Table 22. Mitigation Measures Suggested by Head Teachers	42
Table 23. Youths Desire to Re-enroll in School	433
Table 24. How the School Dropouts spent Money earned from Khat Trade	43

LIST OF FIGURES

Figure 1. Influence of Khat production, Trade and Consumption on Primary School Dropout by the Boys in Kangeta Division.	23
Figure 2. Frequency of the Different Age Categories of the Respondents.....	29

LIST OF ABBREVIATIONS AND ACRONYMS

AMWIK	Association of Media Women in Kenya
EMIS	Education Management Information System
EFA	Education for All
FPE	Free Primary Education
FTI	Fast Track Initiative
HCDA	Horticultural Crops Development Authority
ILO	International Labour Organization
IPEC	International Programs for the Elimination of Child Labour
KIE	Kenya Institute of Education
MDGs	Millennium Development Goals
MOE	Ministry of Education
MoEST	Ministry of Education Science and Technology
NACADA	National Council Against Drug Abuse
NARC	National Alliance of Rainbow Coalition
NCST	National Council for Science and Technology
PS	Permanent Secretary
SPSS	Statistical Package for the Social Sciences
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations International Children Education Fund
UPE	Universal Primary Education
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Investment in human capital through education is fundamental to improving a country's general welfare, economic growth as well as reducing poverty. Education is an important input in the economic development process through the human capital that is embedded on its beneficiaries (Patrinos & Psacharopoulos, 2001). Education is an investment in human capital that yields economic benefit by increasing the productive capacity of its people. Consequently, it is considered to be the cornerstone of economic and social development and an important means of improving the welfare of the individual. It has immense impact on the human society as it trains the human mind to think and take the right decisions (Manu, 2007). Through education, knowledge and information are received and spread throughout the society.

According to Kuebler (2010), education is critical to breaking the cycle of poverty. Kuebler further observed that the opportunity of poor parents to obtain primary education for their offspring is the first empowering step in their journey out of poverty. Young (2000) indicates that education is a great equalizer if all children have equal opportunity to take advantage of it. Allocation of huge sums of money for public provision of education by government, especially in many developing countries is very fundamental. This has been addressed by the second United Nations Millennium Development goals (MDGs) in a bid to achieve the Universal Primary Education (UPE) by 2015. Specifically to ensure that children everywhere will be able to complete full course for primary schooling (Cohn & Johnson, 2006). Since the MDGs were launched in 1999, there have been many successes. China, Chile, Cuba, Singapore and Sri Lanka are examples of countries that have successfully completed a campaign for UPE (Liesbet & Geraldine, 2010).

Similarly, in Sub-Saharan Africa great progress has been achieved since 1999 in achieving the MGDs. The net enrolment rose from 58% to 78% between 1999 and 2007; and international financial commitments to basic education almost doubled from \$2.1 billion in 2002 to \$4.1 billion in 2007 (UNESCO, 2003; UNESCO, 2005). In Kenya, education is essential for both short and long term successes and for enhancing competition in global market (Kess, 2005). However, it has been characterized by wastage through declining enrolment and low completion rate. Abagi and Odipo (1997) found that only 76% of the

eligible populations (6-13 years) were enrolled in 1996 in primary schools. Out of this, only about 47% of pupils completed primary education with 55% of the boys and 35% of girls entering class eight.

The Kenya Government adopted the Free Primary Education (FPE) in 2003 where fees and levies for tuition in primary education were abolished and the government covered the costs. This raised the total primary school enrolment from 6.0 million in 2003 to 8.6 million children in 2008 (MoEST, 2009). With FPE, it was hoped that every Kenyan child would access basic education and the retention rate would improve. However, research has shown that even with introduction of FPE, primary school education is still characterized by declining enrolment and high dropout rates. According to Education Management Information System (EMIS) Kenya (2009), the country registered a national dropout rate of between 2.0% and 6.5% between 2003 and 2007. This trend is notable today where some schools in the country still record declining enrolment rates and cases of high dropouts, a phenomenon expected to be minimal with FPE in Kenya. For example, Kangeta Division of Igembe South district has experienced a decline in primary school boys' enrolment since the introduction of FPE (Table 1).

Table 1

Enrolment of Pupils in Public Primary Schools in Kangeta Division 2004-2011

<u>Year</u>	<u>Class</u>	<u>Total Boys</u>	<u>Total Girls</u>	<u>Total Pupils</u>
2004	1	1,639	1,512	3,151
2005	2	1,421	1,474	2,895
2006	3	1,309	1,480	2,789
2007	4	1,199	1,483	2,682
2008	5	1,147	1,452	2,599
2009	6	1,026	1,467	2,493
2010	7	921	1,414	2,335
2011	8	551	1,347	1,898

Source Igembe South District Education Office (June 2011)

Table 1 shows that the boys' enrolment declined as the boys reached upper primary level, particularly in classes 6 and 7 with classes 8 registering the lowest number. Kangeta Division

has 26 public primary schools out of which 10 were most affected with an average dropout rate of 18.3% according to Igembe South District Education Monthly Bulletin on children situation (2011). This is a concern since it is notable in all areas which predominantly produce Khat; further, boys were more affected than girls as indicated in table 1. Therefore there is a need to investigate if this puzzling phenomenon is linked to khat production, trade and consumption. Kangeta Division covers an area of 280Km² with an average population of 630,057 persons. The population density in the Division is 225 persons per Km².

The main agricultural activity in Kangeta is khat production. Khat is an evergreen, seedless and hardy plant that grows in a variety of climate and soils whose twigs and leaves are harvested throughout the year (Alem, Kebede & Kullgren, 1999). It is referred as “green gold” in the region and has been a feature of life in the region for many generations (Michela, 2005). The plant requires extensive labour during picking, packing and transportation to the drop off points for collection. The labour force is mainly dominated by male youth and boys of school going age. The quick money they earn after offering labour seems to influence them to abandon school (Wanja, 2010).

Angence (2010) confirmed that boys of barely 10 years are failing to enroll in school in large numbers partly to pick khat. Since they make easy money on the farms they wonder why they should ‘waste their time’ in school. The working day runs from 6am to 9am and once they are done, they hang around for the rest of the day chewing khat. Kinoti (2007) also confirmed that boys as young as 11 years are the main khat pickers in the region. The Meru North District Strategic Plan (2005-2010) revealed that the labour force in the region consist 49.7% of the total population and is composed mainly of school dropouts (boys) who engage in miraa small-scale and micro-enterprise sector. The education Permanent Secretary (PS) (2012) raised a concern over the alarming rate at which boys in the region are dropping out of school (The Standard Newspaper 2012, Wednesday 27). The PS further reported that these boys are employed as casual laborers in khat farms, and appealed to the leaders and residents to embrace education as a means of development. This shows that there could be some linkage between khat production and trade and boys’ school dropout because other than being in school, they are reported to be busy working in khat farms for money.

Kyalo (2010) and Maithya (2009) reported that khat leaves are chewed for stimulation and euphoria effects. Research by Alem *et al.*, (1999) has shown that khat is dominantly chewed

by males although few females chew the substance too. This is consistent with the situation in Kangeta Division where more males chew khat than women and the habit is more rampant among school going boys (Wanja, 2010). Studies of khats' chemical constituent shows that it predisposes the users to unstable and abnormal behavior, for instance loss of concentration span, lack of interest, anxiety, stress and fatigue (Kyalo, 2010; Maithya, 2009). It is this behavior which to some extent seems to influence the school boys to drop out of school. The question the study seeks to answer is; what is the influence of khat on the primary school boys' school dropout?

1.2 Statement of the Problem

Despite global efforts to achieve UPE, many children could still be out of school by 2015. Over a quarter of children of primary-school-going age in Sub-Saharan Africa and South Asia were out of school in 2007 partly due to inadequate finances, personal and family-related factors such as ill-health, child labour and poverty that forced children to leave school in search of livelihood sources. In Kenya, some of the factors influencing students' school dropout include loss of parents, school location, child labour and drug addiction. Kangeta Division of Igembe South District is a big producer of khat. Because khat trade is lucrative, one would expect school attendance and retention rate to be high; since parents would use the money earned from khat to pay school fees. However, between 2004 and 2011, the Division recorded a steady increase in primary school boys' school dropout as indicated in table 1. Many young boys did not enroll at all and most of those who did, dropped out as they approached the upper primary school level. Boys engaged in khat production provide the required labour while others chew or sell the crop. The combined influences of labour provision in khat farms, selling and chewing khat on primary school boys' school dropout are not well documented. It is not clear whether khat production, trade and consumption contribute to the primary school dropout among the boys in the region. If it were known, the leaders, policy makers and parents in the area could have addressed the problem so that it does not impact negatively on education of the children. This study sought to provide the missing information so that it can be effectively used to solve the problem.

1.3 Purpose of the Study

The purpose of the study was to determine the influence of khat production, trade and consumption on school dropout among primary school boys in Kangeta Division, Igembe South District.

1.4 Objectives of the Study

The study objectives were to:-

- i. Examine whether the school dropout rate by the primary school boys in Kangeta Division is as a result of providing the required labour in khat production.
- ii. Establish how khat consumption by primary school boys in Kangeta Division cause them to drop out of school.
- iii. Establish the extent to which khat selling by primary school boys in Kangeta Division influence them to drop out of school.

1.5 Research Questions

The following questions guided the study:-

- i. Does providing the required labour in khat production cause school dropout for the primary school boys in Kangeta Division?
- ii. How does khat consumption by primary school boys in Kangeta Division cause them to drop out of school?
- iii. To what extent does khat selling by primary school boys in Kangeta Division influence them to drop out of school?

1.6 Significance of the Study

Education is an investment in human capital that yields economic benefit by increasing the productive capacity of the people. Consequently, education is considered to be the cornerstone of economic and social development and an important means of improving the welfare of the individual. Kenya, like many other developing countries, is faced with the problem of school dropout. To make the matter worse, the percentage of primary school dropout in the population increases yearly despite the efforts to eradicate the problem. Failure to solve this problem not only threatens the life of individuals, but also the economic and social development of the country as a whole. The findings of this study would be useful to the education providers, guardians, mentors, health providers and spiritual leaders in dealing with the thoughts and emotions that shape behavior of the youth. The findings would be useful to the entire community, educationists and policy makers in finding ways of reducing the high rate of school dropout among primary school boys in the Division. Additionally, the findings could be useful to educational managers and policy makers to know the dangers of khat abuse and use among Kenyan youth; thus will enable them make appropriate policy decisions related to khat abuse.

Based on the findings, recommendations are made. If followed, these recommendations would be useful to administrators and policy makers in curbing khat use in schools as well as child labour through improving existing educational programmes, and striving to develop ones that are even more efficient. Curriculum developers would benefit by including drug preventive education as a vital component in primary, secondary and tertiary institution curricula.

1.7 Scope of the Study

The study was conducted in Kangeta Division, Igembe South district. The research focused on exploring khat production, trade and consumption on its influence on the primary school dropout by the boys in the Division.

1.8 Limitation of the Study

The study was limited to Kangeta Division, which is a khat growing region. Any generalization was confined to Kangeta Division of Igembe South district.

1.9 Assumptions of the Study

The study was based on the following assumptions:-

- i. Respondents' responses were a true reflection on influence of khat production, trade and consumption on school dropout by the primary school boys in Kangeta Division.
- ii. The locale of the study provided adequate information required to answer the research questions.

1.10 Definitions of Terms

Cognition: The process by which knowledge is developed in the mind. It is used in the study to show that the individual's behavior is determined by the person's thought and by the environment in which that person is living in (Kyalo, 2010). This means that chewing khat among young people develops in their mind due to the influence of the environment.

Dropout: This refers to no longer taking part in doing something. In the study, it means leaving school before completion of a given stage of education or leaving at some intermediate or non-terminal points in the cycle of schooling. This refers to the boys who leave school without completing the primary school education cycle.

Drug: Any product other than food or water that affects the way people feel, think, see and behave (NACADA, 2008). It's used in the context to show that as a drug khat's chemical nature affect physical, mental and emotional functioning of the user. It enters the body through chewing and drinking in tea.

Euphoria: Extremely strong feeling of happiness and excitement that usually last only for a short time. In the context it explains one of the effects of khat chewing to the user.

Khat (Miraa): An evergreen seedless and hardy plant scientifically called *Catha edulis* whose leaves and soft twigs are chewed as a drug. Also called Qat in Arabic, Gat in Hebrew and Qaad in Somali (Alem *et al.*, 1999).

Vicarious: Something felt or experienced by watching or reading about somebody else doing something rather than doing it yourself. In this study it is used to explain how the habit of chewing khat is learnt by primary school boys from the environment through observation (Kyalo, 2010).

Wastage: This is the fact of losing or destroying something especially because it has been used or dealt with carelessly. In the context it describes the effect in terms of school dropout and enrollment loss from a cohort moving through education.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review for this study is organized in the following themes: - Importance of education, the UPE and FPE in Kenya, cultivation of khat, economic and socio-cultural importance of khat. It will also cover labour in khat production and its influence on boys' school dropout, khat trade and consumption and their influence on boys' school dropout and mitigation measures to khat chewing by the youth. The chapter ends with the theoretical and conceptual framework.

