Multiple
Faces of Khat

Edited by Asnake Kefale and Zerihun Mohammed

Forum for Social Studies

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Forum for Social Studies (FSS)
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About FSS

The **Forum for Social Studies (FSS)** is a non-government, non-profit institution engaged in conducting and sponsoring policy-oriented research and promoting informed public debate on a wide range of development issues. It was established in 1998 by a group of academics and CSO activists whose aim was to help deepen and broaden a democratic tradition of public debates. Its work is guided by the conviction that enhancing the public-government decision-makers interface on key social and economic issues can promote a transparent, participatory and all-inclusive policy-making and implementation process.

Since its establishment, FSS has been engaged in policy research on a wide array of development issues, and has disseminated its findings to government decision makers, legislators and the wider public. It has organized a series of policy dialogues (workshops, seminars, panel discussions, etc.) around the themes of poverty; gender; higher education; inter-generational transfer of knowledge; good governance and democracy in Africa; culture and development; and climate change, environmental management and sustainable development in Ethiopia.

As part of its research activity, FSS has published books and monographs on a wide range of development and policy issues. Its publications have been widely disseminated within the country and internationally.

This book entitled ***Multiple Faces* of *Khat*** is a continuation of that tradition, and intended to examine the problem of *khat* from different perspectives in order to promote dialogue and constructive debate on the subject among different stakeholders.

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Forward

The Forum for Social Studies (FSS) is a non-government, non-profit policy think tank dedicated to the cause of independent research and providing a forum for informed public debate and transparent, participatory and all-inclusive policy making and implementation process. In order to achieve this broad goal, FSS implements five major programmes: research, public dialogue, publications, national and international conferences and capacity building. Accordingly, FSS over the past twenty years has conducted several research and public dialogue forums on national development issues.

Following this tradition, FSS, in collaboration with the Civil Society Support Programme I (CSSP I), designed and implemented a project on *khat* in Ethiopia. The project had three components: research, national conference and production of a documentary film. The research contained, two studies based on rigorous field research and using qualitative and quantitative data. The research reports, *the socio-economic impacts of khat in Harar and Assos*a, and *the impact of khat trade on children's education in Aweday and Wondo Genet* have been published and disseminated to the stakeholders and the wider public.

In addition, newspaper articles and radio programmes have also been prepared and disseminated to the general public on a popular bi-weekly Amharic news paper, *The Reporter*, and through FSS' two radio programmes respectively. The 25-minutes documentary film produced by the organization that shows both the positive and negative aspects of *khat* in Ethiopia has also been widely screened at different events and forums. Finally, the national conference - *Multiple Faces of Khat*- which is the source of this book was intended to create a forum for academicians, researchers, policy makers and practitioners to examine viable policy options with regard to the production, marketing and consumption of *khat*.

As has been corroborated by the reflections and findings presented at the national conference and research dissemination workshops, it must be noted that, *khat* has 'multiple faces'. On the one hand, it is a means of livelihoods for millions of farmers and traders and an important source of foreign exchange for the country. On the other hand, it has created serious economic, social and health problems for millions of Ethiopians. FSS' *khat* project in general, and the national conference in particular, were intended to deliberate on the mechanisms and policy frameworks that would

maximize the positive and minimize the negative impacts of *khat*. In doing so, as a policy research organization, it is not FSS' policy either to condone or encourage the unfettered production and consumption of *khat*. It rather suggests a holistic approach and maintains that any viable policy to be formulated to regulate the production, consumption and marketing of *khat* must examine the issue from different perspectives, including the social, economic and health issues affecting different segments of the society and that will be affected by such an intervention.

The project on *khat* in general and the national conference in particular could not have been realized had it not been for the generous financial support and unreserved cooperation of the Civil Society Support Programme (CSSP). I would like to take this opportunity to extend my gratitude to all CSSP technical and administrative staff, including those in the regional business offices, for their cooperation. I would like also to thank the researchers who presented their scientific papers at the conference. Representatives of governmental and non-governmental organizations who participated in the research dissemination workshops and the national conference deserve special thanks for sharing their views and perspectives.

Meheret Ayenew (PhD)
Executive Director

Introduction

Asnake Kefale and Zerihun Mohammed

Khat is an evergreen shrub with a botanical name of *Catha edulis*, meaning edible leaves. It is consumed mainly for its stimulating effects. The soft fresh leaves of the plant are chewed, but in some cases boiled and drunk as tea. It is known with different names: *Chat* in Amharic, *Jimaa* in Afan Oromo, *kat* in Arabic, *Mirra* in Kiswahili and *Abyssinian tea* or *African salad* in colloquial English.

There are some debates as to the actual origin of *khat*. However, Ethiopia and Yemen are the two major places that are often cited as the origins of *khat*. Although it was predominantly a phenomenon of East Africa and the Arabian Peninsula for a long time, currently, *khat* consumption has expanded to different parts of the worlds. In terms of its legal status, *khat* is a very controversial plant. In some countries, such as Saudi Arabia, Jordan, New Zealand, Australia, Germany, UK, France, USA, Canada, Tanzania and South Africa, *khat* is considered as a controlled or illegal substance, and its production, consumption and trafficking are prohibited by law. In other countries, mostly in Eastern Africa, it is a legal plant and traded in both domestic and international markets.

In Ethiopia, the production and consumption of *khat* has a long history. This history of *khat* goes at least as far back as the 14th century where the plant was mentioned in the royal chronicle of Emperor Amde Seyon, who ruled the country from 1314 to 1344 A.D (Girma, 2017). It was largely produced and consumed for religious (Islamic) and spiritual purposes in the eastern parts of the country and later expanded to other parts of the country.

The production and consumption of *khat* in Ethiopia has shown a dramatic increase since the mid 1970s due to some social, cultural and economic changes that contributed to the relaxation of the taboo and stigma associated with the plant. Among them, the 1975 student campaign to the countryside across the country played a prominent role in introducing *khat* in the previously unknown areas and relaxing the taboos associated with *khat* consumption (Ezekiel, 2004: 13, Girma, 2017). However, compared to recent years, the production and marketing of *khat* was still largely localized.

The past two decades have witnessed dramatic changes in the production, marketing and consumption of *khat* in Ethiopia. Unlike the early years, the habit of *khat* chewing has become a common practice among all sectors of the society irrespective of age, social status, income, religious and ethnic affiliations. The youth, in particular, has become the major consumer of *khat*. Different studies conducted on the prevalence of *khat* among students in different universities and high schools reveal disturbing results (Deressa and Akillilu, 2011; FS Teni *et al*, 2015; Gebreslassie et al, 2013).

Two major transformations have taken place during this period with regard to *khat*. The first one is the transcendence of *khat* use from religions/cultural justification to recreational reasons. Unlike the previous years, many people, both in rural and urban areas, began to use *khat* mainly for non-religious and non-cultural reasons. The second transformation took place in the transaction arena and deals with the promotion of *khat* trade from the domestic/local market to regional and international markets.

Currently, *khat* is produced and consumed in almost all regions of the country. Equally, the total size of farmlands covered with *khat* is steadily increasing. According to the Central Statistics Agency (CSA), the total size of farmland covered with *khat* in 2012/13 was estimated to be around 180,000 ha. This figure has increased by more than 36% to reach around 255,000 ha just within two years. Likewise, the total amount of *khat* produced in the country in 2012/13 was about 181,000 tones, while it reached 250,580 tones in 2014/15 with an increase of more than 44% (CSA 2014/15, for the details, see Daniel's chapter in this book).The total number of smallholder farmers engaged in *khat* production was estimated to be more than 3 million in 2014/15. One surprising fact about this astronomical increase in *khat* production is the fact that the growth is registered against all the constraints the smallholder *khat* producers face, including lack of extension support, weather fluctuation and *khat* disease.

