

TITLE: The socioeconomic and psychological effects of khat chewing in Addis Ababa

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Abbreviations

CSA - Central Statistics Authority

CSOs – Civil Society Organizations

DHS – Ethiopian Demographic and Health Survey

HPA - Health Poverty Action

INCB - International Narcotics Control Board

NBE – National Bank of Ethiopia

SDGs – Sustainable Development Goals

SNNP – South Nation, Nationalities and People

UNDOC - United Nations Office on Drugs and Crime

US DEA - United States Drug Enforcement Administration

USA – Unites States of America

WHO – World Health Organization

ABSTRACT

Background - Khat is a mild stimulant plant chewed by a limited segment of the population mainly in the eastern parts of Ethiopia for social facilitation and religious purposes. In recent decades, the use of khat has spread to all parts of the country and its social, economic and political impact has increased significantly at national level. In cities like Addis Ababa, the traditional purposes are superseded and it is now chewed mainly for recreational purposes. Following this development, many people have raised concerns on the potentially adverse socioeconomic and psychological effects of khat on the current generation, particularly the youth. The main issues raised are the misuse of income, the waste of productive time on chewing khat, and the adverse consequences on family cohesion and health. Those who argue in favor of khat cite its positive impact on increasing productivity, high economic returns and traditional values. These arguments on khat are not based on substantiated evidence and this research attempted to answer this question by assessing the ‘positive’ and ‘negative’ socioeconomic and psychological effects of khat on the chewers living in Addis Ababa. Drug control policies intersect with much of the 2030 Agenda for Sustainable Development and Ethiopia has not yet developed a policy on khat. This research intends to make its contribution to the development of the policy by highlighting the socioeconomic and psychological effects on the chewers.

Objective –To assess the effects of khat on the income; use of time/time management;/ productivity, and psychological well-being of chewers in the city of Addis Ababa. The study is related to policies of Ethiopia in relation to the production, marketing and consumption of khat. It makes policy recommendations based on the assessed costs and benefits.

Methodology - The study, using snowball sampling, was conducted in 2018 with 84 khat users. The data collection methods employed were structured questionnaire focus group discussions, narrations of life stories and interviews with key informants. An extensive literature review was also conducted.

Result – Respondents reported the diversion of financial resources to purchase khat compromising other personal and family needs and a waste of working hours on chewing khat. There were mixed results found on its effects on productivity. Users also reported that khat made them vulnerable to

other addictions such as alcohol, cigarettes and hard drugs and to a number of social and psychological problems.

Conclusion - Khat has a significant adverse impact on income and the efficient use of time of chewers. The findings on the effect on productivity are inconclusive. The reported physical and psychological effects on productivity need to be scientifically proven. Chronic use of khat is detrimental to mental health and leads to other serious health consequences. It distorts social and family relationships and inhibits the ability of the chewer to significantly execute his/her social responsibilities. It hurts the self-esteem of the chewers and makes them lose a sense of purpose in their lives. Thus, there is an urgent need to develop a national policy on khat. However, a comprehensive study should be conducted to exploit the potential benefits of khat (mood lifting and medicinal values) by using khat in a modest and controlled way. The social and economic interest of the suppliers; its religious and cultural significance, and environmental impacts should also be considered.

CHAPTER 1: Introduction

1.1. What is khat?

Khat (*Catha edulis*) is a natural stimulant from the *Cathaedulis* plant and grows mainly in Ethiopia, Kenya, and Yemen and at high altitude areas in South Africa and Madagascar. It is an evergreen perennial shrub that belongs to the Celastraceae family and usually grows up to 7 metres but occasionally reaches as high as 15- 25 metres. It is known by different names in different countries. Chat in Ethiopia, Qat in Yemen, Mirra in Kenya and Qaad or Jhaad in Somalia, but in most of the literature, it is known as khat (Dhaifalaha & Šantavýb 2004: pp12-13 & Lemessa 2001: p 3). Its leaves and stem are harvested two to three times per year. Initial harvesting normally takes 2 to 3 years and the harvest volume steadily increases over a 8 -10 year period. The flowers are small and white. The leaves of the plant are reddish-brown while on the tree, but quickly become a leathery yellow-green once picked. The stem/twigs and the leaves are chewed in a fresh or dried condition as a stimulant and most people prefer the younger shoots at the top of the plant as they are softer and easier to chew. Although most of the time khat is consumed directly by chewing, some people also dry the leaves, crush them into a powder and use them for smoking, brewing tea or sprinkling over food (Crenshaw & Burke 2004 :1-2 & Lemessa 2001:7 -8).



Photo 1: Khat (*Catha edulis*) photo taken from Crenshaw et al 2004: 1

1.2. Is khat a narcotic?

The Collins English dictionary (Collins 2015) defines narcotics as “*any of a group of drugs, such as heroin, morphine, and pethidine, that produce numbness and stupor. They are used medicinally to relieve pain but are sometimes also taken for their pleasant effects; prolonged use may cause addiction*”. Khat contains cathine and cathinone ingredients that have an amphetamine like effect Dhaifalaha et al (2004: 12-13). Under the 1971 United Nations (UN) Convention on psychotropic substances, the psychoactive ingredients, cathine and cathinone are scheduled substances but not the vegetable matter of khat itself (Klein, Metaal & Jelsm 2012 : 3).

The International Narcotics Control Board (INCB 2006 in Klein et al 2012:4) states that the single global convention on narcotic drugs 1961 lists 116 drugs as narcotics which include mainly plant based products such as opium and its derivatives morphine, codeine and heroin, but also synthetic narcotics such as methadone and pethidine, as well as cannabis, coca and cocaine. In its review of khat, the World Health Organization (WHO) concluded in 2006 that its potential for abuse and dependence is low and the level of abuse and threat to public health is not significant enough to warrant international control. Therefore, WHO recommended national educational campaigns to be adopted to discourage its consumption. Contrary to the recommendations of WHO, the International Narcotics Control Board (INCB) which identifies khat as a narcotic drug continued to call upon the authorities to consider taking appropriate measures to control its cultivation, trade and use.

The narcotic status of khat refers to its legality in a given country and different countries have different stances on the matter. In most European countries, khat is on the list of controlled substances and therefore a narcotic. The countries include Belgium, Denmark, Germany, Finland, France, Greece, Ireland, Italy, Latvia, Lithuania, Norway, Poland, Slovenia and Sweden (Klein et al 2012: 5). It is allowed in Yemen and East African countries and not regarded as a narcotic in these countries. Despite the fact that Ethiopia has accepted the existing conventions and protocols on drugs namely: the single Convention on Narcotic drugs 1961; the 1972 Protocol amending the 1961 Convention; 1971 Convention on psychotropic substances and the 1988 Convention against Illicit Traffic in Narcotic Drugs and Psychotropic substance Aregay (2005 : 93), the cultivation and consumption of khat is widely practiced in the country.

1.3 Theoretical perspective

On September 25th, 2015, the United Nations (UN 2015) adopted a set of goals called Sustainable Development Goals (SDGs) to end poverty and hunger; ensure health and well-being; fight inequality and injustice, and combat climate change and other environmental harm with specific targets to be achieved over the next 15 years. It is a set of seventeen aspirational "Global Goals" with 169 targets between them. Sustainable Development Goal 3 states “*Ensure healthy lives and promote well-being for all at all ages*” and under this goal, the use of illicit drugs is noted as one of the factors that negatively affect public health. In Goal target 3.5, it specifically calls for efforts to ‘*Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol*’. Substance use also cuts across other SDGs, including poverty eradication (SDG 1); food security and sustainable agriculture (SDG2); gender equality (SDG5); decent work and economic growth (SDG 8); reduced inequalities in and between countries (SDG10); making cities and settlements safe (SDG11); climate change (SDG13); biodiversity and land degradation (SDG15); and peaceful and inclusive societies, access to justice, and inclusive and accountable institutions (SDG16) (UNDP 2016:9). This underlines that how drug/substance use is an important developmental issue.

Let us just take three SDGs and see how the use of drugs obstructs the attainment of these goals.

1. Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all ages
According to the United Nations Office on Drugs and Crime (2016c: 11), it is estimated that 1 in 20 adults, or a quarter of a billion people between the ages of 15 and 64 years, used at least one drug in 2014. The potential health risks and outcomes for people who use drugs include overdose, suicide, trauma, mental health problems, disability, premature death, dependency and drug use disorders. UNODC (2016c: 93) estimates that, as of 2014, out of a quarter of a billion drug users last year, more than 29 million had a drug use disorder of which roughly 200,000 people lose their lives each year to causes attributed to drug use. It explains that opioids, cocaine, amphetamines and cannabis together accounted for almost 12 million years of life lost because of premature death or disability in 2013, of which more than 8 million were linked to the use of opioids.

2. Sustainable Development Goal 1: End poverty in all its forms everywhere - One of the biggest challenges in relation to drug abuse is that it is addictive and creates dependency. This means that substances should be taken regularly in increasing amounts when tolerance develops in order to prevent withdrawal symptoms, and the increases in the amounts taken have serious adverse economic and social consequences. These include: increased expenditure on purchase of the

substances; increased violence; accidents and crime and increased expenditure for health related problems (Kebede, Abula , Ayele , Feleke , Degu , Kifle , Alebachew., Mekonnen., and Tessema 2005: 23). Higher expenditure on drugs reduces the household income required to fulfill the basic needs of the family and worsens poverty. Similarly, increased violence, accidents and crime hurts family cohesion and community welfare.

3. Sustainable Development Goal 5: Achieve gender equality and empower all women and girls
Women affected by drug use disorders suffer more from concurring mental health disorders and are more likely to have been victims of violence and abuse. Women have also less opportunity to access drug treatment programs and reintegrate themselves in society UNDOC (2016b: 94). *“Women who use drugs also face significant stigma, hindering their access to health and services and are exposed to repeated police brutality and sexual abuse”* (HPA 2015: 5). Women play a pivotal role in the family, societal welfare and development and the use of drugs impedes their role and positive contribution to society.

In the above paragraphs, I have briefly discussed the detrimental effects of the use of drugs on development. Many people raise questions on the uncontrolled use of khat in Ethiopia and express their concern that similar effects are observed with khat users. Several civil societies are also demanding that the government develop a drug control policy on khat. Despite the significance of the issue, however, the government has still not developed a policy on khat and only a few studies have been done to assess its impact. I took the initiative to undertake this study to make my humble contribution to fill this knowledge gap which is incoherent in relation to at least three 2019 universal human right standards in the context of the drug policy set out by UNDP.

- ❖ *“Ensure that demand reduction measures implemented to prevent drug use are based on evidence and compliant with human rights”* (UNDP 2019:7).
- ❖ *“Address the social and economic determinants that support or hinder positive health outcomes related to drug use, including stigma and discrimination of various kinds, such as against people who use drugs”* (UNDP 2019: 7).
- ❖ *“Provide accurate and objective information about drug laws, policies, and regulations; drug-related harms; and drug-related health good, services and facilities”* (UNDP 2019: 15).

Currently, tens of millions of people chew khat in Ethiopia and I would like to underline that this research is undertaken on the assumption that any positive or negative effects of khat on individuals/chewers would have a positive/negative cumulative effect at national level and promotes/hinders the development of the country. This paper assesses as objectively as possible the positive and negative socioeconomic and psychological effects of khat on the chewers. Income, use of time, productivity and psychological wellbeing are the four assessed variables. These variables cut across multiple SDGs and the casual-link is briefly expressed below.

1. Income - Increase/ Decline in household income affects poverty eradication (SDG 1); health and well-being (SDG 3); gender equality (SDG5); decent work and economic growth (SDG 8).
2. Use of time – Efficient/Misuse of time inevitably affects poverty eradication (SDG 1); gender equality (SDG5) and decent work and economic growth (SDG 8).
3. Productivity - Increase/ Decline in productivity affects poverty eradication (SDG 1); health and well-being (SDG 3); gender equality (SDG5) and decent work and economic growth (SDG 8).
4. Psychological well-being – is directly related to almost all SDGs in general and to health and well-being (SDG 3) and peaceful and inclusive societies, access to justice, and inclusive and accountable institutions (SDG16) in particular.

On the other side, there are over 2.5 million people engaged in the production and marketing of khat and local demand and exports are blossoming. It generates a much better income for the farmers compared to cereal and coffee production and also protects land degradation. In the rural areas, its religious and traditional value is significant, and it is part of their cultural heritage. It is therefore imperative that the potential socioeconomic and psychological effects of khat on chewers are well understood and the interest of suppliers (khat producing farmers and traders) is also taken into consideration in the development of the policy. Any control mechanism on the use of khat would have implications on the wellbeing of the suppliers and cut across at least four SDGs: poverty eradication (SDG 1); food security and sustainable agriculture (SDG 2); decent work and economic growth (SDG 8) and environmental protection (SDG 15). Experience shows that drug policies designed with the aim of protecting society from potential harm can have undesirable social and economic consequences. *“Drug control policies have left an indelible footprint on*

human development. In many instances, they have fueled the poverty, marginalization and exclusion of people and communities linked with illicit drug use or illicit drug markets” (UNDP 2016:6).

I would like to illustrate my point by sharing the positive experience of Bolivia, the world’s third largest producer of coca, the plant from which cocaine is derived. *“Coca is a stimulant that suppresses hunger, thirst, pain and fatigue, aids indigestion, provides vitamins and minerals lacking in local staples and has medicinal uses, including treating altitude sickness” (Farthing & Kohl 2014: 2).* Coca leaf has been chewed by the indigenous people for centuries and is an essential part of indigenous rituals and social interactions. Bolivia challenges the claim that coca is cocaine; it enacted a new constitution that gives the coca leaf legal protection and argues that the obligation to abolish the traditional practice of chewing coca violated the rights of the indigenous peoples. It introduced a program called ‘coca yes, cocaine no’ which allows each registered farmer to grow a small plot of coca for the legal market to ensure a subsistence income; maintain a high price and reduce police and military violence. The initiative provided farm families with a subsistence income; increased food security; provided legal identity, and ensured meaningful citizenship participation in government participation. In 2015, the area under coca bush cultivation declined in four straight years and Bolivia’s successful coca control efforts were lauded by the United Nations office on Drugs and Crime UNDP (2016: 13). Bolivia’s policy was successful in ensuring subsistence income to the farmers and at the same time reducing the supply to the market. This is because the nature and importance of coca leaf was well understood by the government. Coca leaf and khat share many common characteristics and understanding the nature of khat and its effects on the chewers is important to reach any conclusion with regard to what measures to take to increase/curb its production. *“Evidence suggests that the destruction of coca plants and traditional crops has affected food security, contaminated water supplies and degraded land, thus displacing populations dependent on coca as well as those who are not” (UNDP 15: 14).* Efforts to protect the consumer society from drug abuse and at the same time, sustain the interest of producers is quite challenging for any government including Ethiopian government. *“Responding to the harm associated with drug use and the illicit drug trade is one of the social policy challenges of our time” (UNDP 2019: 4).* The case of khat is not different from other drugs and this study is undertaken in this context.

1.4. An overview of the study

The culture of chewing khat is deeply rooted in the sociocultural traditions in Ethiopia whereas it used to be chewed by a limited segment of the population in a well-defined and stable social setting. It was traditionally used mainly for religious purposes. It was referred to as the ‘flower of paradise’; welcomed by the Islamic clergy as a divine gift to assist in their studies and prayers were offered before chewing. It was though strongly condemned by Christians. In recent years, however, the use of this stimulant has expanded and has now reached epidemic proportions (Hill 1965 in Anderson, Beckerleg, Hailu and Klein 2007: 2). The concerns raised by the use of khat are : addiction of the young population with adverse consequences for family cohesion, diversion of financial resources of the household to the purchase of khat (Anderson, Klein, Beckelerg, Carrier & Hailu 2004 : 1), waste of productive time as the practice of chewing lasts 4 to 6 hours (Klein, Metaal & Jelsma 2012 : 2) and health effects associated with chronic use of khat such as hypertension, heart rhythm disorders, insomnia and loss of appetite (Pennings et al. 2008 in Dessie 2013: 4-5). Community based organizations also blame khat for promoting indolence and Islamic culture into Christians (Belwal & Teshome 2011: 2).

Khat has a huge significance in the Ethiopian economy. It is a high-profile cash crop and every year through exports it brings in hundreds of millions of dollars for the country. In fact, it is the second highest foreign exchange source product, next to coffee and widely consumed in the local market. Unlike other cash crops, the entire production and marketing of the product is almost fully operated and controlled by Ethiopian nationals with very minimum influence by developed nations. The entire commodity chain is in the hands of regional entrepreneurs, in contrast to coffee, tea and cocoa, where multinational companies possess a monopoly over exports and processing (Anderson et al 2004: 1). It is therefore less susceptible to global price fluctuations and manipulations and enables the government to collect a huge amount of income in taxes. Khat is also a big source of job opportunities. Over two million people are engaged in the production and marketing of the product. It is preferred by farmers because it is drought resistant and requires little labor to farm Anderson et al (2004: 1).

What, then, is the problem with khat? Several studies have been carried out on the subject but most of them have been done by European scholars and are focused on the potential impact of importing khat into their respective countries. As khat is not produced in their countries and the consumption

is also very low, the scope of their studies have been focused mainly on issues of whether khat is a drug or not and if it should or should not be prohibited from being imported. However, for khat producing countries like Ethiopia, it is a national issue. On the one hand, it is the second largest source of foreign currency and a source of job opportunities for millions of people. On the other hand, tens of millions of Ethiopians, mainly the younger generation, consume the product making themselves vulnerable to the potential negative psychological and socio-economic effects. Do the advantages of khat outweigh its drawbacks or vice-versa, is therefore, a big question that needs to be answered. The advantages are usually measured in financial terms, easily quantifiable and appear to be very significant. But what are the socioeconomic and psychological drawbacks and what is their impact upon the sustainable development of the country? These effects are not so easy to measure and unfortunately, not many studies have been conducted in this regard.

This study, therefore, aims to make its humble contribution to fill the knowledge gap by studying the socioeconomic effects of khat on chewers in relation to four variables: income, time management (use of time), productivity and to a limited extent the psychological effects on chewers.

1.5. Objectives of the study

- The overall objective is to assess the socioeconomic and psychological effects of khat chewing in Addis Ababa.

Secondary objectives

- Assess the impact of the practice of khat chewing on the income of the chewers
- Assess the impact of the practice of khat chewing on use of time of the chewers
- Assess the impact of the practice of khat chewing on productivity of the chewers
- Assess the psychological impact of khat chewing on the chewers
- Situate the study in the policy of Ethiopia in the production, marketing and consumption of khat
- Make policy recommendations on the assessed costs and benefits

1.6. Scope of the study

- Area of study – Addis Ababa

- Published books and research materials written on the subject and reports of governmental institutions will also be reviewed.
- The socio-economic effect of khat is a very broad subject. This study is limited to studying its impact on the income, use of time, productivity and psychological well-being of khat chewers. The psychological well-being of chewers is analyzed only in relation to income, time and productivity.

1.7. Significance of the study

For countries like Ethiopia, the issue of khat is a national agenda. It creates employment opportunity for millions of Ethiopians engaged in the production and marketing of the product and it is the second highest export earning product, next to coffee (NBE 2005: 24). While this is a very positive contribution to the economy, domestic consumption has increased very rapidly, and many scholars are concerned with its effects on the health and productivity of the work force. Currently, tens of millions of people consume khat. Unfortunately, the impact of its domestic use has not been widely studied.

This study is significant in three ways. Firstly, it will make its humble contribution in filling the gap in knowledge by assessing the effect of the consumption of khat on the income, productivity, use of time and psychological well-being of khat chewers. Both the positive and negative effects of khat will be discussed. Secondly, the consumption of khat has become a culture in some parts of Ethiopia and the major consumers are at their most productive age. The study, therefore, will give some indication how far the consumption of khat affects/promotes the sustainable development of the country. Thirdly, the Ethiopian government neither promotes nor discourages the production and consumption of khat. This may be partly due to the significant economic contributions of khat to the country and partly due to a lack of sufficient empirical findings on its potentially adverse and long term socioeconomic effects. This study will contribute its part to the little research which has been done and it is the ambition of the researcher to secure funding to further develop this study with a wider remit.

1.8. Limitations of the study

Many khat chewers are not proud of the practice and the number of voluntary people who participate in the study has been limited. This is the main reason why the study sample is 84. Lack of funds is also another reason as I used my own resources to cover the expenses. The analysis of the psychological effect of khat chewing on the users is also limited as a deep psychological analysis is beyond the scope of this study. The study has also geographical limits as it only covers the city of Addis Ababa and the findings may not give a full picture of the practice in other parts of the country. An attempt is made by the researcher to fill these gaps by carrying out a thorough analysis.

In the next chapter, there is an extensive review of the available literature on psychoactive substances in general and khat, in particular. It starts with a definition of psychoactive substances and the international debate on whether the use of substances should be controlled or not. Following that, global trends and local trends in the use of substances are discussed. The main body of the chapter is the discussion on khat: its consumption trends at global and national level and the reasons for chewing it. Following that, the discussion on its effects on the identified four variables: mental and physical health of the chewer; income; use of time and productivity of chewers is presented. Finally, the implications of developing a policy on khat are discussed.

CHAPTER 2: Literature review

2.1. Definition of Psychoactive substances

The scientific definitions of psychoactive substances are too broad and very complex to understand. As this is not a scientific study, a simpler definition is used. According to the World Health Organization (www.who) definition, psychoactive substances are substances that, when taken in or administered into one's system, affect mental processes, e.g. cognition or affect. This term and its equivalent, psychotropic drug is the most neutral and descriptive term for the whole class of substances, licit and illicit, of interest to drug policy. The illicit drugs are also known as narcotics. These drugs are illegal. They are allowed for medical and scientific purposes only and should be administered by a medical professional. The most common narcotics include cannabis (marijuana or hashish), amphetamines, opiates and prescription opioids, cocaine and heroin UNDOC (2016a: 29). Alcohol and tobacco are examples of licit drugs (except in some Arab countries like Saudi Arabia where alcohol is illegal). Khat, as described in Chapter 1, is an illicit narcotic in most European countries and it is licit/ legal in East African countries and Yemen. Hence, in the subsequent discussions, the term psychoactive substances will be used to describe all drugs (licit and illicit).

2.2. Global trends in the use of substances

According to United Nations Office on Drug and Crime (UNDOC 2016a),the global trends between 2006 - 2014 show that the prevalence rate of drug use among the world population has increased from 4.9% in 2006 to 5.2% in 2014 and from 208 million to 247 million during the same period. Relatively speaking, the extent of drug use has remained stable from 2012 onwards. However, variations have been observed among regions and countries. Cannabis leads as the world's most widely used drug with 183 million users followed by amphetamines with an estimated 33 million users and opiates and prescription opioids in third place. Over the past three years, the use of cannabis has remained stable but has increased in North America and Western and Central Europe. Although there is no recent survey data to support it, experts in Africa also perceive the increase of use of Cannabis in Africa as well (UNDOC 2016b: 29). Cannabis is the most abused drug in Africa and Europe and is used in 120 countries worldwide. Mexico is the major producer of cannabis globally and Morocco is the largest producer in Africa while Egypt is the world's largest consumer (Kebede et al 2005:14-15) "*The increase in use of cocaine and amphetamines has stabilized globally but has shown increase in South America and East and South- East Asia respectively*" (UNDOC 2016b: 29). The history of drug abuse in Africa has been

cannabis abuse in northern and southern Africa and khat chewing in north-eastern Africa. However, recent trends show that the use of more dangerous drugs is escalating to a wider range of people as some countries experience the trafficking and abuse of cocaine and heroin. Nigeria, Kenya, Liberia and Mauritius are the countries that report such cases. The abuse of glue and petrol by inhalation is also reported in Kenya, Ethiopia, Somalia, Swaziland and Zambia UNDOC 2016c (www.undoc).