2.2 Importance of Education

Education has an immense impact on the human society and the assumption is that a person may not be sensible enough unless he/she is educated. Education trains a human mind to think and take the right decision and a human becomes a rational animal when he/she is educated (Manu, 2007). The quality of human resource of a nation is judged by the number of literate people living in it. Thus education is fundamental if a nation aspires to achieve a sustainable growth and development (Jones, 2011; UNESCO, 2003). Education is an investment for future and helps in poverty eradication. An educated nation will conserve and make use of the environment for industrious gain and sustainable income. An educated youth ensures quality personnel that are fundamental to achieving national objectives for business success (Jones, 2011).

Some of the benefits of education include, improving the skills, abilities, productivity and earnings of people, promoting economic growth, reducing poverty, improving health and nutrition and promoting social development and cohesion (Jones, 2011; Psacharopoulos & Woodhall, 1985). A study by Manu (2007) shows that it is through education that knowledge and information is received and spread to the outside world and that education is an absolute necessity for economic and social development of any nation. An educated person therefore lives in a room with all its windows open to the outside world and that a nation should strive to educate its youth since it is a worthwhile investment (Abagi, 1999 & 2000; Jones, 2011).

2.3 Universal Primary Education (UPE)

Universal Primary Education (UPE) is one of the major goals for development that has been addressed extensively by second MDGs (Millennium Development Goals). Specifically that

by 2015 children everywhere should be able to complete a full course of primary schooling (Liesbet & Geraldine, 2010). Since the launching of MDGs, there have been campaigns for UPE which have succeeded globally. Various efforts have also been put in place in a bid to achieve the UPE. For instance, a study by Liesbet and Geraldine (2010) observed that the Fast Track Initiative (FTI) that was launched in 2002 was designed as a major initiative to help countries achieve the MDGs for UPE by 2015 (Cohn & Jonson, 2006). It was endorsed by the development committee of the World Bank. It is noted that this process would provide quick and incremental technical and financial support to countries that have policies but are not on track to attain universal primary completion by 2015 (World Bank, 2003). Reports have reviewed that other organization for instance UNESCO has been involved in improving education through projects, advice, capacity building and networking (UNESCO, 2005; 2003). This education for all campaign by 2015 is currently the driving force in UNESCO's work in the field of education.

2.4 Free Primary Education (FPE) in Kenya

Poverty remains a serious challenge in Kenya with 57% of the population living below the poverty line, subsisting on less than one US dollar per day (Republic of Kenya, 2003). Recognizing that education is both a welfare indicator and a key determinant of earnings, the government has over the years tried to address poverty through increased budgetary allocation to the principle poverty reduction program in education, the major one being FPE. Since independence (1963), policies on recommendations of various commissions and reports (Republic of Kenya 1964, 1999, 2003), reiterated the right of every Kenyan to be educated to enable them acquire necessary skills for self-reliance. Primary education was hence subsidized by recommending the policy of FPE in an effort to address the problem of poverty (Kamotho, 2007; Kess, 2005).

In 2003 the newly elected NARC Government enacted FPE, a policy that enabled millions of children to attend school. This policy is noted to have generated lots of publicity in both national and international press. For instance Sessional Paper No 1 of 2005 on policy Framework for Education. This was a key strategy in attaining the overall goal of Education for All (EFA) by 2015 (Kamotho, 2007). UPE is intended to ensure that all children eligible for primary schooling have an opportunity to enroll and remain in school to learn, and acquire quality basic education (Kess, 2005). This educational policy is also aimed at closing the gaps between regions, communities, economic and social classes. The policy after implementation

resulted in an increase in enrolment from 6.0 million in 2003 to 8.6 million in 2008 (Karemesi, 2010; MOE, 2009).

The abolition of user charges constitutes a giant step towards achieving UPE which is both a human right and a Millennium Development Goal (MDG). Nevertheless, there still remains educational wastage through declined enrolment, high primary school dropout and repetition rate in Kenya. School dropouts translate to wastage of money, wastage of teachers and pupils' time since the pupils are not able to complete the school cycle. While many pupils enroll, only a few complete. Observations showed that barely 47% of pupils complete the primary school level (Republic of Kenya, 1998; MoEST, 2003). Although the government initiated FPE since 2003, this policy has not ensured total enrolment for all primary school age-going pupils.

The major challenge for many Kenyans has been the inability of many parents and guardians to augment government's financial provision with personal inputs as stipulated in the policy of cost-sharing (Itunga, 2011; Republic of Kenya, 1988). By this policy the government provide teachers and to some extent, the required equipment. Parents, guardians and sponsors provide uniforms, facilities, feeding, medical care and other non-statutory fees (Achoka, Odebere, Maiyo & Mualuko, 2007). Upon many parents' failure to provide financial requirements, their children drop out of school despite the sector of education being "free". In some regions, primary schools are sparsely located. Young children have difficulty accessing such schools. Moreover, people who live in the ASALs (Arid and Semi-Arid Lands) have peculiar needs related to their nomadic way of life. In some communities other factors attributed to educational wastage includes loss of parents, drug use and abuse, cultural practice of early marriage for girls and others engaging in work to earn a living.

In Kangeta division, declined enrolment and non-completion rates especially among the primary school boys could partly be attributed to khat production. Children of school going age are involved in khat growing activities, for instance provision of labour that is required in khat production at the expense of schooling. The young boys climb up the khat tree to pick the soft twigs and leaves. They then ferry the picked khat to various drop off point for collection. They also engage in small-scale selling of khat and chewing of the substance (Agence, 2010). The Kenya government therefore has a burden to improve the low access to school as well as retention rates.

2.5 Production of Khat

Khat (*Catha edulis*) originated in Harar area in Ethiopia and was later grown in different regions of East, Central and Southern parts of Africa. (Alem *et al.*, 1999). Until the beginning of 20th Century, khat use was localized in areas where it grew wild. This is because, unlike cereals and pulses it could not be harvested, stored or transported to distant places. It had to be used while fresh. Improved road communication and motor transport meant it could be sent to distant places. To meet the increased demand for the crop, cultivation was initiated (NCST, 1996).

Khat grows under the same climatic and soil conditions as Arabic coffee. Early studies show that it was growing along coffee in Harar region, Ethiopia in the 13th Century (Alem *et al.*, 1999). It requires an altitude of 1,500 - 3000 metres above the sea level. Rich loamy soil (volcanic soil) is particularly good for cultivation of khat where vegetative propagation is applied using suckers or rooting branches arising from underground near the stem. This is usually done during the heavy rain season. Spacing is normally 3-4 meters between plants. A report by NCST (1996) reviewed that, the plant takes 4-6 years to yield its first crop which is considered to be of low quality and the branches spread out and bend under the heavy weight of the foliage. A good yield is normally obtained after 8-10 years. The older the trees, the more potent it is. Trees over 30 years old are said to produce good khat.

In Kenya, technical information on cultivation of khat was lacking and it was not recognized as a cash crop till 90s (NCST, 1996). However its production was legalized in Kenya in 1997 and it's openly grown, consumed and exported (Maithya, 2009). Despite khat being legal Kelly (2005) observed that the Kenya government did not encourage its production and did not allow its commercial expansion until 2007 when it was classified as a horticultural crop. It has since become the third largest horticultural crop in foreign exchange earnings. For instance Kaburu (2010), reports that in 2006, khat earned the country Ksh 2.6 billion, after French beans Ksh 3.7 billion and rose flower Ksh 15.2 billion.

Khat is predominantly grown in Meru although it is grown in other parts of Kenya, such as Embu and Mbeere Districts. Most growers in the Kangeta Division are small scale farmers but a few own big pieces of land. It is referred to as 'green gold' in the region and has been a feature of life for many generations (Michela, 2005). During its production, it does not

require a lot of tending apart from picking time and transportation to the collection centers when the labour is extensive. This labour is mainly dominated by male youth and young boys of school going age hence a linkage between khat farming and educational wastage. Instead of being in school, these boys provide labour in khat farms for money (Agence, 2010). Khat leaves and soft twigs are chewed for stimulants and euphoria effects (Maithya, 2009). Studies, by Kyalo, (2010) and NACADA, (2008) shows that the chemical constituent of the plant predisposes the user to unstable and abnormal behavior. It is this behavior among the school going boys that affects their concentration in studies hence influencing them to drop out of school (Wanja, 2010). Michela (2005) observed that, no one in the region says or does anything that could threaten the future of the 'green gold'. This shows that it is highly regarded and socially accepted in the division.

2.6 Economic Importance of Khat

Khat is of economic value and its chewing is far more than a picturesque local custom. The big consumer markets for khat have always been the north of Kenya, in Somalia, Djibouti, Ethiopia, and the Middle East (Muthoki, 2011). The somalis in Kenya have linked up local farmers with the international market, ensuring that Meru's khat reach the Somalis wherever they are, including in Europe, America and other countries in the world. Thus, while the Kenyan economy has languished in the doldrums, khat has boomed, impervious to national trends and international disapproval. While NACADA called for a ban, locals insisted that khat was no more dangerous than alcohol, nor more addictive than coffee (NACADA, 2008). But then, they insisted that, because there's big money being made, 'there's no petty crime in the region because everyone has money' (Michella, 2005). All those involved in the industry agree that more khat is grown, picked, and traded in Kenya today than ever before (Michella, 2005). Domestic consumption now extends beyond traditional khat-chewing communities, with even ethnic groups with no history of its use reported to be taking it up. It is therefore reported to be one of the Kenya's biggest horticultural exports with the value of export growing at an average of 9.7% (Daily Nation 2011, October 25; Kaburu, 2010).

Due to the high income in khat farming, many farmers from other parts of Kenya are embracing its production. According to Daily Nation (2011, November 1st), large parts of central Kenya, traditionally a tea producing area are turning to growing khat despite rising incomes and good bonus for the tea cash crop. One of the farmers observed that khat earns thrice the amount he gets from tea per year adding that the product has a direct and ready

market (Karanja, 2011). A single plant can earn between KSh 500 and KSh 800 when picked. The plant can be harvested four times a month, with only seven days for the budding leaves to mature. Karanja (2012) observed that these farmers have opted for khat after realizing that the demand for the stimulant was very high in the area following tight regulation of alcohol drinking under the Mututho laws (Daily Nation 2011, November 1). Thus, some alcohol drinkers have turned to khat chewing as a substitute following the new regime which drastically reduced the drinking hours. In Mbeere District, khat is noted to be one of the major cash crops in the area which is empowering the community economically (Daily Nation 2012, January 3).

In Kangeta Division, khat is grown by nearly all the farmers. A report by Muthoki (2011) indicates that, a serious grower earns at least KSh 10,000 per week. They thus value, accept and regard khat highly due to its prime economic importance. Despite the economic importance of khat which provides employment to many people (farmers, businessmen, transporters) in Meru, Meru District Development Plan did not consider it important even to merit mention (NCST, 1996). Similarly the Horticultural Crop Development Authority (HCDA) did not include it on the list of scheduled crops until 2007 (Kaburu, 2010). According to the Managing Director, HCDA, khat was covered in the list under “Cuttings.” This paradoxical situation is understandable in view of the unfavorable stand adopted by the World Health Organization (WHO) (NCST, 1996).

Recent reports revealed that khat traders are likely to lose the British market after the loss of the Netherlands market, which banned trading of the drug (Daily Nation 2012, January 18). The Netherlands market used to bring Ksh 1.6 billion annually in revenue to Kenyan farmers and traders. Muthoki (2012) indicates that Kenya exports 36 tons of khat per week to UK with total annual revenue of Ksh 2.15 billion. The loss of the second khat market led to upsurge of anti-khat fever among farmers in Meru North, who demanded government intervention to save their revenue source (Muthoki, 2012). However khat is blamed for the regions’ violence. According to the Standard Newspaper (2012, January 26th), panga cuts are common in the Meru community with many of the patients attended to at Maua Methodist Hospital. This violent way of solving conflicts has been blamed on khat that is widely grown and consumed in the in the area (Michela, 2005). Because the crop is precious, it attracts thieves, who were traditionally dealt with violently. If a thief was caught, justice was administered by cutting off both hands rendering them incapable of picking the green gold

(Muchiri & Muchui, 2012). This is notable to have made Meru residents be stereotyped as being quick to anger and violent. Domestic violence is also reported to be rampant in the region. This violence has been blamed on Meru's cash crop-khat (Muthuri & Muchui, 2012). The hospitals' executive officer confirmed that the hospital receives and treats most cut victims when khat business is at its peak since that is when most misunderstandings occur. Khat is also blamed for the poor development in the region. According to the Standard Newspaper (2012, June 27th), the region has very few senior public servants because boys from the area barely finish school to engage in labour provision in khat farms and trade.

2.7 Socio-Cultural Importance of Khat

It is culture and attitudes that mould a society. Culture determines the way of life. Thus, socio-cultural attitudes and practices have a big influence on education. Some cultural beliefs and ways of life are out-dated in many Sub-Saharan African countries that they call for change. The only agent for change is education for all boys and girls alike. Khat is of prime cultural importance to the Nyambene community. While it is a controversial substance-condemned as a drug by many (NACADA, 2008 & 2004), Tigania and Igembe are the major khat producing communities in Meru and have much pride in the substance (Neil, 2005). These communities highly respect and regard their Nyambene traditions. They emphasize not just khats' economic role but also its place in the Nyambene traditions (Michella, 2005).

