

**EFFECTS OF MIRAA TRADE ON REGULARITY OF
ATTENDANCE OF PRIMARY SCHOOL PUPILS IN
MERU COUNTY- KENYA**

MAINGI PURITY KARIMI

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR-**

**0 THE AWARD OF A DEGREE OF MASTER OF ARTS IN PROJECT
PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI**

2013

DECLARATION

This project is my original work and has not been submitted for a degree in any other university.

.....

MAINGI PURITY KARIMI

DATE

L50/76652/2012

This research project has been submitted for examination with our approval as University supervisors.

.....

DR PAUL .A. ODUNDO

DATE

Senior lecturer and chairman department
Of educational communication and technology
University of Nairobi

.....

MR OCHIENG .F. OWUOR

DATE

Lecturer Department of Quantitative
skills and entrepreneurship
Moi University

DEDICATION

To my father Mr. David Maingi, and Mother Mrs. Alice Maingi

ACKNOWLEDGEMENT

My sincere gratitude to my first supervisor Dr. Paul A Odundo for his guidance during the entire project development from topic formulation to the end. I also appreciate him for taking me through research methods course that came in handy during my project development. My second supervisor Mr. Ochieng Owuor's effort and positive criticism throughout the project development.

I thank my lecturer Mr. Koringura for taking me through statistics course that came in handy during data analysis. All my lecturers' efforts, time and commitment during my course work have made me who I am today and in one way or another contributed towards my successful completion of this research. Mr. Cheben, Mr. Liguyani and Mrs. Khatete for their commitment in the courses they taught me.

My sincere gratitude goes to the University Of Nairobi for developing this course that suited my need for growth. Not forgetting to thank my employer Moi University for the opportunity to work in the institution through which I was able to pay my school fees and for allowing me ample time to do my research.

To my parents thank you for seeing me this far in my education and always standing with me and for support and patience during the entire course. Whenever I was stuck financially they always came to my rescue by helping me pay school fees.

I appreciate my colleagues Doreen, Michael, Drusilla, Paul, Pamela and Peris for their encouragement even when things seemed tough for me where they always gave me the morale to move on.

I wish to thank administrations of the schools that allowed me collect data from the students and teachers from Kangeta and specifically Mr. Murithi who furnished me with important information for my research. Finally I appreciate input by Patrick and James who helped me in data collection and analysis.

TABLE OF CONTENT

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENT.....	iii
TABLE OF CONTENT.....	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATIONS AND ACRONYMNS	x
ABSTRACT	xi
CHAPTER ONE	1
INTRODUCTION.....	1
1.0 Introduction	1
1.1 Background of the Study	1
1.2 Statement of the Problem	5
1.3 Purpose of the Study.....	5
1.4 Research Objectives	5
1.5 Research Questions	6
1.6 Significance of the Study	6
1.7 Basic Assumption.....	7
1.8 Limitations of the Study	7
1.9 Delimitations of the study	7
1.10 Definition of terms	7
CHAPTER TWO	9
LITERATURE REVIEW	9
2.0 Introduction	9
2.1 Concept of trade and pupils' school attendance	9
2.2 Harvesting and Pupils Regular School Attendance.....	11

2.2.1	Harvesting Hours and regular school attendance	13
2.2.2	Harvesting, health hazards and school attendance	15
2.3	Selling and Regular School Attendance	16
2.3.1	Selling, Sorting, grading and school attendance	17
2.3.2	Selling,Wrapping and school attendance	18
2.3.3	Selling, transporting Packed Miraa to centers	18
2.3.4	Security Risks.....	19
2.4	Miraa Consumption and Pupils’ Regular School Attendance	20
2.4.1	Time Spent chewing Miraa	21
2.4.2	Consumption,Moral and Health Implications	23
2.5	Miraa Income and Pupils’ Regular School Attendance	25
2.5.1	Provision of Food	26
2.5.2	Stable Family Income,.....	26
2.5.3	Paying School Fees	27
2.6	Theoretical framework	27
2.7	Conceptual Framework	29
CHAPTER THREE		31
RESEARCH METHODOLOGY		31
3.1	Introduction	31
3.2	Research Design	31
3.3	Target Population	31
3.4	Sample Selection and Size	33
3.5	Data Collection Instruments	34
3.5.1	Pilot Testing Of Instruments	35
3.5.2	Validity of Research Instrument.....	35
3.5.3	Reliability of Research Instrument.....	36
3.6	Data Collection Procedures	36
3.7	Data Analysis	36
3.8	Ethical consideration	37

CHAPTER FOUR.....	38
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION	
.....	38
4.1 Introduction	38
4.2 Response Rate	38
4.3 Demographic information	39
4.3.1 Response by gender	39
4.3.2 Response by Age	40
4.3.3 Respondents Involved in Growing Of Miraa	41
4.4 Harvesting Miraa and Attending School	42
4.4.1 Harvesting Hours.....	42
4.4.2 Health Hazard and School Attendance.....	44
4.5 Miraa selling and school attendance	45
4.5.1 Sorting and Grading Miraa.....	45
4.5.2 Miraa Wrapping	46
4.5.3 Transporting Miraa,.....	47
4.6. Consumption of Miraa and Regular School Attendances	49
4.6.1 Miraa Chewing.....	49
4.6.2 Chewing Time	50
4.7. Income from miraa and school attendance.....	52
4.7.1 Food provision.....	52
4.7.2 Stable family income.....	53
4.8 Regular school attendance.....	54
4.9 Correlation Statistics	55
 CHAPTER FIVE	 57
5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	
.....	57
5.1 Introduction	57
5.2 Summary of the Findings	57
5.3 Conclusion.....	61

5.4	Recommendations	61
5.4.1	Recommendation for all objectives	61
5.2	Suggestion for Future Research	62
5.6	Contributions for the Body of Knowledge	63
REFERENCES.....		64
APPENDICES		67
Appendix i: Request To Participate In Research.....		67
Appendix ii: Questionnaire For Pupils		68
Appendix iii: Interview Schedule For Teachers.....		71

LIST OF FIGURES

Figure 1.1 Conceptual Framework	30
Figure 4.1 Response by Gender	39
Figure 4.2 Response by Age	40
Figure 4.3 Respondents involved in Growing of Miraa.....	41

LIST OF TABLES

Table 3.1 Target population	32
Table 3.2 Sample size of respondents	33
Table 4.1 Responses Rate	38
Table 4.2 Harvesting hours	42
Table 4.3 Harvesting Hours	43
Table 4.4 Health hazard	44
Table 4.6 Number of Pupils Involved in Sorting and Grading Miraa.....	45
Table 4.7 Sorting and Grading Miraa	46
Table 4.8 Number of Pupils Involved In Wrapping Miraa	46
Table 4.9 wrapping miraa	47
Table 4.10 Number of People Transporting Miraa	48
Table 4.11 Miraa transporting.....	48
Table 4.12 Number of pupils who chew miraa	49
Table 4.13 Chewing time	50
Table 4.14 Consumptions of Miraa.....	51
Table 4.15 Consumptions of Miraa.....	51
Table 4.16 Income from miraa.....	52
Table 4.17 Family Income	53
Table 4.19 Regular school attendance by pupils.....	54
Table 4.18 Correlation Statistics	56

LIST OF ABBREVIATIONS AND ACRONYMS

MC	Miraa Consumption
RSA	Regular School Attendance
ISA	Irregular School Attendance
EU	European Union
ILO	International Labor Organization
CBS	Central Bureau of Statistics
KCPE	Kenya Certificate Primary Education

ABSTRACT

Miraa trade has tremendously expanded without concern on its negative effects on the society and school going children in particular. Miraa trade is associated by many global and local observers, both academic and lay, with the breakdown of family life, prostitution and a host of social evils. However, the conceptions of Miraa trade have not been fully described and analyzed, particularly focusing on pupils' school attendance. This study aimed at investigating the effect of miraa trade on regularity of attendance of primary school pupils. Specifically, the study investigated effect of Miraa harvesting on regularity of attendance of primary school pupils, effect of Miraa selling on regularity of attendance of primary school pupils, effect of Miraa consumption on regularity of attendance of primary school pupils and the effect of Miraa income on regularity of attendance of primary school pupils. The study was informed by Theory of Exploitative Child Labor. Descriptive survey design was employed. The study targeted 19254 primary school pupils from 30 public primary schools in Kangeta. Systematical sampling technique was used to select a sample size of 261 primary school pupils and 45 teachers who were randomly picked from the 9 sampled primary schools were interviewed. Structured questionnaires and an interview schedule were used to collect primary data from the pupils and teachers. Descriptive statistics such as means and standard deviation and inferential statistics were used in analyzing data. Pearson correlation was used for assessing linear relationship between the independent variables and dependent variables. Study findings indicated that harvesting, selling and consumption of miraa negatively influenced regular school attendance. However, income from miraa has both negative and positive effects on regular school attendance. Pupils are involved in several miraa trade activities which negatively influences regular school attendance therefore, there is need to have Monitoring and supervision of the entire miraa trade activities so that it does not compromise the education system leading to poor quality of life in future for the school going pupils.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents background of the study, statement of the problem, objectives of the study, research questions and significance of the study. Further it gives the limitation of the study, assumptions of the study, delimitations of the study and definition of terms.

1.1 Background of the Study

Trade contributes to the economic and social welfare of both individuals and countries. In ideal circumstances, trade should be carried by people of age. however as confirmed by Escobal (2007) most of the traders are involving school going children to boost trade as one of the few ways to bolster profit due to their low cost of hiring children. In agricultural trade where miraa falls, children are often involved in harvesting, packaging, and selling of the farm produce. Consumption of miraa and income from miraa also affects school going pupils. However income from miraa in most cases has both positive and negative effects on the pupils because parents can afford to pay their school fees and upkeep. The involvement of school going pupils in these activities leads to irregular school attendance resulting into sustained wastage

Harvesting activities are generally carried out by people of age, while children attend classes but a report by Fair Trade USA (2010) estimated that hundreds of thousands of children under the age of 18 work in farms harvesting the fruits and vegetables that support the multi-billion dollar agricultural industry in the United States. Before the age of 18 these children and teens work long hours, under very dangerous

conditions, receiving very little pay, while they fail to attend school as they migrate alongside their parents for months (Human Rights Watch, 2010). A similar situation was observed in India; Gardiner (2013) noted children are being used in the harvesting fields as a cheap source of labor and not getting any chance to attend school. This is further affirmed by Edmonds (2009) where he notes that in Ghana harvesting activities influence regularity of school attendance where children fail to attend school to assist their families in harvesting cocoa.

School going children have not been spared in the activity of selling final products denying them that right to education. According to International Labor Organization (2006) over 122.3 million children in Asia and the European region engaged in selling activities and 320,000 out of 2.3 million Cambodian children aged 9-14 years old are not attending school due to agricultural activities such as selling rice among others (NIS 2011). In Bangladesh about 55 percent of children under 18 are engaged in selling fish (Central Bureau of Statistics 2003). 71 percent of these youths employed in agriculture work in the cereals fields in Cameroon, most of youth do not attend school to work in agriculture farming activities such as selling cereals (Edmonds, 2008).

Parents are expected to attend to their children's' need which sometimes is not the case because they spend lots of their time in the miraa farms and chewing miraa in social groups. This influences some of the children to stay away from school chewing miraa with their friends. The major concern is the number of these children that will form an addiction to serious substances, jeopardizing their own health and safety and creating difficulties for their families and the public at large. MC is widely accepted but

has negative consequences for the academic, social, psychological and physical development of users (World Drug Report, 2005). In Yemen, Kalix and Khan (1984) noted family life is harmed because of MC, dissipation of the family income and inappropriate behavior which in many cases leads to irregular school attendance (Elmi, 1983). MC is also predominantly found in Nigeria with family characteristics as a very important determining factor of children's educational attainment in Nigeria. By the time such children reach adulthood they are often damaged physically, emotionally, morally and intellectually and would have lost the opportunity for an education that would open up a better future and the amount of schooling in children today determines the wage they command as adults tomorrow. (ILO, 1996; Ashagrie, 1998)

Studies by Soenens and Vansteenkiste (2005) and Epstein's (2002) suggest that perception of parental involvement is relatively related to academic performance and that in order for students to excel academically, parents must be all time involved through parenting which generates conducive home environment for studying. Thus, it may seem that the more time mothers spend in Miraa business, the more time is lost in nurturing their schooling children and hence leading to poor school attendance (Gatumu et al, 2012) The trend in the examination results is perhaps attributed to the fact that most of long serving Miraa businesswomen involved their children in the Miraa business such as harvesting of miraa, packaging of Miraa and selling of Miraa and thus denying them time to attend school and to satisfy their basic or physiological needs (Waikenda, 2010).Chewing Miraa also causes ill health (Anderson et al., 2007), psychiatric disorders (Warfa et al., 2007), and socio-economic hardship for the families of mostly male consumers (Borelli and Perali, 2004). Dhaifalaha, and Šantavý (2004)

the young shoots of the miraa shrub are harvested in the early hours of the day and sold in markets by the late morning. Thus affect children school attendance especially in the morning hours.