The use of psychoactive substances such as alcohol, tobacco and khat is also globally widespread. Statistics show that worldwide consumption of alcohol in 2010 was equal to 6.2 liters of pure alcohol consumed per person aged 15 years or older; which translates into 13.5 grams of pure alcohol per day. Taking into account the fact that a quarter of this consumption (24.8%) was unrecorded (homemade alcohol, illegally produced or sold outside normal government controls), the amount of consumption is significant. Consumption of alcohol is directly related to income. Data shows that high-income countries have the highest alcohol per capita consumption and the highest prevalence of heavy episodic drinking among drinkers. Globally, about 16.0% of drinkers aged 15 years or older engage in heavy episodic drinking. The negative impact of alcohol on health and development can be severe. It was found to be the cause of 5.9% of all global deaths (about 3.3 million deaths) WHO (2014:14-15).

Global use of tobacco is increasing worldwide. It was first introduced by Native Americans and later spread to Europe and the rest of the world. The use of tobacco as cigarettes, however, is predominantly a twentieth century phenomenon and it is addictive. Cigarette smoking has detrimental effects on health that include lung cancer, chronic obstructive lung disease, arteriosclerotic cardiovascular diseases, peptic ulcer disease, intrauterine growth retardation, spontaneous abortion, antepartum hemorrhage, female infertility and sexual dysfunction in men and tobacco attributable mortality is expected to increase from 14% of total mortality worldwide in 1990 to 23% in 2020 Kebede et al (2005: 12-13). Unlike alcohol and tobacco, the use of khat is not a worldwide phenomenon. The detailed discussion on khat is presented on Section 2.5.

2.3. Trends of substance use in Ethiopia

In Ethiopia, use of substances is a growing problem and it is noted that the abuse of alcohol, tobacco, and khat is more common than other drugs. Alcohol and khat are the most frequently

abused. The Ethiopian Demographic and Health Survey 2011 showed that the prevalence of alcohol use among men and women is 53% and 45% respectively, and 11% of women and 28% of men have chewed khat at least once in their life Tesfaye, Derese and Hambisa (2014: 1). A cross-sectional survey carried out among 1040 Haramaya University students to assess substance use showed that the overall prevalence use for at least one substance was 62.4% and the most commonly used ones in descending order were alcohol (50.2%), khat (41%), cigarettes (22%), and other illicit drugs (17.4%). The study also identified that male, married and depressed students have a strong association with substance use while Protestants and Muslims are less likely to use the substances Tesfaye et al (2014: 5-6). Another study also exhibited similar findings. It showed that substances that are commonly abused in Ethiopia in descending order are alcohol, khat, tobacco followed by narcotics: hashish, benzene sniffing/inhalation, pethidine, and benzodiazepines Kebede et al (2005: 19).

The data on the use of alcohol in Ethiopia compared to other African countries shows mixed results. The table below shows comparison made between Egypt, Angola, and Cameroon. These countries represent North, South and Western Africa respectively.

Variables	Ethiopia	Egypt	Angola	Cameroon
Total alcohol per capita (15+) consumption, drinkers only (in liters of pure alcohol), 2010	26.5	6	20.9	19.3
Prevalence of heavy episodic drinking (%), 2010	Male 1 Female 0.1 Total 0.5	Male 0.1 Female 0.1 Total 0.1	Male 7.6 Female 1 Total 4.2	Male 17.3 Female 6.9 Total 12.1
Alcohol use disorders	2.1	0.2	4.9	5.7
Alcohol dependence	0.9	0.1	2.1	2.5

Table 1. WHO (2014: 15 -25): Summarized data of alcohol use in Ethiopia, Egypt, Angola & Cameroon

The data shows that Ethiopia has the highest total alcohol per capita (15+) consumption but the second lowest in the other three variables. Egypt has the lowest record of all the variables as most of its population are Muslim and do not consume alcohol. Alcohol use disorders and dependence

are quite high in Angola and Cameroon and the prevalence of heavy episodic drinking is a very serious problem in Cameroon as it is almost three times higher than second placed Angola.

Khat is the second commonly used substance in Ethiopia followed by cigarettes (Kindly find detailed narration on khat on the next section 2.5). Cigarettes smoking is the third commonly used substance in Ethiopia. Many studies conducted in universities showed that there is a high prevalence of cigarette smoking among university students with significant variations between the universities : a lifetime prevalence of cigarette smoking of 9.5% , 14.1% , 13.1% , 8.7% and 33.1% was shown in Axum University, Debre Markos University, College students in Northwest Ethiopia, Addis Ababa University and Jimma University respectively Tesfaye et al (2014 : 1-2).

2.4. Historical, cultural and religious background of khat

Historians give different references as to the original source for kha. The earliest references to the plant date back to 973-1053 AD when Al-Biurni referred to it as 'gat', imported from Turkistan. The researchers Hancock and Forrest (1974) explain that khat is referred to in 1332 AD in an Arabic manuscript preserved in the Bilbouteque National in Paris. Some scholars have written that it was prevalent in Ethiopia in the fifth century and later spread to the south west of the Arab-peninsulas while others contend that khat was in Yemen in the sixteenth century when the Ethiopians conquered the country. Although there is no general agreement on the exact origins, all the references indicate that it is either East Africa or the Arab peninsula and it was being used in these countries to relieve biliousness; to cool the stomach and liver and cure depression Dhaifalaha et al (2004:11).

Khat chewing has a deep-rooted socio-cultural tradition, its pleasure-inducing and stimulating effects seemingly having a strong influence on the social and cultural life of the communities who indulge in it Lamina (2010: 33). Khat sessions are occasions for the exchange of information, discussions on plans and decisions for communities in Yemen and central and eastern parts of Ethiopia. It is also culturally very significant that khat sessions are held during cultural functions like birth, circumcision and marriage. People also use it as an enhancer to carry out their daily activities. Laborers chew chat during hard physical work, students when preparing for exams and lorry drivers for long distance travel to increase their level of concentration. Special khat sessions are also organized by clan elders and judges to settle disputes and court cases Lamina (2010:41-

46). “*Khat is therefore used both in social and formal settings and its main function is a communal one, stimulating sociability*” (Anderson et al 2007: 5).

Khat also has religious implications. It is taken as a ‘God cursed plant’ by the Ethiopian Orthodox Church (the dominant Christian denomination in Ethiopia) based on a myth that khat refused to bow to God while other plants showed their reverence (Hill 1965 in Anderson et al 2007: 2). Ethiopia was ruled by monarchs until the overthrow of the last emperor, Emperor Haile Selassie, in 1974. The monarchs were Orthodox Christians and hence, the influence of the Orthodox Church on the government was significant. Use of khat was therefore highly discouraged by the government and was taken as the culture of Muslims. However, one king was an exception. Lij Eyassu (1911-1916) who was accused of chewing khat with Muslims in Harar was excommunicated and overthrown only after five years in power. Muslims are divided on the issue. Some Muslims reason that khat has similar effects on the body and mind as alcohol, therefore it is haram and should be banned. Other Muslims argue that khat is not specifically mentioned in the Quran as haram and therefore, should not be banned. The latter seem to predominate as the practice is widespread in the Muslim community (Kennedy 1987:128 in Anderson et al 2007: 3).

In the past khat used to have strong ethnic implications in Ethiopia and the implications still exist to a limited extent. In the nineteenth century, the Christian rulers from central and northern Ethiopia (from Amhara and Tigre ethnics) had very strong negative views of khat due to their Christian background and khat was produced and used mainly in the Muslim Oromo, Somali and Harari regions at the time. The Christian rulers believed it had a debilitating effect on the body, reduced productivity and was a cause of mental illness. They therefore took radical measures to curb its cultivation by uprooting the khat plants and replacing them with coffee trees. Their efforts failed amid strong opposition from the local people. “*In the 1980’s, there were other attempts to cut the demand by levying high taxes which also failed to materialize*” (Gebissa 2008: 3). Much has changed since then. The cultivation and consumption of khat has spread widely to the central and northern parts of the country, although the practice remains highest in the traditional producing areas of Oromia regional state and the eastern parts of Ethiopia.

2.5. The practice of khat chewing

Khat is the second most commonly used substance in Ethiopia followed by cigarettes. A khat chewer consumes on average about 100–200 gms. of the leaves per day. The leaves are taken one by one from the twigs and thoroughly chewed. They are then kept for some time in the cheek as a ball of macerated material and later spat out. The young leaves, which come from the tips of the branches, are preferred since these are the most potent. Smoking tobacco and cigarettes; drinking cola, weak black tea or just cold water greatly enhances the pleasure of chewing. Some have the habit of using sugared menthol or pieces of sugar or even cardamom to improve the bitter taste of khat. *“It is predominantly consumed in a social setting”* (Dhaifalaha et al 2004:12). It has to be brought to market before the active alkaloids disintegrate, within 48 to 72 hours after harvesting Gelaw & Haileamlak (2004:1).

Khat sessions go through a number of stages. The first stage lasts for 15-20 minutes in which the consumer goes through the first wave of euphoria. The excitement will be at the highest level with active conversations. Big plans are discussed which are often out of touch with reality. It is called ‘mirquaan’ in Yemen, Somalia and Ethiopia. The second stage is the time for meditation and silence. In Ethiopia, respondents reported that the thoughts could be very positive filled with fantasies about the future or it could be very pessimistic and gloomy. This stage is the time for the reciting of poetry, playing music or reciting the Koran in Yemen. In the final stage, the feeling of anxiety comes in and the mood starts to get depressive, restless and irritable. It is known as ‘haddaar’ in Yemen (Klein et al 2012: 2 & Teferra et al 2011: 465).

2.6. Consumption prevalence of khat

Khat chewing is a common practice in some Arab and other East African countries. Studies from Yemen; Djibouti and Uganda have shown similar trends. About 80% of Yemenis between the age of 15 and 30 chew khat on a daily basis. In Djibouti, 81.6% of men and 43.3% of women reported using khat at least once in their lifetime Dessie (2013: 5). In a study conducted on 10,000 Hargessa residents in Somaliland who were randomly selected for the purpose, 29.8% of the sample chewed khat. A typical khat consumer spends US \$1.54 per day and about 75% consume between 1 to 2 bundles per day (approximately 1 bundle is 400gm). 43% of the samples consume khat 7 days a week; 24% 3 days a week, and 23% 4-6 days a week. About 65% of the consumers also spend 7 hours per day on chewing khat. Gender and age wise, 95% are male and 75% are between the ages

of 21 to 40 years (Sovoredo 2002 in Anderson et al 2007: 77-78). Within Africa, khat use is spreading fast. Markets have developed in Eritrea, Sudan, Uganda, Rwanda, and South Africa. In the Ethiopian highlands and along Kenya's coast, both regions where khat was not known until recently, the practice is spreading fast, especially among young people and some studies indicate that the peak age of khat chewing is between 18 to 44 years Klein et al (2012: 2 -3). "*Globally, the demand for khat is growing but the global markets are driven by demand from diaspora populations, particularly from Somalia*" (Klein et al 2012: 3).

As previously stated khat is the second most commonly used substance in Ethiopia, next to alcohol. "*An estimated 297 million khat chewing sessions are held every year which means that during any one day, 3.6% of Ethiopia's adult population chew khat and the annual per capita annual consumption comes to 5.3 kg*" (Dessie 2013: 12 & 29). A nationwide demographic health survey conducted in relation to the prevalence of khat chewing in Ethiopia among the total population in 2011 showed that the overall khat chewing at national level was 15.3%, with significant regional variations. The lowest prevalence of 1.1% was reported in Tigray (northern part of Ethiopia) and the highest prevalence of 53.2% was reported in Harari (the eastern part of Ethiopia). Compared to the capital city of Addis Ababa, much higher rates were observed in Oromiya, Southern Nations, Nationalities and People (SNNP), Gambella, Harari and Dire Dawa regions with respectively 1.9, 1.6, 3.1, 5.2- and 3.5-times higher odds of chewing. As expected, females were 77% less likely to chew khat as compared to males. A multivariable analysis carried out in the same study also showed that Muslims were 23.8 times more likely to chew khat as compared to Orthodox Christians and adults in the age group 45–49 years were 3.6 times more likely to chew khat as compared to 15–19 years. Contrary to public perception that the poor and the unemployed consume khat more often, the study found that the middle and richest wealth quintiles chew 1.3 and 1.5 times more respectively. Rural residents had 1.3 chance of chewing khat compared to urban residents and most of them are the farmers that grow the plant. Again contrary to public perception that the unemployed chew khat more often than any other group in the society, it is the individuals who had occupations in sales, agriculture, the service sector, skilled and unskilled manual workers who chew chat 1.6, 1.3, 2.4, 1.7 and 2.3 more times respectively than the unemployed. This may be partly due to the ever-increasing price of khat which the unemployed find hard to afford. Divorcees and those who experienced child death had 1.4- and 1.2-times higher odds to chew khat as compared with those who never married and never experienced child death.

Although more studies may be needed, this particular finding implies that people with very hard life experiences like divorce and child death tend to chew khat to forget their miseries. In conclusion, the survey identifies the highest wealth quintiles, older age group, rural residence, people with experience of child death, divorcees, males, regions of Oromiya, SNNP, Gambella, Harari and Dire Dawa and Muslims as groups with statistically significant association with khat chewing and it designated khat chewing as a public health concern (Haile et al 2015: 4-6). Summary of the major findings of consumption prevalence categorized in region, residence and sex is presented in the table below.

Background characteristics	Total respondents	Weighted prevalence of khat
Administrative regions		
Tigray	1,965	1.1 (0.72–1.66)
Affar	256	18.1 (13.62–23.03)
Amhara	8,344	7.8 (7.24–8.39)
Oromiya	11,407	26.4 (25.59–27.21)
Somali	598	26.0 (22.53–29.55)
Benishangul-gumuz	323	7.7 (5.18–11.05)
SNNP	5,760	8.2 (7.51–8.92)
Gambela	132	14.9 (9.78–22.04)
Harari	92	53.2 (43.04–63.28)
Addis Ababa	1,621	11.7 (10.22–13.36)
Dire Dawa	127	44.9 (36.39–53.60)
Residence		
Urban	7,046	11.2 (10.48–11.95)
Rural	23,579	16.6 (16.13–17.08)
Sex		
Male	14,110	22.6 (21.92–23.30)
Female	16,515	9.1 (8.67–9.55)
Total	30,625	15.3 (14.90–15.71)

Table 2 : Haile & Lakew (2015: 5) Prevalence of khat chewing practice among adults across administrative regions, residence and gender in Ethiopia, 2011.

Consumption prevalence among educated Ethiopians is found to be much higher than the national average. In one particular research conducted on 450 people with academic qualification of BSc; MSc and PhD degrees, the prevalence rate was as high as 34% Dessie (2013: 29). Most participants of the research were familiar with khat either in the producing or marketing areas at a younger age and only 12.6% claimed to be unaware of the plant before they completed their university

education. Chewing started at school and university for the majority of them (56%). 10 % of the participants claimed that it had become a daily habit and 90% chewed only once a week. Out of those who claimed to have completely stopped chewing, 50% claimed that they had lost interest; 33% referred to religious reasons, and 17% gave health and financial reasons for quitting Dessie (2013: 15). Other studies conducted on college students in Bahirdar and Jimma also showed a high prevalence rate of 27% and 30.6% respectively Gebissa (2008:2-3).

The consumption of khat is increasing at national level and several factors are attributed to this development.

1) Education - expansion of salaried civil servants; expansion of secondary and higher education and the literacy campaign carried out by the Ethiopian government from 1975 to 1977 in which university and high school students were sent to the countryside of Ethiopia to educate the rural population and are mentioned as factors that introduced the habit of khat chewing in areas where it was unknown (Gebissa 2004 in Anderson et al 2007: 66) Studies confirm that consumption prevalence among educated Ethiopians is 54%, which is much higher than the national average of 11%. They claim it helps them in their studies Gebissa (2008: 2-3) and the desire to excel in their education may have driven them to use khat. This perception among the educated and the expansion of universities and an increasing number of students is believed to contribute to the increase in the consumption.

2) The expansion of mass media outlets – Globally, the number of mass media outlets has grown very fast and the same is true in Ethiopia. A nationwide study showed that those who viewed and listened to the mass media (TV and radio programs) were 1.4 times more likely to chew khat compared with those that did not (Haile et al 2015: 4-6). The study showed a direct relationship between the mass media and use of khat but failed to specify the reasons.

3) Transportation – Following the development of the infrastructure, transportation services have made traveling between places easier which has opened up opportunities to share new cultures and practices. Long distance drivers serve as one of the catalysts of culture exchanges. They are among the highest groups of khat users and they claim that khat makes them alert and their level of concentration is increased Anderson et al (2007: 4). Following the fast-economic

development in the country the number of long-distance drivers and areas covered by them has undoubtedly increased and this is also believed to have contributed to the spreading of the practice.

4) Unemployment and expansion of cities – Unemployed people have abundant time at their disposal. As khat sessions may take hours they like to spend their time enjoying khat and studies also identified spending time and recreation as one of the reasons for chewing. *“The high incidence of unemployment among the youth in the cities is believed to drive them to chew khat and to spend their abundant time to relax”* (Mains et al 2013: 117-126). The expansion of cities has also led to the mixing of different cultures and city residents are more open to try new experiences. Khat is one of the new cultures shared between societies.

2.7. Factors for chewing

Khat chewing has been the culture of many East African countries and Yemen for centuries. *“It is a religiously and culturally revered event and it is during khat sessions that conflicts among members of the communities are resolved and community issues are discussed”* (Klein et al 2012: 2). More utilitarian reasons given for consuming the product include increased levels of energy for physical labor; alertness; confidence; a sense of happiness; sensations of elation; enhanced imaginative ability and creativity; relaxation; increased concentration, and improvement in the ability to communicate (which explains the tendency to group interaction and social contact while under the effect of the drug) Dhaifalah et al (2004: 12) & Gelaw et al 2004: 3). Students and long-distance lorry drivers claim khat chewing increases their level of concentration and business men and farmers chew to do hard physical labor (Anderson et al 2007: 4). In a study conducted on 450 university graduates, different reasons were given for chewing. Most of them (54%) reported that it helped them in their studies; 41% reported that they chew for recreational purposes and 20% reported both studying and recreation Dessie (2013: 29). Reasons for chewing also differ according to context. Most urban consumers chew khat for social pleasure, taking alcohol to ‘break’ the euphoric after effects, while in rural settings it is very traditional and a means to develop social interaction and is consumed with milk and soup Anderson et al (2007: 65).

In Ethiopia, there is a wide perception among the non-chewers that khat is chewed mostly by depressed and unemployed people so that they forget their miseries and live in their dream world. The cause of the depression is perceived to be unemployment and in studies done in Ethiopia and

elsewhere in Africa (especially in the cities), a lack of employment opportunities and ‘thinking too much’ or ‘too many thoughts,’ are identified as the underlying factors for mental distress (Johnson et al 2009; Okello & Ekblad 2006; Patel et al 1995 & Mains 2012 in Mains, Hadley & Tessema 2013:113). From the above causal link between unemployment, depression and use of khat, many come to the conclusion that unemployment leads to depression and this in turn leads to the consumption of khat. A study conducted by Mains et al (2013: 117-126) gives a more in-depth analysis on the matter. The study was conducted on 1600 young people from the city of Jimma and the surrounding towns. Jimma is an urban city, 350km south west of Addis Ababa; characterized by chronic rates of unemployment among the youth, and a high level of khat consumption. This longitudinal ethnographic research showed no direct causal relationship between khat consumption and mental health and that both actually depend on the youth experience of time. The researchers observed that over abundant time experienced by the youth due to their long term unemployment is seen by them as a problem and the huge gap as to what they want to be become and what they really are at the present generates symptoms of anxiety and depression. The consumption of khat seems to connect the present to the future by taking the youth to their imaginary world, providing some relief from symptoms of depression and anxiety. *“It is also valuable for young men because through chewing, talking, and dreaming, they are able to visualize futures in which they fulfill locally normative ideals of masculinity”* (Mains et al 2013: 123).The study therefore concluded that for urban young men, the experience of time is at the center of the relationship between khat, mental health, and unemployment.

However, some scholars like Gelaw dispute the assertion that the habit is taken by the urban unemployed to escape from the depressive effects of joblessness. One socio demographic survey which correlates income and khat showed that the majority of the people taking up the chewing habit are economically better off than others and increased performance, pastime entertainment, conviviality, and socialization are reasons given by these respondents for chewing (Gelaw et al 2004 in Gebissa 2008: 789-790) .

2.8. Debates on khat/ School of thoughts

Is khat useful or harmful? Should we promote or curb its use? The debates on khat are on two frontiers: religious interpretations and socio-economic impacts. On the religious front, it is rejected

by the Christians and widely accepted by the Islamic community. On the socio-economic front, advocates of khat highlight the contribution of khat to the national economy in terms of huge tax revenues, foreign currency, job creation, cultural value and its environment friendly nature whereas its critics emphasize its perceived adverse effect on the income, health, time and productivity of chewers. As the religious aspects of khat are not within the scope of this study, the two opposing views on the socioeconomic and psychological effects of khat in relation to five variables: health (physical and mental); income; use of time; labor productivity, and agriculture (environment) are presented below.

2.8.1 Khat and its impact on the physical and mental health of users

Khat's effect on the health of its users is probably the most widely discussed topic. Khat consumption is reportedly a cause for gastrointestinal and urinary problems; adverse reproduction effects; infections; increased risk of myocardial infarction; liver and kidney toxicity; esophageal and gastric carcinomas; hemorrhoids, and lower birth weight infants (Al-Habeshi & Skaeg 2005 in Belwal & Teshome 2011: 3). Health effects associated with chronic use also include hypertension, heart rhythm disorders, insomnia and loss of appetite (Penning's et al. 2008 in Dessie 2013: 4-5). A study in Somalia showed that a low dose intake has stimulant effects on sexual behavior and enhancement in about 20% of the population. The same study also showed that it has impotence effects at high doses in 65% of the chewers. The high content of tannins found in khat is also believed to be responsible for cancer Alem (2005: 117). *"On tasks assessing cognitive flexibility as well as monitoring of information in working memory, khat users performed significantly worse than controls and has repercussions to carry out daily activities"* (Colzato, Ruiz, Wildenberg & Hommel 2011: 1). A similar study showed specific impairments in behavioral control of khat users which include general slowing and less efficient resolution of response conflicts; which is likely to impair decision making in everyday life (Colzato Ruiz, Wildenberg & Hommel 2012: 1).

Many chewers smoke cigarettes while chewing and at the end drink alcohol to break the stimulating effects. Critics of khat, therefore, contend that khat use exposes chewers to other addictions which in turn make them vulnerable to other health problems. Some studies also show a high prevalence of HIV among khat chewers which is associated with indulging in risky sexual

behavior of users with the influence of alcohol Kebede et al (2005: 2). However, Gebissa (2008: 778) point out that this is practiced by the urban chewers who do not constitute the majority of the khat users. The rural and traditional consumers are Muslims and consider drinking alcohol haram or sin. The withdrawal effects of khat are not very strong compared to cocaine and other drugs. “A range of symptoms have been reported from different studies that include profound lassitude, night mares, paranoid of being attacked, strangled, insomnia, anxiety, depression and slight trembling” (Alem 2005: 79). The symptoms may last for days but no serious and long-lasting effects have been reported. Anderson et al (2007: 6) point out that the most common pattern of use is chewing the vegetable matter of khat and large quantities need to be consumed for extreme effects to occur. The potential short- and long-term health effects of khat are summarized in the table below (Crenshaw et al 2004: 2).