These changes regarding the production, trading and the consumption of *khat* should be considered in the context of economic, environmental, infrastructural and cultural changes at local and national levels. Economic wise, due to the high demand for the product, *khat* has become a highly lucrative commodity. One research indicated that *khat* brings much higher income per hectare than any other agricultural product. Accordingly, the same research stated that *khat* brings about 14, 17, 6 and 4 times more income to the producers than grain/cereals, pulses, oilseeds; and coffee respectively (Gessesse, 2013). It can also be harvested up to three times in a year. Thus, in areas where environmental conditions, market accessibility and infrastructure developments permit, farmers increasingly show a natural inclination towards the

production of this highly valuable cash crop. In fact, this inclination is a result of the rational choice of the smallholder farmers as a response to the market demand and the resulting economic rewards. *Khat* also has relatively less fluctuating market than other crops (see Tilahun's chapter in this book).

Expansion of *khat* production is also a reaction to the increasing land scarcity in rural areas. Indeed, studies indicate that the *khat* producing areas have high population densities and severe land scarcity. Moreover, *khat* has a relatively higher drought, disease and pest resistance than other crops such as coffee.

Development in infrastructure, particularly road communication, has significantly contributed to the transformation of *khat* trade from local to national/international levels. In fact, the role of infrastructure development in the expansion of domestic and international *khat* trade is a well-documented observation (Belwal and Hassen, 2011; Ezekiel, 2004). Although domestic *khat* trade was a common fact for a long period of time, *khat* did not travel long distance mainly due to the poor means of communication and the perishable nature of the commodity. For instance, information obtained from some *khat* producers in Wondo Genet indicate that although Wondo Genet was one of the major *khat* producing areas in Northern Sidama for years, the distribution of *kha*t from the area was restricted to towns located within some 150 km radius. However, since the renovation of the Addis Ababa-Mojo-Hawassa road in the late 1990s, *khat* from Wondo Genet was exported to Addis Ababa in bulk and led to the introduction of the famous *beleche* brand in the city. The reliable road network and efficient means of transportation is a determinant factor for the timely and sustainable supply of the otherwise perishable commodity to the urban consumers (Gessesse, 2008).

The final factor that contributed for the expansion of *khat* production is the relaxation of the cultural taboos and stigma associated with the consumption of the plant. As a result, many localities in regions like Amhara and Tigray, which had strong anti-*khat* social ethos have become *khat* producers (see Hintsa and Yohannes's chapter in this book).

At present, *khat* is a means of livelihoods for millions. The number of smallholder farmers engaged in *khat* production is estimated to be around 3 million. The 'industry' has also created job opportunities for other large groups of people in the value chain. Gessesse (2013) identified a total of 18 groups of people, including the producers, the wrapping-leave vendors, local transporters, mini-bus and truck drivers and their

assistants, wholesalers and retailers. Likewise, it has become one of the major sources of foreign exchange for the country. Official government sources indicate that *khat* has become the third highest foreign currency earner next to coffee and gold (NBE, 2013). In 2014/15 Ethiopia had obtained around 272,500 Million USD by exporting nearly 49,208 tones of *khat*. Nearly 87% of this export was sent to Somalia (for the details see, Daniel's chapter in this book).

On the other hand, the expansion of the 'culture' of *khat* consumption is posing serious economic, social, health and environmental challenges. The ever-rising price of *khat* is significantly impacting household economies as people are spending high proportions of their incomes to satisfy their *khat* needs (Yeraswork, 2017). Equally the conversion of farmlands from food crop production into *khat* production has undoubted impacts on the overall food production and food security situation in the country.

Although *khat* has considerable social value among some ethnic and religious groups (Ezekiel, 2004, Dechassa, 2001, see also Abdulmalik's chapter in this book), it is also associated with some anti-social behaviours, family breakdowns, unemployment and under-employment, addiction to other drugs (Berhanu, *et al*, 2014). Health wise, there are many scientific studies that document the adverse health impacts of *khat* addiction. These include a high risk for various types of health problems, including gastrointestinal tract and dental problems, psychiatric disorders, oral cancer, liver injury, urinary system problems and sexual impotency (Basker, 2013). Environment wise, the intensification of *khat* farming has significant impacts on land use/cover change, soil and water conservation, use of pesticide and other chemicals (Gessesse, 2008, Taye and Aune, 2002, Beyene, *et al*, 2017).

The challenge between the economic benefits of *khat* and the socio-economic and health problems it causes is further complicated by the lack of policy that governs the production, marketing and consumption of the plant in the country. As a result, *khat* is produced in any suitable land, transported by all available means of transportation and consumed anywhere without any restriction. In fact, the government seems to be in a dilemma with regard to *khat*. While it appreciates the income *khat* generates both in domestic and foreign markets, it neither gives any direction regarding its marketing and consumption nor provide any assistance to farmers in whatever form at least to protect the consumers from the ill-effects of widespread usage of chemicals and pesticides by the producers.

It is with this background that *Forum for Social Studies* (FSS), in collaboration with the *Civil Society Support programme* (CSSP), designed a project to look at the issues of *khat* production, marketing and consumption and give policy recommendations that would help to ameliorate the ill-effects of *khat* in Ethiopia. To this end, FSS undertook and published two major research works: *The Khat Conundrum in Ethiopia: Socioeconomic Impacts and Policy Directions* by Yeraswork Admassie and *The Education of Children Entangled in Khat Trade in Ethiopia: The Case of Two Khat Market Centres* by Girma Negash.

As part of the project, a two day national conference under the title *The Multiple Faces of Khat* was held in April 2016 in Addis Ababa, Ethiopia. The major objective of the conference was to provide a forum for researchers, federal and regional government decision makers, development practitioners and other concerned stakeholders to bring the issue of *khat* to the spotlight and identify policy gaps. Accordingly, a total of 11 papers were presented and deliberated in the national conference. From among the 11 papers presented at the conference, 8 papers were included in this book. We believe the papers included in this book will help to enrich the policy debate regarding the regulation of *khat*. The papers, which are included in this book generally, deal with four thematic issues– production; marketing; consumption and issues relating to the regulation of *khat*. Accordingly, in the first chapter of this book Tilahun Tefera examines how and why farmers in Lake Haramaya-Tiniqe watershed shifted from cereal production to *khat* cultivation. He contends that *khat* production became dominant in this locality due to population increase and the resulting land scarcity and high monetary return for *khat* in comparison to other crops.

The second chapter by Hintsa Muruts and Yohannes Desta looks at the expansion of *khat* production in homegardens in Hintalo Wajirat District, Tigray regional state. The authors insist that in spite of the strong anti-*khat* social ethos in the district, farmers increasingly resort to *khat* production due to its high economic return.

Daniel Megersa in the third chapter looked at the economic return of the *khat* 'industry' both at individual and national levels. He showed the role *khat* plays in terms of creating job opportunities and generating foreign exchange. The chapter provides important quantitative information using the official government data as sources. In conclusion, Daniel argues that the debate on the future policy of *khat* should take these economic and social issues into consideration.

The fourth chapter by Abdulmalik Abubaker examines the economic, religious and social places of *khat* among the people of Hararghe. He argues that *khat* is rooted in the socio-cultural and religious lives of the people and discusses the practical problems associated with *khat*. Meanwhile, he insists that since *khat* is so deeply entrenched in the 'culture' of the people, the attempt to address its ill-effects needs to be well devised and look at the other aspects of the people's lives.

Ephrem Tesema in the fifth chapter dealt with the changing trends of *khat* consumption in Ethiopia. He in particular examined the transformation of *khat* consumption from religious/cultural factors to recreational alternatives both in time and space. The change includes where, how and with what *khat* is consumed. He attributed these changes to the relaxation of cultural taboos, new life styles and impacts of the emerging habits of globally imported consumables and services.