Trading activities boost household income hence regular payment of children's school fees. In some European countries, agricultural sector supports the livelihoods of about 80 percent of the up country households and accounts for 24 percent of the country's Gross Domestic Product (GDP) and about 19 percent of the formal wage employment (WHO, 2009). Agricultural sector employs 70 percent of the national labor force through forward and backward industrial linkages, thus providing food and incomes to individuals and households in sub Saharan countries (Omiti et al., 2009). Approximately 60 percent of all households in Kenya are engaged in farming activities making it key to national food security (KIPPRA, 2009).

In spite of its importance to the economy, the agricultural sector has been performing poorly in recent years. This has raised serious concerns especially in pastoral, agro-pastoral and marginal agricultural regions where it is currently estimated that 10.5 million people are food insecure (FAO, 2010). However, such households are unable to meet their most basic needs and have inadequate income, lack of access to productive assets, low productivity, subsistence farming as well as deprivation of social infrastructure and markets (Mariara and Ndeng'e, 2004). Hence this has led to unpredictable income and a major cause of poor school attendance among the many rural households (Zeller and Oppen, 2007; Démurger et al., 2009).

1.2 Statement of the Problem

Regularity of school attendance is widely affected by many factors some of them being lack of school fees, health factors, attitude, and child labor among others (Gatumu 2012). It has been reported that the school age children (6-12yrs of age) who were not attending school: made up 14.1% in Ghana; 24.2% in Nigeria; 14.9% in Congo; 13.8% in Kenya and 7.7% in Botswana (African Education Consortium, 2003). These figures are obviously staggering and intimidating when viewed against the national populations.

In Kenya, agriculture is the largest income earner for the Kenyans. Using children as a cheap source of labor is common and has far and wide reaching effects on the children (FAO 2010). In Meru County, miraa trade is the largest source of income for the Meru people and much effort has been put on studying its effects on health but few or no studies have been done concerning effects of miraa trade on school attendance. This study therefore sought to establish the effects of miraa trade on regularity of attendance of primary school pupils in Meru County.

1.3 Purpose of the Study

The purpose of this study is to investigate the effect of Miraa trade on regularity of attendance of primary school pupils

1.4 Research Objectives

This study was guided by the following objectives

1. To determine the effect of Miraa harvesting on regularity of attendance of primary school pupils

2. To explore the effect of Miraa selling on regularity of attendance of primary school pupils
3. To ascertain the effect of Miraa consumption on regularity of attendance of primary school pupils
4. To ascertain the effect of Miraa income on regularity of attendance of primary school pupils

1.5 Research Questions

This study sought to answer the following questions

2. Does Miraa harvesting influence regularity of attendance of primary school pupils?
3. Does Miraa selling influence regularity of attendance of primary school pupils?
4. Does Miraa consumption influence regularity of attendance of primary school pupils?
5. Does Miraa income influence regularity of attendance of primary school pupils?

1.6 Significance of the Study

This study benefited parents who gain by understanding the negative or positive effect of miraa trade on their children's school attendance. Other beneficiaries of the study were government who got to know what favorable policies they could come up with to protect children from exploitation in the miraa farms. The non-governmental organizations, policy makers and scholars also benefited from the study recommendations.

1.7 Basic Assumption

The study assumed that pupils and teachers investigated in the study were involved in miraa trade in one way or the other. It also assumed most of the pupils were in school during the time of data collection and that teachers will allow pupils to respond to the researcher freely.

1.8 Limitations of the Study

The study into the effects of miraa trade on pupils' school attendance is relatively new and hence little information on the subject was accessed. Some respondents were reluctant to provide information but were assured of the confidentiality of the same.

1.9 Delimitations of the study

The research was limited to Kangeta division in Meru County specifically on primary school pupils and teachers only. The study only focused on Miraa trade.

1.10 Definition of terms

Child labor: This refers to work such as herding, milking, harvesting crops, selling, doing the household chores, collecting firewood which undermines the rights of the child of attending school, which affect the academic performance at KCPE.

Trade: An activity carried on for livelihood or for profit. For an activity to be considered a business a profit motive must be present and some type of economic activity must be involved

- School attendance:** Measure of the number of children who attend school and the amount of time they are present
- Harvesting:** The process of picking mature/ready miraa from the miraa farms.
- Selling:** An offer to exchange an item of value for miraa in the market
- Income:** The consumption and savings opportunity gained by an entity or individual within a specified timeframe, which is generally expressed in monetary terms.
- Consumption:** Refers to eating or taking in a something edible

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews both theoretical and empirical literature related to Miraa trade and its impact on pupils' school attendance. To understand these factors, relevant theoretical underpinnings and empirical studies are reviewed. The chapter goes on to review the independent variables in relation to the dependent variable. It also identifies knowledge gaps that are as a result of analyzing the theoretical and empirical literature.

2.1 Concept of trade and pupils' school attendance

Trade promotes production efficiency via specialization, exploitation of economies of scale, and technology transfer, as well as enhanced competition. Openness helps economies to compete by not only offering new opportunities for sales (i.e. exports), but also making available to producers the widest range of inputs at the highest quality and lowest prices. According to the World Bank, in the 1990s per capita real income grew more than three times faster for those developing countries that lowered trade barriers (5.0% per year) than for other developing countries (1.4% per year). And while openness to trade exposes countries to developments in other economies, including the risk of trade and financial contagion, it also allows for a faster recovery (Gamberoni et al., 2010): An economy that is more open is also more resilient because it is less constrained by the limits of domestic demand. Germany, one of the major world exporters, is a case in point. In the first quarter of 2009 the economy contracted by 3.4%, but by the second quarter of 2010 it was expanding by 2.2%. Oxfam thinks fair trade would be a much more effective poverty reduction mechanism

than aid. Even a small increase in= developing countries share of world export markets would several times outweigh what they receive in aid (Oxfam 2002).

A study by White and Anderson (2001) found that openness to trade is associated with significantly higher income growth for each income group except the top 20 percent of the population, and that the greatest effects proportionally are for the lower income groups – that is, the benefit of openness is progressive. Columbia University Economics Professor Xavier Sala-I-Martin estimates that the number of people globally living in poverty declined by 350 million over the last three decades. China, a country that has aggressively opened its markets and expanded its trade saw poverty decline by 377 million while Poverty in Africa, on the other hand, increased by 227 million.

World Bank economists shows that the welfare gains from global agricultural reform would shrink by three-quarters, if as little as 2 percent of agricultural tariffs in developed countries (and 4 percent in developing countries,) are classified as sensitive, and are thereby subject to a 15 percent tariff cut. The World Bank (2004) argues that trade tends to increase the availability of wage jobs for women in developing countries, particularly in export sectors, but also acknowledges that certain factors (e.g., discrimination, lower skills, and gender inequalities in access to resources) may impede women's ability to benefit from trade expansion. Some of these factors may be especially prevalent among female farmers in Sub-Saharan Africa

2.2 Harvesting and Pupils Regular School Attendance

According to Oxfam America (2004) Parents, because of their desperate need for higher wages, allow their young children to work with them so that they plant or harvest more crops and hence receive a higher rate of pay per hour worked. Where employers are aware that children are working in this way, they are required by law to pay the children for this work. However, often these children are not paid at all. However, agricultural work may be beneficial in terms of providing income and improving nutrition but if children are taken out of school during planting or harvesting the work becomes harmful because it is hindering their education (Moyi, 2013). Jasurbek from Khorezm called in to report that schoolchildren were sent to pick cotton and that “mayors and school principals have no shame in financially benefiting at the expense of the children. “For example, if 100 children are supposed to go to pick cotton only 50 go. The school principal charges the other 50 for not going. Only poor children pick cotton. Rich children pay the school director 100-150 thousand some. The principal gives the money to the mayor of the district (Ozodlik, 2010).

In Uzbekistan the data clearly demonstrates that child participation in the cotton harvest is extremely widespread and that there has been no fundamental change from earlier years. The survey results present a picture of a systematic mobilization of children by the central state that utilizes the school system and leaves almost no room for choices at the level of children and parents (SOAS, 2010). In Tajikistan there is a much more mixed picture as to how children are mobilized. While the farmers have their own incentives to involve children, the schools are clearly central to the mobilization of children, with teachers largely supervising the work. Evidence of

pressure applied to children to become involved is mixed, with some reports of strong pressure and in other cases less so (SOAS, 2010).

In Nigeria, most schools in rural areas are effectively shut for about two months of the school year. It was mentioned that there are attempts to catch up with the curriculum but the general sense amongst parents and teachers was that the pupils' education does suffer, with a common refrain being that 'of course it would be better if the children were in schools'. In Tajikistan cotton picking is more clearly built around the school day, with schools continuing to function throughout the cotton harvest season. As such, harvest activities seem restricted to weekends or after school. Some parents note that while the cotton picking does not always interfere with school hours, it limits the possibility to do any homework (Joshua, 2009)

In July 2010 it was reported that the US Department of Labor had included cotton from some part of Europe on 'the list of commodities produced using children as laborers with the US Embassy citing that there was credible evidence of the school children assisting their parents in harvesting cotton, but this formal action met with protests that Tajikistan's efforts to end the practice were not being recognized (Radio Free Europe / Radio Liberty, 2010).

Extent of under-age participation in the cotton harvest Based on the survey of six districts in India, and extrapolating on the basis of further evidence, the conclusion was that 'practically all school children between the ages of 10 and 15 years old (from 5th to 9th grades) in rural areas and small towns (district centres) were assisting parents in harvesting crops' (SOAS, 2009: 19). This equates to about 2.4 million children in the

5th–9th grades and means that children picked an estimated 40–50% of the total cotton harvest (ibid.: 25–26). In addition, Equivalent baseline data for Ethiopia is not available, though a survey of university students in 2006 showed that they were involved in assisting in parents in harvesting khat and suggested that compulsion was also present and conditions were just as arduous, (International Labor Rights Forum, 2007: 4). In Bangladesh, 82% of the country's 6.1 million economically active children work in assisting in parents in harvesting agriculture products. As many as 3 million children, age 10 to 14, are estimated to work in Brazil's sisal, tea, sugar cane and tobacco plantations.

Children are believed to comprise a quarter of all agricultural workers in Kenya who wrap miraa. In 1993 study in Malawi established that the majority of children living in tobacco estates were working full or part-time (78% of 10 to 14 years olds and 55% of 7 to 9 years old) Issues surrounding miraa have created an interesting and important discourse in the producing countries, Particularly in Ethiopia (Gebissa 2004; Hailu, 2005). No law exists in the country against Miraa (Gebiss, 2008), it is the country's social consciousness that emphasizes the negative aspects of the plan.

2.2.1 Harvesting Hours and regular school attendance

In Austria, farmers appear to play a more proactive role in recruiting children for the cotton harvest in schooling hours, negotiating with schools and with various local authorities acting as brokers to varying degrees in different districts. Schools seemed to be more autonomous in their decision to involve their children and often had a pecuniary incentive to do so – often keeping back payments due to the children in order to cover the additional costs of running the school (International Crisis Group, 2005).

The Dynamics of Forced Child Labour in the Cotton Sector of Uzbekistan' (SOAS, 2009), based on data from the 2006 cotton harvest, was a significant contribution to the debate given that it drew from extensive fieldwork data and sought to address the issue in the context of the broader political economy of agriculture in post-Soviet Uzbekistan. The government of Ghana has been aware for some time that the use of children in the harvest crops could be considered as child labor. As early as 2001, there were reports of the Ministry of Health and the Ministry of Labor and Social Protection of Uzbekistan issuing a joint decree that included cotton picking as one of the worst forms of child labor (independent report by Save the Children, 2002)

According to Human Rights Watch (2001) in Egypt, more than one million rural children are hired each year from May to July, largely during the school recess, to control cotton leaf worm infestations. Working eleven hours a day, seven days a week, the children inspect cotton plants for leaf worm eggs and manually remove infected portions of leaves. The children's working hours far exceed the maximum six hours per day for which they may be employed under the Child Law.

In Kenya, children too are engaged in various farming activities. A study by Joshua 2009. The young shoots of the Miraa shrub are harvested in the early hours of the day and sold in markets by the late morning (Dhaifalaha & Šantavýb, 2004). Generally, harvesting is possible 2-3 times a year from a well-established rain-fed matured Miraa plant depending on the age, management practice and the fertility of the soil. Child labor occurs not only in plantations but also on small-scale farms.