Short term effects	Long Term effects
<ul style="list-style-type: none"> • hallucinations • bizarre thoughts • schizophrenia • increased blood pressure • rapid breathing • lethargy • mild depression • nightmares • heightened alertness • loss of appetite • difficulty sleeping • inflated ego • agitation • aggressive behavior 	<ul style="list-style-type: none"> • anxiety • confusion • dysphonia • aggressive behavior • insomnia • high blood pressure • weight loss due to decreased appetite • increased heart rate • stomach irritation • dehydration • hallucinations • paranoia • decreased absorption of important nutrients

Table 3 : Potential short term and long-term health effects (Crenshaw et al 2004: 2)

On the positive side, some chewers claim that khat gives them increased levels of energy; alertness; confidence; a sense of happiness; sensations of elation; enhanced imaginative ability and creativity; relaxation and socialization and helps them to concentrate better or provides additional energy for physical labor Dhaifalah et al (2004: 12) & Gelaw et al (2004: 3). Other research also supports these claims. Beckerleg (2008: 754) contends that khat contains cathine and cathinole which induce temporary euphoria; enhance wakefulness; suppress hunger; increase physical

energy, and concentration. It is also believed by many communities that it has some medicinal value and it is used to treat influenza, cough, gonorrhoea, asthma and other chest problems and stomach ache Lemmessa (2001: 4)

The pharmacological; chemical and medical findings are inconclusive and contradictory at times. *“Although there is no doubt among psychiatrists and mental health practitioners that khat is a powerful trigger for a range of conditions, dosage, usage patterns, contributing factors and individual predisposition need to be determined to reach any conclusion on its actual effects”* (Anderson et al 2007: 66). The Advisory Board on the Misuse of Drugs used the words of Kennedy in its 2015 report to make its conclusions *“Khat is a much less potent stimulant than other commonly used drugs such as amphetamine or cocaine. However, some individuals use it in a dependent manner”* (ACMD: 2005: 9 in Beckerleg 2008: 754). WHO experts also concluded that khat consumption may induce *“moderate but often persistent psychic dependence”* and the withdrawal effects are limited to lethargy, mild depression, slight trembling and recurrent bad dreams Dhaifalah et al (2004: 31).

2.8.2 Khat and its impact on income and the national economy

In the last decade, khat has emerged as one of the most important export cash crops in Ethiopia. It provides a means for rural livelihoods, a source of tax revenue, and is needed foreign currency for the government. The rate of increase in the revenue and foreign currency generated from khat is very high. During the 1990s, khat revenue averaged 1.7% of Ethiopia’s GDP which was higher than the health expenditure of the country. Between 1998 and 2007 export production increased 4 fold (from 5,670 to 22,667 tons) and the export value doubled Dessie (2013: 13). Its contribution continued to grow and in 2014/15, khat accounted for 9 % of national exports with over 272 million US dollars NBE (2014/15: 73). The transporting, processing, packaging and resale of khat has created employment opportunities across the region. According to a survey conducted by the Central Statistical Agency (2012: 91), 2,409,701 households grew chat, covering 179,776 hectares of land in the budget year of 2011/2012. The above figure shows only the number of farmers. The number of people who make a living from khat would be highly inflated if all the agents in the value chain (wholesalers, transporters and retailers) are also included. Unlike other crops, khat’s

market triumphs without any support from international development agencies or any form of government incentive or subsidy.

As shown above, the contribution of khat to the national economy is significant. What about its importance for the individual farmer? A study conducted in East Harerge showed that khat generated the highest return per hectare of cultivated land compared to any other crops grown in the area. A similar study conducted in Kombolcha also showed that production of khat gives a much higher net return per hectare compared to other cereal crops which explains why more and more farmers are attracted to the production of khat (Eshetu & Hantemariam 2001 in Adnew 2005 : 105).

Crop	Net return (Ethiopian birr/hectare)
Sorghum	1,625
Maize	1,545
Haricot bean	1,240
Sweet potato	3,000
Potato	8,438
T'chat/ Khat	22,020

Table 4 : Adnew (2005: 105) Production of crops and net return per hectare in Kombolcha

A study conducted using proxy indicators of household income such as livestock ownership, value of farm tools, expenditure and ownership of houses with corrugated iron sheet roofs or ownership of valuables has shown that khat growers are significantly better off than the non-growers (Seyoum et al 2004 in Gebissa 2008: 794). Another study conducted using other indicators such as farmers' ability to send their children to school, having a kitchen for cooking and a separate structure from the main dwelling for keeping livestock confirmed that khat producers enjoy a better quality of life than non-producers Gebissa (2008: 794)

Another positive aspect of khat is, compared to other commodities where prices are affected by global markets, khat prices have shown only modest fluctuations, providing farmers with secure

livelihoods. For instance, when khat is compared with coffee (which is the highest foreign currency earner for the country), khat enjoyed a steep increase in price while coffee was subjected to sudden up and downs in price. The price of coffee per 1b fell from US \$123.41 in 1995 to US \$26.88 in 2002 while khat prices climbed from 12.86 Br per kg in 1990/91 to 28.73 Br in 1999/2000, and to 38.28 in 2003/04. *“The entire commodity chain i.e. the cultivation, marketing, processing and sale is controlled by the regional entrepreneurs which contributed to the stability of khat prices and the sustainability of income earned”* (Anderson et al, 2004: 2). Khat, therefore offers an alternative livelihood to unsustainable crops that are used to support families in the growing regions Anderson et al (2007: 14 -15).

Although there is little dispute about the economic significance of khat to the producers there are a number of issues raised with regard to how it affects the income of consumers. Let us see the experiences of four countries where khat chewing has long been part of their tradition and with the prevalence of high number of habitual chewers. In Djibouti, it is estimated that one-third of all the wages are spent on khat compromising other vital needs of the family and it is quoted as a factor of one in two divorces (Kalix & Khan 1984 in Lamina 2010: 3). It is estimated that 10% of the Yemeni population suffered economic hardship due to khat use in the 1980s (Kennedy et al 1983 in Lamina 2010: 3). Based on statistics from the courts in Somali land, 90% of family break downs are caused by khat (Sovoredo 2002 in Anderson 2007: 77). In a study conducted in Hargessa (Somalia) in 1983, it is estimated that fathers usually spent over 50% of their income on khat and the story of one father is cited to show how the dependence on khat can be so strong. It is a sad story of a father who did not see his children for five years while living in the same house. He chewed khat daily with his friends late into the evening, came back home after the children were asleep and he was asleep when the children went to school in the morning Anderson et al (2007: 77-78). In a consumer survey conducted to find the basic characteristics of khat consumers in Addis Ababa, it was found that 57.6% of the sample earned less than 300 birr/month (US \$1.16 a day at the time of writing) and spent up to 75% of their income on khat Anderson et al (2007: 71). In Ethiopia, few studies have been conducted on the issue to support this finding and it is the main area intended to be covered in this particular study.

Khat is undeniably very significant for the national economy and for the livelihood of the producing communities and other agents in the value chain. Studies show that it generates more

income than other crops and thus, khat producing families are economically better off than non-growers. However, the habitual consumers are spending a good part of their income on khat, compromising their needs and the needs of their families. In Ethiopia where significant proportion of the population live in poverty, basic needs are hardly met. Families have to strive hard and use their income in activities that generate more income for the family if they are to get out of poverty. Income spent on the purchase of khat is not a step in that direction because it is not an investment but expenditure.

2.8.3 Khat and its effect on agriculture and the environment

Khat is highly visible in the rural landscapes in several regions and most urban areas of Ethiopia. According to an agricultural sample survey conducted in 2008/2009, more than two million people (3.1% of Ethiopian farmers) are engaged in the production of the plant using only 18% of their land area which covers only 0.2% of the land at the national level. Khat is believed to have numerous advantages from an agricultural and ecological point of view. *“The hardiness, plasticity and drought tolerance characteristics of khat makes it the only agro forestry plant perfectly well adapted to the needs of farmers and climatic conditions of Hararghe’s midland and lower highland areas”* (Kilngele in Adnew 2005: 110). Khat has the highest return per hectare of cultivated land compared to any other crops and it is useful in controlling soil erosion as it is usually planted in rows on hillsides along terraces Adnew (2005: 104-105). These positive attributes are highly significant to drought prone khat growing areas such as Harerge where arguably no alternative productive crops would ensure food security.

However, the overdependence of farmers on khat in these areas is an issue of debate. Adnew (2005: 110 -113) argues that the high benefits derived from khat have undermined the local knowledge of creativity and innovation of the producing communities. He also pointed out that khat leaves are harvested and no residue is returned back to the soil. This practice is believed to decrease soil fertility and depletes plant nutrients although more study is needed on the issue. It is also believed to have adverse effects on neighboring crops from shade, concurrence of nutrients and moisture. The other argument is the growing influence of khat on the production of coffee which is the highest foreign currency source for the country. Khat is taking over coffee plantations and food crop land in some parts of the Harerege highlands and other parts of the country. *“If this trend*

continues, it will inevitably result in decreased production of food crops, leading to malnutrition; disease, and food insecurity'' (Gebissa 2008: 794).

The available literature on khat and its impact on the agriculture and environment show mixed results and so more comprehensive studies need to be conducted. We are witnessing climate change in our daily lives in terms of drought, heavy rain, and extreme high and low temperatures, adversely affecting agricultural production and threatening food security. The short term economic benefits of khat are evident. However, the long-term effects of khat on agricultural productivity and ecology in general need to be thoroughly studied.

The visibility of khat in Ethiopia



Photo 2. A khat farm in one of the rural landscapes (Dessie 2013: 14)



Photo 3: Bundles of khat (Lemessa 2001: 1)

2.8.4 Khat and its effects on time and productivity

We have discussed in the previous sections that khat's consumption prevalence is increasing in the country, particularly in the cities and a considerable amount of time is spent on the practice. There is a growing concern among non-users that khat is making the current generation less productive. Some suggest that 'the generation is lost', citing an increase in the number of the educated elite who consume the product. *"Losing this productive force is a huge social cost for Ethiopia today with the potential loss of a generation in the future"* (Dessie 2013:21). Khat dependence is associated with high morbidity and societal and economical costs (Manghi et al. 2009 in Dessie 2013: 4)

In a study conducted on 400 staff of Jimma University in Ethiopia, it was found that 50.4% of chewers missed their regular work more times than non-chewers; 54.5% used to come late to work or left work early because of chewing. Smoking and alcohol intake was also reported to have a significant association with the habit of chewing. The research concluded that khat chewing has a strong negative impact at service delivery and the learning/teaching process and it may negatively affect the economy since productivity is reduced in quantity and quality as a result of absenteeism and the after effects of the drug Gelaw et al (2004:1). Lamina (2010 :3) pointed out that in Yemen a considerable amount of time is spent buying and chewing khat which results in a loss in working hours and decreased economic production. The acquisition of funds to pay for khat has also led to criminal behavior and even to prostitution. In Yemen, in a study conducted in 1973, it was estimated that over 4 billion hours of work a year were lost as a result of khat chewing. Khat use

encourages laziness and absenteeism and the after effects of its use adversely affect productivity (Halback 1972, 1979, Elmi 1983b; Giannini et al. 1986 & Kalix 1987 in Degefa 2005: 97). In a study conducted in the Somali community, 58% of the sample responded that it perpetuates unemployment and 50% responded it affected them in neglecting their social roles and responsibilities (Omar et al 2015: 3).

On the contrary, advocates of khat argue that khat actually increases productivity by increasing energy levels and alertness; enhancing imagination and creativity, and facilitating communication. It is because of these reasons that businesspersons use khat to strike deals, cabbies and long-distance truckers to stay awake, artisans to reduce fatigue and students to concentrate during examination periods (Gelaw et al 2004 in Gebissa 2008: 790). The effect is apparent in agriculture as research has indicated that khat farmers are more efficient than cereal farmers as testified by the farmers themselves that khat chewing increases their productivity (Lemessa 2004: 4) . Beckerleg (2008: 754-759) gives a scientific explanation for the effect and contends that cathine and cathinole (nutrients found in khat) induce temporary euphoria, enhance wakefulness, suppress hunger, increase physical energy and concentration. Gebissa (2008: 796) also contests the claim that khat is a cause for tardiness in relation to work, absenteeism and declining productivity.

Does khat increase productivity? It is a scientifically proven fact that khat has stimulating effects and it is quite possible that it increases alertness and energy that results in higher productivity. What happens next? The state of euphoria/elation is followed by depression and withdrawal which results in absenteeism from work/education, lack of interest in work and a wastage of working hours due to lateness and early leaving. Does the 'effective' work done during the elation time make up for the hours 'lost' in consuming khat and the working hours 'wasted'? How healthy is it for the work force to be dependent on a stimulant plant to increase its efficiency? What are the long-term effects on the human body and its productivity? For instance students claim to chew khat to 'keep alert' and 'study' during exam times. It would be important to ask some questions to determine its positive or negative effects. Do they score better when they are under the influence of khat? What is its influence on the memory? How long can they memorize the material after the exams? Once they are used to chewing khat, does their performance decline when they do not use it? The issue of productivity is very complex. It is important to conduct longitudinal studies using control subjects to objectively verify the increase/decrease in productivity. The existing literature

is inconclusive. The impact on time is easier to measure and different studies discussed in the previous sections are in agreement that chewers spend considerable time in chewing khat which has inevitable negative impacts on productivity.

2.9. Should khat be controlled in Ethiopia? Past experiences and future implications

There were attempts to ban the cultivation and consumption of khat by Ethiopian governments during the reign of Emperor Haile Selassie and the Derg regime by uprooting khat plants, replacing them with coffee trees and levying a high tax on khat transactions. The governments targeted the producing areas to implement these measures, but all the attempts failed due to very strong resistance from the local people Gebissa 92008: 786) The current government of Ethiopia has no policy on khat. If it can be referred to as ‘a policy’, the policy of the government is ‘neutrality’. It neither provides incentives for its production nor discourages it by levying high taxes and taking other administrative measures. The marketing and production has prevailed without any legal control and the first proclamation on khat was issued only in 1987, proclamation no. 309/1987, which was ‘a proclamation to provide for the payment of tax on the sale of chat’ (Negarith Gazette, 46th year, No.10) and the objective of the proclamation was stated as “*levying tax on the sale of chat to generate additional revenue to finance different development activities*” (Alem 2005: 50). More recently, in March 2016 a discussion on national issues was held between the then Ethiopian Prime Minister, Hailemariam Desalegne and university scholars. In a response to a question raised by university scholars on the growing consumption of khat and the stand of the government on the issue, the prime minister responded “*In addition to its economic benefits to the government, khat has also religious significance. Therefore, we need to conduct a social debate on its advantages and disadvantages. In a scenario where the university professors consume khat, it is difficult to tell drivers to stop chewing khat. Personally, I do not support or oppose the use of khat.*”(Amharic Reporter 2016: 33). The response of the Prime Minister clearly illustrates the ambivalent policy of the current Ethiopian government on khat.

What is the cause of the policy dilemma? Interest groups and mass media outlets in Ethiopia have been lobbying the government to outlaw khat, citing its adverse effects on national productivity and the health of individual citizens. They also blame it for creating so much indolence among the youth and call it a threat to the future of the country Gebissa (2008: 785-

786). Use of khat also diverts resources to unproductive expenses that could have been used for more productive purposes like education, nutrition and other family needs Dhaifalah et al (2004: 14). These calls have not been accepted or rejected by the government. Anderson et al (2007: 32 & 14) believe that “*the policy dilemma emanates from the gains in foreign exchange and tax revenues which we might call khat’s ‘benefit trap’*” and “*the lack of alternative livelihoods in the growing areas*”. Beckerleg (2008: 758-759) argues that the economic benefits should not be a justification for keeping a harmful psychotropic substance legal but with no conclusive evidence on the harm caused by khat; banning it is not advisable and would not be workable. She advised khat critics to focus on disseminating accurate information about khat use and supporting those who have developed dependence. She also recommended lobbying for better development initiatives; social justice and welfare for the peoples of Arabia and Eastern Africa which she identified as the cause of the underdevelopment in the areas, rather than khat. Dessie contends that the inconclusive scientific evidences on khat contributes to the ambiguity. “*If khat is defined as a narcotic drug, there are negative legal, cultural and socioeconomic ramifications. If it is defined as a stimulant, it gets a neutral label, like that of coffee and tea.*” (Dessie 2013: 7). The World Bank agrees with the importance of curbing the consumption of khat and recommends a set of economic and non-economic policy measures rather than banning it. The recommendations include: increasing the tax burden; building public awareness; incorporating training on the hazards of khat in the school system; enforcing public policies aimed at discouraging khat consumption; closing knowledge gaps and developing viable crop diversification programs (World Bank 2007 in McGonigle 2013: 6). The WHO does not specify any specific measures but recommends governments to consider the control of the plant at national level (Klein et al 2012: 4).

Several factors are attributed to the lack of action on the part of the government. First, it is the lack of enough empirical evidence on the adverse effects of khat, particularly on the socio-economic aspects (the main reason for this research). Secondly, what would happen to communities that make a living from khat? Is there any other viable alternative crop to replace khat? Thirdly, khat has a cultural and religious significance. Any control mechanism could spark social unrest. Fourthly, its economic implications are very significant. The financial earnings from export and tax revenues could decline and the government does not seem to be ready to take any measure on this delicate subject in the near future.

In the next chapter, research methodology used for the study is presented. It discusses the research philosophy & paradigms and the research design used in the first two sections. The third and the 4th sections discuss the sampling technique and the research instruments used respectively. The data collection process and the data collection, compilation and analysis are presented in the next two sections. Finally, reliability and validity measures used, the limitations of the research and the delimitation measures taken and the ethical considerations are discussed.

Chapter 3: Research Methodology

This is a cross sectional; retrospective prospective and quasi –experimental study conducted to fulfill a Master’s degree in Development Studies. The overall objective of this dissertation is to

assess the socioeconomic and psychological effects of khat chewing in Addis Ababa. The income, use of time/time management, productivity and psychological well-being of the chewers are the four variables identified to assess the effects. The target population of the study was khat users residing in Addis Ababa who were above the age of 18 years or those that stopped chewing three years preceding this study and six ethnographic informants. The study was conducted for four months between March 2018 and June 2018.

3.1 Research philosophy and paradigms

Khat is a mild stimulant plant produced and widely used in Ethiopia. Different people/groups have two very contradictory views on khat. The advocates highlight its stimulating effect on increasing productivity; its economic contribution (in terms of job creation, high return in foreign currency and tax revenue), and its religious and cultural values. On the contrary, the time wasted on chewing khat and consequently, its adverse consequence on productivity; the financial burden on households; demotivation of the workforce, particularly the younger generation, and its adverse health effects are some of the concerns raised by the critics. It is a subject not sufficiently researched. The ontology of this study, is therefore, to know about khat, and its potential benefits and costs to the society. Ontology has two perspectives ‘objectivism’ and ‘constructivism’. Objectivism refers to an ontological position that *“asserts that social phenomenon and their meanings have an existence that is independent of social actors”* whereas constructivism *“asserts that social phenomena and their meanings are continually being accomplished by social actors. It implies that social phenomena and categories are not only produced through social interaction but they are in a constant state of revision”* (Bryman 2001: 16-18) Historically, khat was being chewed mainly in eastern parts of the country mainly for religious and cultural purposes. However, in the last few decades, its production and consumption has extended to every part of the country. Khat is a social phenomenon that has gone through many changes through the social interaction of different actors involved over the years and as this paper studies this phenomenon, it is a constructivism ontology.

Epistemology refers to *“the possible ways of gaining knowledge of social reality, whatever is understood to be. In short, claims about how what is assumed to exist can be known”* (Blake 2002: 8). Khat is the social reality to be known in this study. The economic contribution of khat

to the national economy is well recorded and understood. The religious and cultural aspects of khat are better suited to sociology and anthropological studies. However, khat's impact on the productivity, income, time and psychological wellbeing of the chewers has not been adequately researched. Thus this study is undertaken with the epistemological assumption that khat's impact on these variables would give the answer to the question 'how to know about khat'. Among the two contrasting epistemological paradigms namely positivism and interpretivism; this dissertation is an interpretivist one as khat chewers have different opinions on khat and the researcher aims to know their individual perspectives. "*Interpretivism epistemology is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action*" (Bryman 2001 : 12 -13 in Grix 2002 : 178) .

3.2 Research Design

According to Kerlinger (1986 : 279 in Kumar 2014 : 122), "*a research design is the road map that you decide to follow during your research journey to find answers to your research questions as validly, objectively, accurately and economically as possible. It is a procedural-cum-operational plan that details what and how different methods and procedures are to be applied during the research process*". This paper is about the prevalence of khat use and its effects at a given period of time; thus, it is a cross-sectional study. A cross-sectional study "*is best suited to studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude or issue, by taking a cross section of the population*" Babbie (1989: 89). Based on a reference period, it is a retrospective prospective study because it measures the impact of an intervention without having a control group; focused on past trends in a phenomenon Kumar (2014:141). In terms of the nature of the investigation, it is a quasi –experimental study as the causes are retrospectively linked with the outcomes Kumar (2014:142). Khat is the cause and the effects are the outcomes.

There are various ways in which research methodologies are applied to community projects and the most commonly used are explanatory, descriptive, correlational and exploratory. As this paper mainly tried to assess the change in the variables (income, use of time: productivity and psychological well-being) with the change of one variable /khat/, it is mainly an explanatory

research. *“When a causal relationship between variables can be stated, and an explanation can be found for the variation of at least one variable, the research is explanatory”* (Bless; Higson – Smith, & Sithole 2013: 5). The study also aimed to obtain a broader understanding of the limited knowledge /information available on khat and therefore it is also partly an exploratory research.

3.3 Sampling

Both quantitative and qualitative samples in the study are 84 adults who are currently using khat or who have stopped using it in the last three years, plus six ethnographic informants (four specialized informants and two key informants). First, a questionnaire was administered to the eighty four respondents. All of them were identified using a snowball sampling technique. The samples for the focus group discussions were drawn from the eighty-four respondents based on their responses to the administered survey. It was a purposive sample. The respondents share their interesting stories on the impact of khat on primary relationships and motivation; reported sacrifices made due to the chewing habit (like stopping their education, jobs or family conflicts), and the financial burden on income. All of these were the basis for the sample selection. Again, five respondents with the most deviant characteristics were identified for personal in depth interviews among the fourteen participants of the focus group discussions.

Why snowball sampling? Khat users constitute a small portion of the community. Many are not proud of their practice and do not reveal themselves. *“When the members of a special population are difficult to locate; it is recommended to use snowball sampling, one of the non-probability sampling methods”* (Babbie 2016: 188). *“It is a method that uses key informants and/or documents to locate one or two people in a population and ask these people to list and recommend others”* (Bernard 2013 : 168).

Snowball sampling has its own advantages and disadvantages. *“It enables researchers to access hidden populations (deviant such as drug taking, stigmatized or elite) who are reluctant to take part in studies using traditional research methods It is also found to be economical; efficient, and effective in various studies”* (Atkinson & Flint 2001: 2). The problem of representativeness and sampling principles are taken as the main concerns of snowball sampling. *“Because elements are not randomly drawn, but are dependent on the subjective choices of the respondents first accessed, most snowball samples are biased”* (Griffiths et al, 1993 in Atkinson et al 2001 : 3-4). However,

although it is true that the likelihood of a sample being representative is low but cases will have the characteristics desired (Welman, Kruger, Mitchell (2005:70)). There is limited control by the researcher over the sampling method as the subjects are obtained mainly by the previous subjects. It is also highly possible that the subjects share similar and unique characteristics, thus, the sample that the researcher obtains is only a small sub-group of the entire population (Atkinson et al (2001 : 3 - 4) & Welman et al (2001: 70)). (There is more discussion on snowball sampling in Section 3.10 Limitation/Delimitation)

3.4 Research instruments

“Quantitative methodology is useful to collect original data for describing a population too large to observe directly” (Babbie 2010 : 241) and also *“gives the opportunity to present every member of the sample with the same question in the same manner”* (Pierce 2008: 42) whereas the qualitative methodology helps *“to get deep and meaningful insights into underlying values, fears and motivations of individuals and groups”* (Pierce 2008 : 45) . In this study, therefore, both methods were used for a deeper understanding of the study. Among the mixed method strategies, sequential mixed methods were used. The study begins with a quantitative method (a questionnaire) to test the theory and followed by a qualitative method (focus group discussion and ethnographic informants’ interviews) involving detailed exploration with a few cases or individuals (Creswell (2009: 14)).