The sixth chapter by Solomon Tefera examined the health impacts of *khat* with particular emphasis on mental health. The chapter describes the chemistry of *khat*, its contents, various types of *khat*, the perceived reasons why people chew *khat* and prevalence of *khat* chewing among students in selected universities. It describes the various health problems *khat* chewers are exposed to including heart disease, gastrointestinal and reproductive systems problems. The chapter shows how the mind reacts to the chemical contents of *khat* and how these chemicals create severe psychological reactions, such as psychosis. The chapter concludes by describing the diagnosis of *khat* use disorder, its symptoms and clinical treatment of the addiction.

Selam Gebrehiwot and Birtukan Haile in the seventh chapter discussed the need for legal and regulatory framework for *khat* production and consumption. The chapter presented two extreme positions that prevailed regarding *khat* both at national and international levels: complete de-regulation and total prohibition. The chapter, however, insists that both positions have their own weaknesses. While the current free production and consumption of *khat* cannot continue because of the various negative consequences it brings, a complete ban of *khat* would have high social, economic and health costs and even paves the way for other social problems and illicit *khat* trade. They insists that there is a need to have a balanced regulatory framework that protects the health and safety of the public, enhances awareness about the ill-effects of *khat*, and gives due attention to the people engaged in the production and marketing of *khat*.

Finally, Cochrane and Girma in chapter eight of this book deal with issues relating to the regulation of *khat* in Ethiopia. After a brief review of the trends in *khat* production,

transaction and consumption, the chapter primarily focuses on the policy lacuna that persisted "partly due to the intriguing and complex nature of *khat* both as a crop and as a commodity". The authors investigated *khat* from its economic, socio-cultural and legal perspectives and insist that while *khat* provides a means of livelihoods for millions as producers and traders and brings huge amount of foreign exchange, it also has social, economic and health impacts. The authors call for a regulation that limits the harm, while maximizing its benefits.

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Shift in Livelihood Strategies: From Principal Cereal to Jimaa/*Khat* Cultivation among Alla and Nolei Oromo of Lake Haramaya-Tiniqe Watershed[1]

Tilahun Tefera

1. Introduction

Lake Haramaya-Tiniqe Watershed is roughly situated in the north and northeastern part of Haramaya *Wereda*. It includes eleven rural *araddas/kebeles* and three towns (Haramaya, Adele, and Bate). As explained by Brooke (1956: 28), the *Wereda* is located in Central Highlands that stretch from the eastern margin of Rift Valley to the Somali and Afar lowlands. In terms of altitude, the *Wereda* is positioned between 1900m and 2450m above sea levels. Thus, it lies between two agro-ecological zones: *dega*[2] and *woina-dega*[3] and its climatic condition is a composite of the two agro-ecological zones. The mean annual rainfall and mean annual temperature of the Wereda are 784.1mm and 16.9^0C respectively (Chalachew, 2004: 30).

The population size of the *Wereda* has been increasing across periods. For instance, by the 1994 population census its total population size was 166,597 of which 18,582 and 148,015 were urban and rural dwellers respectively (CSA, 1996). However, by the 2007 census the population size of the *Wereda* showed a 63% increase to reach 271,018 (CSA, 2008). Of this 50,032 and 220,986 were urban and rural dwellers respectively. Similarly, the 2007 census made population size of the eleven *araddas/* in Lake Haramaya-Tiniqe watershed 78,157 of which, 39,612 and 38,545 were male and female respectively.

Looking at the history of the area, in the 16th century, the Oromo had made remarkable expansion to Ethiopian Plateau from the valleys of Juba and Wabi Shabele. Accordingly, they managed to penetrate deep into Ethiopian plateau and had conquered the Central Highlands "in less than a century" (Brooke, 1956: 60). With their conquest of the Central Highlands, the Oromo had threatened the very existence

[1]Data for this chapter were collected while I was engaged in a one year fieldwork for my doctoral dissertation on Lake Haramaya- Tiniqe watershed.

[2]*Dega*: is agro-ecological zone for areas lying between 2300m and 3300 m above sea level, and

[3]*Woina dega* is agro-ecological zone areas lying between 1500m and 2300m above sea level (Chalachew, 2004).

of Adal Kingdom in Harar. After they encircled Harar city and posited potential threat for its conquest, the Harari had made great endeavour to establish peaceful relationship with the new comers (Caulk, 1977: 373).

Harari people had managed to establish friendly relationship with some section of Oromo in vicinity of the City. In this way, those Oromo who were influenced by Harari's socio-economic system, switched from pastoralism to sedentary agriculture and began to be called *qottu*, literary 'to hoe', by their fellow Oromo. Gradually, these sedentary Oromo detached themselves from traditional Oromo institutions and linked themselves to leaders of the City State, Emirate of Harar (Caulk, 1977: 373; Mohammad, 1973: 23; Waldron, 1984: 10).

As market interaction intensified between the Emirate and the Oromo, sedentary agricultural activities expanded among the latter near the city of Harar. However, despite defection of some section of Oromo to sedentary agriculture, for long, Eastern-Oromo[4] remained pastoralists. Almost half of the Eastern Oromo were pastoralists 150 years ago (Ezekiel, 1997: 49-50).

In 1875, Harar and its environs were conquered by Egypt as part of its plan to rescue the government of Khedive Ismail form financial bankruptcy. Egypt planned to control the whole Nile Valley region with a view to control the source of the Nile and also expand its export items. To conquer the entire country, Egypt opened three pronged fronts from Massawa, Tajura, and Zeila. Its campaigns at Massawa and Tajura fronts ended in disasters but its campaign in the Zeila front became successful and it succeeded to conquer Harar. So, for effective occupation of Harar and its environs, Egypt deployed strong military forces (Bahru, 20002).

Soon after they established themselves in Harar, Rauf Pasha, Egyptian commander, had made a tour in *Alla land*, west of Harar, and found half of the land uncultivated and witnessed pastoralists' domination over farmers. Thus, he ordered the pastoral Oromo to settle and to start agriculture. Those who refused were attacked until they agreed to do so. In 1876, two-hundred fifty six settlements had been established by Alla Oromo to be agriculturalists. Moreover, to discourage pastoralism as livelihood strategy, pasturelands were confiscated by Egyptian officers and notable Hararis and

[4] The Hararghe Oromo are referred as Eastern Oromo. They live in large areas, which stretches from the town of Galamso, the western periphery to Qundudo mountain massif, the eastern margin(Ezekiel, 1997: 48).

leased for Oromo agriculturalists. Therefore, the Oromo of the area were forced to abandon pastoralism as livelihood strategy (Caulk, 1977: 381-382).

Harar and its environs remained under Egyptians occupation for a decade. Finally, realizing impossibility of their mission, Egyptians left Harar and its environs in 1885 after they restored the Emirate to life by appointing a new Emir called Abdullahi. Yet, the lifespan of the rule of Emir Abdullahi and the restored Emirate was short as Harar and the entire region brought under the force of King Menelik of Shawa in January 1887 (Bahru, 2002; Mohammad, 1980: 235). With this there was gradual but steady shift from pastoralism to sedentary agriculture as a major means of livelihood in the area.

Following their shift from pastoralism to sedentary agriculture, there appeared land scarcity due to population increment (Ezekiel, 1997: 60-61). There were three major factors for high population density in the area: value for fertility, impacts of political systems, and richness of the watershed in natural resources.[5] Alla and Nolei are in fond of women's fertility, and wives are expected to give birth as many children as possible. This high fertility rate has increased population density of the watershed. Similarly, political system has contributed its own part for population increase in two ways: resettlement and rampant Islamization. Following the incorporation of the region to the Ethiopian Empire, Christian highlanders were made to settle among the Oromo to integrate the region socially and politically with highlanders. First, the settlement of the highlanders' added its own pressure for land scarcity. Second, as a form of resistance to the conquest, Alla and Nolei converted in mass from their traditional religion to Islam than to be Christian. In Islamic culture a man marries up to four wives (Ezekiel, 1997:61; Mohammad, 1980: 238) and each wife exhausts her maximum fertility, increasing population density of the area. Richness of the watershed in natural resources also attracted many people to settle in the area.[6]

Hence, the main intention of this paper is to scrutinize the process of shift in livelihood strategy from principal cereal to *jimaa* or *khat* cultivation. Introduction, expansion, market and existing challenge of livelihoods are thoroughly examined. Current status of *jimaa* production is also compared with cereal and vegetable cultivations. To collect data for this work, I employed survey, interview, observation, and focus group discussion/FGD .