Khat is strongly linked to their ancestors and its consumption is said to have been linked to elders alone. However, it is also incorporated into a 'youth ethos' where it is validated as 'poa' ('cool') (Neil, 2005). Rather than leading to a rejection due to its side effects, the youths' khat validation as 'poa' ('cool') reinforces its value as an item for identity by the youth. Michela (2005) observed that, khat is so culturally valued and it forms part of the Meru's distinct ethnic identity. The youth hence engage in chewing the substance as well as working in khat farms for money which impacts negatively on their education (Kyalo, 2010; Maithya, 2009). Although girls do not indulge in chewing khat, Michela (2005) observed that a girl intending to get married would offer the father khat twigs so that the father would accept her request. A suitor visiting his prospective in-laws for the first time is expected to turn up with a bundle of khat as a gift. Similarly reconciliation process is often preceded by an offer of khat. Acceptance of khat by the aggrieved party is a positive signal to continue with the reconciliation (NCST, 1996). This is noted to be very relevant for the study since it emphasizes how khat is socially and culturally accepted by the community. Khat plays a

principle influence on the pupils learning since they believe that with or without education they can survive on it.

2.8 Labour in Khat Production and its Influence on Boys' School Dropout

There is a strong relationship between child-labour and low school retention rate. School dropout is an alarming issue worldwide. Bridgeland (2006) and ILO (2007) revealed that child-labour is one of the main causes of school dropout. Most of the students who drop out of school worldwide cite jobs to support their parents and siblings as one of the causes of their school dropout. While education is seen as a cornerstone for overcoming poverty and inequality, poverty keeps many children from gaining access to education. UNESCO (2002) observed that, poverty cannot be overcome without specific, immediate and sustained attention to enhancing access to education. Poverty is noted to cause inability to meet direct costs for schooling such as learning materials, food and transport to and from school as well as school uniform.

The situation in contemporary developing countries where child labour is still a serious problem is different from pre-industrial periods in developed nations. Various empirical studies that describes situations in Africa in particular (Cockburn, 2001; UNICEF, 2005) and South Africa (Toor, 2001) where child labour is most concentrated have argued that poverty is the primary reason why children abandon school for work. Several studies done in Malawi, Ghana, Zambia, Ethiopia and Tanzania have reviewed that in many African countries, children are not able to participate in school effectively because they cannot afford the costs (Kelly, 1999). This bars them from enrolling in schools. Additionally, it contributes to high dropout rates due to massive child labour.

Child labour is generally interpreted as all cases in which children are exposed to harm at work whether or not children are less than 14 years old (UNICEF, 2005). Child labour is a general term covering the entire spectrum of work and related tasks performed by children. Child labour is not a recent phenomenon. It has existed over the centuries not only in the impoverished areas of developing countries, but also in developed countries until the beginning of 20th century (Cunningham & Viazzo, 1996). The negative aspects of child labour were first spot lighted during industrialization in Great Britain when cheap child labour in exploitative factory working conditions became apparent; and it's during this period when the term "child labour" was first coined (UNICEF, 2005).

Labour provision in khat production activities contributes to primary school dropout among boys in Kangeta Division. Production of khat coincided with plummeting prices for coffee; the region's other main income earner. Studies by Michela (2005) reviewed that coffee farmers found that khat which needs very little tending was not only far easier to grow than coffee; it also gave a far higher return for their money. But behind this booming business lays one of the biggest problem the education sector faces which is high rate of dropout and declined enrolment among primary school boys (Agence, 2010). Khat worth several million Euros leaves the region each year but the paradox is that the business has little impact on the standard of living of the locals. Despite the money from the khat, the area is very poor. The khat money doesn't trickle down into the households, meaning that the farmers have no influence over khat prices, which are fixed by a handful of Kenyans and Somalis (Agence, 2010; NCST, 1996).

Given how lucrative the crop is, school boys of barely 10 years fail to enroll in school in large numbers to pick miraa. They make easy money on the farms and wonder why they should 'waste their time' in school. The working day runs from 6 am to 9 am. When they've finished they hang around for the rest of the day, chewing khat (NCST, 1996). And the money earned early morning is normally gone by evening and, judging by the levels of malnutrition in the region, does not make its way into household food budgets (Agence, 2010; NCST, 1996). This confirms the high poverty level in Igembe South District which contributes to children laboring in khat farms for a living instead of attending school. This poverty is also contributed by ignorance, idleness and khat chewing, lack of land title deeds, retrogressive cultural practices and food shortage because their farms are dominated by khat trees at the expense of food production (Meru North District Strategic Plan, 2005-2010).

Khat farming is noted to be raising concern not only in Igembe South District, but also in Mbeere District. According to Daily Nation (2012, January 3rd), leaders in Mbeere raised concern over khat farming which was undermining the development of boy child in the area. The situation in the public schools was wanting and that some classes had no boys, while in others, the ratio of boys to girls was 1:12 (Waweru, 2012). It was noted that, school boys were being caught working in khat fields at the expense of schooling which was destroying the social fabric as well as the life of the boy child. Waweru (2012) further noted that the regions' administrators warned parents who did not take their sons to school of arrest noting

that primary education was free and secondary education had been subsidized so that all children could go to school.

Since 1990, child labour has been referred to in connection with “human rights” and “education.” Past studies, (Hammarberg, 1997; Hammarberg, 2000; Tomasevki, 2003) show a “linkage” between child labour and education. An inextricable linkage between child labour and education has also been focused since the world conference on education for all (1999) and Dakar framework for action (2000) (Maitr & Ray, 2002; Post, 2001). It is noted that the Association of Media Women in Kenya (AMWIK) with support from ILO –IPEC has been involved in media campaigns against child labour in Kenya (ILO & IPEC, 2007). In Igembe South District generally, labour force constitute 49.7% of the total population and is composed mainly of school dropouts who engage in miraa small-scale and micro-enterprises sector (Meru North District Strategic Plan 2005-2010). AMWIK has worked in many areas including Igembe South District and revealed a large number of school going boys who dropped out of school (Kinoti, 2007). Kinoti further explained that the khat pickers known as “Ntungu” consist of boys as young as 11 years old. Most of them dropped out of school at primary standard four levels. They cherished the work because it enabled them to buy cell phones and expensive clothes that they could not have afforded if they continued with school. This is actually a serious challenge, thus a strategy should be put in place to directly involve communities at grassroots in the fight for child studies as opposed to working so as to earn a living.

2.9 Khat Trade and Consumption and their Influence on Boys’ School Dropout

But as the community obtain money from khat, and extensively chew it, they lack the motivation to reinvest in other developmental projects that are income generating hence they remain poor. Similarly, khat trade is lucrative but the real beneficiaries are the agents who lease farms (sometimes for 5 years) and the wholesalers. Agents harvest and pack khat and then transport it to urban centres for local consumption or export (Agence, 2010). Alternatively, wholesalers buy packed khat from agents in specified collection centres (biggest is Muringene) and transport it to urban centres. Transportation of khat is highly specialized. A small delay in timing may lead to missing a connection flight. The material is perishable and such a delay may mean losing hundreds of thousands of shillings.

Because of logistical problems in transport and the risk involved, khat trade is dominated by rich businessmen. This creates a lot of resentment among farmers who see businessmen as opportunists' thriving on other people's sweat. This is noted to leave majority of the peasant farmers poor with meager earnings despite them growing khat. It is therefore partly the poverty levels that lead to the boys abandoning school to work in khat farms for a living (Meru North District Strategic Plan 2005-2010). This is a contrast because the Division being a khat growing area, parents are expected to have high income to be able to adequately support education cost for their children. Most of the khat growers, traders and chewers also claim that education is a waste of time and that khat trade is empowering them economically. Thus, they do not mind if their children go through the school system or not, as long as they are involved in khat trade (Waweru, 2012). It is also noted that a khat chewer is likely to neglect his family responsibility. If he joins khat parties, he will be away from family for around four to five hours. This means that he does not spend quality time with his wife, children and may not be academically involved by doing what it takes to provide support for their children's education (NCST, 1996).

Khat leaves and twigs are chewed for euphoria effects. It has an aromatic scent and the taste is astringent and slightly sweet. It contains cathinone and cathine as active components which bring stimulation and euphoria effect to the user (Kyalo, 2010). Khat chewing has become a common habit in Kenya which occurs in groups in social settings. This attracts young people to the habit and peer influence and fear of being labeled a non-conformist plays a vital role in the acquisition of the habit (NCST, 1996; Wanja, 2010). Early studies have shown that chewing is predominantly practiced by men (Kennedy, Teague & Rokaw, 1983). Khat chewers tend to believe that chewing will improve performance in learning hence; learners who use it believe that it will improve understanding and insight (Maithya, 2009). Khat is also believed to improve alertness and to increase work capacity. Workers on nightshifts believe that khat will make them stay awake and delay fatigue. Studies among the Somali commonly found that more men habitually chewed khat than women with 75% of men chewing miraa regularly compared with only 7-10% of the women (Alem et., al 1999). This is consistent with Kangeta Division where males including boys of school going age dominate in chewing khat which affect their school attendance. They idle a lot while chewing khat in their social gatherings therefore remedial measures should be taken to curb the habit before the whole generation is lost (Agence, 2010).

In Mbeere District, youths chew khat unaware of its dangers. Waweru (2012) reported that, the government should put regulatory measures to control participation and use of khat by those less than 18 years, so that the boy-child can remain in school. A study by Wanja (2010) showed that khat abuse exposes the user to various dangers such as students having behavior problems like stress, fatigue, anxiety, bullying and even committing murder. Khat chewing has formed a sub-culture within the schools in Igembe South District with both male teachers and school boys being habitual chewers. It is also noted that khat chewing has become a problem of significant proportion to social and educational importance (Kyalo, 2010). Because of its social acceptability in the region and its euphoria effects, it seems to play a dominant role in primary school boys' dropout by predisposing them to unstable and abnormal behaviour that may cause them to drop out of school.

A report by NACADA (2008) observed that drugs abuse was rampant among Kenya students. This is a big challenge to the Kenyan society and immediate attention is needed. Drug abuse attacks the brain which is the centre of all human functions (Maithya, 2009; Sternberg, 2003). Students who use khat lose the concentration span; lose interest in school work leading to absenteeism and eventual dropping out of school (Kyalo, 2010). Khat use affect the decision making process of the students, creative thinking and the development of necessary life and social skills stagnates. A study by Louw (2001) showed that khat use interferes with the awareness of an individual's unique potential and interest thus affecting their career development. Further since most students are in their adolescent stage of development they lose their sense of identity (Kyalo, 2010). This is noted as relevant to the study since in the area, people spend a lot of time chewing khat. This is at the expense of development and because most are not educated, they lack the skills to better use the quick money they earn from khat production. This has eventually led to increased poverty levels in contrast to the expected economic boom due to income from khat. It is this poverty that partly makes the primary school boys drop out of school to work in khat farms for money (Meru North District Strategic Plan, 2005-2010).

2.10 Mitigation against Khat Chewing by Youths

At the school level, the Ministry of Education (MOE) has integrated drug education components into the existing school curricula, in Social Studies at the primary level, and in Religious Education at secondary level (Kenya Institute of Education Syllabus, 2002). Due to khats' effect as a drug, it is important for MOE to emphasize on provision of training in

drug education to heads of schools, teachers and school inspectors through in-service courses. The main objective will be to create awareness of the dangers of use of khat and other drugs and their consequences, and to mobilize school children to participate and play a leading role in drug use issues (Maithya, 2009). In addition, it will encourage teachers to be knowledgeable about drug dangers and increase their capacity to intervene including through counseling and prepare action of materials for drug education.

The government, through the MOE has emphasized provision of guidance and counseling programmes in schools to help curb drug abuse and other problems that face students. Realizing that drug abuse is becoming a problem in Kenya, NACADA has drawn up an action plan, the main areas of focus of which are public awareness, liaison activities and support service, and targets youth in and out of learning institutions (Maithya, 2009). Developing programs through the mass media, passing messages through public barazas' and incorporating drug preventive education in the education curriculum are some of the modes of fighting drug abuse.

2.11 Theoretical Framework

The study was guided by Classical Liberal Theory and Social Cognitive Learning Theory. Classical Liberal Theory advocates equal opportunity for education. It was developed by writers such as Rousseau (1712-1778) and Horace Mann (1796-1889) who claimed that personal qualities should not jeopardize social equity so long as society rewards people according to their status. They argued that universal public education was the best way to turn the nation's unruly children into disciplined, judicious republican citizens. Evidence in favor of this theory is mainly in form of case studies. There are innumerable examples of people from poor families who have taken advantage of education opportunities and proceeded to obtain better jobs and higher incomes than they would have otherwise done.

The theory was advanced by Dewey (1916), who expressed the view that there should be equal opportunities in education for all. This theory advances the view that each individual is born with some inherited capacity that cannot be altered. According to the theory, an education system should be designed with a view to remove all barriers (gender, geographic, economic, and cultural) that hinder children from poor background from taking advantage of inborn talents which could accelerate social promotion (Sherman & Wood, 1982). The theory demands that opportunities be availed for individuals to go through primary and secondary

education and should be based on individual's merit and not social backgrounds (Orodho, 2003). Thus, education will at least provide equality of opportunity where all classes, races and sexes could benefit economically from excellent academic performance (Sherman & Wood, 1982).