3.4.1. Quantitative data

- **Questionnaire**

A six page questionnaire was developed and administered to the 84 respondents to collect the primary data. It contained sixty four questions and was divided into five main parts as follows.

- A. Basic background information- to understand their personal and family portfolio
- B. The consumption pattern of the khat user – to answer the when, where, how, why and what questions with regards to the chewing habit of the khat user
- C. The use of khat and its socioeconomic effects (income, time and productivity) – to assess its impact on the income, use of time and productivity of the khat user

- D. The use of khat and its physical and psychological influence-,to assess its impact on the health of the khat user
- E. Law enforcement – to obtain the personal opinion of the khat user on law enforcement with regards to the use and production of khat

3.4.2. Qualitative data

- **Ethnographic informants (Specialized & Key informants)**

There are two kinds of ethnographic informants: specialized informants and key informants. Specialized informants are people with particular competence in some cultural domain. In this study, I interviewed a noted psychiatrist with more than 30 years of experience in the field, and who served as a medical director at Emmanuel Specialized Psychiatry Hospital for 14 years. He has extensive knowledge of the subject and he specialized in giving treatment to the khat addicts. Three social workers (sociologists by profession) who currently work at the Saint Paul Hospital Addictive Substances Rehabilitation Center were also interviewed.

“Key informants are people who are believed to be knowledgeable about the subject but not necessarily specialized personnel” (Bernard 2013: 170). In this category, I interviewed two Human Resource Managers working at two private companies in Addis Ababa; Finfine Office & House Furniture Production PLC & Altrade International Business PLC. They were responsible for the management of the factory workers (the group which are among the highest khat users in the society). They recounted their experiences and observations on the factory workers in relation to their time management; productivity, and social encounters.

- **Focus group discussions**

“Focus groups are group designed interviews which consist of a small number of individuals or interviewees that are drawn together for the purpose of expressing their opinions on a specific set of open questions” (Welman et al 2005: 201). It is an approach that researchers use to learn about conscious, semiconscious and unconscious psychological and socio cultural characteristics and processes among various groups through discussions (Larson, Grudens- Schuck, & Lundy, 2004; Lengua et al 1992; Stewart, Shamdasani, & Rook, 2006 in Berg 2009: 158). It is also useful to

explore more poorly understood survey results Morgan (1997: 2 -3) and elicit responses between the members of the groups Welman et al (2005 : 201- 202) .

Krueger suggests (1994 in Berg 2009: 159) that the group size should not be more than seven for complex problems and to reduce the influence of some active members. Bernard recommends (2013:200) to have six to twelve people in a group. In this particular study, fourteen respondents, derived from the eighty-four quantitative sample, took part in the focus group discussions. The fourteen respondents were divided into two groups (seven in one group) and a total of two focus group discussions were conducted (one in each group).

- **Life stories**

Five respondents were asked to narrate their life stories in their own words. Questions were forwarded by the researcher for clarifications and to get in depth explanations of their situations. The purpose of the study was to understand their family background, their perception of the socio-economic and psychological advantages and disadvantages of chewing khat, and discuss their future intentions. The respondents were drawn from the fourteen respondents that participated in the focus group discussions. Based on experiences shared during the discussions, five respondents with the most interesting and deviant stories were selected by the researcher for the in-depth unstructured personal interviews. *“Selecting extremities or deviant cases is an approach believed to give the best understanding of the field as a whole”* (Harding 2013: 17). The information is used as an additional input but no generalizations are made out of it.

3.5. Data collection process

- **Consensus building with the organization and clients**

Prior to the start of the data gathering, consensus building discussions were held with the respondents about the objectives of the survey, their willingness to share their experiences and the confidentiality of very personal information.

- **Translation and piloting**

The instruments were developed in English by the researcher then commented upon and approved by the supervisor. It was then translated into the local language of Amharic by the

researcher and pilot tested with three clients. Based on the feedback received, some ambiguous questions were rewritten and additional questions were added.

3.6 Data collection, compilation and analysis

Seventy five percent of the quantitative data (63 respondents) were collected by the researcher and the remaining twenty five percent (21 respondents) were done by other qualified interviewers. A questionnaire which contained 69 questions was administered to the respondents (kindly refer pages 96- 103). For qualitative data, it is recommended that the data be gathered by the researcher Creswell (2009: 175). Therefore the researcher personally collected all the qualitative data (two focus group discussions; five key informant interviews and the narration of the life stories of five samples). Interview guides were used to collect the data for the focus group discussions and the key informant interviews (kindly refer pages 104 -109).

The quantitative data gathered was manually entered and processed using an Excel program. Codes were given for each of the 84 respondents such as R1, R2....R84. The 64 questions presented in the questionnaire were written in one column; the responses of each respondent to every single question were entered manually by the researcher and processed using an Excel program. Percentages for each variable were drawn out of the aggregate sums. An excel program was preferred because the number of samples is not large and it is cost effective. The qualitative data generated from the key informants were all recorded with a tape recorder. The focus group discussions and the key informant interviews with the social workers were conducted in Amharic and then transcribed. They were subsequently translated into English by the researcher and analyzed. The key informant interview with the psychiatrist was conducted in English, transcribed and then analyzed.

3.7. Reliability and Validity

“Reliability is the extent to which the observable (or empirical) measures that represent a theoretical concept are accurate and stable when used for the concept in several studies” (Bless; Higson –Smith & Kagee 2006: 149). Various techniques commonly used to measure reliability are test-retest reliability; equivalent form reliability; split-haves reliability, and item analysis. The item analysis is used to test its reliability in this study. *“In the item analysis method, the researcher*

checks how well the responses to each item correspond to the responses to the other items and to the test as a whole” Bless; Higson –Smith & Kagee (2006: 154). Using this analysis inconsistent responses given to related questions in the quantitative data were identified. Accordingly, as such responses confuse the data; three completed questionnaires were discarded.

“Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration” (Babbie 2010: 131). The four most important types of validity are content validity; criterion-related validity; construct validity, and face validity. Content validity was preferred for this study. *“If the researcher can show that an instrument measures all the various components of the variable in question, he or she can be confident that the instrument has high content validity”* (Bless et al 2006: 154). This technique was used to make sure that all the various components of the four variables under study are well covered in both quantitative and qualitative instruments by referring to literature.

3.8 Limitation/Delimitation

The number of subjects used for the quantitative study was too small for statistical validation and the use of non-probability sampling (snowball sampling) for a quantitative study should be explained. Three explanations could be given. Firstly, khat users are a deviant population. It is very difficult to locate and obtain their willingness by using random sampling. Hence, the snowball sampling was used to access the users. Secondly, the purpose of the quantitative study was to establish the base to select candidates for the qualitative study using purposive sampling and not for statistical validation by itself. *“Some mixed methods research has quantitative data at its core and this data is then elaborated or explained with qualitative data. In this case, a quantitative research process is likely to be followed”* (Bless; Higson –Smith, & Sithole 2013: 5). Therefore 14 respondents with the most deviant and interesting stories were selected out of the 84 respondents in the quantitative study. Thirdly, the researcher used the findings of the quantitative data to make comparisons with the outcomes of the qualitative data, which further enriched the study. Lastly as this was a self-funded study there were also financial and time limitations on the part of the researcher in relation to using a large sample. Therefore, the researcher tried to exploit the available quantitative data in the most efficient way possible. Another attempt was also made to reduce the limitations of snowball sampling. The 84 respondents were drawn from five groups

in society identified by different studies as groups with the highest consumption prevalence. These groups are: factory workers; young non-working adults; students of higher institutions; civil servants, and taxi/lorry drivers Anderson et al (2007: 4); Dessie (2013 : 29); Gebissa (2008 : 2-3); Gelaw et al (2004:1); Haile et al (2015 :1) and Mains et al (2013: 117-126) . The samples were drawn for these groups to increase their representativeness.

The analysis of the psychological effect of khat chewing on the users was limited as a deep psychological analysis was beyond the scope of this study. The study also had geographical limits as it covered only Addis Ababa and the findings may not give a full picture of the practice in other parts of the country. The questionnaire used close type questions because not all of the questionnaires were administered by the researcher and open ended questions may lead to misinterpretation by other data collectors. However, close ended questions may restrict the responses of the respondents. As much as possible, attempts were made to include all the possible responses as options by referring to other studies and situating it in the academic debate.

3.9 Ethical considerations

At the start of the interviews, all respondents (84 khat users and 6 key informants) were informed about the purpose of the study and the confidentiality of the information. They were then asked their willingness to participate in the interviews. Those that agreed to participate in the interviews signed the consent form (kindly refer page 104). They were also informed that in the analysis and reporting of the study, their names would be changed and any sensitive information that may cause damage or hurt to any of the participants will be kept confidential. When the questionnaires were administered each question was read to the respondents and their choices were marked/ticked. Focus group and key informant question guides were used for the focus group discussions and interviews (kindly refer pages 104- 109). At the end of the focus group discussions, for those who wanted help, the addresses of the institution where they could obtain medical support was communicated. References are provided for quotations taken from any primary or secondary data source.

In the next chapter, the findings of the research are presented. A summary of the statistical results of the quantitative data are presented. Following that there is a summary of the two focus group discussions and the narration of the life stories of five respondents are presented. Finally, the

summary of the key informant interviews conducted with one psychiatrist, three social workers, and two human resource managers are presented consecutively.

CHAPTER 4 - Findings of the research

This chapter is divided into three parts. In the first part a summary of the questionnaire data collected from the eighty-four respondents is presented. In the second part the main issues discussed during the focus group discussions are summarized and in the third part the sample profiles/short life stories of five respondents are presented.

4.1 Statistical results

A six pages closed-ended questionnaire was administered to eighty four people above the age of 18 (both male and female) that are currently khat users or those that stopped chewing in the three years preceding this study. The purpose of the study was to assess the socioeconomic and psychological effects of khat chewing on khat users in Addis Ababa. Below is the summary of the data collected.

A. Basic background information – Half of the respondents were between the ages of 18- 25 years, predominantly male and Orthodox Christians. Most were single and they had attended a high school education and some had gone on to higher education. In terms of their means of living, they were drawn from different sectors. The detailed information is presented in the table below.

Status of the respondents	Options	No of respondents	No of respondents in percentage
Age of the respondents	18-25 years	42	50%
	26-35 years	22	26%
	36-45 years	14	17%
	46-55 years	4	5%
	55 years and above	2	2%
Sex	Male	68	81%
	Female	16	19%
Religion	Orthodox Christian	56	66%
	Muslim	24	28%
	Protestant	4	5%
Status of the respondents	Options	No of respondents	No of respondents in percentage
Educational status	1-8 grade complete	8	10%
	9-12 grade complete	48	57%
	College diploma and above	28	33%
	Married	18	21%

Marital status	Single	60	72%
	Divorced	6	7%
Do they have children they support?	Yes	20	24%
	No	64	76%
Do they have people economically dependent on them?	Yes	28	33%
	No	56	67%
Means of living	Factory workers	16	19%
	Office staff	10	12%
	Taxi/Lorry drivers	6	7%
	Students	18	21.5%
	Self -employed	18	21.5%
	Unemployed	16	19%

Table 5: Background information of the study samples

B. The consumption pattern of the khat user

- **Chewing practice** – 74 (88%) of the respondents are currently chewing and 10 respondents (12 %) have stopped chewing.
- **Rate of chewing** - Higher rate/frequency of chewing indicates higher impact of khat and the majority of the respondents could be grouped as habitual chewers (40% the respondents reported they chew once a day and 38% reported 2 to 3 times a week).

The detailed information is on the next page.

Study samples	Frequency of chewing					
	Twice in a day	Once in a day	2-3 times a week	Once in a week	Once in a week	On special occasions
No of respondents	2	34	32	10	4	2
No of respondents in percentages	2%	40%	38%	12%	5%	2%

Table 6: Reported frequency of chewing among the study samples

- **Age that they started chewing** - 50% of the respondents started chewing before they reached 18 years of age and 95% of the chewers started chewing before they reached 25 years.

This may indicate the vulnerability of the younger generation for substance use.

Age of respondents	Less than 18 years	18-25 years	26-35 years
No of respondents	42	38	4
No of respondents in percentages	50%	45%	5%

Table 7: The age respondents started to chew khat

- **How did they start chewing khat?** – Peer pressure seems to be the most important factor for the respondents (84%) leading them to start chewing. This is important information to design any intervention policy.

Study samples	How did they start chewing?				
	Family tradition	Through friends	At college /school/	As an adventure	From other communities during job/business trips
No of respondents	8	70	2	2	2
No of respondents in percentages	10%	84%	2%	2%	2%

Table 8: How did the study samples started chewing khat?

- **Duration of the practice/chewing** - 8 respondents (10 %) replied they have been chewing khat for less than a year ; 14 (17%) 1- 3 years ; 22 (26% 4- 6 years; 10 (12%) 7- 10 years and 30 (36%) for more than 10 years.
- **Their preferred place to chew khat** - 18 respondents (21%) replied that they usually chew khat at home; 8 (9%) at their work place; 42 (50%) at friends' house; 18 (21%) at khat chewing houses; 10 (12 %) at recreational places and 10 (12 %) at other places such as in

taxis. Please note that the total percentage of the responses does not add up to 100% because some respondents identified more than one preferred place to chew.

- **Reasons to chew khat** – Why do people chew khat? It is important information to understand their perspectives and the data suggests that most chew khat for recreational rather than utilitarian reasons. The total percentage of the responses adds up to 100% because some respondents gave multiple reasons to chew simultaneously.

Study samples	Reasons given for chewing khat				
	Recreation	To pass time	To be more active in our jobs /activity	To socialize with others	Other reasons (get out of the reality, fight depression, I do not even know)
No of respondents	38	48	16	12	12
No of respondents in percentages	45%	57%	19%	14%	14%

Table 9: Reasons the study samples gave for chewing khat

- **Influence of khat on educational performance** - 4 respondents (5%) replied they used khat to obtain better results in their studies. Out of the 4 respondents, 2 respondents (50%) replied that it helped them get better results and the other two respondents (50%) replied it did not help them obtain better results.
- **Places where they had their first khat chewing experience** – 12 respondents (14%) replied at home; 2 (2%) at their work place/on field visit ; 2 (2%) at their college/school; 42 (50%) at a friend’s house, 12 (14%) at a khat chewing house; 10 (2 %) in a recreational place and 4 (5%) at other places such as field trips.
- **Other substances used while chewing khat** – 2 respondents (2%) replied they do not use any other substances and 82 (98%) replied that they use multiple substances. 44 respondents (52%) replied cigarettes; 32 (38%) alcohol; 26 (31%) soft drinks; 10 (12%) sugar; 30 (36%) water; 20 (24%) coffee/tea; 2 (2%) milk; 12 (14%) hard drugs and 22 (26%) other substances such as peanuts and shisha. The total percentage of the responses

does not add up to 100% because some respondents replied that they used multiple substances simultaneously.

- **Reason to use the other substances while chewing** - 36 respondents (43%) replied - to get more excitement; 26 (31%) to make the chewing easier 32 (38%) for a better taste; 2 (2%) to reduce the toxic effect and 8 (10%) to reach euphoria faster and lift out of depression. The total percentage of the responses does not add up to 100% because some respondents gave multiple reasons simultaneously.
- **Habits of use of other substances developed before and after starting to chew khat** – There was a very high incidence of use of other substances after the study samples started chewing khat. The total percentage of the responses does not add up to 100% because some respondents replied that they developed multiple habits simultaneously.

Type of habits	Number of respondents who use these substances (out of the 84 respondents)	When did they develop these habits?	
		Before starting chewing khat	After starting to chew khat
Smoking cigarettes	44 respondents (52%)	10 respondents (3%)	34 respondents (77%)
Drinking alcohol	32 respondents (38%)	10 respondents (31%)	22 respondents (69%)
Using hard drugs	12 respondents (14%)	4 respondents (33%)	8 respondents (67%)

Table 10: Habits of use of other substances developed before and after starting chewing

- **Substances used/ Actions taken to break the mirkana (the highest level of the euphoric effect)** - Substances used/ Actions taken to break the mirkana have high relevance to khat's potentially positive or adverse effect on the chewer. Reading books can be taken as the positive influence whereas use of alcohol can lead to adverse social, economic and health effects. The total percentage of the responses does not add up to 100% because some respondents replied that they used multiple substances simultaneously.

Study samples	Substances used / actions taken by the study samples to break the mirkana (the highest level of the euphoric effect)					
	Nothing	Alcohol	Cigarettes	Hard drugs	Milk	Others (reading book, sex & sleeping)
No of respondents	8	50	6	4	8	18
No of respondents in percentages	10%	60%	7%	5%	10%	21%

Table 11: Substances used / actions taken by the study samples to break the mirkana

C. The use of khat and its socio-economic effects (income, time and productivity)

- **Monthly income of khat chewers** - 38 respondents (45%) replied less than 1,500 birr /month; 26 (31%) 1,501 - 3000 birr/month; 14 (17%) 3001- 5000 birr/month and 6 (7%) more than 5,000/month.
- **Amount of money they spend for a single khat chewing session** – 4 respondents (5%) replied less than 20 birr; 26 (31%) 20 - 50 birr; 30 (36 % 50- 100 birr and 24 (29%) replied more than 100 birr.
- **Time spent on one khat chewing session** – Khat chewing sessions tend to take a long time. Forty four respondents (52%) replied that they spent more than three hours on chewing. There were no respondent that spent less than 30 minutes.

Study samples	Time spend on one khat chewing session			
	30 - 60 minutes	1-2 hours	2-3 hours	More than 3 hours
No of respondents	2	20	18	44
No of respondents in percentages	2%	24%	21%	52%

Table 12: Time spent by study samples on one khat chewing sessions

- **The most common time to chew khat** - 4 respondents (5%) replied in the morning; 70 (83%) in the afternoon and 10 (12%) in the evening. There were no respondents that replied during the night.
- **Khat chewing and its influence on the work habits, family time and social responsibilities of the chewers** – The responses from the study samples suggest that khat chewers demonstrate poor working habits and sacrifice their social and family time to chew khat. The table below shows their responses. The total percentage of the responses does not add up to 100% because some respondents gave multiple responses simultaneously.

No	Questions	Response of the 84 respondents		Frequency of the habit (of those that responded Yes)				
		Yes	No	2-3 times a week	Once in a week	Once in two weeks	Once in a month	Very rarely
I.	Work habits							
1.1	Absenteeism from work	48 (57%)	36 (43%)	22 (26%)	10 (12%)	None	2 (2%)	14 (17%)
1.2	Lateness to work	40 (48%)	44 (52%)	18 (21%)	10 (12%)	None	None	12 (14%)
1.3	Early to leave job	44 (52%)	40 (48%)	18 (21%)	6 (7%)	None	None	20 (24%)
II.	Family time & Social responsibilities							
2.1	Have you ever sacrificed your family time or social responsibilities to chew khat?	58 (69%)	26 (31%)	16 (19%)	12 (14%)	4 (5%)	2 (2%)	24(29%)

Table 13: Khat chewing and its influence on the work habits, family time and social responsibilities of chewers.

- **Khat chewers’ perception of the influence of khat on their productivity** - 42 respondents (50%) replied it helped them to be more effective/productive; 34 (40%) replied it made them less effective and 8 (10%) replied that they do not know. They were further asked how it made them more or less effective and their responses are summarized in the table shown below. The total percentage of the responses does not add up to 100% because some respondents gave multiple substances simultaneously.

Those who claim it is making them more effective	No & % of respondents	Those who claim it makes them less effective.	No & % of respondents

It helps /helped/ me to be more focused	18 (21%)	It makes / made /me less focused	14 (17%)
It makes /made/ me more active/alert.	18 (21%)	It makes / made / me less active/alert.	6 (7%)
It gives /gave/ me more energy	10 (12%)	It makes / made / me physically weak	10 (12%)
It makes /made /me more imaginative	8 (10%)	It makes / made / me disillusioned	8 (10%)
Others like it makes me happy, excited	2 (2%)	Others	None

Table 14: Khat chewers’ perception of the influence of khat on their productivity

- Financial difficulties to buy khat** - The study samples were asked if they have ever faced a shortage of money to purchase khat; the majority responded ‘Yes’ and some of them reported resorting to selling and cheating to get money to satisfy their addiction. This gives some highlight to the use of khat’s pressure on the income of the chewer and his/her social interaction with family and the community. The total percentage of the responses does not add up to 100% because some respondents gave multiple responses simultaneously.

Have you ever faced a shortage of money to purchase khat?	60 respondents (71%) responded ‘Yes’.	Measures the study samples reported taking to purchase khat?
		28 respondents (47%) borrowed money;
		18 respondents (30%) bought khat on credit
		2 respondents (3%) did nothing
		26 respondents (43%) sold their properties (cellphone and clothes), gave

		false excuses and took money from their families
	24 respondents (29%) responded 'No'.	

Table 15: Responses given by the study samples when faced with financial shortage to buy khat

D. The use of khat and its physical and psychological influence

- **Perception of khat** - 12 respondents (14%) replied they perceive it as something desirable and good; 68 (81%) perceive it as a problem that they want to get rid of and 4 (5%) said that they use khat to the pass time.
- **Rate of influence/importance of khat in their life** - The influence of khat was rated very high by 46 respondents (55%); medium by 18 respondents (21%) ; low by 14 respondents (17%) and very low by 6 respondents (7%).
- **Khat and addiction** - 78 respondents (93%) replied they believe khat creates addiction. When asked if they believe they are personally addicted, 52 respondents (67%) replied yes and 26 respondents (33%) replied no.
- **Physical or psychological feeling when mirkanna (highest level of excitement /euphoria) is attained** – Multiple feelings are experienced by the study samples. A sense of happiness and energizing effects are the most common experiences reported. The total percentage of the responses does not add up to 100% because some respondents replied that they experienced multiple feelings simultaneously.

Physical or psychological feeling experienced when reaching mirkana (highest euphoria state)	No of respondents	Percentages
Alertness and energetic feeling	48	57 %
Higher concentration	30	30%
Sense of happiness and elation	48	57%
Sociability	6	7%
Restlessness	18	21%
Feelings of depression	10	12%

Exhaustion	2	2%
Violence	2	2%
Other feelings (deep silence, increased sexual desire, urge to drink alcohol, feeling of being scared)	6	12%

Table 16: Reported physical and psychological feelings by the study samples when reaching mirkanna (highest level of excitement /euphoria).