[5] Interview with Abdulatif Ahmad, Mohamad Musso and Mahabub Yusuf.

[6] Interview with Abdulatif Ahmad, Mohamad Musso and Musa Ahmad.

2. Theoretical and Conceptual Framework

In this chapter, I employed the actor-based model of human ecology and the political ecology approach to provide theoretical frameworks. The very essence of actor-based model is that ecological adaptation occurs at the level of individuals, instead of cultures or populations. This model is centred on the notions of individual decision-making process and exclusive natural selection at individual organism level, which are the concern of anthropologists and evolutionary biologists respectively. Based on this notion, it is possible to conclude that "any higher levels of organization, whether communities, ecosystems, or human social systems, exist only as the fortuitous outcome of interactions among many individual organisms" (Rambo, 1983: 18).

Actor-based model opposes the views that society's environmental adaptation is resulted from natural selection of cultural or social system, rather it emanated from decisions of thousands of individuals preferences how to deal with the environment. As coping strategy of environmental pressures, individuals are decision makers how to make livings out of the existing natural resources (Rambo, 1983: 18). In so doing, individuals who have made right decisions become prosperous and fit to survive in existing ecological system; whereas, those who have made wrong decisions become unfit and screened out of the system. Through time those adaptations that become successful will be institutionalized and considered as cultural norms.

To sum up, the actor- based model of human ecology explains why individuals in a given social system opted to particular decision in the process of their interaction with the environment. However, the model failed to explain how decisions are made at the societal level (Rambo, 1983: 22-23).

The political ecology approach deals with the relationship between society and nature (Escobar, 1996: 325). It is a trans-disciplinary concept that adopts social and natural science approaches to examine interactions between humans and ecology. The approach integrates natural and social dynamics in describing a particular ecology. As a framework, it explains webs of interrelationships between local people, national and global political economies, and ecosystems. Political ecology presented in different forms, such as, Third World political ecology and feminist political ecology (Peterson, 2000: 323-324).

The very essence of political ecology is that issues of environmental problems, such as environmental conflict, land degradation and environmental change are inherently outcomes of political systems (Evans, 2006; Bryant and Bailey, 1997).

In dealing with political ecology, political ecologists unanimously hold the same position on two points. First, Third World environmental problem is not a mere result of policy or market failures, but it is also an indication of the larger political and economic forces. These forces are the outcome of the spread of capitalism throughout the world particularly since the 19th century. In this regard, the work of political ecologists mainly focused on describing effects of capitalism on peoples and environment of the Third World spatially and temporally. Their description centred on environmental impacts of capitalism and way of natural resource consumption in the form of logging, mining, fishing, and cash crop production (Bryant & Bailey, 1997:3).

Second, political ecologists understood Third World environmental problems as too complicated to get quick solution by policy formulation. Accordingly, they hold a united view that radical changes are required in the political and economic systems at local, regional and global levels. However, achieving this change is not an easy task as it requires the transformation of the existing unequal power relations between "First/Third Worlds, rich/poor or rulers/ruled" (Bryant and Bailey, 1997: 3).

In general, political ecologists are successful in explaining how politics affect the environment. They stood firm against the concept of sustainable development as political economy. However, they are strongly criticized for their failure to suggest alternative environmental friendly political economy (Bryant and Bailey, 1997: 4-5).

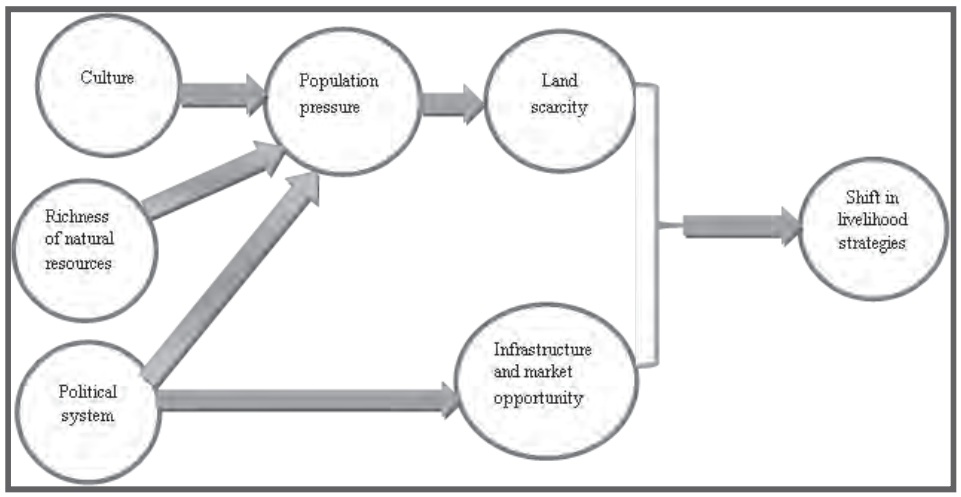

Figure 1: Conceptual Framework of Analysis

Source: Based on data designed by the researcher

The conceptual framework indicates that high population density in the study area is effected from three factors: culture, politics and availability of natural resources. It in turn led to land scarcity, which demanded shift in livelihood from cereal to *jimaa* cultivation. Shift in livelihood strategies is also the outcome of political system: market opportunity and infrastructure (road and railway).

3. Discussion and Analysis

From theoretical perspective, shift from chief cereal to *jimaa* cultivation can be viewed with actor based model of human ecology and the political ecology approach. The actor based model of human ecology argues that individuals are decision makers on their available resources. By this notion, households have used small land holding size at their disposal mainly for *jimaa* cultivation seeing its comparative advantage than other types of crop. Conversely, the political ecology approach argues politics, policies, development interventions, and other state machineries affect how farmers use their lands. So, market opportunities and infrastructures development have encouraged farmers to produce market oriented crops.

3.1. The Decline of Cereal Cultivation

For centuries, Oromo of the area were pastoralists who used to rear cattle, sheep, camels and goats. As has been explained earlier, the turning point for shift of livelihood strategies came in 1875 with Egyptian occupation of the area for a decade. Before 1875, majority of Alla and Nolei were pastoralists though some learnt sedentary agricultural way of life from neighbouring Harari people.[7]

Land tilling had been a taboo by the tradition of Alla and Nolei Oromo. They believed mother earth should not be pierced with sharp objects. However, with shift in livelihood strategy from pastoralism to sedentary agriculture, they abandoned this value and started to till the land. They used to cultivate varieties of cereals: barley, oats, wheat, bean, pea, maize, sorghum, and *teff* to name a few[8].

Compared to the present, households hold large land size during Imperial Ethiopia. During that period, land was fertile and rainfall distribution was fairly regular. Existence of fertile land and abundant rainfall, helped households to harvest cereals in excess of needs. If in case annual harvest was destroyed or decreased by natural calamities or other factors, households had large cereal reserve in *boollo* (store) for future use.[9] Scarcity of land together with erratic rainfall distribution, has made cereal cultivation problematic. Land is also exhausted and lost its fertility due to continuous cultivation. My key informant elucidated the condition as:

> *…dachii xixiqatee midhdaan hindhaltuu, duloomtes. Dachii nifii dhala tokichaa*. Literally, household's land reduced in size and it lost its fertility due to continuous cultivation. So, it cannot give good harvest. Land and women are the same since both of them lose their fertility through time (Mussa Ahmad, 18/3/2013 at Ganda Bubba).

Although cereal cultivation used to be the single most livelihood strategy of the community prior to the *Derg* period, now it is in downward spiral. Remote sensing data show that the land cover of cropland has gradually diminished in size and took second position next to *jimaa* land in the year 2010.[10] Despite its second position in land cover, small number of households own sizeable land holdings to cultivate cereal

[7] Interview with Mahabub Yusuf, Mohamad Musa, and Musa Ahmad.