The theory further states that social mobility will be promoted by equal opportunity of education. There is evidence that by removing barriers to education, ideal conditions can be created for equal participation in education. This theory has been adopted in many ways for example, the second United Nations MDGs on achievement of UPE (UNESCO & Republic of Kenya, 2003). Also the introduction of universal free education in public primary schools in January 2003 by the Kenya government has raised the total primary enrolment from 7.2 million to 8.6 million children in 2008 (MoEST, 2009). This shows more access to education. However with the introduction of cost sharing in education against the background of high poverty levels in the country many parents are unable to enroll and maintain their children in schools. Other scholars who have used the theory, for instance Orodho (2003) observed that unequal participation in education in long run worsen the status of the poor and vulnerable groups. The theory is related to the study because despite khat being of socio-cultural and economic importance to the growers, it is to some extent contributing to school dropout among the primary school boys in the Division (Agence, 2010). Thus it is partly a barrier to access of education for the vulnerable group. The researcher used the Classical Liberal Theory of equal opportunity to establish the influence of khat production, trade and consumption on primary school dropout by boys in Kangeta Division, Igembe South District.

Social Cognitive Learning Theory was advanced by Albert Bandura in 1986 who indicated that behavior is determined by the person's thought processes, the environment and behavior itself. Individuals determine their own behavior due to environmental factor influence. Bandura (1986) observed that the theory emphasizes social cognition, vicarious learning and self-regulation. This can be used in explaining mechanism of khat use and abuse. This theory has been used by other scholars. Kyalo (2010) suggests that, individuals who believe that khat made them feel high and more fun to be around will be more prone to khat chewing. The theory emphasizes the role of observation learning with regard to the presence and influence of models that the role model does not only affects behavior but that it also leads to development of thoughts and emotions that shape behavior. Kyalo (2010) noted that pupils who chew khat have most likely learnt the behavior from their environment. The theory is

related to the study in that the primary school boys in Kangeta Division who chew khat have learnt the habit from their environment where all males and some females chew the substance (Wanja, 2010). Furthermore, khats' social acceptability by the community enhances the behavior more. This theory was used by the researcher to find out how khat influence school dropout among the primary school boys in Kangeta Division.

2.12 Conceptual Framework

Figure 1 identifies the concepts under study and their relationship. The purpose of a conceptual model was to help the reader to quickly see the proposed relationship (Mugenda & Mugenda, 2003). Conceptual framework was developed from the reviewed related literature. The independent variable in this study was the primary school boys' involvement in khat production measured in terms of labour provision, chewing khat and khat trade. The dependent variable was primary school dropout measured in terms percentage of boys' initial enrolment and completion. The intervening variables were: - cost sharing, repeating classes, early marriages, boys transferring to other schools, loss of parents, lack of school fees, ill-health and death. From the conceptual framework primary school dropouts by boys depends on labour provision in khat farms, khat trade and khat consumption. Intervening variables were controlled by establishing the extent to which these variables affected the effects of independent variable on dependent variables

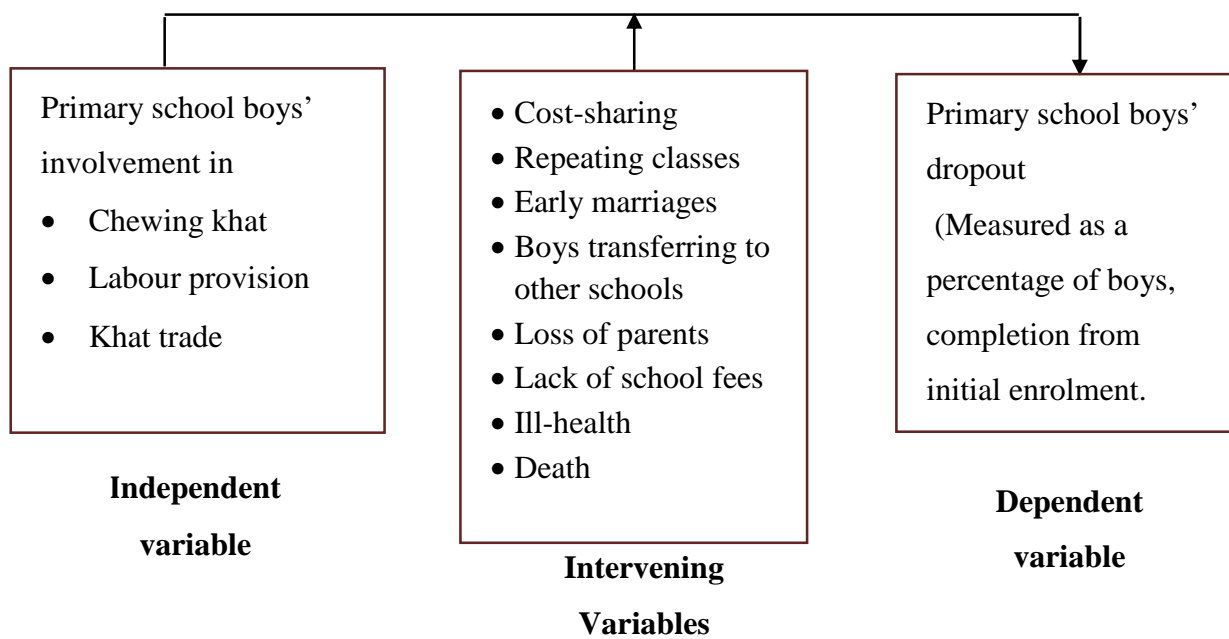


Figure 1. Influence of khat production, trade and consumption on dropout by primary school boys in Kangeta Division.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was used in the study. It describes the research design, target population, sampling procedure and sample size. It also describes the research instruments, validity, reliability, data collection and data analysis.

3.2 Research Design

The study adopted cross-sectional survey design. The researcher collected data and made inferences about a population of interest at one point in time (Paul, 2011). The design did not cut across populations of different characteristics where the researcher used research questions to describe the current characteristics of the sample. This design is faster and inexpensive compared to case and cohort studies and provides self-reported facts about respondents, their feelings, attitudes, opinions and habits (Kombo & Tromp, 2007; Kothari, 2008). Surveys are excellent vehicles for collecting original data for the purpose of studying a large population. By use of cross-sectional survey design, a large population can be studied with only a portion of that population being used to provide the required data. By use of this design the researcher gathered detailed information and described how khat production, trade and consumption influence the primary school dropout among the boys in Kangeta Division.

3.3 Target Population

The target populations for the study were the ten Head teachers of public primary schools in Kangeta Division which had the highest dropout rate averaging at 18.3% in 2011. The school drop outs (boys) working in khat production activities were targeted as well.

3.4 Sampling Procedures and Sample Size

In most research studies, sample sizes of 60 to 300 or an average of 200 respondents are used (Balian, 1988). This is dictated by the nature of the research study. Based on Balian's recommended final sample size of 200, the sample was increased by 10% to 220 to compensate for attrition and respondents' refusal or inability to participate. The sample comprised of 10 Head teachers of 10 out of the total 26 public primary schools in Kangeta Division and 210 school dropouts (boys) involved in khat activities. These schools were sampled purposively because; according to Igembe South District Monthly Bulletin on children's situation (2011) they had the highest dropout rate of 18.3%. The researcher

solicited relevant information for the study from relevant documents like attendance registers and from the Head teachers of those sampled schools. Two hundred and ten school dropouts (boys) working in various khat activities were sampled through snow balling method from Muringene, Kangeta and Muutine market centres. These markets are some of the major khat trading and collection points in the Division and they were sampled purposively because of their accessibility. Seventy boys were interviewed from each of the 3 centre giving a total of 210 boys. For proper identification of these boys the researcher used the area sub-chiefs and the Head teachers of the sampled school as key informants. From these boys the researcher solicited relevant information for the study.

3.5 Instrumentation

Research instruments are the data gathering tools that were employed by the researcher in the field. Questionnaire and interview guide were the data gathering instruments in this study. Class attendance registers were used as a data source for the study. Questionnaires and interview guide were developed by the researcher while the class attendance registers were availed from the 10 public primary schools in the Division. Questionnaires are used to collect basic descriptive information from a broad sample; the interview guide is used to gather in depth responses usually from a small sample (Kathuri & Pals, 1993). Hence a questionnaire was used to collect data from the 10 public primary schools' Head teachers; while the interview guide was conducted to the primary school dropouts. Both instruments were used to collect data about influence of khat production, trade and consumption on primary school dropout by boys in Kangeta Division.

3.6 Validity

Validity refers to the extent to which a test measures what the researcher actually wishes to measure. It indicates the degree to which an instrument measures what it is intended to measure. Face validity refers to the likelihood that the question would be misunderstood or misinterpreted. This helped to iron out ambiguity. According to Borg & Gall (1996), validating of an instrument is improved through expert judgment. Content validity refers to whether an instrument provides adequate coverage of a topic. The focus was on face validity and content validity. The instruments were validated by a panel of five experts from the department of Agricultural Education and Extension of Egerton University. This helped to judge the items on their appropriateness of content and to make any necessary modification in order to achieve the objectives of the study. In addition the researcher ensured validity of the

collected data by self-administering of the interview guide. Pilot test was conducted in Maua Division which had similar characteristics as those in Kangeta Division. This ensured that there was no contamination during administration of the instrument in the research region. It also helped the researcher to familiarize with data collection procedures. The piloted questionnaires were scrutinized to identify and review items that were unclear or ambiguous to the respondents.

3.7 Reliability

Reliability of measurement concerns the degree to which a particular measuring procedure gives similar results over a number of repeated trials (Orodho, 2003). This was established by use of Cronbach alpha coefficient determination method. This is an appropriate method since it involves a single administration of the instrument hence it will yield a greater internal consistency (Kothari, 2008). In conducting a pilot test, the researcher used 30 respondents (not the ones included in the main study). The researcher scored their responses manually and repeated the procedure to the same group of subjects after a period of two weeks. A comparison between the first and second responses was done (Orodho, 2003). A Cronbach alpha coefficient determination method was employed to compute the correlation coefficient. This established if the content of the instruments were consistent in eliciting similar responses every time the instruments were administered. The questionnaire and the interview guide had a reliability coefficient of alpha 0.83 and 0.72 respectively at 0.05 significance level (Kothari, 2008).

3.8 Data Collection Procedure

The researcher first got a recommendation from Graduate School of Egerton University to collect data. The researcher then sought permission from the National Council of Science and Technology to conduct research from the public primary schools in the Division. The sampled schools were visited and the Head teachers were informed about the study. The purpose of the study was explained to the respondents. Confidentiality was observed and assured to the respondents. The questionnaire was self-administered to the public primary school Head teachers. The researcher administered interviews with primary school dropouts (boys) involved in khat trade activities in the local drop off points/centers for khat collection.

3.9 Data Analysis

Data was analyzed using qualitative and quantitative methods. Qualitative methods were used to answer interpretive and explanatory questions of why, how and in which way while quantitative methods were used to answer objective questions of when, where, how many, at what time and to what extent. Qualitative data was evaluated, classified into categorized appropriate themes based on the objectives and then coded. Quantitative data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Chi-square tests for the equality of proportions for the number of dropout were done. A t-test was used to test the mean difference between the initial and the final enrolment for the boys in the 10 schools. Frequency tables and percentages were used to summarize and present the quantitative data.

Table 2
Summary for Data Analysis

Research Questions	Independent Variable	Dependent Variable	Method of Analysis
Does providing the required labour in khat production cause primary school drop out by the boys in Kangeta Division?	Labour in khat production	Drop out of primary school boys	-A chi-square -A t- test -Qualitative method
How does khat consumption by primary school boys in Kangeta Division cause them to drop out of school?	Khat consumption	Dropout of Primary school boys	A chi-square test -Qualitative method
To what extent does khat selling by primary school boys in Kangeta Division cause them to drop out of school?	Extent of khat selling	Drop out of primary school boys	A chi-square -Qualitative method

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The chapter gives the results of the study and a discussion of the research findings. The study was designed to determine the influence of khat production, trade and consumption on primary school dropouts by boys in Kangeta Division, Igembe South District. The chapter is divided into the following sections: section one on the characteristics of respondents, section two research question testing and section three a summary of the findings.

4.2 Characteristics of the Respondents

Age: The majority of the respondents (53%) were in the age category of 15 to 19 years, they were followed in number by the age category of between 20 to 24 years (29 %) and then the 10 to 14 years category (11%), then the above 24 years group (7%) and finally the below 10 years category (0.5%) as given in Table 3.