- **How long does /did/ the mirkanna last** - 6 respondents (7%) replied it lasts less than an hour; 20 (24%) lasts 1 hour; 12 (14%) lasts 1- 2 hours and 46 (55%) lasts more than 2 hours.
- **Physical or psychological feeling when not consuming khat** - 22 respondents (26%) replied they feel nothing; 26 (31%) feel depression; 26 (31%) have anxiety; 8 (10%) have paranoia; 6 (7%) have nightmares; 6 (7%) have physical trembling; 12 (14%) feel exhausted and 8 (10 %) suffer from insomnia. The total percentage of the responses does not add up to 100% because some respondents replied that they experienced multiple feelings simultaneously.
- **Effect of khat use on sexual desire and unprotected sex** - 28 respondents (33% replied it increases their sexual desire ; 22 (26%) it actually reduces their sexual desire ; 26 (31 %) it has no impact and 8 (10%) they do not know. When they were asked whether they believe that it exposes them to unprotected sex, 42 respondents (50%) replied yes; 24 (29%) replied no; 2 (2%) it has no impact and 16 respondents (19%) replied they do not know.
- **Any kind /form of physical or mental illness caused by the use of khat** - 32 respondents (38%) replied yes and 52 respondents (62%) replied no. Out of the 32 respondents who responded yes, when asked whether this is their personal opinion or assessment of a medical professional, 20 respondents (63%) replied it is their personal opinion and 12 respondents (37%) replied it is the assessment of a medical professional.
- **Sense of guilty feeling for chewing khat** - 48 respondents (57%) replied yes; they feel guilty and 36 respondents (43%) replied no, they do not feel guilty. Out of the 48 respondents who responded yes; 32 (66%) replied they had tried to stop using khat but failed; 6 (13%) replied that they have not tried to stop and 10 (21%) replied that they have already stopped.

- **Reasons to stop chewing khat and reasons for failure** – 32 respondents reported that they had tried to stop but had failed. The reasons they gave as to what initiated them to stop and the reasons for failure are summarized below. Note that as only 32 respondents reported trying to stop chewing khat, the percentage calculated and presented is only out of 32 respondents and the total percentage does not add up to 100% due to multiple responses.

Reasons given to stop chewing khat	Reasons give as to why they failed to stop chewing khat
6 (19%) health problems	2 (6%) lack of treatment for the addiction
14 (44%) family and social pressure	17 (53%) lack of commitment
12 (38%) waste of productive time on chewing khat	6 (19%) peer pressure;
10 (31%) financial pressure	5 (16%) to socialize with others
10 (31%) other reasons (the nature of their job; they wanted to test their resolve, and to reallocate their money to family support)	2 (6%) lack of other recreational opportunities

Table 17: Reasons given by the study samples what motivated them to quit khat and why they failed to quit

- **Stigma and khat chewing habit** – When asked whether they have ever faced stigma due to their khat chewing habit; 18 respondents (21%) replied yes and 66 respondents (79%) replied no.
- **Plans to quit khat use in the future** – 52 respondents (62%) replied yes; 22 (26 %) replied no and 10 (12%) replied they have already stopped.

E. Law enforcement

- **Khat and law enforcement** – When asked if there should be law enforcement to curb the consumption and production of khat, 58 respondents (69%) replied yes and 26 respondents (31%) replied no. Out of the 58 respondents who responded ‘Yes’; 20 respondents (34 %)

replied it should be totally banned & 38 respondents (66%) responded the use and production should be regulated using different strategies. There were no respondents who gave any other reasons. Out of the 26 respondents who responded 'No'; 18 respondents (69 %) replied it is violation of individual rights & 8 respondents (31%) it is economically too important. There were no respondents who gave any other reasons.

4.2. Summary of focus group discussions (The names of the focus group respondents have been changed to protect anonymity)

Two focus group discussions were conducted with a total of 14 participants. In each group, seven young adult men between the ages of 19-30 participated. The discussions lasted 52 minutes for the first group and 58 minutes for the second group. 75% of the participants were unemployed while 25% were employed men from the lower income group (less than 3,000 birr/month). Similar questions were presented to both groups and no significant variations were observed in the group responses. Hence, the results of the discussions in the two groups are jointly summarized and are presented as follows.

- **On the effect of khat use on primary relationships, families and social responsibilities**
 - The participants gave mixed responses on the effect of khat on their primary relationships, families and social responsibilities. The positive effects reported were mainly relief from depression; feelings of freedom to express oneself, and harmony with others while the negative effects reported were the break-up of family and love relationships and discontinuing of their educational endeavors due to their khat chewing habit. Here are some of their stories.

Positive experiences shared were as follows.

- Faris Mohammed, a 21 years old unemployed man, said khat makes people open and free to talk about things that they would not do under normal circumstances.
- Aklili Neway, a 24 years old unemployed man, commented that khat creates peace and harmony among people. He believes that it is alcohol that initiates violence, not khat.
- Yosef Alemu, a 25 years old employed man, said khat creates a strong bond with friends and helps to keep oneself from depression.

- Social facilitation/Discussion on social issues/ was also described as one of the positive impacts of khat. However, they said that they most probably would not remember what they discussed the previous day.

The negative experiences shared by the participants were as follows:

- Tewodros Abate, a 24 years old unemployed man, said that his relationship with his family is ruined because he breaks things; he complains a lot when he is not chewing, and disturbs the family at night after consuming khat and alcohol.
 - Misikir Abebe, a 26 years old and self-employed man, reported that he dropped out from school at 8th grade due to his khat addiction, which led to serious conflict with his family.
 - Abel Belete, a 24 year old unemployed man, said he broke up with his girlfriend whom he loved so much due to his chewing habit.
 - Hassen Yafet, a 30 year old employed man, said he was married once but his chewing habit became a major issue of conflict with his wife and their marriage ended in divorce within months.
- **Feelings experienced after reaching mirkanna (highest euphoria)** - When reaching mirkanna, the participants reported that they fantasized about owning everything around them. They also claimed to feel more sociable and free to talk with peers about their personal lives. Avoiding non-chewers and loss of confidence to socialize with them was also reported. Talking about things that do not make sense was also common and some even said that they do not recall what they did the previous day. Mirkanna creates simultaneous feelings of excitement and depression. This is what they call mirkanna. They said they do not feel comfortable to stay with this feeling for long and they ‘break’ the mirkana by drinking alcohol.
 - **Physical effects when not chewing** - The participants reported feelings of restlessness; depression; complaining; boredom, and loss of interest in whatever they are doing.
 - **Psychological effects** - They said that khat creates the illusion that the chewer has owned everything. It makes them overambitious and creates a belief that they can accomplish

tasks within minutes (tasks that normally take years to complete such as construction of buildings). A sense of elation and peacefulness and the desire to have everything were other feelings which were also reported.

- **Reasons to chew khat and if they have tried to stop chewing khat before** - All the fourteen respondents said they are chewing khat mainly to pass the time and for recreational purposes. Three of them claimed that, in addition to spending time, it helps them to do their work more efficiently. Three said that they had stopped chewing khat for only a short period of time. However they restarted chewing again because they had no idea how to spend their time when not chewing. Merawi Alebachew, unemployed and a 21 years old male, said that he was so determined to quit khat that he even went to a church located in the countryside and was baptized by holy water to rid him of the 'khat curse'. However, when he came back to Addis Ababa, he could not find a job. Then, he restarted chewing again to pass the time. Taddelle Ayenew, unemployed and a 21 years old male, also said "*I just use khat because I have nothing to make me busy. Khat is my hiding shield.*"
- **On the effects of khat on studying** - Only three respondents said they used khat for studying. Out of the three respondents, two of them claimed that they found it very helpful to stay focused for long hours. One of them said he found it hard to memorize what he read under the influence of khat but believes khat makes him creative. He said that when he is under the influence of khat, he draws beautiful pictures that he is not able to do without it.
- **The effect of khat use on self-worth and motivation** – Three respondents replied that khat makes them very confident and motivated while the remaining eleven participants reported that they become emotionally down and avoid socializing with non-chewers fearing that they would notice. They just want to enjoy chewing without any disturbance. Mequanint Aleme, a 22 year old unemployed man said "*I do not believe the perception that khat rejuvenates people. What I observed is the opposite. It kills the spirit.*" Merawi Alebachew said that his confidence goes down after chewing and he cannot concentrate on his work. All that he thinks about at the time is breaking his mirkanna / temporary euphoria/ by drinking alcohol. Hassen Yafet commented that "*We assume khat has an advantage because we use it. If you are addicted, it lifts your mood to work. That is the advantage*

that we assume but it does not matter for those who are not on it. Khat simply wastes our income and time.”

- **Effects of khat use on income; time, and productivity** - A good bundle of khat costs birr 50 on average in Addis Ababa and all the participants agreed that khat significantly affects their income. They said that there had been many days in their lives that they went home empty handed after spending their daily income on khat, even sometimes resorting to taking loans and credit to buy khat. Three respondents actually confessed that they cheated their family and received money to buy khat. In their opinion, chewing khat is expensive for two reasons. The first reason is that khat is usually chewed in groups. If a member of a group does not have money, it is customary to cover his/her expenses. The other reason is that, after reaching mirkanna, they usually use other attendants (alcohol, cigarettes etc.) to break the euphoria which adds to the cost. The cost of the other attendants like alcohol could be higher than the khat itself.

The participants had very similar views on khat's effects on time. They said that a considerable amount of their time is spent on chewing khat and related expenses. In the words of Esayas Nebiyou, a 23 years old unemployed man *“Khat made us lazy and the idea to work does not even come to our minds. Our time is just wasted. This is the time to change our lives but it is wasted on chewing khat.”* Ante Endalk believes time and income are directly related variables. He says *“It is only if we use our time efficiently that we are able to generate income. We are required to work a full day by our employers but most of us chew khat after 1pm. We are giving priority to khat, not our work and income”*.

Unlike their views on income and time, different views were observed on khat's effect on productivity. Three respondents claimed that it makes them more energetic and enables them to accomplish their tasks faster. Hassen Yafet argued that people work faster and harder under the influence of khat and he claimed to accomplish tasks within a shorter period of time after chewing khat. The other eleven participants said, in their experience, it actually kills their spirit to work. Mequanint Aleme said *“Once I start to chew khat, I will be fully occupied by it. Working is the last thing I want to do”*.

One of the participants, Yosef Alemu, a 24 years old employed chewer, said that he believes that khat makes him more energetic and gets more income when working under the influence of khat. He therefore argued that if chewing khat makes him more productive and helps him generate more money, it would not bother him to spend his money on khat. Others protested his reasoning. Misikir Abebe said “*We believe khat is beneficial because we are addicted. Non-addicts accomplish their tasks efficiently without it.*”

- **Khat and other habit forming substances** - All the participants reported that they first started to chew khat before starting to use other substances (cigarettes and alcohol). Tewodros Abate commented that he is a casual alcohol drinker under normal circumstances. However, he has no control on his drinking habit after chewing khat. “*Normally, I drink four or five glasses of draft beer. But after chewing khat, I drink non-stop*”. Mequanint Aleme responded that he has currently started to use hashish and blames his khat addiction for it.

- **Khat and experience of stigma and discrimination** – Two respondents claimed that they have experienced some sort of discrimination in their lives due to their chewing habit, and therefore prefer to keep it their personal secret. Hassen Yafet reported that in the company at which he is working if something is stolen/missed, khat chewing staff are the prime suspects. He believes it damages their trustworthiness. However, twelve respondents protested that chewing khat is their personal choice, and they would not mind if others knew about it. Abel Belete said “*We should not be afraid of the labeling but the actual practice itself*” but acknowledges that it may not be helpful to get a good girl for marriage.

- **Effect of khat on their personal religious beliefs** - All but one responded that it is against their religious beliefs and it has become an obstacle to practice their faith. Merawi Alebachew said that he is an Orthodox Christian and according to the teachings of his faith, it is not allowed to enter the premises of the church after using any addictive substances. He regretted that the habit has alienated him and his friends from practicing their faith.

- **On the control of the production and use of khat** - Only two respondents were in favor of the total banning of khat. Three respondents argued that it is their individual right and

should not be controlled at all. The remaining nine respondents supported some degree of control but not a total ban. They noted the following reasons why a total ban was not appropriate: the significance of foreign currency that the country generates through exports; the job employment opportunities created in the value chain; the tax revenue it generates for the government. Two of them asked “If khat is banned, *what other opportunities are available for the youth to pass their time and relax?*”

4.3 Sample profiles /Life stories

The short life stories of khat chewers and their chewing experiences are presented below as narrated by them. They are selected for their captivating stories among the fourteen participants of the focus group discussions. Narration of their stories provides an insightful understanding of the socio-economic and psychological effects of khat and helps to capture additional information that may not be covered by the questionnaire and the focus group discussion. It also gives the report a more human touch alongside figures. Sample profiles of the five respondents are presented as follows.

4.3.1. Abel Belete – He is 21 years old and a college drop out. He used to have job, and he is currently unemployed. He regrets his khat addiction and thinks that to a great extent it has ruined his educational endeavors and social life. He plans to stop chewing khat in the future, but he wants to continue to chew for the time being “to pass the time” and it is a means of recreation. Here is his story.

“I chewed khat for the first time with my friends, and we were high (in excitement) for two days. I currently spend 100 birr per day on average. When I am not chewing, I complain a lot; quarrel with people, and get depressed. After completing grade 12, I studied for one year at college. But in my second year of college, I spent the money I saved for my college fees on khat and quitted my education”.

“It is a dangerous thing. It makes you build big buildings in your dreams. You feel you have accomplished things in a second what normally takes ten years to do. At the end, it takes you to alcohol. It is difficult. Some people also show inconsistent behaviour. They are very friendly with you when they are chewing in the afternoon; but, they may not recognise you in the morning. Some people do not even listen to you unless they chew khat first. It has a dizziness effect on people”.

“I lost my girlfriend because of khat. We loved each other very much but she left me because of my khat chewing habit. I wish I could kiss my mom goodnight when I come home at night. But I can’t do it because I have no confidence in myself. There are a lot of things which I want to do but cannot do because of khat. It affects my relationship with others and makes me distant. It also hurts my income. I used to have a motorbike and used to get good money by giving a transport service; but, I used to spend it on khat in the afternoon. Sometimes I was left with empty pockets at the end of the day.”.

“After mirkanna, I drink alcohol with my friends, and get sexually aroused. Khat has no advantage at all, and it is also condemned spiritually. It contradicts our religious beliefs, and discourages people to go to church. It exposes people to evil spirits. I know khat would not do me any favours in the long term. I hope to quit it in the future. For the time being, I am chewing to pass time and for recreation”.

4.3.2. Tewodros Abate - He is 23 years old and has completed 10th grade. He is recently unemployed but used to work in his family business. He lost his job because of his khat addiction. He is worried about his future life and wonders why the government is not intervening. Here is his story in his own words.

“I started chewing khat when I was at 10th grade. No one pushed me to start it. I did it out of my free will. I remember my first day experience. It got me into a very different spirit. I was confused; but, I was kind of happy as well. I remained addicted from that day on. For me and some of my friends, mirkanna creates a feeling of fear. After chewing, I am not able to control my thoughts; I smoke cigarette, and drink alcohol. Khat is ‘akatari’ (something that leads to other addictions). It gives me energy to read for long periods but after two or three weeks I don’t recall half of what I read. Some people claim that they paint beautiful pictures under the influence of khat; but they are not able to do that when not consuming. They cannot even repeat what they have already done before. There is nothing good about it.”

“I used to work with my father. But, I used to switch off my mobile and skip work during the afternoons. Our clients and my colleagues were not able to reach me. My father became aware of my habit. He discussed with me, and asked me to chew khat at the working place but not to quit work because of it. I did as he told me, and continued to work effectively till 7pm in the evening.

From this experience, I have learnt that informing one's family about one's habit is very important. However, I started to hang out a lot with girls, drink and chew khat a lot. When I was not chewing, I broke things and complained a lot. After chewing, I started to drink alcohol to break the mirkanna; come late at 3am or 4am and disturb the family. Unfortunately, my family became tired of my disturbances and they had to let me go."

"I think of khat as something that destroys a generation. An addict cannot see the future, and plan something to change his life. He cannot think of getting married, and having his own family. He just continues to chew, and one day he may get married to a woman who is also in a similar condition. It is just an ugly life. I do not know why the government does not do something about it. There is not a single gym in our area but there are more than 40 or 50 khat selling shops, and they are selling khat for 10 to 20 birr. If khat was not widely available, it would not have spread like this. I do not think I will ever get out of this addiction."

4.3.3. Ashenafi Tariku – He is 26 years old and currently employed at a telecom company. However, he is not working full time and has a lot of leisure time at his disposal. He is at a loss on what to do with his time except chew khat. He complains that khat expenses have a huge financial burden on his income. He wishes he does not have any days off so that he is able to save some money. Here is his story.

"I do not remember the exact date that I started chewing khat. I learned it from my mother as a small child. I get depressed, and find it hard to maintain peaceful conversation with people when I am not chewing. I usually spend more than 200 birr for one session, and it is impossible to me not to chew khat when I am not working. But, I believe quitting khat is a better option. I once quitted for two years. Then, I lost my job and had nowhere to go. I started to spend a lot of my time at home. One day, my friends came home to chew khat. At first, I said to myself 'No, I will not chew khat; I will watch a movie' but found it hard to resist for long and I joined them. I have continued to chew ever since".

"I am now working at a private mobile manufacturing company and I have a lot of days off. My colleagues are happy with this arrangement; but, I hate days off because I spend a lot of money on khat on those days. I wish I do not have any days off at all. It surely has a big impact on income. But, it is not that khat has no advantages at all. I used to work as a laborer at a construction site.

We used to make two or three quintals of cement in the morning much to the dismay of our supervisors. However, after having lunch and chewing khat in the afternoon, we used to make 50 quintals of cement. This is the advantage. The problem is the addiction can also make you useless. I used to work in a garage and a friend of mine could not work if he does not have his fill early in the morning before 8 o'clock. Our boss also knew his problem and used to buy him khat to start his engine. Sometimes khat makes you lose your mind. I remember another friend of mine who refused to take a taxi and walked home for hours”.

“Out of respect for my seniors, I do not like to be seen chewing khat. It is not something that I am proud of. It is my wish that khat be banned and I do not want to have any days off as well. I understand it is very difficult to do; but, I wish khat could be completely eradicated. Even during shortages in the supply of khat, I have observed the sense of instability among chewers. However, the fact that it is abundantly available also encourages people to chew all the time. So, my stand on banning khat is half-hearted.”

4.3.4. Hassen Yafet - He is 30 years old and currently employed. He is trained in multiple technical skills. He divorced his wife because of his khat addiction. He quitted khat for six months with the intention of saving money. But, he said, it made little difference to his savings and he resorted back to his old habit. He claimed that khat makes him effective in his work and yet, he also said that the ‘advantages’ are just excuses that chewers give for themselves to remain in the habit. He believes khat should be chewed in a socially responsible manner. Here is his story.

“I am a Muslim. Khat chewing is a family tradition which is taken as a kind of network to communicate with God. I remember my first experience chewing khat. My mood swung back and forth. The night was long and seemed as if I would not see dawn again. I was depressed and anxious. But it felt good at times as well. Personally, I chew khat to pass the time. I have been trying to quit for the last ten years; but, I am still in it. I once quitted for six months with the hope of saving some money. But I could not save much money as I expected. I said to myself ‘Why should I trouble myself so much if I am not making enough savings? I was also hoping to improve my social relationships and my health. But, my main motive was a financial one.’”

“I was married once; but, my chewing habit became a major contesting issue with my wife. I told her that khat came to my life much before she did and I made her leave my house. I believe we

should be careful not to chew khat in front of kids in our homes. They learn these things from us. Students start to chew khat with the perception that it would help them to study; but, later on, it develops into addiction. We should take responsibility for the children around us and avoid chewing in their presence”.

“I have been working for more than 11 years. In my previous jobs, I used to work from 8:30 am to 5.0 pm. Three or four years ago, I started to chew khat in the morning. It made me late for work; but , but made me much more effective and enabled me to complete my work in half a day. People work faster after chewing khat. They become fast like Paul Tergat, the Kenyan runner. It is the feeling that comes afterwards which is difficult to handle but during mirkanna time, it is effective. When I was a student, I used to get better results when studying under the influence of khat, and experienced no memory loss. However, I do not consider these as advantages at all. We chewers think these are the advantages because we are in it and not able to get out of it. People can be effective without khat as well. Khat simply wastes our income and time”.

4.3.5. Ante Endalk – He is 24 years old and a 10th grade completer. He is a chronic khat chewer and currently unemployed. He reported that he got fired from many jobs he had due to his chewing habits. He seems to be confused as to what he makes of khat. He talks in length about the problems he faced due to his addiction but argues that the advantages of khat outweigh the disadvantages. He is not even sure whether or not he wants to quit using khat. Here is his story in his own words.

“I was introduced to khat chewing through my friends when I was in 9th grade. During chewing I become very relaxed and do not like to be disturbed. On average I spend about 50 birr a day. Previously I used to have a regular time when I chewed khat. However, I had no problem postponing the time to finish my job. But through time I found it harder and harder to postpone the time. Between 1 pm to 2 pm, I start to complain a lot and give excuses to get out of work. My days off became more than my working days. I was fired from my jobs because of this.”

“Khat has a big impact on one’s confidence and makes you lose your self-worth. If you socialize with people after chewing khat, you get the feeling that people are talking about you. Sometimes, you may not even have the confidence to socialize with others. I do not chew khat at my work place because some people may use that as a weakness and hurt me”

“I believe khat makes me more active and alert both physically and mentally. In my job I observed that I was more efficient after chewing khat and completed my assignment faster. It definitely had a positive impact on my efficiency and it was also true that I used to be absent from work or leave early to chew khat. Certainly I will quit using khat in the future. That is inevitable. But in my current situation, I think it is important for me to continue to use khat to pass the time because I do not have a job. In the meantime, I also wish to get rid of it right now. It is a mixed feeling”.

‘The disadvantages of khat are scientifically proven facts, and its impact on income is also known. But I believe the advantages outweigh the disadvantages. The first advantage is that it energizes people. The second advantage is that it creates the opportunity to socialize and have fun with friends and pass the time. If a non-chewer tells me that khat is harmful I do not listen to him because he simply does not know the feeling. Therefore, I think khat should not be banned’.

4.4 Summary of key informant interviews (The names of all key informants have been changed to protect anonymity)

4.4.1. Key informant interview with a psychiatrist- Dr. Nigussu Kebera, a psychiatrist, was the first key informant interviewed. He did his doctoral training at undergraduate level at Addis Ababa University; completed Mental Health specialization in psychiatry at University of Manchester in England, and his PHD in Sweden. He has more than 30 years of experience and he was Medical Director of Emmanuel Specialized Psychiatry Hospital for over 14 years. He now practices psychiatry at his private clinic called Tesfa (meaning hope). He shared with me his views on the social and psychological effects of khat. Here is the summary of his views.

- **Khat and its addiction** - In his clinical observations, khat is not addictive for most people and it is because of other psychological reasons that people struggle to quit khat. He claims that the main reason that drives people to chewing is the desire to ignore reality and live in a fantasy world. He cited a very interesting story of a woman he treated in a city called Jimma.

“I was once asked to see a lady who had surgery for intestinal obstruction, and the surgeon found out that a bolus of khat was the cause of the obstruction. She was advised not to use khat again but she was unable to do that. Then, the surgeon referred her to me.

In the interview, it came out that this lady was using khat to obscure the reality from her mind. This lady was a wealthy prostitute before and as she aged, the wealth started dwindling together with the men who were getting away from her. She sold her belongings and eventually, she started reducing consumption of all things that she used to enjoy in her good days, including food. She gets up in the morning and uses a cup of a brew of khat which blocks her appetite for the day. In the evening, she had to buy again and consume khat. She was not only subduing her hunger but she was also fantasizing that all the good cars passing by her door belonged to her. She made assumptions in her imagination that she would win the lottery in the future; she would employ people around her and bring back all her old friends who deserted her. This lady, through her chronic use of khat, was maintaining her fantasy and it was difficult for her to quit.”

He therefore advises people to get professional treatment if they are depressed and confront their problems instead of resorting to the use of khat.