2.2.2 Harvesting, health hazards and school attendance

According to NCFH (2010) In Columbia, at age 14, school going children spend most of their outside of school hours in any agricultural occupation. In Singapore, children who are entitled to minimum wage earnings spend many hours working alongside their parents but are not paid any wages. In addition the children are exposed to very harmful working conditions that may have adverse effects on the young children. However, often times these children are not paid at all (U.S. Department of Labor, 2001). In Kenya, Minors working in agriculture can work an unlimited number of hours outside school hours. In other occupations, there are strict limits on the amount of time minors can work outside of usual school hours. At age 16, minors can perform any farm job, including those declared hazardous by the Secretary of Labor, at any time, including school hours (ILO, 2010). In Ethiopia, At 10 and 11, local youths may hand harvest short-season crops outside school hours for no more than 8 weeks (ILO, 2009).

This denies the children a chance to go to school and more so the recommended resting hours. Nearly 90 percent work full time and 62 percent earn their own income. Many children as young as 5-6 years old accompany their parents or other relatives for the purpose of working. Most of the children clean, bone, and skin fish; shell squid, mussels, shrimp and crab; and wash squid to remove the ink. Other children sort, weigh, check, and load the fish; process seafood; work on fishing boats; build boats; and work on the docks. The children who shell seafood generally squat on the floor or sit on a small bench for the duration of the working day, which can last 15 hours or longer. Children of all ages use sharp knives or shelling tools, and suffer frequent cuts and scrapes (ILO, 2009)

2.3 Selling and Regular School Attendance

The young shoots of the Miraa shrub are harvested in the early hours of the day and sold in markets by the late morning (Dhaifalaha & Šantavýb, 2004). In some instances, markets, disputes over sales have led to children selling Miraa being killed (US Dept of State, 2006)

In bidii-making (Tamil Nadu) the younger children said they could devote more time to studies if they did not need to do packing and selling fish. But at the same time, they said, it was not possible to give up fishing; a minimum specified work, needing two hours each day, had to be done, failing which they were punished. A few of them, meanwhile, were struggling to prove themselves to be good students so that they would also be entitled to a scholarship (like some older children) from the welfare fund (Morova, 2001).

In the prawn-shelling sector in Central Africa, children worked in the shed (warahs) and at home. Contractors preferred that the children worked at the warah since it was easier for them to control the children, push them into working faster and monitor to ensure there is no stealing. For home based work, children could pack the prawns from the contractor and brought them home. Starting from an early age, the children worked long hours, making it difficult to attend school. They reached the warahs often at 4 am and continued working until 11.30 am. Children worked similar hours at home because there are no storage facilities and delay would mean that the highly perishable product would spoil. Children said they could be severely beaten for such a mistake (Manuelli, 2006).

2.3.1 Selling, Sorting, grading and school attendance

In Canada is the 'Multiple Indicator Cluster Survey' (MICS) of 2005, an international survey conducted by governments with international financial and technical assistance that addresses a range of health and child development issues including child labor found that in the previous year a total of 3.6% of children had been employed outside of the home, either paid or unpaid, and an additional 1.5% of children had assisted in the family business, though the majority of them were from urban areas, which suggests children are involved in sorting and grading grains (State Committee on Statistics of Canada, 2007: 120). In Mexican migrant workers in the USA, help sort and grading the rich world's fruit and vegetables. In the United States, over 300,000 children worked as hired laborers on commercial farms, frequently under dangerous and grueling conditions. They account for 8% of working children but suffered 40% of work-related fatalities. (Human Rights Watch, 2001) In addition, In the case of similar studies in Uzbekistan, most of the questions regarding child labor, including whether children helped on the family farm, relate to the previous week and, as a result, are sensitive to the season in which the survey took place (UNICEF, 2008). In Uzbekistan, the surveys (in 2001 and 2006) were conducted at times other than the cotton harvest and as such are unsuited to assessing child participation in cotton picking (SOAS, 2009: 32).

Consumable part is harvested and put in shawls or plastic sacks at farm level and taken home for sorting and grading by plucking off the leathery leaves and trimming the long stems. The selected material and the unfit/ unmarketable portion, locally called

garaaba, are separated. The unfit part is set aside for animal feed and as compost material for later use as manure.

2.3.2 Selling, Wrapping and school attendance

A study that compared migrating and non-migrating students of south Texas reported that migrant students were more likely to miss or arrive late to school, sleep during class, study for fewer hours, sleepless and suffer from minor illnesses more frequently due to their engagement on grading fruits (Cooper *et al*, 2008) They also drop out of high school at 4 times the national rate. Agriculture is the dominant sector of employment in nearly every example that the authors have encountered. For example: in Cambodia, 73 percent of economically active children are in agriculture in 2001; Ethiopia, 89 percent in 2001; Guatemala, 63 percent in 2000; Kenya, 77 percent in 1998; Morocco, 84 percent in 2000; Pakistan, 67 percent in 1996; Vietnam, 92 percent in 1998; and Yemen, 92 percent in 1998.⁴ Children perform a variety of tasks in agriculture such wrapping. At young ages, they can be effective in grading crops (ILO, 2010). Moreover, grading is at least as likely as market work to trade off with schooling, as shown by evidence from Egypt (Assaad, Levison and Zibani, 2003), Mexico (Levison, Moe and Knaul, 2001) and Peru (Levison and Moe, 1998)

2.3.3 Selling, transporting Packed Miraa to centers

In Germany it was concluded that those children who were mobilized ‘experience significant educational losses’ amounting to approximately two months of their schooling each year or, taken cumulatively, a whole year of lost schooling between grades 5–9 (UNICEF, 2008). Working hours – there were at least 8 hours (ibid: 21) and children were expected to work without weekend breaks the farm structure in

Jordan is characterized by the dominance of engaging school going pupils in transporting of agriculture product. 20% of pupils were involved in promoting of agricultural production through transportation of various products. Most of these pupils could fail to attend classes (Rimawi, 2001). In Ethiopia, pupils were involved in transporting haqara/bundle (40-60 selected slender twigs) of khat and they could also splash with water to keep the product wet and fresh. The bundles of the commodity will finally be placed in burlap or plastic bag, sack or shawl ready for transport to market for sale. The way the commodity is packed varies depending on the distance to the final destination and the purpose it is sent for (local consumption or export).The packaging process takes up a lot of time because of the sorting which interferes with regularity of school going children. In Zimbabwe, tea estates employ a large number of children, often 10-12 years old. They are paid according to the amount of tea picked. Child workers begin their work day at 5:30 a.m., walk 5-8 kilometers to the tea fields, and work until 11:30 a.m. When they finish picking the tea leaves, they carry the sacks of leaves to the weighing station. If they fail to pick the minimum daily load they are forced to work a half day on Saturday as punishment. Some children suffer exhaustion, lacerations and calluses on their plucking fingers (tea ulcers) hence they could not attend school ILO, 2010).

2.3.4 Security Risks

During miraa selling, there are many disputes that may be caused by differences in ideas of the sellers or farmers. This puts the children into an awkward position and the possibility of being injured in the process of the fights.

In India, the nature of agricultural work exposes child to many risks and dangers, many attributed to the following types of work or conditions: Working with heavy machinery, equipment and tools such as knives, chainsaws, tall ladders, and tractors or trucks; Repetitive motion injuries that result from bending at the waist, kneeling, reaching and holding ergonomically awkward positions; and Pressure to work fast without breaks and despite injury (NCFH, 2012)

2.4 Miraa Consumption and Pupils' Regular School Attendance

Women Miraa sessions were less common until some years ago when the habit of Miraa chewing increased rapidly causing serious problems for the family and the socioeconomic situation (Khalil, 1998). Students and a number of staff in higher education institutions and high schools are using Miraa to “increase” their concentration levels and attention span (Lemessa, 2001). Excessive consumption of Miraa is said to induce symptoms of hallucination or illusion, intoxication and short energy boosting effect. Extended use is also reported to cause emaciation, may be as a result of suppressed appetite, and impotence.

Patterns of khat consumption are by no means uniform among these populations. Data from the countries of origin suggest that the highest proportion of chewers is among Yemenis; in Yemen as many as 82% of men and 43% of women may be chewers (Numan, 2004).

In the Horn of Africa, consumption rates are much higher among northern Somalis than among those from the south (Cassanelli, 1986) and this is likely to be reproduced in the Diaspora communities also. Consumption is also complex in relation

to Ethiopians and Kenyans. Khat consumption has spread across ethnic, social and religious boundaries in both countries, but is still closely linked to specific segments of the population. In Ethiopia, khat is very much seen as a Muslim habit. Many Christians consequently disapprove of it, even presenting it as a social “pollutant” (Gebissa, 2004;

Ayana and Mekonen, 2004; Adugna et al., 1994). In Kenya, khat is associated with Muslims from the north and the coast and with the Meru, an ethnic group occupying the heartland of khat cultivation in highland central Kenya. Khat has also in recent years become popular in Kenya with youth in urban centres (Carrier, 2007a). Parents could chew two bundles in a session, and the majority chewed between 6 p.m. and midnight, the average session lasting six hours a situation which would make them forget to prepare their children for classes.

2.4.1 Time Spent chewing Miraa

Miraa chewing is often reported to be in the afternoon (Aden et al., 2006; Alem et al., 1999; Patel et al., 2005). One can argue that the hours spent on chewing was part of social interaction, in particular if it is done over the weekend. However, this time spent on Miraa chewing if it is multiplied by the frequency of Miraa chewing days during the week the impacts in term of time wasted is inevitable. Miraa trade has semi-legal status and is classified as an addictive drug (NACADA, 2006). According to the Agricultural Act Cap 318 Laws of Kenya, Miraa is recognized as both horticultural and a special crop under the subsection of “others”. Beckerleg (2006), Kalix and Khan (1984) state that Miraa has adverse socioeconomic and health hazards. This is also supported by Sikiru and Babu (2009) who estimated that about one-third of all wages were spent on Miraa consumption at the expense of vital needs, indicating dependence.

A gendered moral battle is raging over Miraa trade both in East Africa and the Diaspora (Klein and Beckerleg, 2007). Miraa trade is associated by many observers, both academic and lay, with the breakdown of family life, prostitution and a host of social evils (Beckerleg, 2008). One of the most common forms of drug use and abuse in many East African nations involves chewing parts of the Miraa plant. Miraa use has increased steadily over the last 50 years and has become a problem of significant social and medical importance. Because of its social acceptability and euphoriant effects, Miraa chewing often plays a dominant role in celebrations, meetings, marriages, and other gatherings. In the UK, the chewing of miraa is largely confined to ethnic communities accustomed to its use, such as the Somali community (Gough & Cookson, 1984). Wherever Somalis reside, miraa is available. Griffiths (1998) carried out a survey of 207 Somalis living in London: 78% of men and 76% of women had used miraa and 6% were chewing on a daily basis; the average frequency of use was 3 days per week. Of those surveyed, 76% were using more miraa in Saudi Arabia than they had in Somalia; 20% had started chewing miraa since coming to Saudi Arabia. Participants felt that community use was greater in the UK than in Somalia. This was observed to negatively affect the regularity of school attendance.

In Ethiopia Randall (2011) miraa chewing often plays a dominant role in celebrations, meetings, marriages, and other gatherings. Miraa use even has been prevalent in the Somali military. It has been issued to soldiers in their daily rations with the intention of inhibiting their need for food and sleep, as well as increasing their aggression. [1] The amount of miraa chewed per user is 100 to 200 g of leaves and stems over 3 to 4 hours. The tender leaves and stems, which lose their potency 1 day

after harvest, are chewed and the juice is swallowed (Osol, 2009) miraa has a sweet taste and an astringent action. Large amounts of liquids are consumed while chewing because of the dryness induced by the plant (Morrish, 2009). The amount of Miraa chewed per user is 100 to 200 g of leaves and stems over 3 to 4 hours. The tender leaves and stems, which lose their potency 1 day after harvest, are chewed and the juice is swallowed (Osol and Farrar, 2003). Miraa has a sweet taste and an astringent action. Large amounts of liquids are consumed while chewing because of the dryness induced by the plant (Oslo and Farrar, 2003).

2.4.2 Consumption, Moral and Health Implications

Several studies across the globe have reported Miraa-chewing as a harmful activity on health. Many different compounds are found in Miraa including alkaloids, terpenoids, flavonoids, sterols, glycosides, tannins, amino acids, vitamins and minerals the major pharmacologic and toxic effect come from the phenylalkylamines and the cathedulins. The major effects of Miraa include those on the gastro-intestinal system and on the nervous system but also affect cardiovascular, respiratory, endocrine, and genital-urinary systems. The effects on the nervous system resemble those of amphetamine with differences being quantitative. The main toxic effects include increased blood pressure, tachycardia, insomnia, anorexia, constipation, general malaise, irritability, migraine and impaired sexual potency in men (Wabe and Mohammed, 2012)

Several publications have led the discourse on such issues as the social impact of khat chewing and khat abuse. With khat consumption spreading to many parts of Africa, Europe, North America, Asia and Australia, this makes it a global issue that

instigates controversial debates. Most European and North American countries khat is illegal (Armstrong 2008). Ethics is concerned with what is morally good and bad, right and wrong. According to Singer (1985), moral measures are divided between utility and duty. The important discourse here is the ethical dilemma that attempts to determine benefit or harm. However they decide, consumers make a conscious choice to engage in khat use and/or production. Choice can have two implications, depending on desire, determined by inclination or freedom of choice, based on autonomy and rationality. The use of khat is criminalized in the whole of Scandinavia; khat was classified as a narcotic substance in Sweden and Norway in 1989 (Gundersen 2006: 56) and in Denmark in 1993 (Pedersen & Toudahl 2008: 19). The first convictions for smuggling khat into Sweden date to 1990 (TT, 29 January, 1990).