Table 3
Age Distribution of the Respondents

Age Categories (Years)	Frequency	Percent
Below 10	1	0.5
10-14	22	10.5
15-19	111	52.9
20-24	61	29.0
Above 24	15	7.1
Total	210	100.0

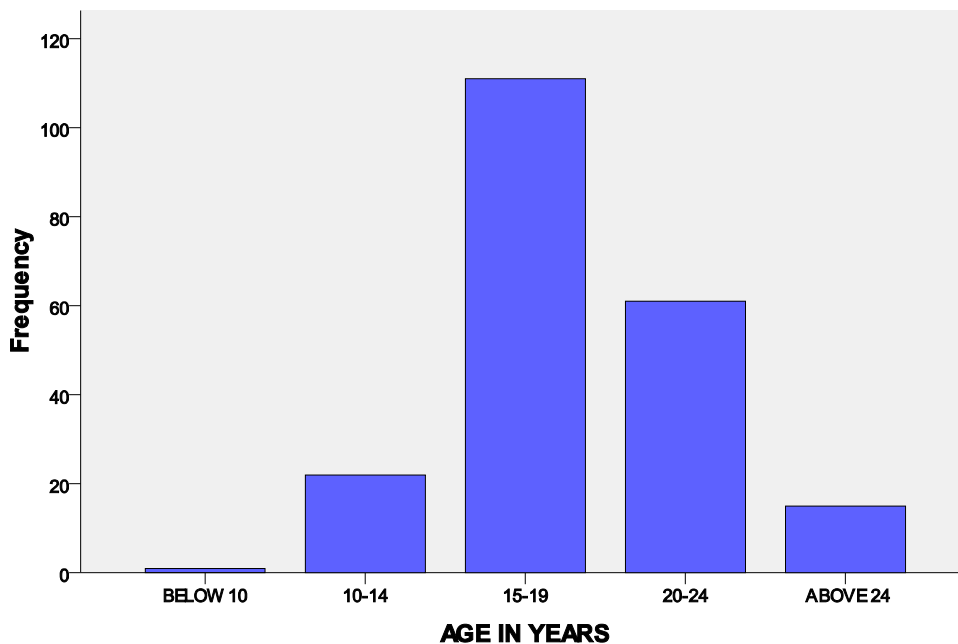


Figure 2. Frequency of the Different Age Categories of the Respondents

Problem of School Dropouts in Kangeta Division: The Head teachers of ten primary schools in Kangeta division gave nine reasons for school boys dropping out of school (Table 4) The majority of the respondents (80%) mentioned working in khat farms, 70% mentioned ready money in khat business, 50% mentioned khat chewing, 50% khat selling, 30% loss of parents, 20% economic hardships, 20% indiscipline cases, 10% early marriages, 10% irresponsible parents. Analyzing these reasons four out of the nine suggested reasons were related to the khat business, showing the significant role khat play in causing boys to drop out of school in Kangeta division. This is in line with (Agence, 2010) whose research indicated that in the region; primary school boys are the main khat labourers in farms and in market places. This implies that khat play dominant role in influencing these boys to drop out of school.

Table 4
Reasons for Not Completing School (n=10)

Reasons	Frequency	Percent
Working in khat farms	8	80
Ready money in miraa	7	70
Khat chewing	5	50
Selling of khat	5	50
Loss of parents	3	30
Economic hardships	2	20
Indiscipline cases	2	20
Early marriage	1	10
Irresponsible parents	1	10

Frequency of the Boys Engaging in Khat Business in a Week: The activities involved in Khat business engage the primary school boys between one and three days in a week during school time as shown in Table 5. The table indicates that majority of the boys involved in khat activities absent themselves from school 2-3 days in a week as reported by (Waweru, 2012). This rampant absenteeism is an implication that they do not have interest in learning. It therefore eventually lead to majority of the boys dropping out of school to fully engage in khat business as confirmed by Agence, (2010) and Kinoti, (2007).

Table 5
Frequency of the Boys Engaging in Khat Business

Activity	Frequency: Days per week (%)			
	Once	Twice	Thrice	None
Khat chewing	40	40	10	10
Working in khat farms for pay	30	20	50	-
Quick money in khat trade	20	30	40	10
Selling of khat	10	40	40	10

Perceptions of Head teachers on the Influence of Khat Production, Trade and Consumption on Boys School Dropout: Table 6 clearly indicates that majority of the head teachers of the primary schools in Kangeta Division strongly agreed and others agreed with the statements with regard to khat problems. This is noted to be an implication that khat production, trade and its consumption in the region is the major threat to education for the boys. A clear remedy to this problem should therefore be put in place in order for the boy child to remain school, this in line with the report by (Waweru, 2012) that school boys are being caught working in khat farms at the expense of school. It is also in accordance with the classical liberal theory of equal opportunity for education developed by Rousseau (1712-1778) and Horace Mann (1796-1889), The theory advocates that, an education system should be designed with a view to remove all barriers and threats that hinder children from taking advantage of inborn talents; implying that khat should not be a threat and a barrier to the education for the primary school boys in Kangeta Division.

Table 6

Perceptions of Head Teachers on the Influence of Khat Production, Trade and Consumption on Boys School Dropout.

Statement	Perception (% of the respondents)				
	SA	A	UD	D	SD
i. Khat is highly regarded and socially acceptable	100	-	-	-	-
ii. High poverty levels in the community cause boys to work in khat farms	30	30	-	30	10
iii. Quick and ready money in khat business lures boys out of school	80	20	-	-	-
iv. Working in khat farms influences boys to drop out of school	60	20	20	-	-
v. Working in khat business causes boys to drop out of school	50	50	-	-	-
vi. Chewing of khat is common to all males including primary school boys	60	40	-	-	-
vii. Khat chewing causes low mood to users	20	20	50	10	-
viii. Khat chewing causes tension and stress among users	20	40	40	-	-
ix. Khat chewing causes poor performance of learners in class	20	60	10	10	-
x. Boys copy the behaviour of khat chewing from their peers	70	20	-	10	-
xi. Boys copy the behaviour of khat chewing from their parents	40	50	10	-	-
xii. Chewing khat causes primary school boys to lose interest in school	70	20	-	10	-
xiii. Khat chewing causes primary school boys to drop out of school	50	20	20	10	-

4.3 Objective One

To examine whether the school dropout by primary school boys in Kangeta Division is as a result of providing the required labour in khat production. The total number of boys enrolled in ten schools in Kangeta at the beginning of the first term (2012) was 4988 while the number that was recorded at the end of the 2nd term (2012) was 4540. The difference between the total numbers of boys that were enrolled in the ten schools in a period of two terms was 448,

a percent dropout rate of 9% (Table 7). The class with the highest percent of boys dropping out of school was class 1 (11.47%), followed by class 3 (10.96%), then class 4 (10.29%), class 6 (10.27%), class 7 (9.87%), class 2 (9.05%), class 8 (6%) and finally class 5 (1.37%). This shows that this is a problem that cut across all the classes in the schools.

Table 7
Number and Percent of Boys at the Beginning of First Term and at End of Second Term (2012) in 10 Schools of Kangeta Division

Class	Number of boys		Difference	%
	Beginning of First Term	End of Second Term		
1	898	795	103	11.47
2	807	734	73	9.05
3	712	634	78	10.96
4	622	558	64	10.29
5	584	576	8	1.37
6	516	463	53	10.27
7	466	420	46	9.87
8	383	360	23	6.01
Total	4988	4540	448	8.98

The mean number of pupils who were enrolled in the beginning of the first term (2012) in the 8 classes within 10 primary schools in Kangeta division and the mean number of pupils who were still enrolled in those classes at the end of second term were compared using the paired *t* test (Table 8). The average number of boys who had dropped out of school (in the various classes) were found to be statistically significant ($p < .05$) higher than the average number that was admitted. This has an implication that the dropout rate of boys from the primary schools in Kangeta division was a critical problem.

Table 8

Paired t - Test on the Mean Difference between the Boys that Enrolled and Those that dropped out in Kangeta Division

Pair	Paired Differences					t	df	P
	Mean difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Mean Enrolled - 498.8	44.80	37.788	11.94	17.76	71.83	3.749	9	.005
Mean Dropped out 454								

The dropout rates for the different classes were also found to be significant ($p < .05$).

This implies that the rate of dropout is higher than the rate of enrollment in all classes except class 5, where the difference was not significant ($p > .05$) as given in Table 9.

Table 9

Paired t - Test on the Mean Difference between the Boys That Enrolled Those That Dropped Out in the 8 Classes

	Paired Differences			T	Df	P
	Mean difference	Std. Deviation	Std. Error Mean			
CLASS 1	10.30	12.428	3.93	2.621	9	0.028
CLASS 2	7.30	7.498	2.37	3.078	9	0.013
CLASS 3	7.80	8.121	2.56	3.037	9	0.014
CLASS 4	6.40	6.022	1.90	3.361	9	0.008
CLASS 5	0.80	8.363	2.64	.302	9	0.769
CLASS 6	5.30	5.90762	1.86815	2.837	9	0.019
CLASS 7	4.60	2.71621	.85894	5.355	9	0.000
CLASS 8	2.30	2.21359	.70000	3.286	9	0.009

Relating School Dropout Rate and the Reasons for Dropping out of School: The relationship between school dropouts and their engagement in khat business to provide labour in picking, preparation and marketing of khat was examined. The respondents were asked to give the different reasons for their dropping out of school and their responses are recorded in Table 10. Majority of the dropouts (81%) had dropped out of school to provide labour in khat farms

and business, 7% left due to peer pressure, 4% due to lack of interest in school, 4% needed money quickly, and 3% were orphaned.

Table 10
Reasons for Dropping Out of School

	Frequency	Percent
Labour in khat farming and business	171	81.4
Peer influence	14	6.7
Quick money	9	4.3
Orphaned child	7	3.3
Lack of interest in school	8	3.8
Lack of basic needs	1	0.5

A chi-square test for the equality of proportions for the number of dropouts and the different reasons they gave for dropping out of school is given in Table 11. The number of the students who dropped out and got engaged in the khat business was significantly ($p = .05$) higher than expected. This implies the number of students who dropped out of school in Kangeta division was to provide labour in the khat business which concurs with the findings of (Agence & Wanja, 2010) and with the report made by Kinoti, (2007) and (The Standard Newspaper 2012, Wednesday 27). They all revealed that the labour force in the region consist mainly of school dropouts (boys) who engage in khat business while others are employed as casual labourers in khat farms; and so interventions are required to ensure the residents embrace education as a means of development.

Table 11

Chi-square Test for the Different Reasons for Dropping out of School

Reasons	Observed N	Expected N	Residual
Labour in khat farms and business	171	35.0	136.0
Peer influence	14	35.0	-21.0
Quick money	9	35.0	-26.0
Orphaned child	7	35.0	-28.0
Lack of interest of school	8	35.0	-27.0
Lack of basic needs	1	35.0	-34.0
Total	210		

(Chi-square 636.629, df 5, p .000)

4.4 Objective Two

To establish how khat consumption by primary school boys in Kangeta Division influence them to drop out of school: The age at which the school dropouts (boys) in Kangeta division started chewing khat and the age at which they dropped out from school is given in Table 12. The majority of the school dropouts in Kangeta division (55%) started chewing khat between the age of 10 to 14 years, followed by the age group of 15 to 19 years (25%) and finally the age group of below 10 years (20%). The majority of the dropouts in Kangeta division (49%) dropped from school at the age of between 15 and 19 years, followed by the age group of 10 to 14 years (46%) and finally the age group of below 10 years (5%).

Table 12

Frequency Distribution of Age at Which the Boys Started Chewing Khat and at Which They Left School

Age category (years)	Started chewing khat		Dropped out of school	
	No.	%	No	%
Below 10	41	19.5	11	5.2
10 – 14	115	54.8	96	45.7
15 – 19	52	24.8	103	49.0
20 -24	2	1.0	-	-
Total	210	100.0	210	100.0

The class at which the school dropouts in Kangeta division started chewing Khat and the class at which they dropped out from school is given in Table 13. The majority of the school dropouts in Kangeta division (27%) started chewing khat in class 6, followed by the ones who started chewing in class 4 (20%) and then the ones who started chewing khat in class 7 (17%) and finally the ones who were in class 2 and 3 (6%) when they started chewing khat. The majority of the dropouts in Kangeta division (39%) left school when they were in class 7, followed by the ones in class 6 (28%) when they left school, then in class 5 (10%) when they left school, and those in class 4 (9%) when they left school, and in class 8 (6%) when they left school.

Table 13

Class at Which Boys started Chewing Khat and at which they Left School

Class	Started chewing miraa		Dropped out of school	
	No.	%	No	%
1	9	4	2	1
2	13	6	9	4
3	13	6	7	3
4	42	20	18	9
5	34	16	22	11
6	56	27	59	28
7	35	17	81	39
8	1	1	12	6
Already left school	7	3	-	-
Total	210	100	210	100

Age at Which the Boys Started Chewing Khat: A chi-square test for the equality of proportions revealed that the age category of 10 to 14 years was significantly ($p = 0.05$) higher than expected (Table 14). This implied that majority of the school dropouts in Kangeta division started chewing Khat at an age of between 10 and 14 years.

Table 14

Chi-square Test on the Age at Which the Dropouts Started Chewing Khat

	Observed N	Expected N	Residual
Below 10	41	52.5	-11.5
10-14	115	52.5	62.5
15-19	52	52.5	-0.5
20-24	2	52.5	-50.5
Total	210		

(Chi-square 125.505, df 3, p .000)

Age at Which the Boys dropped Out of School: A chi-square test for the equality of proportions revealed that the age category of 15 to 19 years was significantly ($p = 0.05$) higher than expected (Table 15). This implied that majority of the school dropouts in Kangeta division left school at age of between 15 and 19 years.