- **Khat on mental health** - Dr. Nigussu believes that khat is an aggravating factor in mental problems but not a cause of mental problems by itself. He underlines the importance of having a robust study to clearly determine what exactly are the effects of khat. He condemns the current state of the categorical discrediting of khat without substantial evidence. He said:

“Khat has its own social values and at an individual level, it has a mood lifting value. The society can benefit if a brand of khat synthesized from khat is studied in a laboratory and a level of dosage is determined. The problem with khat is that people just use it randomly and there is no limit to the use of it as people are using it for self-treatment.”

- **How difficult is it to get rid of the addiction** – He said:

“It could be difficult; but it could also be easy. You could see that a lot of people stop the use of khat after 20 or 30 years of use. I had clients who left the country for good for different reasons and these people did not have problem of quitting khat. But there were also people who could not quit. I have not done any detailed structural studies of their brain but from their behavioral manifestations I could see that chronic use of khat probably results in stigma /disorder. In addition, some parts of their brain get damaged

or the functions of particular areas in the mid brain get altered as happens also with alcohol users. This could be one of the reasons for the difficulty to get rid of the habit. The other reason, as I said earlier, is that many people use khat for self-treatment and if those people do not get their usual dosage of khat they go back to whatever emotional problems they were in. So, in a way khat is being used to blunt their awareness about their reality. Somebody, instead of admitting to himself and saying that “I think I am depressed and I have to do something about it” and consult with an appropriate professional and get appropriate treatment, may instead resort to khat. The khat removes that reality which is the emotional problem for the time being and says to himself, I am ok. He has to continue to use khat on a regular basis to feel ok.’’

- **Khat effects on the self-worth and motivation** - Dr. Nigussu believes that chronic users of alcohol and khat deteriorate functionally: physically, socially, emotionally and intellectually. He said that this is clearly observable and claimed that he has found out many people who drift into demotivation or apathy are chronic users.
- **On khat and its ‘utilitarian uses’** – Dr. Nigussu said *“In places like Harar and Gurage, farmers use it traditionally for two purposes; to energize themselves, and to suppress appetite. The second one could be dangerous as they may succumb to malnutrition and related consequences. These farmers use it wisely in a very small amount to do their farming. They do not combine it with all sorts of other substances like alcohol and cigarettes. So, it is true that it energizes them but they use it wisely in a very small amount. We are sure that khat is not very narcotic like amphetamine and heroine. But indiscriminate use is damaging society starting from mouth hygiene to liver problems. If proper studies are done people could invest and produce something useful and we could use it in the same way we use coffee, tea, or other different herbs to stimulate ourselves’’.*
- **On the control of production and use of khat** - Dr. Nigussu believes that it is better to advise people to avoid chronic and continuous use of khat especially combined with other addictive substances. It is better to develop ways to use khat for positive purposes just like some useful drugs have been developed from coca leaves in other countries.

4.4.2. Key informant interview with social workers

Social workers that work at St Paul Addictive substances Rehabilitation Center, Kidist Kidane; Nigist Bereket, and Fikre Gossaye were among the key informants interviewed. Their jobs are to assist the alcohol, khat and hard drug addicts admitted to the rehabilitation center to overcome their addiction and reunite with the community. They shared their views on the social and psychological effects of khat with the researcher and here is a summary of their views.

- **On ‘addiction’ of khat** - In their opinion addiction starts with casual use and develops into addiction at a later stage and therefore even casual use of khat should be discouraged. The worst part of khat addiction, they said, is that it leads to other addictions (cigarettes, alcohol and even hard drugs). The withdrawal symptoms of khat are easy compared to other addictions. However, even khat chewers have to be admitted to the rehabilitation center to isolate them from a khat chewing environment and the influence of their peers. Fikre Gossaye said that he was a khat addict himself and in his personal experience changing his environment (friends, residence place) and his personal commitment were the key factors to get rid of his addiction. He said “*Khat chewers do not realize that they are addicted because they are always with their peers and they think that they are just having a good time. I was able to overcome the addiction because I was determined to quit and change my environment as well.*”
- **On the effect of khat use on primary relationships and families, self-worth and motivation** - In their observation, khat addicts have low self-esteem. They do not take care of their personal hygiene and they would rather spend their income on khat rather than eat food. They are very distant in their relationship with their family especially with the elder members. However, they have a strong bondage with their peers (khat chewers). They usually have regular chewing time (normally in the afternoon), they have no interest to work or communicate with others during these hours and after chewing they even become more distant.
- **Khat and its influence on creativity and motivation** – Kidist Kidane said when she was a college student her male friends used to chew khat to stay awake and study for longer hours during exam times. However, they usually go to sleep before her. She believes khat makes a person active for some time but then the body adapts to it and it makes little or no

difference at all. Nigist Bereket also believes khat firstly makes a person energetic and once that feeling subsides the person crashes into depression. Fikre Gossaye, an ex-addict, has a different opinion. He believes khat stimulates the brain to work with full energy and to use its potential. However, with regards to its influence on creativity all three of them agree that it is an illusion to think that khat makes a person creative and there is no evidence to prove it.

- **On the control of the production and use of khat** - All the three social workers believe that khat should be banned because it is ‘*wasting the young generation*’ and they do not comprehend why the government is not taking any measures. They believe the government is not taking any measure due for political reasons. “*An addicted generation does not question/challenge the political power*”. Nigist Bereket also said shisha and hashish are also illegally being sold at khat selling shops and chewing dens and they are spreading. “*Khat chewing has now become a fashion and a kind of lifestyle for the youth. To have productive citizens, khat should be banned*” These were her last words.

4.4.3. Key informant interview with Human Resource Managers

Two experienced Human Resource Managers, Haile Abdi and Lissanu Zelalem, working at private companies called Finfine Office and House Furniture Production p.l.c. and Altrade International Business p.l.c. respectively (with more than 150 employees each) were interviewed about khat and its influence on their staff with regards to productivity, time management, working relationships with other non-chewing colleagues and customer handling. Both managers gave very similar opinions and their responses are summarized as follows.

- **Any difference observed in efficiency between chewers and non-chewer employees –**
The managers commented that chewers are very active after they chew khat but once the effect of khat subsides they become dormant. They start to complain and dispute with others. No team work is possible and they look for excuses to stop the work. Non-chewers are more committed, and consistent in their efficiency. There is a perception among the public that khat energizes workers to work faster. However, to remain active they should be chewing throughout the working hours. If khat is not available for one reason or another, they become inactive.

- **Any differences observed in time management between chewer and non-chewer employees** - Mismanagement of time is the most common problem among chewers. They want to leave their job early for lunch at 11.0 am (the regular lunch time is 12.00) to chew khat and they also return back late from lunch. They are also anxious to leave home early. Without any notice they disappear from work during working hours (especially in the afternoon). They also get sick more often. Considerable productive time and money is lost just to take care of their health.

- **Working relationship of chewers with other colleagues** - Chewers prefer to socialize with their peer group/other chewers. They are very eager to go out after 11.0 am to have lunch and chew. They complain a lot and are nervous during these hours. An addict needs to be financially strong to satisfy his/her addiction and our employees are not able to do that because they are salaried staff. Because of this they fall into unlawful means to obtain additional income which leads to conflicts with the management and other staff. For instance, they steal fuel from the machines to get extra money to buy khat. Therefore, their relationship is not smooth and they are very distant. Due to the loopholes in their performances, they are reluctant to demand their rights.

- **With regard to customer handling** – The managers commented that they tend to be impatient and they make sure that they are not assigned to jobs which have a direct contact with customers. They can be happy and friendly when they are chewing. But when they are not chewing they tend to be distant and even give wrong information to get rid of a customer. They are usually assigned to jobs at the production sites to minimize the possibility of direct contact with customers.

- **Any positive influence of khat observed** - Both managers said that they do not see any positive side to khat.

- **On measures to control khat** – The managers believe that it is vital to stop the cultivation of khat in the long run. But it should be done step by step. The government should first target khat producing farmers. Khat is a fast growing plant and replacing khat with other

equally viable crops (to encourage farmers to abandon khat) should be the priority. Awareness creation should also be given to farmers on its socio-economic harm. In addition to these, different restrictive measures should be taken to control the use of khat such as closing khat chewing dens in the cities, banning khat sale near to schools and levying heavy taxes on khat. At the end of the interview Hailu Abdi said that he is aware of the complexities in controlling the use of khat and asked one intriguing question. *“Do we allow the cultivation of cocaine just because it generates huge income to the economy? If not, why should it be different for khat?”*

The next chapter is Chapter 5: Discussion, Conclusions and Recommendations. This chapter starts with a discussion and analysis of the findings and highlights three main categories: Firstly, discussion on khat’s use and its psychological and social effects is presented. Secondly, khat’s use and its effects on the income, time and productivity on the chewers is discussed. Thirdly measures that could be taken to control the production, marketing and consumption of khat are discussed. . Based on a discussion of the findings, conclusions are drawn for each category and finally, eight regulatory measures are recommended to reduce the potential negative identified impacts.

CHAPTER 5: Discussion, Conclusions and Recommendations

5.1 Analysis of findings

In the previous chapter, the summary of statistical results, focus group discussions and story narrations were presented. In this chapter, the analysis of the findings is presented divided three main categories. The first discussion is on khat's use and its psychological and social effects and the second discussion is on khat's use and its effects on income; time and productivity of the chewer. The third and final part discusses whether measures that should be taken to control the production; marketing, and consumption of khat.

5.1.1. Khat's use and its psychological and social effects

Khat is a natural stimulant plant. Whether it is addictive or not has been a contentious issue and this aspect of khat was assessed by this study. Dr Nigussu Kebere, a noted psychiatrist, believes that khat is not addictive for most people and it is because of psychological reasons that people struggle to quit khat. He claims that the main reason khat users chew is the desire to ignore reality and live in a fantasy. He cited examples of his patients who had been chewing for decades but stopped khat without much of a problem. During the focus group discussions common psychological effects reported by the chewers were fantasy, daydreaming and an unrealistic sense of achievement, which are all consistent with the view of the psychiatrist. One study confirms that consumption of khat seems to connect the present to the future by taking the youth to their imaginary world and providing some relief from symptoms of depression and anxiety (Mains et al 2013: 123). Use of khat for recreation and to pass time was reported by 57% of the quantitative samples. All the findings as to the reasons why people chew suggest that people chew khat for psychological reasons rather than to increase efficiency or other utilitarian purposes. However, on the question of whether khat is addictive or not the respondents had a different opinion from Dr.

Nigussu. The vast majority, 93 % of the 84 quantitative samples believe khat creates addiction. Almost two third of the samples /62% / believe they are personally addicted and suffer from psychological problems like depression, anxiety, paranoia, nightmares and exhaustion when not consuming. According to them khat is not only addictive by itself but also a facilitator for other addictions. Some use non-harmful substances like water, peanuts, soft drinks, or milk but most use harmful substances like cigarettes, alcohol, and hard drugs during or after chewing sessions. An important finding is that they reported that they only started to use these habit forming substances after they began chewing khat: smoking cigarettes (77%); drinking alcohol (69%) and hard drugs (67%). The FGD participants used the Amharic term “Akatarī” to describe khat, which means something that exposes a person to other consequences. In a study conducted on 400 staff at Jimma University in Ethiopia, smoking and alcohol intake was also reported to have a significant association with the habit of chewing (Gelaw et al 2004:1)

How do people become vulnerable to khat? According to the key informant social workers interviewed any addiction starts with casual use and it becomes very difficult to get release from it. They gave examples of students who start to chew khat for studying (out of curiosity or adventure) but slowly reach a phase when they can no longer study without it. Another study showed a general slowing down and less efficient resolution of response conflicts in khat users everyday lives (Colzato et al 2012: 1).

Age increases vulnerability to substance use. 50% of the quantitative sample reported that they started chewing when they were under the age of 18 yrs and 45% of them when they were between the ages of 18-25 years. A UNDOC study (www.undoc.org) also showed that drug abuse occurs most frequently among young people in the 15-35 age group, with a particular concentration in the 18-25 age group. These are people who have entered or who are about to enter the work force. In developing countries like Ethiopia unemployment rates are very high and getting a job is quite a challenge. The consumption of substances further limits the chances of entering or remaining in the workforce. It also results in frustration caused by a failure to find employment and may lead to drug consumption, thus creating a vicious circle.

Peer influence is another factor for vulnerability. 84 % of the samples said that it is through their friends that they started using khat. The existing literature also confirms that peer pressure plays a

vital role. According to a UNDOC study (www.undoc), although families have a powerful influence on shaping the attitudes, values and behavioral patterns of children and thus preventing substance abuse, peer groups often prove to have an even stronger influence.

During the FGDs and life stories, many respondents narrated stories about how khat has adversely affected their family and social relationships. It was reported as the main reason for the breakup of marriages and romantic relationships. The chewers were hurt and regretted it but were not able to stop khat to save their relationship. It became a source of conflict with family members to the extent that they were expelled from family businesses by their own parents and their relationships were broken beyond repair. Some had repeatedly lost their jobs and have since become jobless and yet they still want to chew. Others missed classes to chew khat and eventually discontinued their education. It has also become an obstacle to practice their faith. According to world Atlas studies (www.worldatlas), Ethiopia is one of the seven most religious countries in the world, where 99% of its population identify themselves as religious, which shows the significance of religion in the lives of the people. Some chewers have reported that chewing khat is prohibited in their faith and much to their disappointment and sense of despair it has alienated them from their faith. As one participant commented, their lives have become ugly and lack a sense of purpose. One research project was conducted on 450 people with academic qualifications of either a BSc, MSc or PhD. Out of those who claimed to have completely stopped chewing, 50% said that they had lost interest, 33% referred to religious reasons and 17% gave health and financial reasons for stopping. The prevalence rate was as high as 34% (Dessie 2013:15).

On the other hand some respondents expressed the opinion that khat creates peace and a strong bond among people and relieves them from depression. Although social facilitation is described as one of the positive impacts of khat the same respondents said that the next day they do not remember what they discussed under the influence of khat. Khat is consumed for social pleasure by taking alcohol to 'break' the euphoric after effects, while in rural settings it is very traditional and a means to develop social interaction and is consumed with milk and soup, not alcohol (Anderson et al 2007:65). Some studies have also shown that social facilitation is only temporary and only lasts until the chewers in the group get high becoming self-absorbed. Thus they argue khat actually curtails social life (Pantelis et al, 1989: 657 Kennedy 1987 in Admassie 2017). The

negative impacts of khat have come out much more strongly in the discussions and story narrations and a sense of desperation was observed among the respondents on how to deal with it.

The effect of khat on sexual behavior was one of the questions asked, as sexual behavior affects social relationships and the health of the individual. While 33% of the 84 respondents replied that the consumption of khat increases their sexual desire a larger number of respondents i.e. 50% of the total believe it exposes them to unprotected sex. They reasoned that the use of alcohol (60%) and hard drugs after chewing khat leads to a lack of self-control and exposure to unprotected sex. Some studies also confirm the high prevalence of HIV among khat chewers, which is associated with indulging in risky sexual behavior linked with the influence of alcohol (Kebede et al 2005:2). The exposure to unprotected sex is the indirect effect of khat. However, khat by itself is mainly seen by scholars as a cause for male impotence which leads to the break-up of marriages (Admassie 2017: 67-68). In one study (Admassie 2017:25) conducted in Assossa, a town in the western part of Ethiopia it was shown that ex-addicts, wives, and sex workers reported a very low concern for sex and an inability of men to perform if they chew khat. The men said that even when they desired sex, they suffered from erectile dysfunction. A study in Somalia also related a low dose intake with stimulant effects on sexual behavior and enhancement in about 20% of the population and impotence effects with high doses in 65% of the chewers (Alem 2005: 117)

Khat is also observed to have a significant impact on the self-worth of chewers. Kidist Kidane, a social worker, commented that chewers do not care about their personal hygiene because they spend their money on satisfying the addiction and most of the FGD participants also said that satisfying their addiction is their first priority. A chronic user of alcohol and khat deteriorates '*functionally, physically, socially, emotionally and intellectually*' and many people who drift into demotivation or apathy are chronic users, according to Dr Nigussu Kebere. Guilty feeling was reported by 57% of the quantitative samples and 81% want to quit khat in the future. It is obvious that sense of guilt is a negative feeling and it would have its own bearing on the self-worth of individuals. A feeling of guilt is a negative one and it is clear that it has its own adverse impact on the self-worth of individuals. In my physical observations as the researcher I also noticed that the personal hygiene and appearance of the discussants was quite low. However, contrary to these assessments, 66 respondents (79%) of the quantitative sample said that they have never faced any stigma due to their khat chewing habit. This was one of the most surprising findings. Out of the

fourteen FGD participants, eleven of them said they do not mind if their addiction is known by others, which is also consistent with the findings of the quantitative data. Khat chewing used to be a taboo and the findings show how the society has become tolerant towards khat use. In the words of Nigist Bereket, a social worker “*Khat chewing has now become a fashion and a kind of lifestyle for the youth.*”

The perception of chewers on the importance of khat in their lives was another element assessed. 55% of the 84 quantitative sample replied that they rate the influence of khat in their lives as very high; 81% perceive khat as a problem that they want to get rid of and 69% expressed their desire to quit khat in the future, citing its adverse effect on their health, time, social relationships and income. The above three findings show the negative perceptions of khat and how their daily life decisions are highly affected by khat use. According to the psychiatrist and social worker informants, for those who want to quit chewing it is easier to get over this addiction compared to other addictions (alcohol, cigarettes and hard drugs). Personal commitment and change of environment are identified as the key factors to successfully stop khat use.

5.1.2. Khat use and its effects on income, use of time and the productivity of chewers

The significant influence of khat on income has emerged as the most evident finding of all. In the quantitative study their monthly income, amount of money spent in a single khat chewing session, frequency of chewing and other indirectly related factors were assessed. The monthly income of most of the respondents was found to be in the lower bracket (71% earn less than 3000 birr/month) and 65% of the respondents spend more than 50 birr/session on khat. The frequency of chewing was found to be very high, as 40% of the respondents reported that they chewed once a day and 32% chewed 2-3 times a week. Although it is not possible to calculate the average amount of money spent on khat versus income from the above data, one can see that a considerable share of their income is spent on the purchase of khat. The burden on income is also clearly demonstrated in other collected data. Sixty respondents (71%) of the respondents reported that they have faced a shortage of money to buy khat in the past and 85% of the respondents said that they either had to borrow money, buy on credit or sell their property to satisfy their addiction. There were also reports of cheating and begging from acquaintances for money. The financial pressure seems to be so significant that 3 % of the chewers identified it as their second main reason to quit khat (the first

reason identified by chewers (38%) is waste of productive time). Many studies have not been conducted in this area in Ethiopia but one study has found that 57.6% of the sample taken in Addis Ababa earn less than 300 birr/month (US\$1.16 a day at the time of writing) and spend up to 75% of their income on khat (Anderson et al 2007: 71). Admassie (2017: 19) also narrates stories of khat addicts in Assossa, where they consume khat on borrowed money that is followed by an uphill struggle to settle debts, thereby ruining their household economy and shaming their family.

During the focus group discussions and narration of their life stories, all except one participant agreed on the severe negative impact of khat on their income. A number of factors were attributed to it. At first, in Addis Ababa, one good bundle of khat costs 50 birr on average. It is quite expensive for a consumer with an average income and the price is inflating every year due to the growing demand. Secondly, chewers use other attendant substances during or after chewing and most use expensive and harmful substances like cigarettes, alcohol and hard drugs. The use of alcohol is especially widespread and costs more than the cost of khat itself. Thirdly, most users chew khat in groups. On occasions when members of the group do not have money their expenses are covered by others. It is like an unwritten rule of the peer groups which binds them together but adds to the financial burden at an individual level and which falls heavily on people in the group with higher incomes. In Djibouti, it is estimated that one-third of all wages are spent on khat, compromising other vital needs of the family (Kalix & Khan 1984 in Lamina 2010:3). In Somaliland, financial pressure is found to be the reason for family break-downs in 90% of divorce cases (Sovoredo 2002 in Anderson 2007: 77). In 1983, it was estimated that fathers in Hargessa (Somalia) spend half of their income on khat (Kebede et al 2005:23).

As in the case of income, there is also a consensus among chewers and informants about the adverse effect of khat on time. The following indicators were used: time spend at a khat chewing session; the most common time to chew khat; its influence on work habits; its influence on family time and the social responsibilities of the chewers. 83% of the total respondents reported that they chew khat in the afternoon and 73% of respondents said they spend more than 2 hours per session. This is quite a significant time, especially taking into account that most of them chew in the afternoon.

One study showed the widespread consumption of khat across a country. In this particular study it is estimated that 297 khat sessions take place every year in Ethiopia (Dessie 2013:12). In Yemen it is estimated that in 1973 over 4 billion hours of work a year were lost as a result of khat chewing (Halback 1972, 1979, Elmi 1983b; Giannini et al. 1986 & Kalix 1987 in Degefa 2005: 97). High rates of poor working habits have also been reported i.e. absenteeism from work (57%), lateness (48%) and leaving their jobs early (52%). The chewers themselves also sense that their time is being wasted by chewing khat as 38 % of the respondents in my research study identified waste of their productive time as the main reason to stop chewing khat. A study conducted on 400 staff at Jimma University in Ethiopia gave very similar results: 50.4% of chewers missed their regular work more times than non-chewers and 54.5% used to come late to work or left work early because of chewing (Gelaw et al 2004:1) Khat use encourages laziness and absenteeism and the after effects of its use adversely affect productivity (Halback 1972, 1979, Elmi 1983b; Giannini et al. 1986 & Kalix 1987 in Degefa 2005: 97). Family time and other social responsibilities were sacrificed by 69% of the respondents for the sake of chewing khat. In a study conducted in the Somali community, 58% of the sample responded that it perpetuates unemployment and 50% responded it affected them in neglecting their social roles and responsibilities (Omar et al 2015:3). The findings on the effect of time were all damaging and can be well summarized by one of the discussants, Ante Endalk, who said *“It is only if we use our time efficiently that we are able to generate income. We are required to work a full day but most of us chew khat after 1.0 pm. We are giving priority to khat, not to our work and income”*.

Different views were reflected in relation to khat’s effect on productivity. When asked whether khat chewing helped them to be more effective and productive in their jobs and activities, out of the 84 respondents, 42 respondents (50%) responded ‘Yes’, 34 respondents (40%) responded ‘No’ and 8 respondents (10%) answered that they do not know. Those that responded ‘Yes’ said that it helped them to be more focused, active, energetic, and imaginative. Mirkanna lasts more than 1 hour for 69% of the respondents and most of them reported multiple positive feelings during the mirkanna such as alertness (57%), higher concentration (36%), sense of happiness and elation (57%) and sociability (7%). In the FGDs, three chewers claimed that they are able to finish their tasks much faster when they work under the influence of khat. In one study, khat farmers testified that they are more efficient than cereal farmers because of khat (Lemessa 2004:4) and (Mulatu & Kassa 2001 in Gebissa 2008: 790) and Beckerleg (2008: 754-759) also pointed out that the cathine

and cathinole (nutrients found in khat) are factors for stimulating the body. On the contrary, 40% of the quantitative sample reported exactly opposite feelings of being less active, weak and disillusioned. During the FGD the majority (11 respondents) reported negative feelings. They said that they lose their confidence and interest in work when they are under the influence of khat and breaking their mirkanna is the only thing that interests them at the time. One of the chewers, Mequanint Aleme, a 22 year old unemployed man said “*Once I start to chew khat, I will be fully occupied by it. I do not believe the perception that it rejuvenates people. What I observed in myself is the opposite. It kills the spirit. Working is the last thing I want to do.*” Some also reported that they have lost their jobs because of absenteeism from work. It is noted that, unlike the other variables, different statistical results were found with regard to the issue of productivity. While 42 respondents (50 %) of the statistical sample reported that khat increases their productivity, only 3 respondents (21%) of the FGD reported the same.