[8] Interview with Mohamad Musso, Mustafa Amayu, and Mohamad Aliye.

[9] Interview with Mohamad Musso, Mustafa Amayu, and Mohamad Aliye.

[10] Landsat data of 1973, 1986, 2000 and 2010.

crops separately on fairly good land size.[11] Most households cultivate cereal crop in the middle of their *jimaa* or in small plots of land.

Earlier, agro ecology of the study area is explained as midland and highland. Hence, its climatic condition is fit for production of different cereal crops, such as, barely, wheat, oats, bean, peas, *teff*, sorghum, and maize. Sorghum, with its two varieties locally known as *moyira* and *hafaree*/*fandisha*, is the most preferred cereal produced in the area. Of the two varieties, farmers prefer *hafaree* over *moyira* for its strong *qara* (stems) that better hold seeds on the top. However, *moyira* cannot be heaped and farmers thrash it as soon as possible once they collect it from field.[12]

Since land is a scarce resource, households make decision on types of cereal crops to be cultivated on their small plots of land left from *jimaa*. The decisions making process about the types of cereal crops cultivated on small plots of land was narrated by one of my key informant as follows:

> When we are thinking of cereal cultivation, we have to decide which cereal crops give us best harvest from small tracts of land in hand. Accordingly, we found sorghum (*hafaree* and *moyira*) best harvestable from available land. Besides, its *qara*/stalks are important forage for cattle. Stalks of sorghum are cut and collected together on farmlands. Leaves of sorghum have been removed and buried inside a heap of *qara*. Thus, during dry season, *qara* is cut into pieces and mixed with dried leaves to feed for livestock. Unlike *qara* of sorghum, *qara* of maize are very brittle and are not durable. Hence, farmers prefer sorghum to maize cultivation (Mohamad Musa, 26/3/2013 at Ganda Ali).

Moreover, *qara* of sorghum is used as source of firewood. In this regard, particularly of poor households reserve it to sell it to get income in cash. There is no fixed price for *qara* in the market.[13] But, its price is high during wet season where there is scarcity of firewood.

Table 1 below indicate that out of 229 respondents, 119 households allocated land for cereal crops cultivation, of which, two had cereal croplands with the size of one and above hectare of lands. From those who had cereal croplands, 42.9% had land size one

[11] Interview with Chala Dawi and Mahabub Yusuf.

[12] Interview with Mohmad Musa, Musa Ahmad, Mohamad Musso and Chala Dawi.

[13] Shartu Mohamad and Aysha Ahmad

harashii or 0.25 hectare. On the other hand, Figure 1 showed that from the total of 504 *harashii* or 126 hectares of land for 229 household respondents, 139 *harashii* or 34.75 hectares of land were covered with cereal crops.

Table 1: Frequency and Percentage Distribution of Farming Household Respondents Regarding Cereal Land Size in *Harashii*.

Cereal land in *harashii*	Frequency	Percent	Valid Percent	Cumulative Percent
0.25	1	0.4	0.8	0.8
0.50	35	15.3	29.4	30.3
1.00	51	22.3	42.9	73.1
1.50	10	4.4	8.4	81.5
2.00	15	6.6	12.6	94.1
3.00	5	2.2	4.2	98.3
4.00	1	.4	0.8	99.2
6.00	1	.4	0.8	100.0
Total	119	52.0	100.0	1
Missing System	110	48.0	2	3
Total	**229**	**100.0**	**4**	**5**

Source: Survey carried out by the researcher during fieldwork in 2014

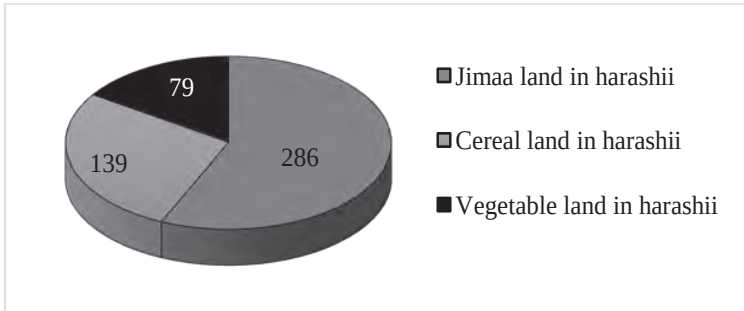

Figure 2: Total Arable Land in *Harashii* for 229 HHs Used for *Jimaa*, Vegetables, and Cereal Crops

Source: Survey carried out by the researcher during fieldwork in 2014

With existing land scarcity and erratic rainfall distribution, cereal cultivation is not a viable livelihood strategy. Realizing this fact, households have shifted their major livelihood strategy bit by bit from cereal to *jimaa* cultivation particularly as of the

Derg period. Possible factors for this shift include land scarcity, market opportunity, development intervention, and erratic rainfall distribution.[14]Of which, land scarcity resulted from population growth is one of a prominent reasons for change in livelihood strategy. With gradual population growth and subsequent land scarcity, cereal cultivation declined and farmers transformed largely to *jimaa* production. Households can harvest two or three times in a year and can earn cash from *jimaa* to secure food and other material needs.[15] So, households' food and other material needs are met using income mainly from *jimaa*.

From my observation and survey data, the community has large household size but small land holding. Using available small plots of land largely for *jimaa* cultivation is the right decision made by households since they can harvest it throughout the year. Irrespective of small households' land holding, *jimaa* harvest from it can cover food and other material needs of households. Thus, the benefit they got from a small plot of *jimaa* is better than from cereal harvest in a fertile and large plot of land.[16] The community preferred *jimaa* cultivation to cereals realizing its comparative advantages as its price is always in upward spiral.

3.2. Introduction and Expansion of *Jimaa* as Livelihood Strategy

Based on historical accounts, Ezekiel (1997: 75) argued either Ethiopia or Yemen might be the homeland of *jimaa*. But for the key informants, *jimaa* was initially introduced to Harar city from Yemen and through time, it was diffused to the surrounding Oromo communities from the City. The Harari people largely used to practice sedentary agricultural activities. But, after the Oromo inhabited environs of Harar, they became more of businessmen though still continued their agricultural activities (Yusuf, 2002: 381, 382). Particularly, they were known for *jimaa* cultivation. Harari *jimaa* plantation owners employed *kuulii*/daily labourers from surrounding Oromo communities to work on their *jimaa* land (Waldron, 1984: 10).

Male FGD discussants at Ganda Kara Gala and key informants[17]stated that Harari *jimaa* estates where the Oromo were employed as farm labourer located near the present day of Aretegna at Harar City and named as Maqora and Hundanee. Though it

[14] Interview with Abdulatif Ahmad, Mohamd Musso, Mahabub Yusuf and Mustafa Amayu.

[15] Interview with Abdulatif Ahmad, Mahabub Yusuf, and Ismael Adam.

[16] Interview with Abdulatif Ahmad, Mahabub Yusuf, and Ismael Adam.

[17] Interview with Mohamad Musso, Mahabub Yusuf and Ismael Adam.

was futile exercise, Harari plantation owners attempted to protect *jimaa* crop from being spread to neighbouring Oromo communities. In this regard, to protect *jimaa* seedlings from being taken, every evening by the end of work hours, Oromo farm labourers were inspected.

There are two views how *jimaa* crop has been introduced to Oromo communities surrounding Harar city. The first view states that it was introduced by farm labourers who worked on Harari *jimaa* farms. This view indicates that in spite of Harari's inspection, labourers managed to steal seedlings of *jimaa* and hide them inside the nearby forest when they went for toilet during work hour. Similarly, the second view reveals that *jimaa* was introduced to Oromo community of the area from Harar city through *harawacas*, messengers who were sent to buy *jimaa* for rituals. In this view, *harawacas* stole *abeqala*/seedlings of *jimaa* from *Harar*.[18]

Like that of *jimaa*, the culture of *jimaa* chewing is diffused to Alla and Nolei Oromo from Harar. It was Oromo elders and religious elites who first learnt *jimaa* chewing. Hence, they were pioneers to understand its stimulating effect in their work and ritual activities. Oromo elders believed that by chewing *jimaa*, one could work much more work than the one who did not.[19] Thus, intention of its cultivation initially was for consumption purpose not for market.