Table 15

Chi-Square Test on the Age at Which Dropouts Left School

Age category	Observed N	Expected N	Residual
Below 10	11	70.0	-59.0
10-14	96	70.0	26.0
15-19	103	70.0	33.0
Total	210		

(Chi-square 74.943, df 2, p .000)

Class at Which Boys Started Chewing Khat: A chi-square test for the equality of proportions revealed that class 6 was significantly ($p = 0.05$) higher than expected (Table 16). This implied that it was at class 6 when the majority of school dropouts in Kangeta division started chewing khat.

Table 16

Chi-Square Test on the Class at Which Dropouts Started Chewing Khat

	Observed N	Expected N	Residual
Class 1	9	23.3	-14.3
Class 2	13	23.3	-10.3
Class 3	13	23.3	-10.3
Class 4	42	23.3	18.7
Class 5	34	23.3	10.7
Class 6	56	23.3	32.7
Class 7	35	23.3	11.7
Class 8	1	23.3	-22.3
Already left school	7	23.3	-16.3
Total	210		

(Chi-square 122.143, df 8, p .000)

Class at Which the Boys Dropped Out of School: A chi-square test for the equality of proportions revealed that class 7 was significantly ($p = 0.05$) higher than expected (Table 17). This implied that it was at class 7 when the majority of school dropouts in Kangeta division left school.

Table 17

Chi-Square Test on the Class at Which Dropouts Left School

Class	Observed N	Expected N	Residual
1	2	26.3	-24.3
2	9	26.3	-17.3
3	7	26.3	-19.3
4	18	26.3	-8.3
5	22	26.3	-4.3
6	59	26.3	32.8
7	81	26.3	54.8
8	12	26.3	-14.3
Total	210		

(Chi-square 213.924, df 7, p .000)

Khat chewing lead to school dropout by causing lack of concentration in class (36%), sleeping in class (30%), sleepless nights (14%), peer pressure (7%), Absenteeism (6%), poor performance (5%) and lateness in school because of oversleeping (1%) as given in Table 18.

This is in line with the findings of Maithya (2009) and Sternberg (2003) who observed that students who use khat lose the concentration span; lose interest in school work leading to absenteeism and eventual dropping out of school. Kyalo (2010) also revealed that khat use affect the decision making process of the students, creative thinking and the development of necessary life and social skills stagnates. This is also in accordance with the findings made by (NCST, 1996 & Wanja, 2010) and with the social cognitive learning theory advanced by Bandura (1986) which confirms that khat chewing is common habit that attracts young people where peer influence and fear of being labeled a non-conformist plays a vital role in the acquisition of the habit.

Table 18
Ways in which Khat Chewing lead to School Dropout by Boys

How miraa cause school dropout	Frequency	Percent
Lose of class concentration	76	36.2
Sleeping in class	63	30.0
Sleepless nights	30	14.3
Peer pressure	14	6.7
Absenteeism	13	6.2
Poor performance	11	5.2
Lateness in school because of oversleeping	3	1.4
Total	210	100.0

Table 19
Causes of School Dropout (n=210)

Causes of school dropout	Frequency	Percent
Chewing khat cause: Lose interest in class work	170	82.5
Chewing khat cause: Lose concentration in class	186	90.3
Engaging in khat chewing causes boys to drop out of school	189	91.7
Engaging in selling khat for chewing causes boys to drop out of school	191	92.7

4.5 Objective Three

To establish the extent to which involving in khat trade by primary school boys in Kangeta Division influences them to drop out of school. The school dropouts were asked to explain

what they were currently engaged in Table 20. majority of the school dropouts (32%) were engaged in selling of khat in the market, while 28% were engaged in khat picking, 22% in khat business (preparation, transportation), 7% working in kiosk, 4% were selling in shops, 4% were providing manual labour in farms and market, 3% were hawking in town, and 0.5% were doing nothing.

Table 20
Activities the School Dropouts Were Engaged in

Activity	Frequency	Percent
Selling of khat in market	67	31.9
Picking of khat	58	27.6
Khat business	46	21.9
Working in kiosk	14	6.7
Selling in shop	9	4.3
Manual labour in farms or market	8	3.8
Hawking in town	7	3.3
Doing nothing	1	0.5
Total	210	100.0

A chi-square test for the equality of proportions for the number of dropouts and the type of activity they were engaged in showed that the number of school dropouts that were engaged in selling of khat were significantly ($p < 0.05$) higher than expected (Table 21). This has the implication that there were a good number of the dropouts who were engaged in selling of khat. This is noted to be in accordance with the report made by the (Meru North District Strategic Plan 2005-2010) which revealed that generally, labour force in the District constitute 49.7% of the total population and is composed mainly of school dropouts who engage in khat small-scale and micro-enterprises sector.

Table 21
Chi-Square Test Comparing the Dropouts Activities

Activity	Observed N	Expected N	Residual
Khat business	46	26.3	19.8
Selling of miraa in market	67	26.3	40.8
Picking of khat	58	26.3	31.8
Working in kiosk	14	26.3	-12.3
Selling in shop	9	26.3	-17.3
Hawking in town	7	26.3	-19.3
Manual labour in farms and market	1	26.3	-18.3
Doing nothing	1	26.3	-25.3
Total	210		

(Chi-square 184.667, df 7, p .000)

4.6 Mitigation Measures Suggested by Head Teachers

Mitigation measures that were ranked number one by the head teachers are given in Table 22. Majority of the head teachers (30%) recommended the involvement of provincial administration, 20% the educating of parents, 20% the use of law to stop using boys in khat farms, 20% the DEO be involved in following up the dropouts, and 10% the stakeholders and local leaders to stop using school boys in khat farms.

Table 22
Mitigation Measures Suggested by Head Teachers

	Frequency	Percent
Provincial administration be involved	3	30
Parental education on importance of education	2	20
Outlaw using of small boys labour	2	20
Stakeholders should not to use boys	1	10
D.E.O's be involved in following up boys	2	20
Total	10	100

4.7 Youths' Desire to Re – Enroll in School

When the youths were asked if they wanted to go back to school and leave the khat business, majority of them (62%) responded by saying “yes” Table 23. This is an indication that that

they still value school despite them being engaged in khat activities. And so a solution can be reached where the youths are taught out of school at night or when they are free (a form of adult education system for them)

Table 23
Youths' Desire to Re-enroll in School

	Frequency	Percent
Would like to go back to school given chance	130	62
Would not want to go back to school	80	38
Total	210	100

4.8 How the School Dropouts Spent Money Earned from Khat Trade

The money from the khat trade is mainly spent on food, personal effects and buying luxury items as indicated in table 24. Few of the youths use it for supporting their family, building and purchasing livestock.

Table 24
How the School Dropouts spent the Money Earned from Khat Trade (n=210)

	Frequency	Percent
Buy foodstuffs	188	89.5
Personal effects	154	73.0
Purchase luxury items	68	32.0
Support my family	32	15.0
Building	19	9.0
Buy / purchase livestock	13	6.0

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

This chapter gives the summary, conclusions and recommendations. It also gives suggestions for further research. The study explored the influence of khat (miraa) production, trade and consumption on primary school among boys in Kangeta Division Igembe South District.

5.2 Summary of the Study

This study sought to find out whether the primary school boys dropped out of school in order to provide the required labour in khat production or whether they dropped out of school as a result of khat consumption. It also sought to explore the extent to which engaging in khat trade by primary school boys influenced them to drop out of school. To get the required information, head teachers' questionnaire and interview guide for the school dropouts were administered by the researcher. Both instruments sought to solicit relevant information about khat production, trade and consumption and how these variables influence the primary school boys' school dropout. The instruments further sought to identify the mitigation measures that can be used to curb the problem. The instruments face and content validity was determined through discussions with peers and opinion of experts from the Department, who evaluated the items on their appropriateness, content and adequacy. The instruments were piloted in Maua Division to determine their alpha reliability and the results of the pilot test were used to further revise the instruments.

The study was conducted in Kangeta Division, Igembe South District. Ten primary schools' head teachers participated in the study by completing the questionnaire. The return rate was hundred percent. The achievement of this rate however, required several visit by the researcher to schools to ensure the questionnaires were duly completed. Two hundred and ten school boys' dropouts working in various khat activities were interviewed by the researcher from Muringene, Kangeta and Muutine market centres.

Data sources from the 10 primary schools that were studied indicated that at the beginning of 1st term 2012 the schools had 4988 boys and at the end of second term 2012 the number of boys was 4540. This gave a dropout of 448 boys within duration of only two terms giving a percentage dropout rate of 9%. The Head teachers of these schools in Kangeta division gave

nine reasons for school boys dropping out of school. Out of the nine, four reasons were strongly linked to khat activities; for instance (80%) mentioned working in khat farms, 70% mentioned ready money in khat business, 50% mentioned khat chewing, and 50% khat selling. This clearly implies that there is a significant role khat play in causing boys to drop out of school in Kangeta division. It was also evident that most of the primary school boys absent themselves from school up to three days in a week to offer cheap labour in khat farms for easy money and to chew the crop. This means that a learner who is absent of class most of the times have no interest in learning and may eventually end up dropping out of school.

The relationship between school dropouts and their engagement in the khat business to provide labour in picking, preparation and marketing of khat was examined. The respondents gave different reasons for their dropping out of school; the majority of the dropouts (81%) had dropped out of school to provide labour in khat farms and business and 7% left due to peer pressure to join others who are working in khat business. Majority clearly admitted that easy money made in khat trade lures them to drop out of school. The implication here is that khat crop is a threat to the boys' education in Kangeta Division. This calls for an intervention and concerted efforts by all the stake holders and policy makers in order that the community embraces education as a means of development in the region. Furthermore, when the youths were asked if they wanted to go back to school and leave the khat business, majority of them (62%) responded by saying "yes". This is an indication that they still value school despite them dropping out of school to not engage in miraa activities. After all, majority (89.5%) of the dropouts confirmed that the money they earn after offering cheap labour in khat production is used for buying their food; implying that this money is not put into very good use for instance investments or payment of school fees. Thus a solution can be reached where the youths are taught out of school at night or when they are free (a form of adult education system for them).

There is also clear indication that chewing of khat by the primary school boys cause them to drop out school. The age at which the school dropouts (boys) in Kangeta division started chewing khat and the age at which they dropped out from school was examined. Majority of the school dropouts in Kangeta division (55%) started chewing khat between the ages of 10 to 14 years. The majority of the dropouts in Kangeta division (49%) dropped out of school at the ages of 15 and 19 years in classes 6 and 7. The dropouts responded as follows; khat causes dropouts by making the boys not to concentrate in class (36%), sleeping in class (30

%), sleepless nights (14%), peer pressure (7%), Absenteeism (6%), poor performance (5%) and lateness in school because of oversleeping (1%). This behavior that results from khat chewing implies that learners who chew khat consistently are likely to be undisciplined and may definitely not be in a better position of completing school. Since khat is a drug, it shows that drug abuse is a reality among the youth especially in Kenya. The implication is that with this threat hanging over, the future of the society is uncertain and therefore something must be done urgently to address the problem. Change can only be attained if all the parties concerned have seen its need and have made an informed decision to effect it. Eradication of drug abuse is therefore the collective responsibility of all the stakeholders.

5.3 Conclusions

Based on findings of the study, the researcher concluded that khat production trade and consumption were the major economic activities in Kangeta Division. The crop was highly regarded, socially accepted and played a dominant role in promoting the culture and economy of Kangeta Division. However, despite the positive contributions, it had a significant influence on school dropout among the primary school boys in the area.

Khat activities were partly responsible for the 9% primary school boys' dropout rate in Kangeta Division. These activities, according to the primary schools Head teachers included working in khat farms, trading in khat, chewing khat and easily obtained money from khat trade.

The researcher also concluded that peer pressure to participate in the profitable khat activities in Kangeta Division was partly responsible for their school dropout. Boys who dropped out and experienced a working life regretted having done so. This was made clear by 62% of the respondents who said if given a chance, they would return to school.

The researcher further concluded that khat chewing which started mainly at 10 years of age led to less concentration in class, more indiscipline and eventual school dropout among the boys.

5.4 Recommendations of the Study

Based on the study findings the following recommendations were made:-

- i. Provincial administration in collaboration with parents should ensure that anyone caught using school boys in khat farms and trade faces legal action.
- ii. Leaders and education professionals should sensitize and educate the parents on the importance of education for their children.
- iii. They should organize seminars with dropouts and khat traders to sensitize them on better use of product as a positive investment in education.
- iv. Local leaders should set a policy that prohibits boys from providing labour in farms and trading in khat business before they complete school.
- v. The District Education Officer should be involved in following up the school dropouts and to ensure that the stakeholders and local leaders in the community do not use boys in their khat farms and businesses. This would make them be good examples to other farmers and traders.
- vi. Guidance and counseling programmes in schools should be strengthened to help curb consumption of khat by school boys.
- vii. An arrangement should be made to teach the youths out of school at night or when they are free.