The opinion of the key informants and the available literature are more in favour of the latter. The key informants believe the effects of khat are very temporary. Lissannu Zelalem, a human resource manager, believes once the effects of khat subside users become dormant. They get sick more often and a lot of productive time and money is spent just to take care of them. Nigist Bereket, a social worker, believes the perception that khat makes a person creative is an illusion. She said khat makes a person hyper active for some time and once that feeling subsides the person crashes into depression. Haile Abdi, a human resource manager, commented that khat users usually get into conflicts with other staff in the afternoon (the most common time for chewing) because they are eager to go out. They complain over minor things and become nervous. He also said that in order to protect the good image of the organization chewers are not assigned to positions where they come into direct contact with customers. He also identified misuse of time and not being able to complete assigned tasks on time as the most common characteristics of chewers.

In the FGDs, some discussants suggested that it is a matter of perception. Hassen Yafet commented: “*We assume khat has an advantage because we are in it. If you are addicted, it lifts your mood to work. That is the advantage that we assume but it does not matter for those who are not in it. It simply wastes our income and time.*” Some literature confirms that khat helps chewers to tolerate pain and tiredness and enables them to exert themselves at work beyond the natural threshold of their body, but it comes with a price. “*The use of khat for overlong period of time*

leads to the overstraining of their systems and premature aging referred to as early burning out (Admissive 2017:80). It is also worth noting that 32% of the total respondents associate their physical or mental illness with their use of khat. Several studies also confirm the health effects associated with chronic use including hypertension, heart rhythm disorders, insomnia and loss of appetite (Penning's et al. 2008 in Dessie 2013:4-5), a general slowing and less efficient resolution of response conflicts, which is likely to impair decision making in everyday life (Colzato et al 2012: 1) and carcinogenicity (Alem 2005:117).

In short, all the collected data showed that a considerable amount of income and time is spent on khat and it is significantly and adversely affecting chewers' lives. The impact is so strong that some resorted to borrowing, credit purchases and even cheating to satisfy their addiction. Khat seems often to have taken priority over other needs. Long chewing hours and chewing during working hours showed the unproductive use of time which also adversely affected their income and productivity. However, mixed responses were given on its effects on productivity. The mood lifting and energizing effects of khat were mentioned as the positive effects that resulted in better performances in work while loss of working hours in chewing khat and its demotivation effects were the negative influences of khat.

What does all this mean in life experiences? Let's see the story of the Abel Belete. He was 21 years old at the time of the study and a college drop out. He left his college education because he bought khat with the money he saved for college. His khat expenses are 100 birr per day which is quite high. He sometimes spends all his daily income and goes home empty pocketed. He is now unemployed. His social life has also been affected. He has lost the love of his life and very much regrets it. He wants to get his girlfriend back but finds it hard to quit khat. He quarrels with people when he is not chewing. He is ashamed of his habit which made him distant to his family. He has now started to use alcohol too and he gets sexually aroused. From this story, it is not difficult to see the hardship of his life. He does not seem to have anything left. He has lost money, a job and a girlfriend. He is not in college. He has distanced himself from his family which could lead him into depression and his newly adopted habit (alcohol) could also lead to uncontrolled sex and HIV infection. He is currently unemployed and does not seem to have any plan to get out of this situation as he has no determination to quit now. His story can be taken as an example of how khat could be quite a challenge. His life seems to lack direction and he needs medical support.

5.1.3 Should khat be controlled?

Should there be law enforcement to curb the consumption and production of khat? More than two-thirds i.e 58 respondents (69%) of the quantitative samples believe so. Out of the 58 people, 19 (33%) of them believe it should be totally banned while the remaining 39 (67%) sample recommend use of other measures which are less drastic. The strong stand of most of the respondents on khat is consistent with their perception of khat as addictive (93%) and a problem that they want to get rid of (81%). Tewodros Abate is one of the chewers who favour a total ban on khat. He wonders why the government does not do something about it. He said *“There is no gym in our area but there are more than 40 or 50 khat selling shops. One can chew with 10 birr or 20 birr and if khat was not easily accessible it would not have spread like this.”* Nigist Bereket, a social worker, says khat selling and chewing dens are spread everywhere, where they also secretly sell shisha and hashish. Other crops are being replaced by khat and the price of the cereal crops has escalated which makes the purchase of basic foodstuffs difficult for the poor. She emphasized that the damage is not limited to the chewers alone but it is felt by their families and the society at large. In her view, khat should be banned in order to have productive citizens. All of the three social workers interviewed for this study recommended a total banning of the plant. One of the HR managers, Ato Haile Abdi, also said he understands the challenges involved in totally banning khat but asks *“Do we allow the production of cocaine just because it generates huge income for the country? If not, why should it be different for khat?”*

Most of the FGD participants did not agree with the recommendation for a total ban. The reasons given on why there should not be a total ban were: the issue of foreign currency that the country generates through exports; the huge job opportunities created in the value chain; the risk of social unrest; the high tax revenue it generates; the issue of individual rights. Two of the FGD participants said that the youth would benefit a lot if khat is banned, but they question its relevance by asking *“If khat is banned, what other recreational opportunities are available for the youth to spend their leisure time?”*

Dr. Nigussu Kebere, a psychiatrist, had a totally different view of the situation. He argued that a robust study is needed to clearly determine the exact effects of khat before taking any restrictive

measures. He said he finds it difficult to agree with the categorical discrediting of khat and believes khat can be of benefit to the society if it is used in a modest way and without mixing it with all sorts of alcohol and different forms of habit forming substances that the young use. He added that khat has some social and mood lifting value at an individual level and there is a possibility that a brand of synthesized khat from the organic substance could be studied in a laboratory and a level of dosage could be developed.

In general, the findings showed that the majority of the quantitative sample favored the implementation of some sort of legal mechanisms to control the production, marketing and use of khat. A majority of the FGD participants and the key informants with the exception of Dr. Nigussu also shared the same view. However, differences were observed among them on the degree of control, how it should be controlled and the availability of other recreational opportunities for the youth who are currently using khat as a means of recreation.

5.2 Conclusion

Khat is deeply rooted in sociocultural traditions and used to be practiced widely in the eastern part of the country by a limited segment of the population in a well-defined and stable social setting for social facilitation and religious purposes. In recent decades the use of khat has spread to all parts of the country at an alarming rate but in the process its use and purpose has lost its traditional value. Khat is being abused as it is chewed everywhere by all categories of the population without any control whatsoever and out of its cultural context. Addis Ababa is one of these cities seriously affected by khat. Khat chewing used to be a taboo for Addis Ababa residents but it is no longer the case and it is widely available in the market without any restrictions. Consumption is growing fast and has been adopted as a habit to pass time by the unemployed. The high rate of unemployment among the city youth is contributing to this increasing demand. Thus, concerns are raised on a number of grounds: the addiction of the young population; its effects on family and social cohesion; the diversion of financial resources to purchase khat; working hours wasted on chewing khat; and finally its effects on the psychological wellbeing of chewers physical health and productivity. It was to find answers to these concerns that this study was conducted and based on the findings the following conclusions are drawn.

Reflections on the findings presented in the previous section lead to the following synthesis of ideas and conclusions, discussed under three categories. The first section discusses the psychological and social effects, the second section discusses the income, time and productivity effects and the third section discusses the measures required to control the use of khat. This is followed in a final section by specific recommendations.

5.2.1. Khat's use and its psychological and social effects - The findings have shown that khat use starts with casual use at a younger age and peer influence plays a significant role as 84% of the respondents reported that they started to use khat through the influence of their peers. Casual use develops into addiction that leads to a number of psychological problems, that leads to social conflicts, poor performances in work and poor personal and family responsibilities. Dr. Mesfgen Areaya, President of the Ethiopian Psychiatrists Association announced during its national assembly held in Addis Abba between November 21 to 23/2018 that about 27% of the Ethiopian population suffer from mental problems and most suffer from depression caused mainly by the use of habit forming substances, including khat. The report showed that mental health is a major health issue in Ethiopia and use of khat contributes to that. Khat can also be a catalyst to more dangerous addictions like alcohol, cigarettes and hard drugs. It is this particular characteristic of khat that makes its adverse effect more profound. The only positive point that came out of the findings is that khat's addiction is relatively easier compared to addictions to alcohol, cigarettes and hard drugs. However, as with any other addictions, it requires the strong personal will of the chewer and change of environment to stop.

Khat also has a profound impact on social relationships in a number of ways. Firstly, in most cases, it seems to have a negative influence on the self-esteem of the chewer. Avoiding socializing with non-chewers, poor personal hygiene and low confidence are some of the characteristics that demonstrate this low esteem. Loss of trust by others also hurts their self-worth and makes it hard to establish good relationships with non-chewers. Secondly, it is becoming a factor for the distorting of family relationships. For a chronic user, khat is the first priority and it affects the family financially as less and less income is available for family needs. Nutrition and educational needs of the children are compromised. It affects family cohesion as less time is available for family time with adverse effects on the upbringing of children. Characteristics exhibited by the chewers such as drinking alcohol after mirkanna, complaining and cheating are also sources of

conflict with family members. It sometimes led to divorces and break-up of intimacy relationships. Family businesses are hurt and family relations are broken with serious emotional and economic consequences. Thirdly, it contributes its part for a failure in social responsibilities. Repeated reports of loss of jobs, discontinuation of educational endeavors and indifference to social engagements can be mentioned as examples of these social failures. Fourthly, it has an adverse effect on the health of the chewer and other family members. Many studies have shown that alcohol leads to unprotected sex and infection to HIV/AIDS. Use of alcohol after consuming khat ‘to break the mirkanna’ is found to be quite common in Addis Ababa which considerably increases vulnerability to HIV and sexually transmitted diseases. Fifthly, dependency on substance use, especially khat, is growing among the younger generation and reports show that they seem to depend too much on khat for pleasure, which is not healthy for their psychological wellbeing.

From the above discussion on khat’s use and its effects on psychological and social relationships, the following four conclusions are drawn.

1. 95% of the chewers reported starting to use khat under the age of 18 years and between the ages of 18-25 years and any intervention that aims to curb the spread of khat should target these age groups.
2. Chronic use of khat is detrimental to mental health and leads to other serious health consequences.
3. Khat plays a vital role in distorting social relationships in a number of ways and considerably inhibits the ability of the chewer to execute his/her social responsibilities.
4. Chronic use of khat hurts the self-esteem of the chewers in the long run and creates an imaginary world for them to hide themselves from life hardships.

5.2.2. Khat’s use and its effects on income, time and productivity

Income - In the quantitative survey, most of the respondents reported that they had a lower income and significant proportion of that income is spent on khat. In fact most (71%) resorted to borrowing, credit purchases or selling their properties to satisfy their addiction. The narrations of

their life stories and FGD reports have also shown the significance of the impact. One crucial issue on income is price elasticity. Price elasticity provides information on the extent to which a change in the price of a commodity can be expected to affect demand for it. The question then is whether consumption of khat decreases in response to rising prices and the answer is no. Despite increasing prices, the demand has continued to rise, putting more pressure on household income. A significant proportion of the Ethiopian population lives below the poverty line and the country aims to meet the Sustainable Development Goals (SDGs) by 2030, by ending poverty and ensuring prosperity for all. Sustainable Development Goal 3 says “Ensure healthy lives and promote well-being for all at all ages” and healthy lives cannot be ensured by spending a significant portion of time and income on substance use. *“Irrespective of the current level of development, societies will find it difficult to advance if they have to rely on a work force that is impaired by large scale drug abuse”* UNDOC (www.undoc). Wastage of these resources on unproductive uses harms the welfare of the society at household and national level and makes the realization of the sustainability development goals more difficult. Studies also confirm that khat leads to the *“diversion of resources to unproductive expenses that could have been used for more productive purposes like education, nutrition and other family needs”* (Dhaifalah et al 2004:14).

Time - The quantitative survey also showed that chewers do not use their time in the most efficient manner as indicated in the considerable amount of time spent in one chewing session. In addition many chewers have poor working habits (absenteeism from work, lateness and leaving early) and there is a misuse of productive time (most prefer to chew in the afternoon during active working hours). The narrations of their life stories and FGD reports have also shown similar results. The literature also confirms the considerable waste of productive time on chewing khat at a personal and national level Dessie (2013:12).

Productivity - The findings of this study on productivity are very informative to understand khat’s ‘positive’ and ‘negative’ influences but they are not conclusive. On the one hand some chewers claimed that khat makes them more efficient and motivates them to work and on the other hand others claimed that it kills their spirit and makes them less confidence and passive. The available literature on productivity is also not conclusive. Beckerleg (2008: 754-759) argues that cathine and cathinole (nutrients found in khat) induce temporary euphoria, enhance wakefulness, suppress hunger and increase physical energy and concentration while other scholars contest that khat use

encourages laziness and absenteeism and the after effects of its use adversely affect productivity (Halback 1972, 1979, Elmi 1983b; Giannini et al. 1986, Kalix 1987 in Degefa 2005: 97).

Income, time and productivity efficiency are interrelated factors and two models can be used to explain their relationships.

1. Time \longrightarrow Productivity \longrightarrow Income - Efficient time management enhances productivity which in turn increases income and vice-versa
2. Productivity \longrightarrow Time \longrightarrow Income - Higher productivity results in more efficient use of time and hence higher income generated in lesser time and vice-versa.

In the first model, time is the first causal factor. Efficient time management leads to higher productivity and income. The findings have shown that inefficient use of time is quite prevalent among chewers which reduces productivity. Due to low productivity, they are forced to leave their jobs and their income as reported in the FGDs. In the second model, productivity is the first causal factor. Mixed results are reported. Those that reported that khat makes them more energetic will have higher productivity in a shorter period of time and a higher income, while those that reported demotivation and numbness will have lower productivity and lower income. In both models, income is a dependent variable. Time and productivity are relevant to the study because they affect the income of the chewer. The next question that follows is what the chewer does with the income.

From the above discussions on khat's effects on income, time and efficiency, three conclusions are drawn.

1. Khat has significant adverse impact on the income of the chewers as a significant part of their income is spent on the purchase of khat and attendant substances. Diversion of financial resources is widely practiced which hurts the welfare of the family.
2. Khat sessions take a long time and they are held during active working hours. Chewers have reported poor working habits and misuse of time. As demonstrated in model 1 the misuse of time results in less productivity and income and hence less income is available for social and economic goods and necessities at an individual and national level.

3. Respondents reported different physical and psychological reactions to the use of khat. As demonstrated in model 2, it has a motivating influence on some and a demotivating influence on others. As the influence of khat on productivity/efficiency is not clearly determined, its effect on income has not come out clearly in the study. The reported physical and psychological effects need further research to identify the factors that lead to the different responses. For instance, the dosage, type of khat used and the duration of use could be the factors. However, there is still a moral question that cannot be answered scientifically. How healthy is it for people to depend on the use of a substance to increase their efficiency?

5.2.3. Measures to control khat

Whether khat should be banned or not is a dividing issue. Ethiopia has no policy on the production, marketing and consumption of khat and yet the social, economic and political significance of khat has dramatically increased over the last few decades. In fact, its significance at national level has reached the stage that the total banning of the plant is not a feasible option. Meanwhile, findings from this study and others also show that its negative influences on the social and economic lives of the society in general and the chewers in particular have reached a stage where the government can no longer ignore it. Although there is a difference of opinion on the degree and type of control to be implemented, two thirds of the respondents themselves recommended khat needed to be controlled. Therefore government has a responsibility to develop a policy on khat and take some measures to control the potential negative consequences that result from its abuse.

It is important to note that most of the negative consequences are the result of khat abuse and the researcher has reached the above conclusions in the light of the widespread abuse of khat observed in Addis Ababa and other parts of the country. However, it is my belief that there is a possibility to exploit the potential benefits of khat (mood lifting and other medicinal values) by using khat in a modest and controlled way. Scientific studies should be conducted to discover such possibilities. I would like to end my conclusion by citing the example of teff. Teff is a type of grain and a species of love grass native to Ethiopia. It is widely used to prepare injera, the national traditional food. Many Ethiopians used to believe that teff had little or no nutritional value and blamed teff

for the smaller physical stature of Ethiopians compared to other African countries. However, the western researchers have found that teff is a good source of dietary fibre, including resistant starch which is a recently discovered class of fibre that helps the body manage blood sugar; weight and colon health. Above all, teff is gluten free. It has now become popular among western celebrities and it is being produced in different forms. Although teff is native to Ethiopia and Eritrea, it is a European company which has taken the patent right to teff and is reaping its fruit. The same could be true of khat and it should not be totally discredited without well-established scientific evidence. As Dr. Nigguss said, it is being used modestly by rural communities and they are reportedly benefiting a lot from it. In the cities, there is a tendency to abuse khat and most of the adverse effects so far discussed in this paper are the manifestations of the abuse.

5.3 Recommendations

This study has, I believe, clarified targeted issues surrounding the use of khat in one part of the country where the influence of khat is significantly increasing. However the issue is larger than this. Khat's epidemic is engulfing the country and it is intertwined with socioeconomic and religious issues. It is therefore a very contentious issue for which a 'one fits all' solution cannot be adopted. Extreme views such as the total banning of khat are not only unrealistic but counterproductive and on the other hand a total lack of control (as it is now) is also equally disruptive. Despite the significant influence of khat on society, Ethiopia has not developed a policy on khat. Therefore, a national study on khat to clearly determine what exactly are its effects should be the priority and should be able to settle the existing debate on the advantages and disadvantages of khat. Until such comprehensive research is undertaken, however some regulatory measures could be taken to limit the potential negative impacts identified by this research and other studies and the following regulatory measures are recommended:-

1. Provide traditional khat farmers with viable substitute crops to discourage production and ban the production of khat in traditionally non-khat producing areas.
2. Provide alternative income generating activities for those engaged in the khat trade.
3. Reduce the availability and visibility of khat - impose strict marketing sales control on the domestic sale of khat by prohibiting its sale to underage children, regulate the location (not

allowing khat selling outlets to be opened around educational institutions), restrict the working hours of such outlets and ban all sorts of public advertisements.

4. Most chewers report that they start chewing khat at a young age and the young should be educated about the harmful impact of khat and to resist the peer-pressure through awareness creation and behavioral change interventions. The interventions may include the use of media and including the subject of khat in the school curricula, on civic and ethical education courses and in text books.
5. CSOs and religious institutions to educate their faithful about the potential negative impacts of using substances (including khat).
6. Impose an excise tax to discourage the consumption of khat by raising the selling price and the tax collected can be used to finance the treatment and rehabilitation of those heavily affected by it.
7. Unemployment and lack of recreational facilities have been identified as factors that are contributing to the rapid expansion in the use of khat. The creation of job opportunities for unemployed youth and opening of indoor and outdoor leisure facilities would be useful.
8. There are not enough rehabilitation centers in the country for the treatment and rehabilitation of those addicted with substances. Establishing additional rehabilitation centers and improving and expanding the services of the existing ones are vital.

The above recommendations aim to discourage the supply through restrictive measures and reducing demand through educational interventions and the provision of recreational opportunities. It also has a humanitarian aspect and proposes psychological and medical support for the addicted. To bring any meaningful change in the production, distribution and use of khat in Ethiopia in general and in Addis Ababa in particular, the recommendations themselves exhibit clearly that the concerted efforts of all the stakeholders is required and it should be a government priority.

Bibliography

1. Admassie, Y. 2017 .The Khat Conundrum in Ethiopia: Socioeconomic impact and policy directions. Forum for Social Studies. Addis Ababa : Ethiopia

2. Adnew, B. 2005. T'chat production and marketing : a dilemma of short term benefits and long run costs in Proceedings of the National Workshop on Khat habit and other psychotropic drugs in the spread of HIV/AIDS and their impact on health and socio-economic wellbeing compiled by A. Debella, D. Abebe and A. Abebe. Addis Ababa University : Addis Ababa
3. Afe kekenafar.2016. Amharic Reporter.15 March : 8
4. Alem, A. 2005 Khat and mental health in Proceedings of the National Workshop on Khat habit and other psychotropic drugs in the spread of HIV/AIDS and their impact on health and socio-economic wellbeing compiled by A. Debella, D. Abebe and A. Abebe. Addis Ababa University : Addis Ababa
5. Alem, A. 2005. Khat and mental health in Proceedings of the National Workshop on Khat habit and other psychotropic drugs in the spread of HIV/AIDS and their impact on health and socio-economic wellbeing compiled by A. Debella, D. Abebe and A. Abebe. Addis Ababa University : Addis Ababa
6. Anderson, D, Beckerleg,S, Hailu,D, & Klein, A. 2007. The Khat Controversy Stimulating the Debate on Drugs
7. Anderson, D, Klein, A, Beckerleg,S, Carrier, N, & Hailu, D. 2004. Findings : The Khat Nexus: transnational consumption in a global economy in Cultures of Consumption Research Program 1- 4
8. Aregay, M. 2005 in Proceedings of the National Workshop on Khat habit and other psychotropic drugs in the spread of HIV/AIDS and their impact on health and socio-economic wellbeing compiled by A. Debella, D. Abebe and A. Abebe. Addis Ababa University : Addis Ababa
9. Atkinson, R, & Flint, J. 2001.Accessing Hidden and Hard-to-Reach Populations, Snowball Research Strategies- Social Research Update. Guildford GU7 5XH, England
10. Babbie E. 2010.The practice of social research .5thedition
11. Babbie, E. 2016.The practice of social research. 14thedition
12. Beckerleg,S.2008.Khat Special Edition Introduction in Substance Use & Misuse, 43:749–761

13. Belwal, R. & Teshome, H.2011 .Chat exports and the Ethiopian Economy: Opportunities, dilemmas and constraints in African Journal of Business Management Volume 5 (9) : 3655-3648
14. Berg, B.L. 2009. Qualitative Research Methods for the social sciences.7th edition
15. Bernard, R. 2013.Social Research Methods Qualitative and Quantitative Approaches
16. Blakie, N. 2002. Designing Social Research. Cambridge: Polity
17. Bless C.; Higson –Smith C. & Sithole S. L. 2013. Fundamentals of Social Research Methods, An African perspective , 5th edition. Juta & Company Ltd. Cape town: South Africa
18. Bless C.; Higson –Smith C. & Kagee A. 2006. Fundamentals of Social Research Methods, An African perspective ,4th edition. Cape Town : South Africa
19. Bryman, A. 2001. Social Research Methods. Oxford: Oxford University Press
20. Central Statistical Agency 2012. Federal Democratic Republic of Ethiopia Agricultural sample survey 2011/2012. Addis Ababa: Ethiopia
21. Collins English Dictionary 2015
22. Colzato L., Ruiz M.,WildenbergW. & Hommel B. 2011 Khat use is Associated with Impaired Working Memory and Cognitive Flexibility in Public Library of ScienceVolume 6 : Issue 6 | e20602
23. Colzato L., Ruiz M.,WildenbergW. &Hommel B. 2012 Khat use is associated with increased response conflict in humans in human psychopharmacology Hum. PsychopharmacolClinExp27: 315–321.
24. Crenshaw, & Berke, T. 2004 .Focus on illegal drug : Khat a potential concern for legal enforcement
25. Creswell, J. 2009.Research Design Qualitative, Quantitative and Mixed Methods Approaches
26. Degefa, A. 2005 Review on the socio-economic problems associated with khat/chat chewing habit in Proceedings of the National Workshop on Khat habit and other psychotropic drugs in the spread of HIV/AIDS and their impact on health and socio-economic wellbeing compiled by A. Debella, D. Abebe & A. Abebe. Addis Ababa University: Addis Ababa.