At the early stage of *jimaa's* introduction, large portions of the community were not familiar to it. In that period, mostly religious elites who prayed to Rabbi chewed *jimaa* to get mind concentration on rituals. Hence, they chewed it only on the day of rituals. Later on, adults started to chew but it was forbidden for children and youngsters.[20] Unlike early period of its introduction, the masses have begun to chew *jimaa* with the expansion of cultivation.

Expansion of *jimaa* cultivation was so gradual. In its immediate introduction, households planted it in small plots of land inside gardens. Throughout Imperial Ethiopia, large part of land in the area was used for cereal production. However, compared to Emperor Menelik's period (1889-1913), *jimaa* cultivation more expanded during the reign of Emperor Haile Sellassie (1930-1974). Similarly, compared to the Imperial period, it was during the *Derg* era that more lands were covered with *jimaa*

[18] Interview with Abdulatif Ahmad, Musa Ahmad, Chala Dawi and Mahabub Yusuf.

[19] Interview with Musa Ahmad, Abdulatif Ahmad and Mohamad Musso.

[20] Interview with Musa Ahmad, Abdulatif Ahmad and Mohamad Musso.

although the regime had an apparent anti-*jimaa* stand. *Jimaa* expansion reached its peak during the *Derg* period.[21]

On the basis of its colour, farmers have roughly categorized *jimaa* into three categories: *diimaa*, *daalota/dalacha*, and *hamarakot*. I observed that both *daalota* and *hamarakot* are greenish-gray. The difference between the two lies in their shoots. As opposed to *daalota*, shoots of *hamarakot* are not cylindrical, rather a little bit flat and will go long before they get out branches. Outsiders cannot easily distinguish the difference between *daalota* and *hamarakot jimaa* species. *Diimaa* species is reddish-brown and formerly farmers used to cultivate it but now it is hardly cultivated due to less market demand for it. Hence, farmers uprooted and replaced it with *daalota* and *hamarakot.*[22]

Daalota and *hamarakot* are the most preferable types of *jimaa* species cultivated widely across Lake Haramaya-Tiniqe watershed. *Hamarakot* is eye catchy and has more stimulating power than *daalota* and *diimaa*. Because of its stimulation effect, it is the most preferred type of *jimaa* by consumers. Merchants often use it to spice up *daalota*. For instance, after a man bought bundle of *daalota*, some shoots are removed out from it and replaced with *hamarakot.* Once farmers sold it to merchants, it is difficult to get pure bundle of *hamarakot* for urban consumers.[23]

3.2.1. *Jimaa* Cultivation

In the study area, *jimaa* cultivation is a prominent livelihood strategy of households. Although vegetable cultivation is expanded in the watershed, money they get from working on it is not comparable with that of *jimaa*. A kilo of vegetables can be sold at seven or eight Ethiopian *Birr* (ETB) and if there is high market demand, it may be sold up to ten ETB. On the other hand, a kilo of quality *jimaa* harvest is sold on the average from 400 to 500 ETB and a kilo of *urata*, the best quality harvest, is sold with 2000 and more ETB. It is the most expensive cash crop even than that of a coffee. A kilo of coffee is sold in the market within a range of 120 to 150 ETB[24].

[21] Interview with Musa Ahmad, Abdulatif Ahmad and Mohamad Musso.

[22] Interview with Musa Ahmad, Abdulatif Ahmad and Mohamad Musso.

[23] Interview with Abdulatif Ahmad, Ismael Adam and Mahabub Yusuf.

[24] Interview with Mohamad Taha, Abedella Mume and Mahabub Yusuf.

Table 2: Frequency and Percentage Distribution of Farming Household Respondents Regarding *Jimaa* Land Size in *Harashii*.

Jimaa land size in harashii	Frequency	Percent	Valid Percent	Cumulative Percent
0.25	1	0.4	0.5	0.5
0.50	49	21.4	23.1	23.6
1.00	90	39.3	42.5	66.0
1.50	4	1.7	1.9	67.9
2.00	48	21.0	22.6	90.6
2.50	1	.4	.5	91.0
3.00	13	5.7	6.1	97.2
4.00	4	1.7	1.9	99.1
6.00	2	.9	.9	100.0
Total	212	92.6	100.0	6
Missing System	17	7.4	7	8
Total	**229**	**100.0**	**8.1**	**8.2**

Source: Survey carried out by the researcher during fieldwork in, 2014

Because of the high income it generates, small plots of households land holdings are largely covered with it. As indicated in Table 2 above, out of the 229 household respondents, only 17 (7.4%) of them did not have *jimaa* land. The remaining 212 households own *jimaa* land, of which, 42.5% own a size of one *harshii* or 0.25 hectare and two of them had six *harashii* or 1.5 hectare. As presented in Figure 2 earlier, from the total of 504 *harashii* or 126 hectares of land owned by 229 household respondents, 286 *harashii* or 71.5 hectares were covered with *jimaa* crop.

Households rely on *jimaa* farming for income to address food consumption and other material needs. In the absence of rainwater during dry season when there is no rain *jimaa* is less harvestable during the dry season due to lack of rainwater for its cultivation. However, since *jimaa* plants survive using ground water, one can get small amount of harvest from it and can feed his family. In the words of Musa Ahmad, key informant from Ganda Buba, "*namnii jimaa qabuu agabuu inbuuluu*," literary, a household who has *jimaa* can never be starved. In the dry season, watered *jimaa* is sold considerably better than the unwatered one. Consumers preferred watered *jimaa* to un-watered because they found the latter too dry and too strong to chew.

Jimaa can be harvested three rounds in a year, if it is watered. Farmers harvest rows of *jimaa* turn by turn. One of my key informants explained the system of *jimaa* harvest as follows:

> We are not harvesting all rows of *jimaa* at once. At the beginning, we harvest some *kataras*/rows of *jimaa* trees. Then we proceed to some other rows in the second stage and we reserve some rows for the third. When we harvest all rows of *jimaa* one after the other, initially harvested rows regenerate themselves for second round harvest. It will go the same for rows of *jimaa* harvested in the second and third stages. However, it is impossible to have continuous harvest unless otherwise the *jimaa* has been regularly watered (Mohamad Muso, 19/04/2013 at Ganda Karaa Gala).

Besides regular use of irrigation, farmers often prune their *jimaa* to increase its productivity. Pruning is a process of cutting-off too old *jimaa* trees from bottom to make them grow better and more productive. In some cases *jimaa* might be productive from fifteen to twenty years without pruning. However, commonly, when *jimaa* plant is too old, it becomes less productive. It is also difficult to harvest since it lacks flexibility to bend for harvesting. A pruned *jimaa* will grow new shoots within two months, but on the average it will take two to three years for harvest.[25]

Pruning is not done randomly, rather it has its own season and methods. The appropriate months for pruning are January and February. *Jimaa* that are pruned in those two months grow fast and the newly germinated shoots appear chubby, attractive and productive. In contrast, if it is pruned in summer, the newly germinated shoots become slim, unattractive and unproductive. Moreover, if *jimaa* is pruned during summer, water may enter to stems so that roots can be decayed. To protect water percolation into stems, pruning is made in a slant shape to slip rain water. Thus, pruning requires skill and farmers who lack it incur cost to get their *jimaa* pruned.[26]

3.2.2. Cost of *Jimaa* Production

Labour is one of the major costs of *jimaa* production. If households' labour is not sufficient for *akafu* or hoeing of *jimaa*, they look for additional labour either by employing farm labourers or through organizing *guuza* (cooperation of households).