5.5 Recommendations for Further Research

- i. Other researchers should replicate this study to determine whether the situation is different in other areas, This would help them come up with a more comprehensive programme for prevention of khat use or abuse.
- ii. Given that in this study guidance and counseling is mentioned as a method of addressing drug abuse in schools, its effectiveness in addressing the problem of khat chewing should be investigated carefully.

REFERENCES

- Abagi, O. & Odipo, G. (1997). *Efficiency of Primary Education in Kenya*. Situation Analysis Implications IPAR Discussion Paper No 007195.
- Abagi, O. (1999). *Education for the Next Millennium* in P. Kimuyu, M. Wagacha & O, Abagi (eds). Kenya's Strategic Policies for 21st Century: Macro and Sectoral Choices, Nairobi. Institute of Policy Analysis SRNo. 03/2000.
- Abagi, O. (2000). *Implementing the Report of the Commission of Inquiry into the Education System of Kenya. (The Koech Report)*. Realities, challenges and prospects. Nairobi. Institute of Policy Analysis SRNO.03/2000.
- Achoka, J. Odebero, S. Maiyo, J. & Mualuko, N. (2007). Access to Basic Education in Kenya, Inherent Concerns. *Educational Research and Review* Vol 2 (10). PP 275-284.
- Agence, F. (2010). *Miraa enriching Kenyan Middlemen* – Powered by *Capital FM*. Retrieved November 28, 2011 from www.capitalfm.co.ke/news.../miraa-enriching-kenyan-middlemen.
- Alem, A., Kabede, D. & Kullgren, G. (1999). The Prevalence and Socio-Demographic Correlates of Khat Chewing in Butasira, Ethiopia. *Acta. Psychiatrica Scandinavica Supplementum*, PP 84-91.
- Balian, E. S. (1988). *How to design, analyze, and write doctoral or master's research*, 2nd ed. pp. 185-192. New York, NY: University Press of America.
- Bandura, A. (1986). *Social Learning Theory*, Englewood cliffs NJ; Prentice Hall.
- Borg, W. Gall, M. & Gall, J. (1996). *Educational Research. An Introduction*. New York:
- Canagarajah, S. & Nielsen, H. (2001). "Child Labour in Africa: A comparative Study". The Annals of the American Academy. AAPSS, 575, May P. 71-91.
- Cunningham, H. & Paolo, V. (1996). *Child Labour in Historical Perspective*. 1800-1985: Case studies from Europe, Japan and Colombia – Florence, UNICEF International Child Development Center.
- Cockburn, J. (2001). *Child Work and Poverty in Developing Countries*. Oxford University Press: Oxford.
- Cohn, E. & Johnson, E. (2006). *Class Attendance and Performance in Principles of Economics*. Universal Primary Education, from Wikipedia, the Free Encyclopedia.V14 n 2 (June 2006); 211-233. EBSO Host. 27 Nov 2006.
- Dehaja, G. & Roberto, R. (2001). "Child Labour: The Role of Income Variability and Access to Credit in a Cross-section of Countries". *Policy research working paper. No 2767 World Bank Washington D.C No. 24*.
- Delap, E. (2001). Economic and Cultural Forces in the Child Labour Debate". Evidence from Urban Bangladesh" *Journal of development studies* – 37 (4), 1-22.

- Elmis, A. (1983). The Chewing of Khat in Somalia. *Journal of Ethno pharmacology* Pgs. 8,163-176.
- Goldsmxzith, P. & Wang, J. (1999). When can Schools Affect Dropout Behaviour. A Longitudinal Multilevel Analysis. *American Educational Research Journals* 36, 715-738.
- Hammarberg, T. (1997). *A School for Children with Rights*: UNICEF, International Child Development Center.
- Hammerberg, T. (2000). *Making Reality of the Right of the Child – The UN Convention. What it says and how it can Change the Status of the Children Worldwide*. The International saves the Children Alliance, London.
- Holyfield, L. (2002). *Moving up and out: Poverty, Education and Single parent Family*. Philadelpha PA: Temple University Press.
- ILO (2007). *Action against Child Labour: (2006-2007)* Retrieved 7, November, 2011, from www.ili.org/ipecc/action/lang-en/index.htm Progress and Future Priorities: Yeneva Author.
- IPEC (2007). *Action against Child Labour. (2006-2007)* Retrieved November 7, 2011, from www.ilo.org/ipeccinfo/product/download/do?type=document%id.Progress.and.future.Priorities: Yeneva Author.
- Itunga, A. (2011). *The Threat to Free Primary Education in Kenya*. June 2011. Retrieved November 25, 2011, from www.build-africa.org/news.php/69/index.php
- Jones, A. (2011). *Importance of Education*, About. Comguide. Retrieved January 4, 2011, from physics.about.com/2011/the-importance-of-education
- Kaburu, M. (2010). *Aeromarine Logistics Clearing and Forwarding Shipping Tags Related News*. *Nation Media*. 2010. Retrieved December 20, 2011 from aeromarine.co.ke/index.php?Mact=news.cntnt01.print.0.
- Kalix, P. (1984). The Pharmacology of Khat. *General Pharmacology*, (Pgs15, 179-187).
- Kamotho, K. (1999). Sessional Papers No 1 of 2005: Setting an Agenda, Teachers' Image. 14, 7-8.
- Karanja, S. (2011). Earnings From Miraa Entice Farmers. *Daily Nation* Tuesday 1st November page 8. Nation Media Group Ltd. Nation Centre. Kimathi Street Nairobi.
- Karemesi, J. (2010). *Universalizing Primary Education in Kenya. Is it Sustainable?* Retrieved December 6, 2011 from usbec.wordpress.com/2010/.../universalizing-primary-education-in-k...
- Kathuri, J. & Pals, A. (1993) *Introduction to Educational Research*. Educational Media Centre (EMC): Egerton University.

- Kelly, R. (1999). *Economic and Demographic Behaviour of Households in Kenya*. Nairobi; Macmillan Publishers.
- Kelly, J. (2005). *Zooming in Khat. They are Eating our Trees*. October, 23 2005, Sunday Times (Perth). Retrieved December 10, 2011 from www.biyokulele.com/khat%20stories.htm.
- Kennedy, J., Teague, J. & Rokaw, W. (1983). A Medical Evaluation of the Use of Qat in North Yemen. *Social Science and Medicine*, (Pgs17, 183-793).
- Kess, P. (2005). *Delivering Quality Education and Training to all Kenyans*. Kenya Education Sector Support Program 2005. <http://www.education>. Nairobi
- KIE (2002). *Secondary Education Syllabus*. Humanities Volume Three KIE, April 2002.
- Kinoti, L. (2007). *Children Hooked to Miraa*. The Standard, Standard group Ltd, Nairobi.
- Kombo, D. & Tromp. A. (2008). *Proposal and thesis writing: An Introduction*, p. 168. Nairobi: Pauline's Publications Africa (ISBN: 9966-08-106-2)
- Kothari, C. (2008). *Research methodology: Methods and techniques*, (pp. 1-56). New Delhi: New Age International (P) Limited, Publishers (ISBN 10:81-224-1522-9).
- Kuebler, J. (2011). *Coalition Members ask Obama to Highlight the Importance of Education to Global Recovery*. Retrieved January 8, 2012 from www.campaignforeducationusa.org/.../coalition-members-ask-obama.
- Kyalo, P. (2010). *Drug and Substance Abuse*. A paper Presented to Kenya association of Professional counselors at Safari Park Hotel Nairobi.
- Liesbet, S. & Geraldine, B. (2010). *What drives Donor Financing of Basic Education*. London. Overseas Development Institute.
- Lockshin, S.Y. (2001). *Households Schooling Decisions in Rural Pakistan*, Mimeo, World Bank, Country Economics Department.
- Louw, D. (2001). *Human Development* (Edition 2). Kagiso Tertiary: Cape Town.
- Maitr, P & Ray N, (2002). *The Joint Estimation of Child Participation in Schooling and Employment: Comparative Evidence from Three Countries*. Oxford Development Studies 30(1), 41-62.
- Manu, G. (2007). *The Importance of Education*. Retrieved November 9, 2011, from mgoelwrytestuff.com/swa230219.htm
- Maithya, R. (2009). *Drug Abuse in Secondary Schools in Kenya*. Developing a program for prevention and intervention. UNISA November 2009.

- Michela, W. (2005). *Green Gold. How a Small Kenyan Town Developed the Most Efficient Agricultural Industry on the Planet*. Retrieved November 24, 2011, from jukwaani.proboards.com/index.cgi?board=jukwaa&action=10
- Mingat, A. (2002). *Achieving Universal Primary Education by 2015*. A chance for Every Child.
- Ministry of Education Science and Technology, (2003). Report of the Education Sector Review.
- Ministry of Education Science and Technology, (2003). Free Primary Education. Every Child in School. Nairobi. UNESCO.Org/international/ICE47/English/Natreps/reports/Kenya.
- Ministry of Education Science and Technology, (2005). *Free Primary Education: Every child in School*. Nairobi. Ibe.unesco.org/international/ICE47/English/Natreps/reports/Kenya
- Ministry of Education (Republic of Kenya), (2009). Education Facts and Figures. EMIS, Kenya. June 2009.
- Mugenda, O & Mugenda A. (2003). *Research Methods*. Quantitative and Qualitative, Approaches, Nairobi: Acts press.
- Muchiri, P. & Muchui, D. (2012). Miraa Crop takes the Blame for the Regions' Violence. *The Standard News Paper* Thursday January 26th page 19, the Standard Ltd. Nairobi.
- Mutai, B. K. (2000). *How to Write a Quality Research Proposal: A complete and simplified recipe*. Kenya. Nairobi. Egerton University.
- Muthoki, M. (2011). Miraa Growers Counting Losses as Largest Market Shrinks by the Day. *Daily Nation* Tuesday October 25th page 10, Nation Media Group Ltd. Nation Centre, Kimathi Street Nairobi.
- Muthoki, M. (2012). Miraa Traders may lose British Market. *Daily Nation* Wednesday January 18th page 27, Nation Media Group Ltd. Nation Centre, Kimathi Street Nairobi.
- NACADA (2004). *Do Drugs Control Your Life? Know the Risks*. Retrieved November 20, 2011, from Diasporakenyan.se/effects-of-negative-change-and-abuse-am.
- NACADA (2008). *Annual Report for the Office of the National Campaign against Drug Abuse*, Nairobi. Retrieved November 24, 2011, from www.capitalfm.co.ke/new/2008/08/nacada-say-no-tomiraaban/.
- Neil, C. (2005). Miraa is Cool. *The Cultural Importance of Miraa (khat) for Tigania and Igembe Youth in Kenya*. Vol. 17. No.2 (Dec. 2005). (Pgs.201-218).
- NCST, (1996). A report of National Council for Science and Technology. NCST NO. 40 (JUNE 1996).

- Omolo, C. (2012). Miraa Farming Raises Concern. Children in the fields. *Daily Nation* Page No 9, Nation Media Group Ltd. Nation Centre. Kimathi Street Nairobi.
- Orodho, A. (2003). *Essential of Education and Social Science Research Methods*. Masola Publishers.
- Paul, J. (2011). *Cross-sectional Survey Design*. SAGE Research Methods. Retrieved February 25, 2012, from simo.sagepub.com/view/encyclopedia-of-survey.html.
- Pauline, R. (2011). *For refugees in Kenya, Education is the only thing we can take home*. Retrieved December 8, 2011, from efareport.wordpress.com/2011/for-refugees-in-Kenya-education-i
- Peverly, S. (2006). *Moving Past Cultural Homogeneity: Suggestions for Comparisons of Students Educational Outcomes in the United States and China.*”
- Post, D. (2001a). *Childrens’ Work, Schooling and Welfare in latin America*. Boulder, Colorado: Westview Press.
- Psacharopoulos, G & Patrinos, H. (2001). *Returns to Investment in Education up to the New Choices*. New York: Oxford University Press.
- Psacharopoulos, G & Woodhall, M. (1985). *Education and Development. An Analysis on Investment*.
- Ray, R. (2000). Child Labour, Child Schooling and their Interaction with Adult Labour Empirical Evidence for Peru and Pakistan”, *World Bank Economic Review*, 14 (2) : (Pg 347-367).
- Republic of Kenya (1964). Kenya Education Commission on Education Report. (Ominde Report). Nairobi: Government Printers.
- Republic of Kenya (1998). *Master Plan on Education and Training 1997-2010* Nairobi: Government Printers.
- Republic of Kenya (2003). Report of the Sector Review and Development Direction. Nairobi: Government Printers.
- Republic of Kenya and United Nations, (2003). Millennium Development Goals: Progress report for Kenya, (2003). Nairobi. www.waet.uga.edu/wiki/index.php/Kenya
- Rew, L. (2005). *Adolescent Health; A Multi-disciplinary Approach to Theory Research and Intervention*. California: Sage Publications.
- Schultz, K. (1961). *The Economic Value of Education*. New york: Columbia University Press.
- Sherman, T. & Wood, H. (1982). *Traditional and Radical Perspectives*. New York: Oxford University Press.
- Sternberge, R. (2003). *Cognitive Psychology*. United States :Thomson Wadworth.