Khat consumption came to public attention in the UK in the late 1980s, when links between khat and psychotic behaviour were suggested in the media (The Observer, October 1987). This led to a first report being commissioned on khat in the UK by the National Drugs Intelligence Unit (NDIU). The report found no link to psychosis, concluding that khat consumption was unlikely to spread beyond Somali and Yemeni immigrants. Restriction was considered unnecessary (NDIU, 1990).

Perception of increasing consumption among youth is a common cause for concern in both producing countries and in the Diaspora (e.g., Buffin et al., 2009). In contrast with Kenya, where there is evidence that khat has become fashionable among urban youth (Carrier, 2005b), it does not have the same cachet among young Somalis in the Diaspora. Here the evidence strongly indicates consumption of, and approval for, khat concentrates in older age groups (Patel et al., 2005). While Nabuzoka and

Badhadhe (2000) found khat use to be popular as a cultural marker among a small sample of Somali youth in Sheffield, other reports suggest that young UK Somalis find other drugs more attractive (Klein, 2008b). Most Somalis born in the UK in the Patel et al. (2005) sample had never used khat. Reports from elsewhere in Europe, notably Denmark, also suggest that khat use is less popular with younger immigrants (Sundhedsstyrelsen, 2009).

2.5 Miraa Income and Pupils' Regular School Attendance

From the economical point of view Miraa also diverts household income that could have been widely used for nutritious food, home improvements, education or other family needs that people on those countries are in very big need for (Dhaifalaha & Šantavýb, 2004). According to Abdul Wahab (2002), Miraa purchases make up a large share of the household budget in Yemen and its consumption directly affects expenditure on food. Miraa and the associated use of tobacco expenditure were higher than expenditure on cereal products. This was supported by 18% of the male respondents who reported to “sometimes” have Miraa-related family conflicts, and just 6% reported that they often had disputes with their wives over Miraa chewing (World Bank, 2007).

Houghton (2005) found out that it would be too costly to ban Miraa business because it would become much more expensive and dangerous than it is in the open market. He adds that banning it would inevitably introduce cartels and black market operations. Houghton recommended for establishment of regulatory framework of the commodity. According to Affinnih (2002), drugs are a “social cancer”. Miraa dependence is associated with high morbidity and societal and economical costs

(Manghi et al. 2009). Carrier (2008) reported that the Miraa debate is significantly influenced by global issues including the war on drugs, fear of Islamic terrorism, and the hegemony of the western economic development model

2.5.1 Provision of Food

Besides, as Miraa takes a high share of the family budget children may be forced to drop out from school and work (Humud, 2002). Dessie (2013) argues that children in Miraa-growing areas don't like to go school when they can make easy money; In the wider social-ecological setting, where farmers are confronted with a dilemma of crop diversity within their prevailing capacity, e.g. the size of the land holding, the objective ranges between income maximization and sustainability. Under existing conditions, a large land holding offers good opportunities for the farmers to get more income, while at the same time, being relatively sustainable. Unless intensification, technologies and innovations are introduced, small land holdings push farmers to find other income sources. The level of crop diversity and financial stability diminishes with decreasing land holdings. On small land holdings, monocrops can be financially beneficial; however, they can also be risky if the crop is subject to species-specific damages such as attacks from insects or diseases (Dessie,2013).

2.5.2 Stable Family Income,

According to Mongabay (2006) 80% of the total land in Kenya is arid and semi-arid (ASAL) and is characterized by poor households. Such households are unable to meet their most basic needs and have inadequate income, lack of access to productive assets, low productivity, subsistence farming as well as deprivation of social infrastructure and markets (Mariara and Ndeng'e, 2004). Hence this has led to

unpredictable income and a major cause of poverty among the many rural households (Zeller and Oppen, 2007; Démurger et al., 2009). As a way to mitigate this, there has been an outstanding trend of most smallholder farmers to diversify from low value crops to high value crops over the past few decades (Démurger et al., 2009). Most studies suggest that rural households adjust their agricultural activities in order to exploit new opportunities created by market liberalization (Barrett et al., 2001a; Carter, 1997; Delgado and Siamwalla, 1997). These adjustments in agriculture have an important impact on income among most rural households (Block and Webb, 2001; Canagarajah et al., 2001; de Janvry and Sadoulet, 2001; Reardon et al., 2000).

Kalix and Khan (1984) add that family life is harmed because of neglect, dissipation of the family income and inappropriate behavior which in many cases leads to divorce. Acquisition of funds to pay for Miraa may lead to criminal behavior and even prostitution (Elmi, 1983).

2.5.3 Paying School Fees

Khat is seen as a barrier to employment by members of the Somali community, as people who overuse khat are unable, or unwilling to work. There is little doubt that employment improves an individual's self-esteem and health and wellbeing. It is also the case, that at this current time an increasing number of people are unemployed in making it difficult to pay school fees (Advisory Council on the Misuse of Drugs, 2005).

2.6 Theoretical framework

The study was guided by Theory of Exploitative Child Labor (Kenneth and Swinnerton) the theory is based on two key features: first, parents have imperfect

information about whether employment opportunities available to their children are exploitative or not. Second, firms choose whether or not to exploit their child workers. In early policy-oriented discussion of child labor, it was often assumed that all work by children is necessarily harmful. By the mid-1990s, it became more commonly understood that some work could be beneficial for children, since it could allow them to achieve at least a subsistence level of consumption or to acquire skills. In this spirit, the term exploitative child labor generally came to distinguish certain work that was clearly harmful to the children involved (Organization for Economic Cooperation and Development, 1996, Swinnerton, 1997).

Arnab K. Basu and Nancy H. Chau (2003, 2004) develop a model in which the only way for rural parents to smooth consumption across lean and harvest seasons is through an interlinked credit-labor contract (bonded labor). They show that if bonded child labor occurs in equilibrium, then households would have been better had parents made a commitment to keep their children out of work. An effective commitment would have led to much higher parental wages. On this basis of this implication for household welfare, Basu and Chau classify bonded child labor as exploitative. Sylvain Dessy and Stéphane Pallage (2005) suggest that some children enter worst-forms jobs because they pay better than other jobs available to children. In the context of extreme poverty and full information that Dessy and Pallage envision, the compensating differential for the "harm" done by a worst-form of child labor is enough to make it privately and socially preferable to the harm that might be done by forcing children to accept a lower paid job and suffering a dismally low material standard of living. These accords with the long-standing warning that has emanated from economists discussion of child labor: if the

work is the best opportunity available to a child according to her preferences, then the individual child is not made better off by taking the opportunity to work away. Time spent working makes it less likely that children are able to draw educational benefit from their time in the classroom and/or to remain in school long enough to graduate. The use of children's time to work both in and outside the home undermines their rights to education as well as to play and participate in family and community life.

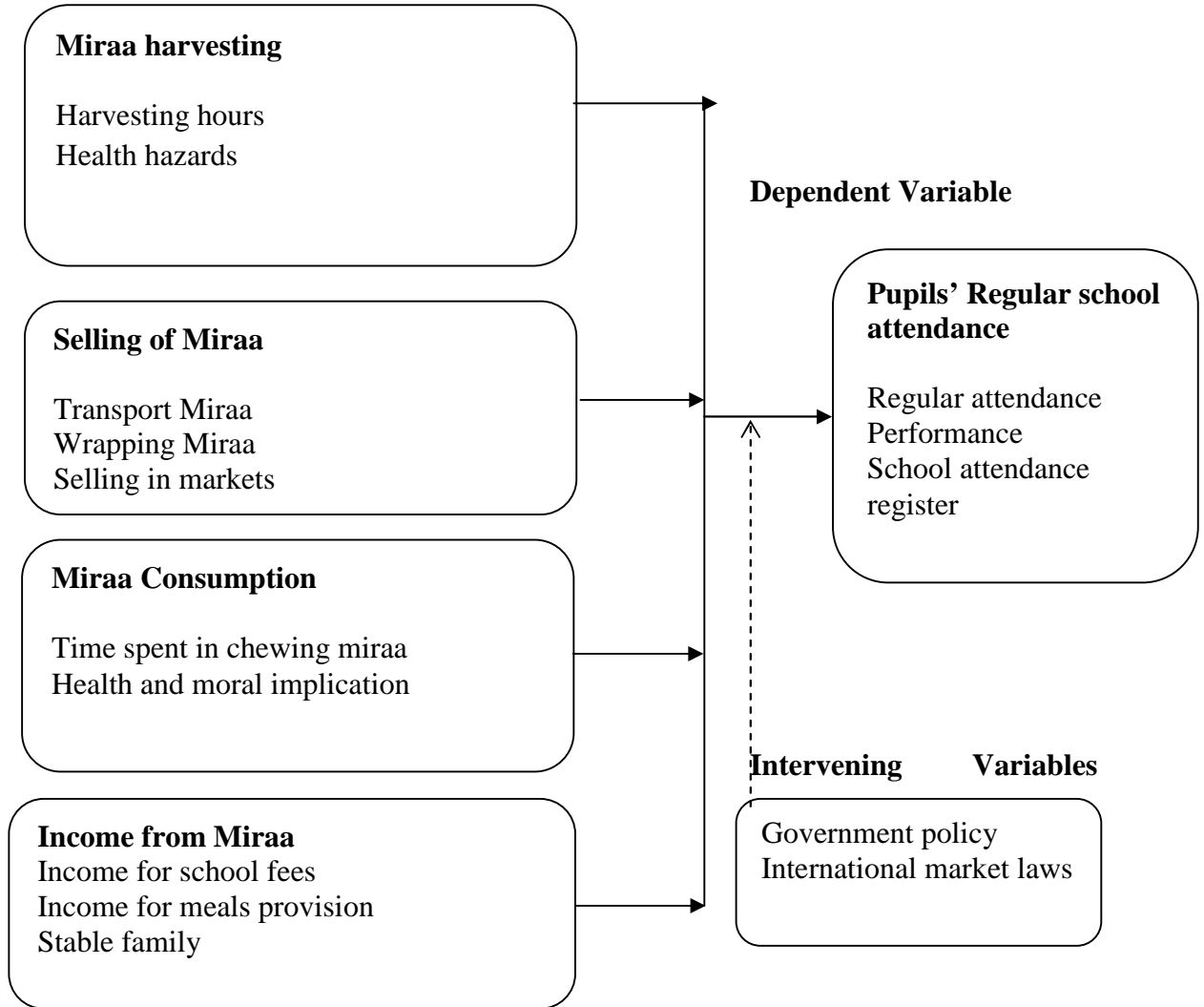
2.7 Conceptual Framework

From a theoretical point of view, it is – consequently – hardly possible to integrate this existing variety of conceptual orientations, choices, and boundaries into a single conceptual framework. Therefore, we prefer to reposition a number of these variables and processes into a new conceptual framework (Figure 1), that serves as a guide to integrate theoretical perspectives that interlink these variables and process and help to explain the actual effect of Miraa trade on pupils regular school attendance in the Kenyan context.

Especially the fact that study will reuse a number of research instruments that builds on this big variety in concepts, requires us to be clear on how the original concepts are repositioned within the conceptual framework for our studies. As such the study adopted the following conceptual framework.

Figure 1.1 Conceptual Framework

Independent Variables



From the above conceptual framework, the independent variables are harvesting, selling, consumption and income from miraa which from the literature review have been suggested to have a direct link with pupils' regular school attendance. The effects of these variables on regular school attendance can be regulated by proper government policies and laws.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented research design, target population, sampling design /procedure, sample size and data collection instruments further the chapter presented the data collection procedure, measurement of variables, reliability test, validation of instrument, data analysis, the expected outcome and ethical consideration.

3.2 Research Design

The research adopted a descriptive survey design. A descriptive survey was selected because it provided an accurate account of the characteristics, for example behavior, opinions, abilities, beliefs and knowledge of a particular individual. This study investigated and described the nature of prevailing conditions pertaining to the teacher's knowledge of situation or group (Calmorin and Calmorin, 2007). A Survey is a systematic means of collecting information from people that generally use a questionnaire (Grewal and Levy, 2009). This design was chosen to meet the objectives of the study, namely to determine influence of miraa harvesting, miraa consumption, miraa selling and miraa income in regular school attendance.