[25] Interview with Chala Dawi, Wardi Abdurzaq, Mohamad Musa, and Mustafa Amayau.

[26] Interview with Chala Dawi, Wardi Abdurzaq, Mohamad Musa, and Mustafa Amayau.

Hiring a farm worker is not required as far as the job could be done with household labour or with *guuza* labour. For those that are in need of it, seasonal migrant workers who are predominately from Gara Mulata, west of Haramaya town, are the major labour sources. Haramaya is the temporary centre of labourers to work hoeing activities on *jimaa* farms and to dig sod with *dongoora* on cereal lands. Seasonal migrant workers come to the area in the month of March when spring rain begins and hoeing of *jimaa* and digging of sod for cereal cultivation start.

Wage for daily labourer varies according to the time they spend working on *jimaa* farm or cereal farmlands. For instance, a labourer who has made himself available for work at 8:00 a.m. is paid 70 ETB per day and served with lunch, *hoojjaa*, cigarettes and *jimaa*. Conversely, the one who makes himself available for work at 10:00 am is paid from 30 to 40 ETB and given the above service. If all services given to daily labourers are counted, wage per day is more than 100 ETB.[27]

As stated earlier, employing farm labourers is not a requirement for all households. However, hoeing and digging sod are laborious activities and often farmers either employ labourers or organize *guzaa* irrespective of the size of land. Often, households who own large size of land employ daily labourers. Others have performed farming activities through household labour and *guzaa*. *Guzaa* is cost effective if a plot of land cannot be covered by one labourer in few days. Otherwise, cost of organizing *guzaa* such as, lunch, *hoojjaa*, *jimaa*, cigarettes, and peanut would be higher than hiring a temporary farm worker. Households that are not capable of employing daily labourer or organizing *guzaa* have to labour day and night to cover their farming tasks.[28]

Table 3: Frequency and Percentage of Farming Household Respondents Regarding Mechanism of Hoeing *Jimaa* Land and Digging Sod of Cereal Land

Mechanism for hoeing of *jimaa* and other farmlands	Frequency	Percent	Valid Percent	Cumulative Percent
Guzaa	67	29.3	35.6	35.6
Daily Laborers	121	52.8	64.4	100.0
Total	188	82.1	100.0	
Missing System	41	17.9		
Total	**229**	**100.0**		

Source: Survey carried out by the researcher during fieldwork in 2014

[27] Interview with Mohamad Musso, Ismael Adam, and Mahabub Yesuf.

[28] Interview with Mohamad Musso, Ismael Adam, and Mahabub Yesuf

Based on Table 3, out of the 229 respondents, 188 households responded that they covered their hoeing activities by employing daily labourers or organizing *guzaa*. Of these, 121 households or 64.4% accomplished their hoeing activities through employing daily labourers; whereas, the remaining 67 households or 35.6% organized *guzaa*. From the total respondents 41 or 17.9% neither employed daily labourers nor organized *guzaa*.

Besides labour cost, households also incurred a cost of *xawoo* or inorganic fertilizer for *jimaa* production. *Xawoo* is put around roots of *jimaa* plant in March and April after hoeing. *Xawoo* can make *jimaa* plant to grow fast and to have much harvests.[29] Like that of water and pruning, *xawoo* contributes for households' food security through enhancing productivity from small plots of land.

3.2.3. Types of *Jimaa* Harvests and Market

Based on *jimaa's* shoots stage of development, shape, length and their stimulation effects, broadly the community have categorized *jimaa* harvests into two: high and low quality. *Jimaa* harvests, such as, *urata*, *karabuula*, *qunxuuxii*, and *haddaara* belongs to high quality harvest; whereas, *faqa* is a collective name for low quality *jimaa* harvests.[30]

Urata is of a high quality of all *jimaa* harvests in its simulation effect. It is harvested from main stems of *jimaa* while shoots are at their early stage of growth and does not have much leaves. Shoots are not cut or broken but are harvested through detaching them from main stems. When it is detached from main stem, part of *urata* that fixes it with main stem has a shape of the head of nail. As a result, *urata* is known as *abomismar.*[31] Literally, *abomismar* means head of the nail. It has few leaves but unlike other types of harvests, entire stem has been used for chewing.

To get *urata* harvest, first *jimaa* stems have been cut roughly halfway from their height and all of their branches and leaves are removed. Within two or three months, shoots come out from bare stems. Before these shoots get strong, they are harvested by detaching them from main stems. Despite its high market price, households do not harvest it much since from large farmlands only small bundle is harvested. It is the

[29] Interview with Chala Dawi, Wardi Abdurazaq, and Mohamad Taha

[30] Interview with Mahabub Yesuf, Musa Ahmad, Mohamad Musso and Mohamad Musa.

[31] Interview with Mahabub Yesuf, Musa Ahmad, Mohamad Musso and Mohamad Musa.

least harvestable type of *jimaa*. *Urata* is a one round harvest from entire *jimaa* land. As a result, the farmers are not enthusiastic for this harvest. It is commonly harvested from stems which are prepared for further pruning.[32]

Karabuula is another type of high quality *jimaa* harvest. If *urata* is not harvested at its early stage, it produces a lot of leaves, tiny branches and shoots become stronger. *Jimaa* harvest at this stage is called *karabuula*. Like that of *urata*, it is harvested through detaching from main stems but only parts of its shoot are used for chewing. As a result, junction point with main stem has a shape of the head of the nail.[33]

Qunxuuxii is one of high quality *jimaa* harvests obtained when *urata* is left un-harvested at its early age. Its difference with *urata* is stage of development. It has much leaves for chewing though part of its shoots are used for chewing. On the other hand, like that of *karabuula*, it is harvested after shoots are taller and stronger relative to that of *urata*. Contrary to *urata* and *karabuula*, harvesting is not through detaching but through cutting with *meenca*/large hand sickle. Thus, its shoot has circular shape at bottom because of cutting. The difference between *qunxuuxii* and *karabuula* is the way they have been harvested. While shoots of *karabuula* take a shape of head of a nail at bottom, that of *qunxuuxii* have circular shape; otherwise, they are one and same with no difference in market price.[34]

Haddaara or *hafa* is another type of quality *jimaa* harvest, which has two sub-branches called *qarxii* and *quuda*. Literally, *hafa* means the one that left out before being harvested. The name *hddaaraa* or *hafa* refers to *jimaa* which is not harvested at *urata* stage but not yet reached to the next stage of development to be harvested as *karabuula* and *qunxuuxii*. This occurs when rain has stopped before *urata* reaches the next stage of *jimaa* harvest. So, shoots give up their growth and look like dry. When rain comes during spring, shoots that have stopped their growth began to grow. These shoots are harvested and taken to market in the name of *qarxii*. It is largely with *qarxii* households are making their subsistence for two seasons, spring and summer.[35]

During spring or *belg* rain, *jimaa* is infested with small insects called *barara*. These insects infest large areas of *jimaa* land within a short period of time. They could suck

[32] Interview with Mahabub Yesuf, Musa Ahmad, Mohamad Musso and Mohamad Musa.

[33] Interview with Mahabub Yesuf, Musa Ahmad, Mohamad Musso and Mohamad Musa.

[34] Mahabub Yesuf, Musa Ahmad, Mohamad Musso and Mohamad Musa

[35] Mahabub Yusuf, Abdulatif Ahmad, Mohamad Musso and Chala Dawi

liquid of *jimaa* leaves in mass. Because of this, the leaves will dry and fall. When *qarxii* is eaten by this insect, it will shed its leaves. Afterwards, wrinkled leaves come out on shoots of *qarxii* and are called *quuda*.[36] Thus, it is *qarxii*, which is converted to *quuda*. This type of harvest is mainly available during spring season.