- Toor, S. (2001). Child Labour in Pakistan; Coming of Age in the New World Order. *Annals of the American Academy of Political and Social Sciences*.575, (Pg.194-224.)
- UNESCO (2002). The Impact of HIV/AIDS on Education and Institutionalizing Preventive Education.
- UNESCO (2005). *First Language First*. Community Based literacy programs for minority Language contexts in Asia.
- UNESCO (2005). *Challenges of Implementing Free Primary Education in Kenya: Assessment Report*, UNESCO. Nairobi Office.
- UNESCO (2006). *Impacts of Free Primary on Early Childhood Development in Kenya*. No 30/ January-February 2006 UNESCO Policy Brief on Early Childhood. <http://unesdoc.unesco.org/image/0014/001433/143320E>.
- UNICEF (2005). *Child Labour Today – End Child Exploitation* – U.K. Retrieved November 24, 2011, from www.unicef.org/mdg/education.html
- Wahba, J. (2001). *Child Labour and Poverty Transmission: No Room for Dreams*. Working Paper Series No. 0108, Cairo. Economic Research Forum for the Arab Countries, Iran and Turkey. (ERF).
- Wanja, E. (2010). *Challenges Principles face in Enhancing Students Discipline in Secondary Schools in Tigania District, Kenya*.
- Waweru, J. (2012). Miraa farming raises concern. *Daily nation* Tuesday January 3rd Page 9 Nation Media Group Ltd. Nation Centre. Kimathi Street Nairobi.
- WHO (1983). Doc. EM/ INC/ MTG MSE ASP KHT 17, WHO *Inter-Country Meeting on Khat held in Mogadishu, October 24 – 28, 1983*.
- World Bank (2002). *World Development Indicators – 2000*. Washington, DC: Word Bank.
- Yetu, E. (2003). *Monitoring of the Free Primary Education and Establishing the Unit Cost of Primary Education in kenya*. Coalition [http://www.commonwealtheducationfund.org/downloads/Kenyamonitoring FPE](http://www.commonwealtheducationfund.org/downloads/KenyamonitoringFPE).
- Young, E. (2000). *From Early Childhood Development to Human Development*. Washington DC: World Bank.

APPENDIX A

Cover Letter for Head teachers

Dear Respondent,

I am a MSC Agricultural Education student at Egerton University, Njoro Campus. I am conducting a research study on the influence of Khat production, trade and consumption on school dropout among the primary school boys in Kangeta division. I am glad to inform you that your school has been selected to participate in the study. Information gathered through this questionnaire will be made available to policy makers, educationists and interested stakeholders in order to help curb the high school dropout among the boys in the region. You are kindly requested to sincerely respond to the items in the questionnaire. All the information provided will be strictly used for academic purposes and your identity will be kept confidential. Do not write your name or that of your school on this paper.

APPENDIX B

Head Teachers' Questionnaire

Instructions

The answers are to be indicated directly on the spaces provided by making a tick on the most appropriate answer and also writing down information where applicable. The information provided will be kept confidential.

1. Indicate against the class the number of boys initially enrolled at the start of the first term and currently enrolled in your school on the table shown below.

Class	Initially enrolled at the start of first term (2012)	Enrolled at the end of second term (2012)
1		
2		
3		
4		
5		
6		
7		
8		

2. (a) Do all the boys admitted in standard one complete standard eight in their cohort?

Yes No

- (b) If Not, what are the reasons for not completing school?

Khat chewing	<input type="checkbox"/>	Economic hardship	<input type="checkbox"/>
Ready money in khat trade	<input type="checkbox"/>	working in khat farms	<input type="checkbox"/>
Loss of parents	<input type="checkbox"/>	selling of khat	<input type="checkbox"/>
Indiscipline cases	<input type="checkbox"/>		
Others (specify)			

3. (a) Is there class repetition by the boys in your school?

Yes No

- (b). If yes what do you think are the reasons for repeating?

Khat chewing	<input type="checkbox"/>	Working in khat farms	<input type="checkbox"/>
Ill-health	<input type="checkbox"/>	Selling khat	<input type="checkbox"/>
Lack of interest in learning	<input type="checkbox"/>		
Others specify.....			
.....			

4 (a) How frequently does these factors/reasons about khat make boys miss school?

Reasons	3 days/ week	2 days/ week	Once/ week	Not at all
Khat chewing				
Work for pay in khat farms				
Quick money earned in khat trade				
Acceptability of miraa by the Society				
Khat selling				

Others specify.....

5. (a) Have you conducted guidance and counseling services in your school in the last 3 or 6 months?.

Yes No

(b) If yes, what topics were covered?

Drugs and substance use Time management Child labour
 HIV/AIDS Khat use and abuse Early marriages

Others specify.....

(c) Does the guidance and counseling conducted serve as a measure of curbing the school dropout for the boys?

Yes No

6. Please indicate the extent to which you agree or disagree with the following statements on influence of khat production, trade and chewing on the boys' school dropout.

Key: SA- Strongly Agree A- Agree U- Undecided D- Disagree SD- Strongly Disagree. Tick one.

Statement	SA	A	U	D	SD
i. Khat is highly regarded and socially accepted by the community.					
ii. High poverty level in the community causes the school boys to work in khat farms.					
iii. The quick and ready money the school boys earn when they engage in khat activities lures them to drop out of school.					
iv. Working in khat farm by school boys influences them to drop out of school.					
v. Engaging in khat business by primary school boys causes them to drop out of school.					
vi. Chewing khat is common to all males including primary school boys.					
vii. Chewing Khat causes the school boys lose concentration in class work.					
viii. Khat chewing causes low mood to the user.					
ix. Khat chewing causes tension and stress among the user.					
x. Khat chewing by learners causes poor performance in class.					
xi. Primary school boys who chew khat learns the habit from peers					
xii. Primary school boys who chew khat copy the behavior from their parents					
xiii. Chewing khat by the primary school boys make them lose interest in school.					
xiv. Khat chewing among primary school boys causes them to drop out of school.					

7. In your own opinion, how does khat production cause school dropout among the primary school boys?

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

8. Suggest mitigation measures to be put in place to ensure khat does not influence the boys to drop out of school?

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

THANKS FOR YOUR CO-OPERATION

APPENDIX C

Interview Guide for the Primary School Dropouts

Interview guide will be used by the researcher to gather relevant information from the school dropouts (boys) about influence of Khat production, trade and consumption on dropout among the primary school boys in the Division. The researcher is a MSC AGED student at Egerton University. Information gathered through this interview will be made available to policy makers, educationists and interested stakeholders in order to help curb the school dropout among the boys in the region. Therefore, you are kindly requested to provide the researcher with accurate information. Your responses will be treated as confidential.

1. What is your age in years?

Below 10 10 - 14 15 - 19 20 -24 above 24

2. At what age in years did you drop out of school?

Below 10 10 - 14 15 - 19 20 -24 above 24

3. Which class were you in when you dropped out of school?

Class 1

Class 5

Class 2

Class 6

Class 3

Class 7

Class 4

Class 8

4. What were the reasons for dropping out of school?.....

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

5. Do you chew khat? Yes No

6. What age were you when you started chewing khat?

Below 10 10 - 14 15 - 19 20 -24 above 24

7. Which class were you in when you started chewing khat?

Class 1

Class 2

Class 3

Class 4

Class 5

Class 6

Class 7

Class 8

Already left school

8.(a) Does the parents encourage the boys to chew khat?

Yes No

9.Does chewing of khat by learners makes them lose interest in school?.

Yes No

10.Does the chewing of khat by learners makes them lose concentration in class?

Yes No

11.(a)Does engaging in khat chewing by the boys cause them to drop out of school?

Yes No

(b) If yes how does chewing of khat cause school dropout.....

.....
.....

12. How much money do you earn per day from the labour you offer in khat?

Below 200 Kshs 201 -300 Kshs 300 – 500 Kshs above 500 Kshs

13. Does the money you earn after offering labour in khat production caters for your entire requirement?

Yes No

14. Does the money the boys earn after working in khat farms cause them to drop out of school?

Yes No

15. Does engaging in selling khat by school boys cause them to drop out school?

Yes No

16. How do you spent the money you earn in khat business?.....

.....
.....

17. How does khat contribute to drop out of school by the primary school boys?

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

18. Would you like to stop working in Khat business and re-enroll in school?.....

.....

Appendix D

Enrolment in Primary Schools that were involved in the Study

No.	Name of School	Enrolment
1	Thuuru	448
2	Limoro	297
3	Kandubai	886
4	Ntuti	276
5	K.K. Muuti	173
6	Gituene	662
7	Churui	587
8	Thumbereia	287
9	Kiujuline	424
10	Rikiau	500
	Total	4540

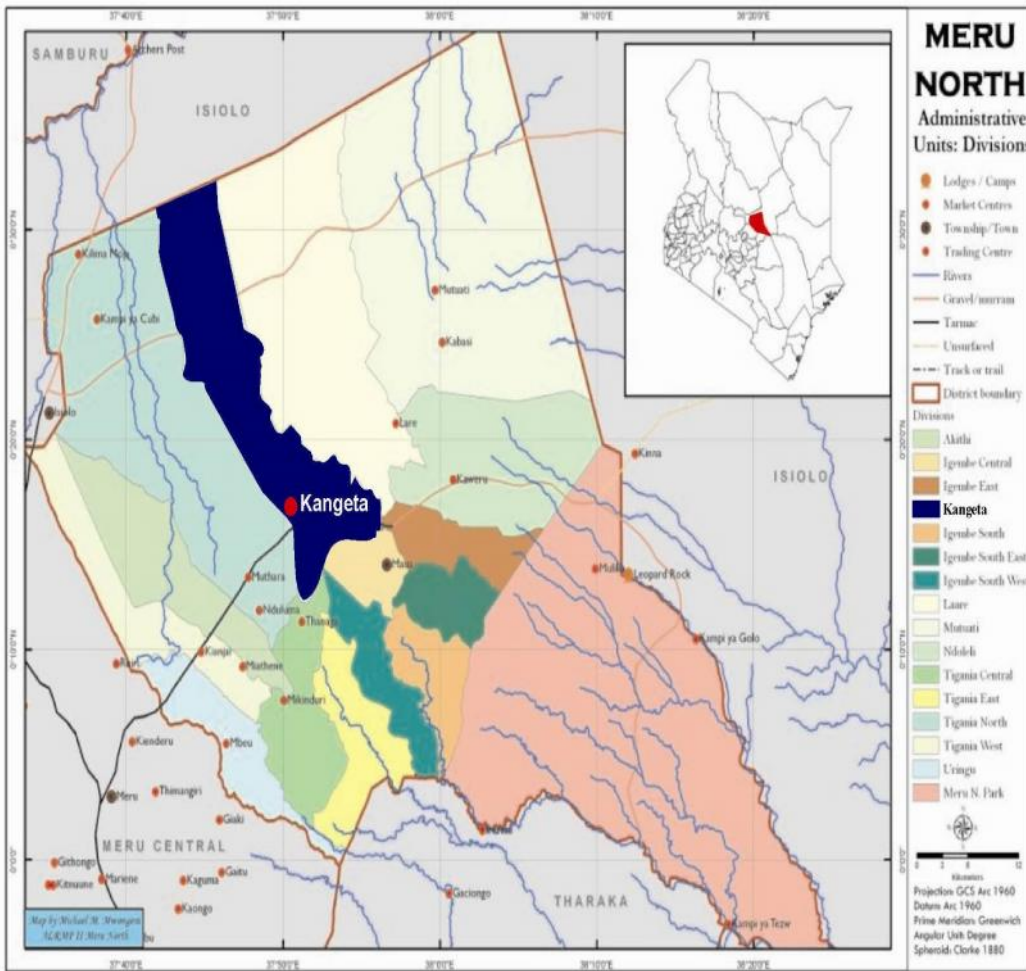
APPENDIX E

Khat Plant



APPENDIX F

Meru North District Profile



APPENDIX G

Research Authorization from National Council for Science and Technology

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349
254-020-310571, 2213123, 2219420
Fax: 254-020-318245, 318249
When replying please quote
secretary@ncst.go.ke

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: NCST/RCD/14/012/1165

24th August 2012
Date:

Lucy Karega Njeru
Egerton University
P.O.Box 536-20115
Egerton.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Influence of miraa (Khat) production, trade and consumption on primary school dropout by boys in Kangeta Division, Igembe South District, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Igembe South District** for a period ending **31st December, 2012**.

You are advised to report to the **District Commissioner and the District Education Officer, Igembe South District** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


DR. M. K. RUGUTT, PhD, HSC
DEPUTY COUNCIL SECRETARY

Copy to:

The District Commissioner
The District Education Officer
Igembe South District.



APPENDIX H

Research Permit

PAGE 2 **PAGE 3**
Research Permit No. NCS1/RCD/14/012/1165
THIS IS TO CERTIFY THAT: **Date of issue 24th August, 2012**
Prof./Dr./Mr./Mrs./Miss/Institution **Fee received KSH. 1,000**
Lucy Karega Njeru
of (Address) Egerton University
P.O.Box 536-20115, Egerton.
has been permitted to conduct research in
Location
Igembe South District
Eastern Province
on the topic: Influence of miraa (khat)
production, trade and consumption on primary
school dropout by boys in Kangeta Division,
Igembe South District, Kenya
for a period ending 31st December 2012.
Applicant's Signature **Secretary**
National Council for Science & Technology