3.3 Target Population

The study population consisted of a total of class one to class eight pupils drawn from 30 public primary schools in Kangeta division of Meru County (County education office, 2013). The study also targeted 200 teachers within the schools. Leedy (1993) observed that nothing comes out at the end of a long and involved study that is any better than the careful selection of the population using random sampling and

stratified random sampling. The population refers to the group of people or study subjects who are similar in one or more ways and which forms the subject of the study in a particular study.

Table 3.1 Target population

School	Std 1 –std 3	Std 4 – std 6	Std7-std8
1	150	173	280
2	168	200	220
3	132	181	293
4	159	220	178
5	192	138	191
6	234	134	184
7	222	157	230
8	276	205	207
9	286	241	272
10	207	211	276
11	228	267	207
12	249	231	281
13	270	278	247
14	191	286	267
15	195	271	298
16	168	271	224
17	128	211	259
18	164	158	216
19	215	188	223
20	166	205	200
21	138	230	281
22	112	134	279
23	202	208	291
24	120	148	266
25	167	164	260
26	173	148	200
27	214	214	275
28	230	242	287
29	221	177	224
30	240	146	284
Total	5817	6037	7400

3.4 Sample Selection and Size

Sampling is a procedure of selecting a part of population on which research can be conducted, which ensures that conclusions from the study can be generalized to the entire population. The study made use of simple random sampling because it is considered simple, most convenient and bias free selection method. It enables every member of the population to have an equal and independent chance of being selected as respondents (Frankel, et al, 2000). The study 30% with 2554 pupils of the total 30 school as recommended by Kothari (2003), that 30% of a target population is adequate to use a sample in a study of is less than 10,000 and the required sample is small. In such a case, to calculate the final sample Yount, (2006) suggested that 4% sample of a total population of less 10,000 is appropriate for a survey design. This gives the sample size as follows:-

Table 3.2 Sample size of respondents

Schools	Std 1 –std 3		Std 4 – std 6		Std7-std8	
	population	sample	population	Sample	population	sample
A	234	9	241	10	234	9
B	222	9	211	8	267	11
C	276	11	267	11	187	7
D	286	11	231	9	189	8
E	207	8	278	11	452	18
F	228	9	286	11	234	9
G	249	10	271	11	123	5
H	270	11	271	11	156	6
I	191	8	211	8	235	9
Total	2163	87	2267	91	2077	83

Study further randomly selected all 45 teachers from the school.

3.5 Data Collection Instruments

Articles were sourced from magazines and journals dealing with current issues in Miraa trade. Internet and text books related to Miraa trade and research methodology were a major secondary source. The primary data for the study was obtained using questionnaires. A questionnaire is a form that features a set of questions designed to gather information from respondents and thereby accomplish the researchers' objectives (Grewal and Levy, 2009). The researcher employed structured questionnaires as instruments of data collection. Questionnaires were appropriate because they are completely anonymous, allowing potentially embarrassing questions to be asked with a fair chance of getting a true reply. In addition, it is a relatively economical method in cost and time, of soliciting data from a large number of people and the time for checking on facts and pondering on questions can also be taken by respondents, which tend to lead to more accurate information (Walliman, 2005). Moreover, questionnaires are easy to administer due to alternative answers provided to the respondents and also enhances easy analysis. The questionnaire was in two parts. Part A is demographic information and part B is related to activities of Miraa trade that are assumed to affect the pupils' regular school attendance.

This study used of face to face interview as a method of data collection. Interview was used in collecting data from the teachers. The reason for using interview is that they are easy to administer since questions are already prepared. The investigator follows a rigid procedure and sought answers to a set of pre-conceived questions through personal interviews (Kothari, 2004). Interview also eliminates many sources of bias common to other instruments. This is because questions asked are usually

confidential between the researcher and the respondent. Interviews clarify points that are not clear collected from key informants by the use of interview schedule. This included interview schedule for 45 teachers of schools.

3.5.1 Pilot Testing Of Instruments

To establish reliability of research instruments a pilot study was carried out in 20 pupils drawn from 3 schools from the nearby division. These schools were selected purposively to ensure that they bear the same characteristics as the schools in the study area. The researcher chose schools in nearby ward to control the “hallow effect” and to widen the applicability of the study. The tests were done so as to find out whether the terms used resonate with pupils. The researcher also verified their content for accuracy consistency and ensured that ambiguous information was removed while deficiencies and weakness was noted and corrected in the final instruments.

3.5.2 Validity of Research Instrument

Validity refers to whether or not the measurement collects the data required to answer the research question (Somekh and Lewin, 2007). Validity was concerned with whether the instruments measured what they were supposed to. According to Frankel and Wallen (1993), validity had in the recent years been defined as appropriateness, meaningfulness and usefulness of the specific inferences researchers make based on the data they collect. Mugenda and Mugenda (1999) call it accuracy or meaningfulness of inferences which are based on the research results. It was the degree of which results obtained from analysis of data actually represent the phenomena under study. To validate the research instruments, the researcher sought the opinion of the supervisors after the pilot study. Proposed adjustments were captured.

3.5.3 Reliability of Research Instrument

Mugenda and Mugenda (1999) defined reliability as the measures of the degree to which a research instruments yielded consistent results repeated trails. Frankel and Wallen (1993) say it was the degree to which scores obtained with instruments were consistent. The reliability of the questionnaires and interview schedules were established through a test re-test method. This was accomplished by piloting the instruments before the actual study. Babbie (1973) says that instrument may be pre-tested on a sample of at least ten (10) respondents who do not have to be in the same representative sample during the main study.

3.6 Data Collection Procedures

The researcher collected data from the selected respondents after receiving permission from the Ministry of higher education through National council of science and technology, the County education office and Nairobi University authority to carry out the research in the identified area of study. During the school visits the researcher informed the respondents about the purpose of the intended study and booked appointments for the data collection. After familiarization, data was then collected from the respondents using the aforementioned instruments. The researcher will personally distribute the questionnaires, and the completed instruments was verified and collected from the respondents within a period of ten days from the day of their distribution.

3.7 Data Analysis

Data from the field was checked for completeness, accuracy, precision and relevance. The data was keyed into statistical package software for social sciences for analysis. Analysis of data was done using descriptive statistics specifically mean and

standard deviation. Inferential statistics was Pearson correlation coefficient and multiple regression analysis. Coefficient of correlation is a statistical measure of how well a regression between two variables is fit. The correlation coefficient lies in a range of minus one to one and the nearer the absolute of the coefficient is to unity, the higher is the correlation.

3.8 Ethical consideration

To observe ethics, the researcher sought permission from respective authorities. Consent was sought from the respondents by giving them letter of introduction to carry out research. The name of the individual was not disclosed unless on agreement. All the confidential information for the respondent was not disclosed. Recorded data necessary for reports was given anonymity.

The study strived to achieve honesty and practice integrity (Shamoo and Resnik, 2009). The researcher honestly reported data, results, methods and procedures, and publications used. The researcher will strive to avoid biasness in experimental design, data analysis and data interpretation. The researcher will practice integrity by acting with sincerity, striving for consistency of thought and action. In addition, the researcher will avoid careless errors and negligence by being critical in examination of findings so as to keep good records of research activities such as data collection and research design.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter gives a detailed account of the results from the data collected and analyzed. The presentation of the results is per the study objectives. As earlier stated in the introductory pages of this research the main objective of the study was to establish effects of miraa trade on regularity of attendance of primary school pupils in Meru County. The study findings are first presented using descriptive statistics and later followed by Pearson correlation

4.2 Response Rate

The study findings in table 4.1 revealed that 261 questionnaires were distributed to the respondents. 246 questionnaires out of the 261 were returned, which gives a response rate of approximately 95.70 percent. This response rate can be considered extremely good. Even though the percentage rate of response was good, the number of distributed questionnaires may have implications on the validity of the statistical analysis. The writer did however decide to continue with the analysis due to the fact that the theoretical part of the thesis was already done.

Table 4.1 Responses Rate

Questionnaire Issued	Questionnaire Returned	Responses Rate
261	245	93.87%

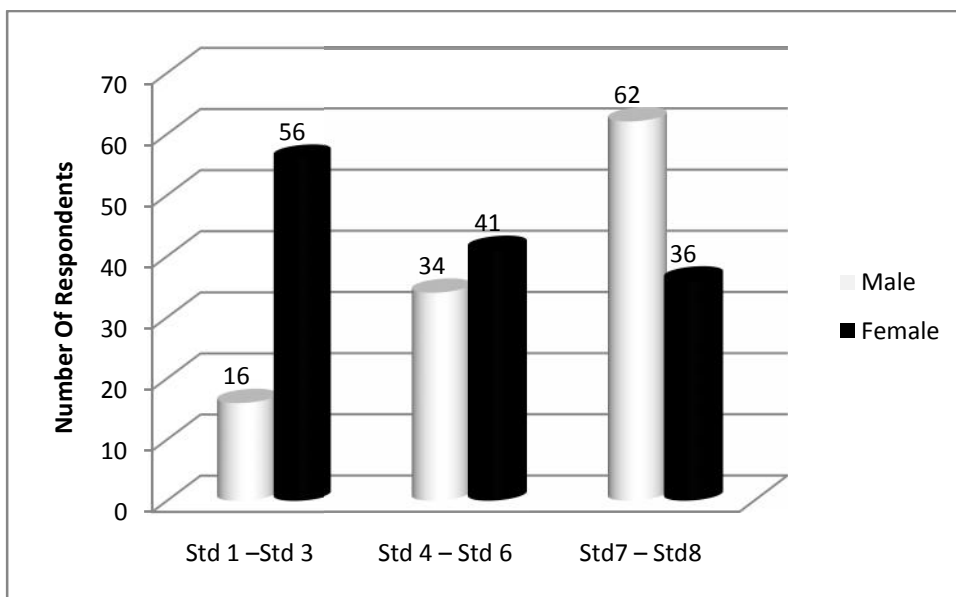
4.3 Demographic information

The study through the questionnaire sought to accomplish the gender of the respondents. The background information was meaningful to the study as it helped to understand the logic of the background factors of the various respondents; it laid a basic foundation on which the interpretation of the study was to be based.

4.3.1 Response by gender

The study sought to find out the gender of the respondents (pupils) in order to balance the views of both genders during the study. Figure 4.1 demonstrates gender representation in the study.

Figure 4.1 Response by Gender



The study results showed majority of the male respondents were in class 7 – 8 (62), while majority of female were in class 1 -3 (56). moreover, findings showed that in class one to class three male students were (23%) while female students were

represented by 56(77%), class four to class six there were 34(45%) male and 41(55%) female. In class seven to eight, male students were 62 (62.9%) more than female who were 36 (37.1%). Consideration of gender was reliable in the study so as to get views from both sides which have great importance. This shows that there was no biasness in the research because all gender participated.

4.3.2 Response by Age

This study sought to find out the age of the respondents which was illustrated in figure 4.2 of the study.

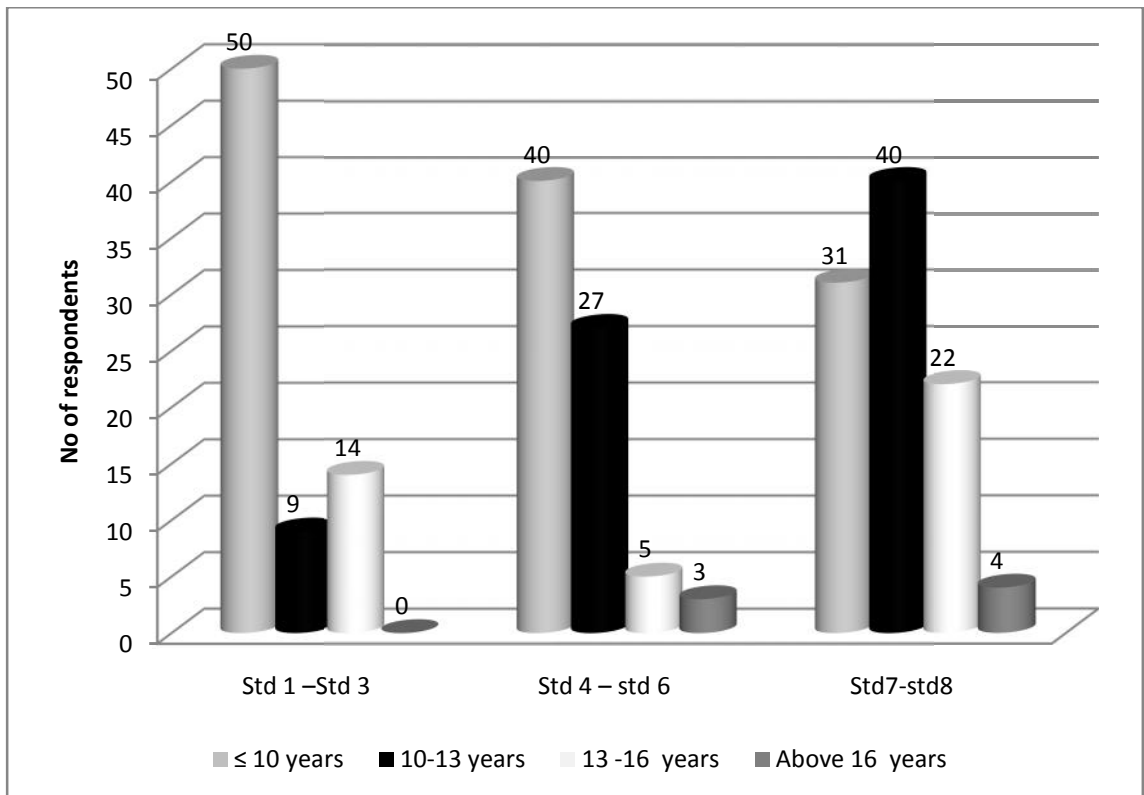


Figure 4.2 Response by Age

The study findings revealed that out of the 245 respondents, majority 50(68%) of pupils in class 1-3 were of the age bracket of less than years 10yrs, followed by

40(54%) who were in class 4-6 aged below 10 yrs. and 40(41.6%) class 7-8 aged 10-13years. The least age was in classes 4-6 who were 4(4.5%) aged above 16 years, save for the class 1-3 group with no student aged above 16 years. The age of the respondents were relevant to the study since it is assumed that those respondents who are mature have adequate knowledge and therefore are in a position to state the various practices/activities in the miraa trade.