27. Dessie, G. 2013. Is khat a social ill? Ethical arguments about a ‘stimulant’ among the learned Ethiopians. Addis Ababa: Ethiopia
28. Dhaifalaha, I, & Šantavýb, J. 2004. Khat habit and its health effect. A natural amphetamine in Biomed. Papers 148(1), 11–15 (2004)
29. Farthing, L, & Kohl, B. 2014. ‘Evo’s Bolivia : Continuity and Change’, University of Texas Press, Austin, Tx
30. Gebissa, E. 2008. Scourge of Life or an Economic Lifeline? Public Discourses on Khat (Catha edulis) in Ethiopia in Substance Use & Misuse, 43:784–802
31. Gelaw, Y, & Haile, Amlak A. 2004 Chat chewing and its socio demographic correlates among the staff of Jimma University in Ethiopian J. Health Dev.18(3) : 179-184
32. Gillham, B, 2000 : Case Study research methods
33. Grix, J, 2002 : Politics . Institute of German Studies. University of Birmingham
34. Haile, D. & Lakew, Y. 2015. Khat Chewing Practice and Associated Factors among Adults in Ethiopia: Further Analysis Using the 2011 Demographic and Health Survey in Public Library of Science DOI:10.1371/journal.pone.0130460
35. Harding, J. 2013. Qualitative Data Analysis from start to finish
36. Health Poverty Action November 2015. <https://www.healthpovertyaction.org> (accessed on 12/8/2018)
37. International Narcotics Control Board. 2006. Report of the International Narcotics Control Board for 2006. Available at : <https://www.incb.org/incb/en/publications/annual-reports/annual-report-2006.html> (accessed 28/10/2019)
38. Kebede, D, Alem, A, Mitike, G, Enquelasie, F, Berhane, F, Abebe Y, Ayele, R, Lemma, W, Assefa, T, & Gebremichael, T. 2005 Khat and alcohol use and risky sex behavior among in-school and out-of-school youth in Ethiopia in Bio Med Central Public Health5:109
39. Kebede, Y, Abula T, Ayele, B , Feleke, A, Degu, G, Kifle, A , Alebachew, Z, Mekonnen, E, & Tessema, B. 2005 : Substance use . Addis Ababa :Ethiopia
40. Klein, A, Metaal, P, & Jelsma, M. 2012. Chewing over Khat prohibition : The globalization of control & regulation of an ancient stimulant in Legislative Reform of Drug policies
41. Kumar R. 2014. Research Methodology, 4th edition. SAGE publication Ltd: New Delhi
42. Lamina, S, 2010. Khat (Catha edulis) : The herb with officio-legal, socio-cultural and economic uncertainty in South African Journal of Science 106 : 1- 4

43. Lemessa, D, 2001. Khat (Catha edulis) : Botany, Distribution, Cultivation, Usage and Economics in Ethiopia. Addis Ababa : Ethiopia
44. Mains, D, Hadley, C, & Tessema, F. 2013. Chewing over the Future: Khat Consumption, Anxiety, Depression, and Time Among Young Men in Jimma, Ethiopia in Cult Med Psychiatry 37:111-130
45. May, T. 2011. Social Research : Issues, Methods and Process. 4th Edition
46. McGonigle, I, 2013. Khat Chewing on a bitter controversy in Anthropology today 29:4 -7
47. Morgan, L, 1997. Focus groups for Qualitative Research. 2nd edition
48. National Bank of Ethiopia. 2005. Annual report on Ethiopian Economy
49. Omar, Y, Jenkins, A, Regteren Altena, M, Tuck, H, Hynan, C, Tohow, A, Chopra, P, & Castle, D. 2015. Khat Use: What Is the Problem and What Can Be Done, in Bio Med Research International , Article ID 472302
50. Pierce, R. 2008 : Research methods in Politics
51. Teferra, S, Hanlon, C, Alem, A, Jacobsson, L, & Shibre, T. 2011 Khat chewing in persons with severe mental illness in Ethiopia: A qualitative study exploring perspectives of patients and caregivers, in Transcultural Psychiatry 48(4) 455–472
52. Tesfaye, G, Derese, A, & Hambisa, M. 2014. Substance Use and Associated Factors among University Students in Ethiopia: A Cross-Sectional Study, in Journal of Addiction Volume 2014 (2014), Article ID 969837,
53. The United Nations 2015. Transforming our world : The 2030 Agenda for Sustainable Development 2015
54. Thomas G. 2009. How to do your research project. SAGE publication Ltd : London
55. United Nations Development Program April 2015. Addressing the development dimensions of drug policy
56. United Nations Development Program April 2016. Reflections on Drug policy and its impact on human development : Innovative approaches
57. United Nations Development Program March 2019. International Guidelines on Human Rights and Drug Policy
58. United Nations Office on Drugs and Crime. Economic and Social Consequences of drug abuse and illicit trafficking [https:// www.unodc.org/pdf.technical_series_1998_01_01_1](https://www.unodc.org/pdf/technical_series_1998_01_01_1) (Accessed on 1/ 11/2019)

59. United Nations Office on Drug and Crime. 2016a. World Drug Report 2016
60. United Nations Office on Drug and Crime.2016b.Drug abuse in Africa. Available at: <https://www.unodc.org>. (Accessed 16/11/2016)
61. United Nations Office on Drugs and Crime. 2016c. <http://www.unodc.org> (Accessed on 5/12/2016)
62. Welman, C, Kruger, F, & Mitchell, B, 2005. Research Methodology 3rd edition
63. World Atlas. 2019. Most religious countries in the world. Available at <http://www.worldatlas.com> (accessed on14/1/ 2019)
64. World Health Organization 2014. Global status on Alcohol and Health 2014
65. World Health Organization. 2019. Management of substance abuse .Available at : https://www.who.int/substance_abuse/terminology/psychoactive_substances/en/ (accessed on 28/10/ 2019)

Quantitative data collection tool for the study on socioeconomic and psychological effects of Khat chewing on khat users in Addis Ababa

Purpose of the study - The purpose of the study is to assess the socioeconomic and psychological effects of khat chewing on khat users in Addis Ababa city. For this purpose, this questionnaire is

developed to gather information from persons that are currently khat users or those that quit chewing three years preceding this study. Both male and female khat users with the age of 18 and above from different groups of the society are selected using snowball sampling for the study. The information collected from you will be kept confidentially and I assure you that the information you provide will be used for the purpose of this study only. All responses that you give for the questions are important for the study that will be conducted.

Thus, you are kindly requested to respond all questions as much as you can. You are requested to participate in this interview voluntarily and you can stop the interview totally at the beginning or at any time in the middle of interview if you feel uncomfortable.

Are you willing to be asked questions? 1. Yes 2. No

If the response is yes, they get registered in the table below and get their signature of consent. If the response is no, I will stop.

List of participants

S.n.	Name of the participant	Sex	Address	Signature
1				
2				
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Date and signature of the researcher/facilitator _____

This questionnaire will take 45 minutes and for easier analysis, it is divided into five parts as follows.

F. Basic background information- to understand their personal and family portfolio

- G. The consumption pattern of the khat user – to answer the when , where, how, why and what questions with regards to the chewing habit of the khat user
- H. The use of Khat and its socioeconomic effects (income, use of time and productivity) – to assess its impact on the income, time and productivity of the khat user
- I. The use of Khat and its physical and psychological influence- to assess its impact on the health of the khat user
- E. Law enforcement – to get the personal opinion of the khat user on the law enforcement with regards to the use and production of khat

Instruction - This questionnaire is to be administered to people that are currently khat users or those that quit chewing three years preceding this study. The researcher should acquire the full consent of the respondents to this study. The questionnaire is a closed-ended questionnaire and the researcher should read each question and tick the answers chosen by the respondents. The researcher should take time to clarify each question if the respondents misunderstood the question or are not clear.

A. Basic background information

1. Address - City----- Sub-city_____ Woreda----- House No-----
2. Age A. 18-25 years B. 26 -35 years C. 36- 45 years
D. 46- 55 years E. 56 years and above
3. Sex A. Male B. Female
4. Religion A. Orthodox Christian B. Muslim C. Protestant D. Catholic E. Others
5. Educational status A. Illiterate B. Read and write C. 1 -8 grades complete
D. 9-12 grade complete E. College diploma and above
6. Marital Status A. Married B. Single C. Divorced D. Widow
7. Do you have children? A. Yes B. No
8. Do you have any other persons that are economically dependent on you ?
A. Yes B. No
9. What do you do for a living? A. factory worker B. Employed ay government/private institution C. taxi/lorry driver D. student at a higher institution E. self-employed
F. unemployed G. any other

B. The consumption pattern of the khat user

1. Do you chew khat? A. Yes B. No C. I have quit.
2. If No, the rest of the questionnaire would not be answered.
3. If yes, how often do/did you chew khat ? A. Twice daily B. Once in a day C. 2-3 times a week D. 4 to 6 times a week D. once in a week E. once in a month F. on special occasions only
4. At what age did you start chewing? A. Less than 18 years old B. 19-25 years C. 26 -35 years D. 36- 45 years E. 46- 55 years F. After 56 years
5. How did you start chewing? A. It is a family tradition B. Through friends C. At college/school, to help me in my studies D. As an adventure E. Please specify if any other
6. How long have you been chewing / How long did you chew before quitting? A. Less than a year B. 1- 3 years C. 4- 6 years D. 7- 10 years E. More than 10 years
7. Where do/did you usually chew khat? A. At home B. At my working place C. At college/school D. At friends' house E. At khat chewing houses F. at recreational places (parks and hotels) G. any other place
8. Why do/did you chew khat? A. For recreation B. To pass time C. To be more active in my job/activity D. To increase level of concentration during studying E. To socialize with others F. Please specify if any other reason
9. If your response to Question no.6 is choice D, are/were you able to memorize afterwards what you read under the influence of khat ? A. Yes B. No
10. Do you believe studying under the influence of khat has helped you get better results in exams ? A. Yes B. No
11. Do/Did you use any other substances while consuming khat ? A. Yes B. No
12. Where did you have your first khat chewing experience? A. At home B. At my working place/ on field visit C. At my college /school D. At a friend's house E. At a khat chewing house F. at a recreational place G. Please specify if any other

13. If your response to Question no.11 is “Yes”, what substance do/did you use?
 A. Cigarettes B. Alcohol C. Soft drinks D. Sugar E. Water F. Coffee/tea G. Milk H. Hard drugs I. Please specify if any other
13. Why do/did you use the other substances while chewing khat?
 A. To get more excitement B. To make the chewing easier C. For a better taste
 D. To reduce the toxic effect E. Please specify if any other
14. If your response to Question no.13 is “Cigarettes”, did you develop the habit of smoking cigarettes after you start chewing khat ? A. Yes B. No
15. If your response to Question no.13 is “Alcohol”, did you develop the habit of drinking alcohol after you start chewing khat ? A. Yes B. No
16. If your response to Question no.12 is “Hard drugs”, did you develop the habit of using hard drugs after you start chewing khat ? A. Yes B. No
17. At the end of the chewing session, what do/did you do to break the mirkana (the highest level of the euphoric effect) ?
 A. I do/did not do anything B. I drink/used to drink/ alcohol
 C. I smoke/used to smoke /cigarettes D. I use/used/ hard drugs
 E. I drink/ used to drink/ milk F. Please specify any other

C. The use of khat and its socioeconomic effects (income , use of time and productivity)

1. What is your monthly income/ What was your monthly income when you were chewing khat?
 A. Less than 1,500 birr B. 1,501 - 3000 birr C. 3001- 5000 birr D. more than 5,000
2. How much money do you spend /did you use to spend/ for a single khat chewing session?
 A. Less than 20 birr B. 21 - 50 birr C. 51- 100 birr D. more than 100 birr
3. In your experience, how long does /did/ one khat chewing session take?
 A. Less than 30 minutes B. 31 – 60 minutes C. 1-2 hours D. 2- 3 hours
 E. More than 3 hours
4. What is /was/ the most common time that you chew khat ?
 A. In the morning B. In the afternoon C. In the evening D. During the night

5. Have /Did/ you ever been absent from your working place to chew khat ? A. Yes B. No
6. If your response to Q. 5 is “ Yes”, how often does/did/ this happen?
A. 2-3 times a week B. 4 to 6 times a week C. Once in week D. Once in two weeks
E. Once in a month F. very rarely
7. Have /Did / you ever been late to work because of khat chewing ? A. Yes B. No
If yes, how often does /did/ this happen? A. 2-3 times a week B. 4 to 6 times a week C.
Once in a week D. Once in two weeks E. Once in a month F. very rarely
8. Have / Did / you ever left /leave/ your job early to chew khat? A. Yes B. No
9. If your response to Q. 9 is “ Yes” , how often does /did/ this happen? A. 2-3 times a
week B. 4 to 6 times a week C. Once in a week D. Once in two weeks E.
Once in a month F. very rarely
10. Have / Did / you ever left /leave/ your job early to chew khat? A. Yes B. No
11. If your response to Q. 9 is “Yes” , how often does /did/ this happen? A. 2-3 times a week
B. 4 to 6 times a week C. Once in a week D. Once in two weeks E. Once
in a month F. very rarely
12. Have / Did/ you ever sacrificed /sacrifice/ your family time to chew khat ? A.
Yes B. No
13. If your response to Q. 12 is “Yes”, how often does/did/ this happen? A. 2-3 times a week
B. 4 to 6 times a week C. Once in a week D. Once in two weeks E. Once
in a month F. very rarely
14. Have / Did/ you ever sacrificed /sacrifice/ your social responsibilities to chew khat ? A.
Yes B. No
15. If your response to Q. 11 is “Yes”, how often does/did/ this happen? A. 2-3 times a week
B. 4 to 6 times a week C. Once in a week D. Once in two weeks E. Once
in a month F. very rarely
16. In your opinion, is /was/ chewing khat helping you to be more effective /productive/ in
your job/activity OR is /was/ it making you less effective ?
A. It is/was /making me more effective. B. It is/was/ making me less effective.
17. If your response to Q.13 is Choice A, how does/did/ it make you effective ?
A. It helps /helped/ me to be more focused B . It makes /made/ me more active/alert.

- C. It gives /gave/ me more energy D. It makes /made /me more imaginative
 E. Please specify any other

18. If your response to Q.13 is Choice B, how does /did / it make you less effective?

- A. It makes / made /me less focused B. It makes / made / me less active/alert.
 C. It makes / made / me physically weak D. It makes / made / me disillusioned
 E. Please specify any other

19. Have /Did / you ever faced /face / financial shortage to buy khat ?

- A. Yes B. No

20. If your response to Q. 16 is “Yes”, what did you do to get the money?

- A. I borrowed money B. I bought Khat on credit C. I did nothing
 D. Please specify any other if any

D. The use of khat and its physical and psychological influence

1. How do/did/ you perceive khat ?

- A. As something desirable and good B. As a problem that one should get rid of

2. How do you rate / did you use to rate/ the influence/importance of khat in your life?

- A. Very high B. High C. Medium D. Low E. very low

3. Do you think khat creates addiction? A. Yes B. No

4. If your response to Question no. 3 is “Yes”, do you believe you are/were/ addicted to khat ? A. Yes B. No

5. What do /did/ you feel when you attain mirkanna (highest level of excitement /euphoria)? A. Alertness and energy B. Higher concentration C. Sense of happiness and elation D. Sociability E. Restlessness F. Depression G. Exhaustion H. Violence I. Please specify any other

6. How long does /did/ the mirkanna (highest level of excitement /euphoria) feeling last?

- A. Less than hour B. more than 1 hour C. between 1- 2 hours D. More than 2 hours

7. What do/did/ you feel when you do not consume khat?

- A. I feel /felt / nothing B. depression C. anxiety D. paranoia E. nightmares F. physical trembling G. exhaustion H. insomnia

8. What effect does /did/ khat have on your sexual desire ?

- A. It increases /increased/ my sexual desire. B. It reduces /reduced/ my sexual desire C. It has /had/ no impact
9. In your experience, do you think khat exposes to unprotected sex more ?
A. Yes, it does B. No, it does not C. It has no impact D. I do not know
10. Do /Did/ you suffer from any kind /form of physical or mental illness? A. Yes B. No
11. If your response for Question no 10 is “Yes”, do you think the use of khat has in any way contributed to your bad health ? A. Yes B. No
12. If your response for Question no 11 is “Yes”, is this your personal opinion or assessment of a medical professional?
A. It is a personal opinion B. It is an assessment of a medical professional
13. Do /Did / you feel guilty that you chew khat ? A. Yes B. No
14. If your response for Question no 13 is “Yes”, have you ever tried to stop chewing khat ?
A. Yes , I tried but failed B. No, I have not tried C. I have already quitted.
15. If your response for Question no 14 is Choice A , what was your motive to quit chewing khat?
A. It is affecting my health B. Due to family and social pressure C. I am wasting a lot of my productive time chewing khat D. It is affecting me financially E. Please specify if any other
16. If your response for Question no 14 is Choice A, why do you think you failed?
A. Lack of treatment for the addiction B. Lack of commitment on my part
C. Peer pressure D. To socialize with others D. Lack of other recreational opportunities
E. Please specify if any other
17. Have /Did/ you ever faced /face / any sort of stigma because of your khat chewing habit ?
A. Yes B. No
18. Do you have plans to stop chewing khat in the future ?
A. Yes, I do B. No, I do not C. I have already quitted.

E. Law enforcement

1. Do you think there should be law enforcement to control khat?

- A. Yes B. No
2. If your response to Question no 1 is “Yes”, what do you think should be done?
A. It should be totally banned B. The use and production should be regulated using different strategies. C. Please specify if any other
3. If your response to Question no 2 is “No” , what is your reason?
A. It is violation of individual rights B. It is economically too important
C. It is politically sensitive and may create public unrest D. Please specify if any other

THANK YOU VERY MUCH FOR YOUR KIND COOPERATION

Interview Guide Questions for Focus Group Discussion with khat users

Introduction and consent form

My name is Mereid Getachew Meshesha. I am a post graduate student of Development studies at University of South Africa. I am doing my thesis on the socioeconomic effects and psychological influence of khat on the khat user. To gather some information about this issue,

I would like to ask you some questions. You are requested to participate in this discussion voluntarily and you can stop the discussion totally at the beginning or at any time in the middle if you feel uncomfortable. The information collected from you will be kept confidentially and I assure you that the information you provide will be used for the purpose of this study only.

Are you willing to be asked questions? 1. Yes 2. No

If the response is yes, I will register them in the table below and get their signature of consent. If the response is no, I will stop.

List of participants

S.n.	Name of the participant	Sex	Address	Signature
1				
2				
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Date and signature of the researcher/facilitator _____

Interview guide to the FGD

Ice breaker question - Please give us brief introduction of yourself (name, age and profession) and tell us something you like to do for fun.

1. I hope you all remember the first day that you chewed khat . What was it like?

2. What fantasies do you experience when reach mirkanna (the highest euphoria)? What fantasies have you observed in others?
3. How do you explain the effect of khat use on primary relationships, families and communities? Did you have to sacrifice other important things (like quitting your education or job, disagreement with your family etc.) in your life because of your chewing habit?
4. How do you explain the effect of khat use on your self-worth and motivation?
5. How do you explain the effect of khat use on your income, time and productivity?
6. In your opinion, what do you think are the advantages & disadvantages of chewing khat?
7. Let's assume that khat is banned Ethiopia. What will be your reaction?
8. Do you mind if people know that you chew khat? If yes, why?
9. What do you think were the most important elements of the discussion?

Thank you very much for your participation in the study.

**Interview Guide Questions for Key Informant Interview
with a psychiatrist/ Social Worker**

My name is Mereid Getachew Meshesha. I am a post graduate student of Development studies at University of South Africa. I am doing my thesis on the socioeconomic effects and psychological effects of khat on the khat user. To gather some information about this issue, I would like to ask you some questions. You are requested to participate in this interview voluntarily and you can stop the interview totally at the beginning or at any time in the middle if you feel

uncomfortable. The information collected from you will be kept confidential and I assure you that the information you provide will be used for the purpose of this study only.

Purpose of the study - The purpose of this interview is to get professional opinion of a psychiatrist / social worker on the use of khat and its influence on the mental health of khat users.

Are you willing to be asked questions? 1. Yes 2. No

If the response is yes, I will register them in the table below and get their signature of consent. If the response is no, I will stop.

List of participants

S.n.	Name of the key informant	Sex	Address	Signature
1				
2				
3				
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Date and signature of the researcher/facilitator _____

Instruction: The researcher will read the questions to the respondent and give explanations if the questions are not clear. The response of the researcher has to be recorded using tape recorder and the researcher must also put down the responses in writing.

Respondent Identification

Respondent's Name: _____

Position in the organization: _____

Sex: _____

Phone Number: _____

Interview (place, date): _____

Interview guide questions

1. What type of services does your health institution/rehabilitation centre provide for your patients?
2. Has your health institution /rehabilitation centre conducted any research on khat and its effects on mental health . If yes, could you please explain the findings of the research?
3. If your response to Question no 2 is no, in your observation and professional assessment, do you believe the mental conditions observed in the patients are related to the use of khat ?
4. Some scholars argue that the ill effects of khat are the result of khat abuse (chronic use) only and casual use has very minimal effect. What is your opinion on this?
5. Could you please explain the effect of khat use on primary relationships, families and communities and also the connection between khat use and self-worth and motivation.
6. Khat is known to be addictive. For those who want to quit, how difficult is it to get rid of the addiction?
7. Khat users from different groups give different utilitarian reasons for consuming khat such as to be alert and energized in their jobs, to increase their concentration level while studying, to be more creative and imaginative and for socialization and develop good relations. In your professional opinion, how relevant are these claims?
8. Do you believe the production and use of khat should be controlled? If yes, If the response is yes, please explain why it needs to be controlled and what measures should be taken to control it.

Thank you very much for your participation in the study.

Interview Guide Questions for Key Informant Interview
with a factory owner/manager

My name is Mereid Getachew Meshesha. I am a post graduate student of Development studies at University of South Africa. I am doing my doing my thesis on the socioeconomic effects and psychological effects of khat on the khat user. To gather some information about this issue, I would like to ask you some questions. You are requested to participate in this interview voluntarily and you can stop the interview totally at the beginning or at any time in the middle if you feel uncomfortable. The information collected from you will be kept confidential and I assure you that the information you provide will be used for the purpose of this study only.

Purpose of the study - The purpose of the this interview is opinion of a factory owners/ managers on the use of time, productivity and working discipline of employees that have khat chewing habits.

Are you willing to be asked questions? 1. Yes 2. No

If the response is yes, I will register them in the table below and get their signature of consent. If the response is no, I will stop.

List of participants

S.n.	Name of the key informant	Sex	Address	Signature
1				
2				
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Date and signature of the researcher/facilitator _____

Instruction: The researcher will read the questions to the respondent and give explanations of the questions if they are not clear. The response of the researcher has to be recorded using tape recorder and the researcher must also put down the responses in writing.

Respondent Identification

Respondent's Name: _____
 Position in the organization: _____
 Sex: _____
 Phone Number: _____
 Interview (place, date): _____

Interview guide questions

1. What services/products does your organization provide for your customers?
2. Among your staff, do you have employees who chew khat?

3. Could you please tell me if there are any issues has Khat use caused in your business?
4. Have you observed any difference in efficiency of employees that chew khat from those who do not chew khat?
5. Have you observed any difference in time management of employees that chew khat from those who do not chew khat i.e positive influence (coming early to work and working overtime) and negative influence (absenteeism, coming late to work and leaving work early)
6. Have you observed any difference in the working relationship with other colleagues of employees that chew khat from those who do not chew khat ?
7. Have you observed any difference in the customer handling of employees that chew khat from those who do not chew khat?
8. What is your general observation of employees that chew khat? Do they have some common behaviors?
9. Do you believe the production and use of khat should be controlled? If yes, If the response is yes, please explain why it needs to be controlled and what measures should be taken to control it.

Thank you very much for your participation in the study.