4.3.3 Respondents Involved in Growing Of Miraa

The study sought to know the extent to which the families of these pupils were involved in miraa trade as reported in figure 4.3.

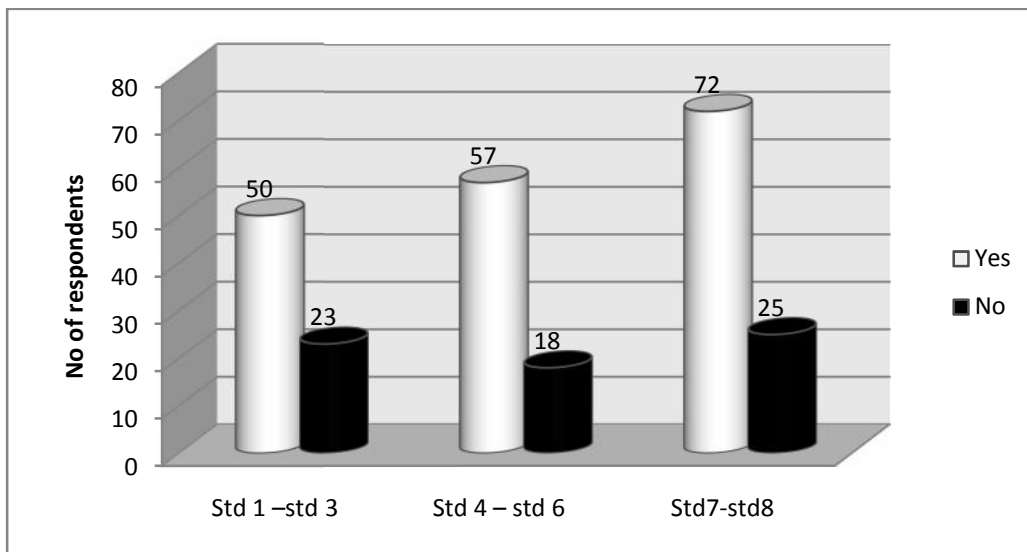


Figure 4.3 Respondents involved in Growing of Miraa

Figure 4.3, illustrates the findings by the study on pupil’s response on whether their families grew miraa. In classes 1-3, 50(68%) of the families grew miraa while 23(32%) said that the families were not involved in miraa trade. In classes 4-6, 57(%) agreed to being involved in the trade while 18(24%) did not. Among the classes 7-8

pupils, 72(74%) show participation in miraa trade while 25(26%) do not participate in the trade. From the above responses, it is clear that a very high percentage of the population in kangeta Meru County are miraa farmers/ traders. This also shows that they have a high regard of Miraa because of the regular and high earnings derived from it.

4.4 Harvesting Miraa and Attending School

The study was guided by the first objective which sought to find out the effect of miraa harvesting on regularity of pupils school attendance. This analysis includes a view of various perspectives of harvesting of miraa which include harvesting hours and health hazards. This was further illustrated in table 4.1.

4.4.1 Harvesting Hours

Table 4.2 illustrate time pupils are involved in harvesting miraa, pupils in class 1-3, class 4-6 and class 7-8 respondents of the hours they are involved in harvesting miraa

Table 4.2 Harvesting hours

	Morning	noon	Evening	Total
Std 1 –Std 3	43	14	16	73
Std 4 – Std 6	61	7	7	75
Std7-Std8	71	14	12	97
Total	175	35	35	245

Study findings from table 4.2 revealed that 43 pupils between Std 1 –Std 3 were involved in the harvesting of miraa in the morning hours, followed by 61 pupils between Std 4 - Std 6 and 38 pupils in Std7-Std8 who were also involved in harvesting miraa during morning hours. This implies that pupils could not attend morning classes

since most of them could joining their parents in harvesting miraa. The findings also reveal that 14, 7 and 14 pupils in std 1 –Std 3, std 4- std 6 and std7-srtd eight respectively were involved in harvesting miraa at noon. This showed that a significant number of pupils could not attend class at noon. A similar situation was also observed in evening hours where only 16, 7 and 16 pupils in class 1-3, 4-6, and 7-8 were involved in harvesting miraa. These findings are consistent with Dhaifalaha & Šantavýb (2004) and Lemessa (2001) that Miraa is harvested in the early hours of the day and sold in markets by the late morning (argues miraa is often harvested in early morning or late afternoon thus create an obstacle to children in attending school fulltime. Irregular school attendances have been discussed to results to low academic performance and poor all development of pupils

Table 4.3 Harvesting Hours

	Means	Standard Deviation	Fq
Std 1 –Std 3	4.01	1.063	34
Std 4 – Std 6	4.08	1.11	51
Std7-Std8	4.71	0.167	45

More findings provide evidence that the pupils were at home to look after their sibling during harvesting as indicated by as revealed by pupils in std 1-3 (mean = 4.27), 4-6 (mean = 3.95) and 7-8 (mean = 3.92). This agrees with Human Rights Watch (2001) that in Egypt, more than one million rural children are hired each year from May to July, largely during the school recess, to harvest cotton for eleven hours a day, seven days a week. in most cases,

4.4.2 Health Hazard and School Attendance

Study results in table 4.4 illustrate findings in how often pupils fell sick as result of harvesting miraa.

Table 4.4 Health hazard

	None	Injuries	Cold related illness	Others	Total
Std 1 –Std 3	2	30	33	8	73
Std 4 – Std 6	5	38	27	5	75
Std7-Std8	1	26	63	7	97
Total	8	94	123	20	245

Findings showed that majority of the pupils 123 pupils reported to have had cold related illness as results of harvesting miraa, which from the table 4.4 above could be associated with harvesting miraa during morning where in Kangeta most of the time there is cold weather. Thus, they could not be able to attend classes regularly. This was followed by 94 of the pupils who sustained injuries while harvesting miraa and 20 who got other illnesses associated with miraa harvesting. Only 8 pupils reported to have had any dieses which are associated with miraa harvesting. This denies the children a chance to go to school and more so the recommended resting hours. The findings are similar to ILO (2009) report that many children have sustained injuries when involved in selling shell seafood generally squat on the floor or sit on a small bench for the duration of the working day, which can last 15 hours or longer.

4.5 Miraa selling and school attendance

The study second objective was to find out the effect of Miraa selling on school attendances. Table 4.6 depicts Miraa selling activities that pupils are involved in

4.5.1 Sorting and Grading Miraa

Research was also done to find out if pupils are involved in Miraa selling activities. Findings revealed that pupils agreed that the students assisted in wrapping Miraa. The findings coincide with Human Rights Watch (2001) that In Mexico children helped in sorting and grading the rich world's fruit and vegetables. It also confirms findings by SOAS (2009) that In Uzbekistan, school going children participated in cotton sorting

Table 4.6 Number of Pupils Involved in Sorting and Grading Miraa

	Export	Local	
Std 1 –std 3	53	20	73
Std 4 – std 6	65	10	75
Std7-std8	73	24	97
Total	191	54	245

Findings in table 4.7 indicated that majority (191) of pupils who were involved in sorting and grading miraa for export, this suggest that most of the pupils were forgoing school to earn wages through grading and sorting miraa for export, while 54 pupils were sorting and grading local miraa this might be related to high wages paid in grading and sorting miraa for export which mostly attract young men.

Table 4.7 Sorting and Grading Miraa

	Means	Standard deviation	Fq.
Std 1 –std 3	3.11	1.143	43
Std 4 – std 6	3.08	0.971	65
Std7-std8	3.43	1.23	54

4.5.2 Miraa Wrapping

The study sought to determine harvesting miraa practices were examined. Findings were presented in number of bundles pupils wrap per day.

Table 4.8 Number of Pupils Involved In Wrapping Miraa

	Less than 50	51-100 bundles	Over 100 bundles	Total
Std 1 –Std 3	25	28	20	73
Std 4 – Std 6	13	32	30	75
Std7-Std8	15	52	30	97
Total	53	112	80	245

Study findings from table 4.8 reveal that majority (112) of the pupils were wrapping between 51 to 100 bundles per day. This implies that pupils were deeply involved in miraa business. According to ILO (2010) wrapping encourages high wages particularly to school going pupils. Wages are scaled with the number of bundles wrapped, spending more time wrapping miraa so as to earn more. More findings

showed that 80 pupils were also involved in wrapping over 100 bundles per day while 53 pupils were wrapping less than 50 bundles of miraa.

Table 4.9 wrapping miraa

Pupils Responses	Means	Standard Deviation
Std 1 –Std 3	4.5	1.27
Std 4 – Std 6	4.31	0.621
Std7-Std8	4.5	1.45

Miraa up in banana leaves or plastic bags as revealed by pupils in class 1-3 (mean = 3.11), 4-6 (mean = 3.08) and 7-8 (mean = 3.43). The study findings confirms with International Labor Rights Forum (2007) that in Ethiopia pupils were involved in helping their families to wrap. in worse cases, both parties, the teachers and the pupils reported that many families harvested miraa many times in a year, while engaging their children in the activities(mean=4.27).

4.5.3 Transporting Miraa,

Findings in table 4.10, demonstrate kilometres (kms) school going pupils covered when transporting miraa.

Table 4.10 Number of People Transporting Miraa

Pupils Responses	1-3 Km	4-5 Km	Over 5 Km	Total
Std 1 –Std 3	50	21	2	73
Std 4 – Std 6	50	22	3	75
Std7-Std8	60	33	4	97
Total	160	76	9	245

Further analysis in table 4.10 revealed majority (160) pupils were involved in transporting miraa for about 1-3 kilometers (km), thus most of the pupils could not attend classes since they had to make sure miraa reached the collection points in time which from the table (1-3) kms is a long distance. The findings are also supported by 76 pupils who reported that they transported miraa for 4-5 kms.

Similar findings were found in Jordan which is characterized by the dominance of engaging school going pupils in transporting of agriculture product. 20% of pupils were involved in promoting of agricultural production through transportation of various products (Rimawi, 2001). In Ethiopia, pupils were involved in transporting haqara/bundle (40-60 selected slender twigs) of khat for many kilometres.

Table 4.11 Miraa transporting

	Means	Standard Deviation
Std 1 –Std 3	3.56	1.743
Std 4 – Std 6	3.22	0.654
Std7-Std8	3.53	1.53

Mean range; 1-1.5=SD, 1.6-2.5=D, 2.6 – 3.5=N, 3.6-4.5, 4.6-5.0=SD

Findings in table 4.12 show that pupils were transporting miraa since they confessed that their parents always requested them to transport miraa even when it was school time. As evidence of recorded means from pupils in class 1 –3(mean = 3.56) and 4- 6 (mean = 3.22) and 7- 8 (mean = 3.53).

4.6. Consumption of Miraa and Regular School Attendances

The study’s third objective sought to establish the effect of Miraa consumption on pupils’ regular school attendances. Table 4.13 demonstrates Miraa consumption practices among the pupils.

4.6.1 Miraa Chewing

Their teachers too observed the students chewing miraa frequently although not with their friends. In most cases Miraa chewing is often reported to be in the afternoon (Aden et al., 2006; Alem et al., 1999; Patel et al., 2005). An hour spent on chewing was part of social interaction, in particular if it is done over the weekend. However, this time spent on Miraa chewing if it is multiplied by the frequency of Miraa chewing days during the week the impacts in term of time wasted is inevitable (NACADA, 2006).

Table 4.12 Number of pupils who chew miraa

	Yes	No	Total
Std 1 –std 3	17	56	73
Std 4 – std 6	47	28	75
Std7-std8	39	58	97
	103	142	145

In table 4.13 it was indicated that most (142) of the pupils who reported to chew miraa were in school. However, 103 of the pupils were chewing miraa in school. This number is high considering that there has been campaign against school pupils' engaging in miraa chewing. more findings revealed class 4 – 6 were more involved in chewing miraa while the least pupils who chewed miraa were in class 1- 3 this is because most likely they were have not been exposed to miraa chewing.

Table 4.13 Chewing time

	Means	Standard deviation
Std 1 –std 3	3.71	1.543
Std 4 – std 6	4.07	1.541
Std7-std8	3.9	1.65

Consumption of miraa activities was also a factor under investigation and the study findings were illustrated in Table 4.13. The students agreed to have been chewing miraa many times as reported by pupils in class Std 1 –std 3(mean = 1.56), pupils in class Std 4 – std 6 (mean = 1.81) and Std7-std8 (mean = 1.11) but disagreed to having chewed with their friends (mean=1.35).

4.6.2 Chewing Time

Study findings on table 4.14 revealed that pupils disagreed that the parents spent most of their times chewing.

Table 4.14 Consumptions of Miraa

	Less than 1 hour per day	1 – 3 hrs/day	4-6 hrs/day	Above 6 hr/day	
Std 1 –std 3	15	18	36	4	73
Std 4 – std 6	39	29	7	0	75
Std7-std8	12	41	12	32	97
Total	66	88	55	36	245

In table 4.15 findings showed that majority (88) of the pupils in reported to be chewing miraa for bout 1-3 hours per day, followed closely by 39 of the pupils who spent less than one hour chewing miraa, while 55 spent 4-6 hours chewing miraa. these suggested pupils were wasting time chewing miraa when they could be attending classes or doing school assignment while at home. More findings revealed that 36 pupils were spending over 6 hours

Table 4.15 Consumptions of Miraa

	Means	Standard deviation
Std 1 –std 3	4.15	1.89
Std 4 – std 6	3.92	1.509
Std7-std8	4.82	1.11

Miraa as reported by pupils in class Std 1 –std 3 (mean = 3.71), pupils in class Std 4 – std 6 (mean = 4.67) and Std7-std8 (mean = 3.9). There was a disagreement when it came to consumption of Miraa and teachers showing up to class students supported it as

indicated by pupils in class Std 1 –std 3(mean = 4.15), pupils in class Std 4 – std 6 (mean = 3.92) and Std7-std 8 (mean = 4.22) . This support Griffiths (1998) findings that 78% of men and 76% of women had used khat and 6% were chewing on a daily basis; the average frequency of use was 3 days per week. Of those surveyed, 76% were using more khat in Saudi in Ethiopia Randall (2011) khat chewing often plays a dominant role in celebrations, meetings, marriages, and other gatherings

4.7. Income from miraa and school attendance

The study fourth objective was to assess the effect of income from miraa on pupils’ regular school attendance .the study found paramount to various activates income from miraa impact on pupils households as represented in table 4.7

4.7.1 Food provision

Table 4.17 illustrated how income from miraa help in payment of school fees for pupils.

Table 4.16 `Income from miraa

	Means	Standard deviation
Std 1 –std 3	4.33	1.312
Std 4 – std 6	3.97	1.56
Std7-std8	4.22	1.68

The income from miraa proved to support a lot of families financially. According to pupils in Std 1 – Std3 (mean=4.38) miraa business enabled their parents to pay their fees. Similarly Std 4 –Std6 and Std 7 to Std 8 agreed with the same. Families

were also able to feed their siblings (mean=4.17). The study findings are supported by Block and Webb (2001) that adjustments in agriculture have an important impact on income among most rural households. Nevertheless Kalix and Khan (1984) add that family life is harmed because of neglect, dissipation of the family income and inappropriate behaviour which in many cases leads to divorce. Acquisition of funds to pay for Miraa may lead to criminal behaviour and even prostitution (Elmi, 1983).

4.7.2 Stable family income

Findings in table 4.18 demonstrated how miraa from income assist in supporting family income.

Table 4.17 Family Income

	Means	Standard deviation
Std 1 –std 3	3.94	1.437
Std 4 – std 6	4.45	1.77
Std7-std8	4.76	1.45

More findings showed that the pupils also revealed that their parents ensured they had the appropriate school uniform(mean=3.94) a statement which was supported by std 4 – std 6 (mean = 4.45) and std 7 and std 8 (mean = 4.76)and that whenever they requested their parents for new books as expected by their teachers, their parents got them Std 1 –std 3 (mean =4.33), Std 4 – std 6 (mean = 3.97) and Std7-std8 (mean = 4.22)and this was confirmed by their teachers to make a worst case out of it Dessie (2013) argues that children in Miraa-growing areas don't like to go school when they can make easy money since their family are unable to meet their most basic needs and

have inadequate income, lack of access to productive assets, low productivity, subsistence farming as well as deprivation of social infrastructure and markets (Mariara and Ndeng'e, 2004).

4.8 Regular school attendance

The study independent variable was regular school attendance and the findings were revealed in table 4.19. The study therefore sought to find out the rate of regular attendances as shown in table below. School attendance from a general point of view showed that despite the challenges faced by parents and pupils as they tried to balance between miraa farming and raising of their families was fair. The students were neutral on their attendance of school std 1-3(mean=2.22), std 4-6(mean=2.46), std 7-8(mean=2.06) and their presence in the school register (mean=3.22). Their parents on the other side tried their best to ensure the pupils had attended school every day (mean=3.2)

Table 4.18 Regular school attendance by pupils

Pupils Responses	Std 1 –std 3		Std 4 – std 6		Std7-std8	
	Means	Standard deviation	Means	Standard deviation	means	Standard deviation
Regularly attend school.	2.22	1.347	2.46	0.871	2.06	1.546
Am always present in the school attendance register	2.7	0.92	3.54	0.106	3.44	1.214
My parents always make sure I attend school every day	2.66	0.842	3.66	1.347	3.27	1.323

Mean range; 1-1.5=SD, 1.6-2.5=D, 2.6 – 3.5=N, 3.6-4.5, 4.6-5.0=SD

4.9 Correlation Statistics

The study investigated linear relationship between variables as revealed in table 4.20 below. Pearson Correlations results in table 4.20 showed that Selling of Miraa were most highly negatively and significantly correlated to regular school attendance ($r=0.682$, <0.05). Thus Selling of Miraa had 68.2% negative relationship with pupils' regular school attendances.

Miraa harvesting was the second miraa trade activities to be negatively related with regular school attendance for primary school pupils ($r = 0.680$, <0.05) an indication that Miraa harvesting had 68% significant negative relationship with regular school attendance.

Consumption of Miraa was also negatively and significantly associated with regular school attendances as shown by $r = 0.679$, <0.05 implying that Consumption of Miraa had 67.9% negative relationship with regular school attendance.

However, income from miraa was highly and positively correlated with regular attendance ($r = 0.643$, <0.05). Income from miraa had 64.3% relationship with regular school attendance.

Findings provided enough evidence to suggest that there was linear relationship between the Miraa harvesting, selling of Miraa, Consumption of Miraa, and Income from Miraa and regular school attendance.

Table 4.19 Correlation Statistics

	Regular school attendance	<i>Miraa</i> harvesting	Selling of <i>Miraa</i>	Consumption of <i>Miraa</i>	Income from <i>Miraa</i>	<i>Miraa</i> packing
Regular school attendance	1					
<i>Miraa</i> harvesting	-.680**	1				
Selling of <i>Miraa</i>	-.682**	.624**	1			
Consumption of <i>Miraa</i>	-.679**	.614**	.655**	1		
Income from <i>Miraa</i>	.650**	.621**	.566**	.603**	1	

** Correlation is significant at the 0.01 level (2-tailed).
Survey Data (2013)

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes and presents the research findings, from the study. It has been organized to provide a concise summary of the study findings, conclusions and areas suggested for further research.

5.2 Summary of the Findings

The main objective of this study was to examine the effects of miraa trade activities on regular school attendance in Meru County. To achieve the objectives of the study primary data was collected by use of self-administered predetermined questionnaire. This section presents the findings from the study in comparison to what other scholars have said about Miraa harvesting, selling of Miraa, Consumption of Miraa, and Income from Miraa on regular school attendance noted under literature review

As noted in previous chapter engaging pupils in miraa harvesting negatively interferes with their regular school attendance. Miraa harvesting has been observed to take place during morning hours, thus involving pupils in miraa harvesting means they will not attend morning hours when they are fresh and energetic this may lead to the performing poorly academically. Study findings are supported Oxfam America (2004) that agricultural work may be beneficial in terms of providing income and improving nutrition but if children are taken out of school during planting or harvesting the work becomes harmful because it is hindering their education (Moyi,2013). A

statement echoed by Joshua (2009) that harvest activities seem restricted to weekends or after school. Some parents note that while the cotton picking does not always interfere with school hours, it limits the possibility to do any homework. It due to irregular school attendance as results of harvesting activities pupils attempts to catch up with the curriculum but the general sense amongst parents and teachers was that the pupils' education does suffer, with a common refrain being that 'of course it would be better if the children were in schools. Study findings showed that engaging pupils in selling of miraa lowers the rate of school attendance among pupils ($\beta = -0.279$, $p < 0.05$).

Miraa selling involve going to the street and transporting miraa as far as 100 kilometers from the harvesting place, this becomes a problem when children are engaged in those kinds of activities. Children cannot attendance school regularly and at the same time transport miraa to a destination which will take almost 5 hours to reach. The study findings coincided with Morova (2001) who found that in bidii-making (Tamil Nadu) the younger children said they could devote more time to studies if they did not need to do packing and selling fishes. But at the same time, they said, it was not possible to give up fishing; a minimum specified work, needing two hours each day, had to be done, failing which they were punished.

A statement supported by Manuelli (2006) who argued that in the prawn-shelling sector in Central Africa, children could pack prawns from the contractor and brought them home. Starting from an early age, the children worked long hours, making it difficult to attend school. They reached the warahs often at 4 am and continued working until 11.30 am. Children worked similar hours at home because there are no storage facilities and delay would mean that the highly perishable product would spoil.

According to US Dept of State (2006) Miraa shrub are sold in markets by the late morning (Dhaifalaha & Šantavýb, 2004). In some instances, markets, disputes over sales have led to children selling Miraa being killed. Thus, exposing children to selling miraa where they might even be kidnapped is risky to children a situation which is likely to affect their regular school attendance.

Parents, teachers and pupils engaging in miraa consumption reduce chances for pupils to attend school regularly. for instance, recently studies has shown that Women engage in Miraa chewing sessions which is increasing rapidly causing serious problems for the family and the socioeconomic situation (Khalil, 1998). Most of these women have no time to prepare their children to school. They do not even encourage their children to attend school. The findings are supported by Carrier (2007) that parents could chew two bundles in a session, and the majority chewed between 6 p.m. and midnight, the average session lasting six hours a situation which would make them forget to prepare their children for classes.

This is even worse where even pupils themselves are chewing miraa in groups thus Miraa to “increase” their concentration levels and attention span (Lemessa, 2001). Excessive consumption of Miraa is said to induce symptoms of hallucination or illusion, intoxication and short energy boosting effect. Extended use is also reported to cause emaciation, may be as a result of suppressed appetite, and impotence. This findings are similar to that of Yemen where as many as 82% of men and 43% of women may be chewers (Numan, 2004). Miraa consumption has spread across ethnic, social and religious boundaries in both countries, but is still closely linked to specific segments of the population. Although Miraa chewing is often reported to be in the afternoon (Aden

et al., 2006; Alem et al., 1999; Patel et al., 2005). One can argue that the hours spent on chewing will be part of social interaction, in particular if it is done over the weekend.

This time spent on Miraa chewing if it is multiplied by the frequency of Miraa chewing days during the week the impacts in term of time wasted is inevitable. Miraa use has increased steadily over the last 50 years and has become a problem of significant social and medical importance. Because of its social acceptability and euphoriant effects, Miraa chewing often plays a dominant role in celebrations, meetings, marriages, and other gatherings. The amount of Miraa chewed per user is 100 to 200 g of leaves and stems over 3 to 4 hours.

Finally, findings revealed that despite all the negative effect of Miraa trade, income from miraa enhances regular school attendances ($\beta_4 = 0.236$, $p < 0.05$). Income from miraa enables parents to provide their children all the necessary materials for learning and attending school regularly. The findings contradict Dhaifalaha & Šantavýb (2004) argument that from the economical point of view Miraa also diverts household income that could have been widely used for nutritious food, home improvements, education or other family needs that people on those countries are in very big need for. Findings also disagree with Abdul Wahab (2002) that miraa purchases make up a large share of the household budget in Yemen and its consumption directly affects expenditure on food. Miraa and the associated use of tobacco expenditure were higher than expenditure on cereal products.

Similarly Humud (2002) and Dessie (2013) argue that Miraa takes a high share of the family budget children may be forced to drop out from school and work. and that

farmers are confronted with a dilemma of crop diversity within their prevailing capacity, e.g. the size of the land holding, the objective ranges between income maximization and sustainability. Under existing conditions, a large land holding offers good opportunities for the farmers to get more income, while at the same time, being relatively sustainable.

5.3 Conclusion

Based on the results of the study, miraa harvesting, discourages student attendance, reduces student attendance during especially during morning hours. Pupils are involved in several harvesting activities such as cooking for harvesters, harvesting miraa or attending to sibling while the rest of the family is harvesting. From the interview schedule teachers argued that there is possibility pupils are harvesting miraa for money.

According study findings miraa selling is an events (or situations) that cause students to miss school either because they are involved in them or affected by them

5.4 Recommendations

5.4.1 Recommendation for all objectives

Monitoring and supervision of the miraa trade so as it does not compromise education system should be enhanced. The county education secretary should be empowered to strengthen monitoring of parents who are engaging pupils in the trade activities. School Supervisor should ensure students are not missing school as a result of miraa trade activities.

For effective management of absenteeism, school records need to be accurate. They should be verifiable and shared with the parents and community. They should also be supplied to the county education office. If records are accurate, then they can be used to monitor attendance and foresee any impending threat of pupils not fully attending school.

Head-teachers, teachers and parents should be accountable to pupils' attendance. The county education officer should monitor the attendance and performance of teachers. Pupils should receive absence permission from the head teachers where extremely necessary.

Government authorities should work with stakeholders to sensitize parents on the importance of education and the need for regular student attendance. Schools should organize meetings and door-to-door visits within their community to discuss ways to combat seasonal low attendance and encourage parents to send their children to school regularly. Child clubs can also raise awareness on the importance of regular school attendance

5.2 Suggestion for Future Research

The study investigated primary pupils only, it is therefore necessary to extend the study and a similar study is conducted to secondary school students. Second, the study targeted only the teachers and pupils, parents were observed to play a key role in the regular attendance of pupils. Thus, future research should focus on parents so as to reduce school attendance irregularity.

5.6 Contributions for the Body of Knowledge

Objecives	Contribution
1: Miraa harvesting on regular attendance	The objective showed that involving children in miraa trade reduces regularity of primary school attendance adding more literature on relationship between agriculture trade actitivites (harvesting) and regular school attendance in primary school.
2:Miraa selling and regular attendance	Findings in objective two contributed to the existing literature and the theory of child exploitation by proving enough evidence that miraa selling was negatively related to regular school attendance, it has clearly shown that involving pupils in selling of miraa will sabotage their school attendance level.
3:Miraa consumption and regular attendance	Few studies have tried to relate miraa consumption with regular school attendance. this study however, has shown that the more time spent in consumption of miraa by either teachers, parents and pupils the lower the rate of school attendances
4.Income from miraa and regular attendance	Review of the literature showed how income spent in buying miraa affect family lives. this study only concentrated on the negative side of miraa income on the other hand this study established that income from miraa trade enhances regular attendance of school going pupils

REFERENCES

- Aden, A., Dimba, E.A., Ndolo, U.M., Chindia, M.L., 2006. Socio-economic effects of khat chewing in north eastern Kenya. *East African Medical Journal* 83, 69–73.
- Affinnih, Y.H. 2002. Revisiting Sub-Saharan African countries' drug problems: Health, social, economic costs, and drug control policy. *Substance Use and Misuse* 37(3): 265-290
- Agricultural Act Cap 318 Laws of Kenya
- Alem, A., Kebede, D., Kullgren, G., 1999. The prevalence and socio-demographic correlates of khat chewing in Butajira, Ethiopia. *Acta Psychiatrica Scandinavica Supplement* 397, 84–91.
- Anderson D., Beckerleg S., Hailu D. and Klein A. *The Khat Controversy: Stimulating the Debate on Drugs*
- Anderson, D., Beckerleg S., Hailu, D., Klein A. (2007) *The Khat controversy: stimulating the debate on drugs*. Berg: Oxford.
- Armstrong, Edward 2008 'Research Note. Crime, Chemicals and Culture: On the Complexity of Khat.' *Journal of Drug Issues* 38(2): 631-648.
- Bass, Loretta E. 2004. *Child Labor in Sub-Saharan Africa*. Boulder: Lynne Rienner.
- Beckerleg, S. 2008. Khat special edition introduction. *Substance Use and Misuse* 43: 746-761.
- Carrier, N. 2008. Is Miraa a drug: Categorizing Kenyan khat. *Substance Use & Misuse* (edulis) in Ethiopia. *Substance Use & Misuse. Special Issue: Khat: Use, users and unresolved*
- Elmi AS. (1983) The chewing of khat in Somalia. *Journal Ethnopharmacology* 8:163-176.
- Gebissa, E. (2008) Scourge of life or an economic lifeline? Public discourses on khat (Catha issues. 43(6): 784-802.
- Government of Kenya Law (1951). *Agricultural Act Cap 318* Government Printer, Kenya

- Hailu, D. 2005. Supporting a nation: khat farming and livelihoods in Ethiopia. *Drug and Alcohol Today* 5(3):22.
- Houghton.P. (2005).UK miraa ban to cost Kenya \$250m a year. <http://www.somalilandtimes.net/sl/2005/205/24.shtml>. Date accessed 3 February, 2011
- Kalix, P. & Khan, I. (1984) Khat: an amphetamine-like plant material. *Bulletin of the World Health Organization*, 62, 681–686.
- Klein A. and Beckerleg S. (2007) ‘Building Castles of Spit – The role of khat chewing in worship, work and leisure’ in Goodman J., Lovejoy P. and Sherrat A. (eds.) *Consuming Habits* (new edition). London: Routledge.
- Klein, A. (2007) Khat and the creation of tradition in the Somali Diaspora. In: Fountain, J, & Korf, D.J.. *Drugs in society: European perspectives*. (pp. 51-61). Abingdon, United Kingdom: Radcliffe Publishing. Oxford and New York: Berg, 2006).43: 803-818.
- NACADA.(2006). *Alcohol Tobacco (Cigarettes) Bhang Miraa (Miraa) Inhalants prescription Volume 19*) Nairobi. Kenya
- Ott RL, Longnecker M (2001) 'An introduction to statistical methods and data analysis.' 5th edn (Cengage Learning: Florence, KY)
- Patel, S. L., Wright, S. and Gammampila, A.(2005) *Khat Use Among Somalis in Four English Cities*. NACRO, 47/05. London: Home Office.
- Sikiru, L., Babu, S. M. (2009). *Miraa (Catha Edulis: Academic, Health and Psychosocial Effects on Mature Students*, *African Journal of Drug & Alcohol Studies*, Volume 8, No2
- Sikiru, L., Babu, S. M. (2009). *Miraa (Catha Edulis: Academic, Health and Psychosocial Effects on Mature Students*, *African Journal of Drug & Alcohol Studies*, Volume 8, No2
- Simons J. A, Irwin D. B and Drinnien E. A. (1987). *From Psychology –The Search for Understanding, Maslow’s Hierarchy of needs*. West Publishing Company, New York.

- Soenens, B., and Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in 3 life domains: The role of parents' and teachers' autonomy support. *Journal of Youth and Adolescence*, 34(6), 589-604.
- The World Bank (2007), 'Towards Qat Demand Reduction' http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/06/26/000090341_20070626112355/Rendered/PDF/397380YE.pdf
- Waikenda, (2010).World Peasants Organization Miraa Patron: www.prophet.nabii@yahoo.com. Date accessed, 12/12/ 2010
- Warfa, N., Klein, A., Bhui, K., Leavey, G., Craig, T. & Stansfeld, S.A. (2007) Khat use and mental illness: a critical review. *SocSci Med*, 65(2): 309-18.
- Warfa, N., Klein, A., Bhui, K., Leavey, G., Craig, T., Stansfeld, S. (2007) Association between khat use and mental disorders: an emerging paradigm. *Social Science and Medicine*, Volume 65, (2) 309-318

APPENDICES

APPENDIX I: REQUEST TO PARTICIPATE IN RESEARCH

MAINGI PURITY KARIMI
Cell No. +254 0720 969 676

RE: REQUEST TO PARTICIPATE IN RESEARCH

My name is Maingi Purity Karimi a student at University of Nairobi. I am carrying out a study on the “**EFFECTS OF MIRAA TRADE ON REGULARITY OF ATTENDANCE OF PRIMARY SCHOOL PUPILS IN MERU COUNTY**” and you have been identified as one of the people who can be of assistance to me.

The information you will provide was entirely for academic purposes and was treated with utmost confidentiality. Your name is not required on the questionnaire and your identity will not be disclosed in any way.

For us to proceed with this exercise, kindly sign the section below

Thank you,

MAINGI PURITY KARIMI

.....

APPENDIX II: QUESTIONNAIRE FOR PUPILS

SECTION A: BACKGROUND INFORMATION				
1	Gender	Male Female	[] []	Select one
2	Age bracket	10 years 11-15 years above 16 -25 years	[] [] []	Select one
3	Which classes are you?	Class Five Class Six Class Seven	[] [] []	Select one the current one
4	Do grow or buy Miraa in your family?	Yes No	[] []	Select one

Please mark the number that best reflects your level of agreement in the following statements.

KEY: SA- Strongly Agree, A: Agree, UD-Undecided, D: Disagree, SD: Strongly Disagree

SECTION B: HARVESTING MIRAA AND ATTENDING SCHOOL				
1	I always help my family in Miraa harvesting.	SA A UD D SD	[] [] [] [] []	Select the most appropriate
2	My family harvests Miraa many times a years	SA A UD D SD	[] [] [] [] []	Select the most appropriate
3	During Miraa harvesting, if am not harvesting am cooking for the harvesters	SA A UD D SD	[] [] [] [] []	Select the most appropriate
4	My parents ask me to stay at home and look after my younger ones as they harvest Miraa	SA A UD D SD	[] [] [] [] []	Select the most appropriate
5	My parents ask me to dry and crush Miraa	SA	[]	Select the

	training hence they cannot grow a business	A UD D SD	[] [] [] []	most appropriate
SECTION C: MIRAA SELLING AND SCHOOL ATTENDANCE				
1	I assist in wrapping Miraa up in banana leaves or plastic bags	SA A UD D SD	[] [] [] [] []	Select the most appropriate
2	I help in spraying Miraa leaves to maintain humidity.	SA A UD D SD	[] [] [] [] []	Select the most appropriate
3	Am involved in selling Miraa	SA A UD D SD	[] [] [] [] []	Select the most appropriate
4	My parents always ask me to transport Miraa to the collection centre even on school days	SA A UD D SD	[] [] [] [] []	Select the most appropriate
SECTION D: CONSUMPTIONS OF MIRAA AND SCHOOL ATTENDANCE				
1	I chew Miraa many times	SA A UD D SD	[] [] [] [] []	Select the most appropriate
2	I chew Miraa with my friends in school	SA A UD D SD	[] [] [] [] []	Select the most appropriate
3	my parents spend most of the time chewing miraa	SA A UD D SD	[] [] [] [] []	Select the most appropriate
4	My teachers fail to attend classes to go	SA A	[] []	

	chew miraa	UD D SD	[] [] []	Select the most appropriate
SECTION E: INCOME FROM MIRAA AND SCHOOL ATTENDANCE				
1	My family's Miraa business enables my parents to pay for my school fees	SA A UD D SD	[] [] [] [] []	Select the most appropriate
2	My parents are able to feed my siblings and I with all meals	SA A UD D SD	[] [] [] [] []	Select the most appropriate
3	My parents always make sure I have the appropriate school uniform	SA A UD D SD	[] [] [] [] []	Select the most appropriate
4	Whenever I ask my parents for new textbooks as teachers have requested they always buy me	SA A UD D SD	[] [] [] [] []	Select the most appropriate
SECTION F: REGULAR SCHOOL ATTENDANCE				
	I regularly attend school.	SA A UD D SD	[] [] [] [] []	Select the most appropriate
	Am always present in the school attendance register	SA A UD D SD	[] [] [] [] []	Select the most appropriate
	My parents always make sure I attend school every day	SA A UD D SD	[] [] [] [] []	Select the most appropriate

Thank you for taking your time to participate in this study. God bless

APPENDIX III: INTERVIEW SCHEDULE FOR TEACHERS

How are you sir/ madam I am Purity a student at University of Nairobi. Welcome to this interview session. I am going to ask you some questions about miraa trade activities in your school.

Please feel free and respond appropriately. To begin with:

Section A: Biographical information

1. What is your highest Educational level?

Certificate Diploma
Degree M. Phil

2. What is your Working experience?

Less than 3 yrs 3-5 yrs
5-10yrs Over 10yrs

SECTION B

3). State the various miraa activities your school pupils are involved in.

.....
.....

4) What measures have you put in place to ensure your pupils do not miss classes due to miraa trade?

.....
.....

5) Kindly, provide your views on frequency of your students in attending classes.

.....

We have come to the end of the interview session.