Unlike other harvests, *quuda* does not have shiny leaves since it loses its water and other substance by insects. It is among high quality types of harvest due to its stimulation effects although its market price is not more than *qarxii*. Sometimes farmers who want to get *quuda* harvest import insects from elsewhere to spread on their *jimaa* land. Commonly, they buy *quuda* from Awaday and throw it inside their *jimaa* farms. Nevertheless, there are households who used chemicals to protect their *jimaa* from being affected by *barara*. These farmers look their comparative advantage of harvesting *qarxii* since *quuda* takes time to be harvested. Most farmers prefer *qarxii* to *quuda* and used chemical pesticides to speed up their harvest.

Quuda is preferable by consumers particularly during the rainy season as it is unlike other types, less waterish. Since its stimulant substances are not diluted, consumers can easily get stimulated. On the contrary, during rainy season, *qarxii* has much water content and its stimulant substances are diluted. So, one cannot get easily stimulated by chewing *qarxii.* But, in dry season *qarxii* is demanded by consumers than *quuda* since it has sufficient water content and is not too strong for chewing. *Quuda* is difficult to chew in dry season since its water content is too low.[37]

Finally, as it is mentioned earlier, *faqa* is a collective name for low quality *jimaa* harvests. *Faqa* harvests are either with or without shoots and often sold with plastic bag. *Faqa* has more than five sub-divisions but the commonest are *chira*, *tacharoo*, *babal'a*, *dhowe* and *qaxaala*. *Dhowe and qaxaala* are harvested from the same *jimaa* shoots. *Qaxaala* has short and twisted shoots and is sold in *haqaara/*bundle. In order to make *haqaara* not too fat, some branches are removed from shoots. These tiny removed branches are called *dhowe* and are kept for sale. Before these tiny branches are detached from main shoot, they are called by common name *qaxaala*.[38]

[36] Mahabub Yusuf, Abdulatif Ahmad, Mohamad Musso and Chala Dawi

[37] Interview with Mahabub Yusuf, Abdulatif Ahmad, Mohamad Musso and Chala Dawi.

[38] Interview with Mahabub Yusuf, Abdulatif Ahmad, Mohamad Musso and Chala Dawi.

On the basis of market prices, informants ranked high quality *jimaa* harvests as follows: *urata*, *karabuula/qunxuuxii*[39], *quuda*, and *qarxii.* These types of *jimaa* harvest are sold in bundle or kilo at Awaday, a town located few kilometres away from research site. It is from Awaday that *jimaa* is exported abroad. *Urata* is the most expensive type of *jimaa* harvest and a kilo of it can be sold up to 3000 birr during dry season. Market price of low quality *jimaa* harvests, *faqa*, also ranked as follows: *chira, babal'a, tacaroo*, *qaxaala* and *dhowe*. Except *qaxaala*, all *faqa* harvests are without shoots and are placed in plastic bag for sale. Haramaya and Bate towns are main destination markets of these harvests.[40]

In general, *jimaa* production expands and becomes households' dominant livelihood strategy mainly due to land scarcity, market opportunity and infrastructure development. Simultaneous to *jimaa* expansion, vegetables cultivation spreads across watershed, particularly around the sites of former lakes.

3.3. Vegetables Cultivation

During the reign of Emperor Haile Sellassie, vegetable cultivation was not expanded across the watershed. Gradually, households have come to realize the benefits they receive from vegetable cultivation. Taking lesson from cooperative associations, the community has expanded vegetable cultivation since the *Derg* period. Households who own land on shores of lakes have practiced intensive farming and produce vegetables four times in a year.[41]

Often, households attribute challenges of making livings to the disappearance of lakes. One of male FGD discussants at Haji Din bitterly explained about disappearance of lakes as follows:

> As opposed to the present, in the past there was abundant rainfall distribution and our ancestors practiced rain fed agricultural activities. They were not aware of how to use lake waters. Now, we have the knowledge how to use water for irrigation to cultivate varieties of vegetables. However, while we are aware of how to make money from irrigation, the lakes have gone (Mohamad Aliye, 26/05/2013 at Haji Din).

[39] Interview with Informants explained *karabuula* and *qunxuuxii* have the same market price.

[40] Shartu Mohamad, Mohamad Taha, Mahabub Yusuf, and Mohamad Musso

[41] Mohamad Taha, Abedella Mume, Mohamad Aliye and Musa Ahmad

Simultaneous to *jimaa* expansion, vegetable cultivation is expanded in the watershed. Remote sensing data showed expansion of vegetable cultivation through time.[42] Throughout my field stay, I have observed that vegetables are largely cultivated by those farmers who own land near to the sites of the lost lakes. Households who have easy access to *eellas* (water well) cultivate varieties of vegetables like potato, carrot, beetroot, tomato, cabbage, onion, garlic, and pepper. However, households that do not own land around lakes cultivate different kinds of vegetables using rain water.

Based on Table 4, out of 229 respondents of survey questionnaire, only 91 households had land for vegetable cultivation. Of which, 44 households or 48.4% cultivate vegetables with land size of one *harashii* or 0.25 hectare. Only one household cultivates vegetables with land size of three *harashii* or 0.75 hectare. The minimum and maximum vegetable land of households are 0.25 and 3.00 *harashii* respectively. As it is presented in figure 6.1, from the total of 504 *harashii* or 126 hectares of land for 229 household respondents, 79 *harashii* or 19.75 hectares are covered with vegetables.

Table 4: Frequency and Percentage Distribution of Farming Household Respondents Regarding Vegetable Land Size in *Harashii*

Vegetable land in *harashii*	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
.25	2	.9	2.2	2.2
.50	37	16.2	40.7	42.9
1.00	44	19.2	48.4	91.2
1.50	3	1.3	3.3	94.5
2.00	4	1.7	4.4	98.9
3.00	1	.4	1.1	100.0
Total	91	39.7	100.0	
Missing System	138	60.3		
Total	**229**	**100.0**		

Source: Survey carried out by the researcher during fieldwork in 2014

Potato, cabbage and beetroot are widely cultivated vegetables in the study sights. Informants also explained that cabbage, carrot, and beetroot are frost resistant than

[42] Landsat 1973, 1986, 2000 and 2010

jimaa and other crops. Farmers plant potatoes by the end of winter season since it is liable to frost or *amadaay*.[43]

3.4. Challenges to Existing Livelihood Strategies

Jimaa cultivation is prominent livelihood strategy of the community on the watershed followed by cereal and vegetable cultivation. But, these livelihood strategies are challenged by scarcity of water, rainfall distribution and land as well as *amadaay*/frost.[44]

3.4.1. Scarcity of Water

Households use their plots of lands to cultivate vegetables, *jimaa* and cereal crops. Formerly, during Imperial Ethiopia, cereal cultivation was the main livelihood strategy and the community relied on rain. Thus, lakes and other water points were relatively free from activity that could cause harm and remained full in size. However, through time farmers are aware of maximizing income from *jimaa* and vegetables cultivation through irrigation. Irrigation is one of the factors that contribute for the disappearance of lakes.

Households need to get regular income from *jimaa* harvests and vegetables to secure their subsistence. To have continuous harvest, water for irrigation is vital. However, water is scarce resource in the area particularly following the extinction of the three lakes.[45] Consequently, income generated from *jimaa* and vegetables has reduced which, in turn, challenges households' basic subsistence.

Households face scarcity of water to harvest *jimaa* and vegetables mainly from November to end of February. During this period, they harvest small quantity of *jimaa* without irrigation. Consequently, there were few individuals who lost their lives in the process of extracting water from *eellas* to water their *jimaa*. Households that own lands near the location of lakes have easy access to construct and use water from *eellas*. Yet, informants who do not own land near the shores of vanished lakes bitterly complained as they have no source of water to irrigate their *jimaa* from November to the end of February. They harvest *jimaa* and vegetables only using rain water. At the

[43] Mahabub Yusuf, Musa Aliye, Mohamad Musa and Mustafa Amayu

[44] Mahabub Yusuf, Musa Aliye, Mohamad Musa and Mustafa Amayu

[45] Mahabub Yusuf, Musa Aliye, Mohamad Musa and Mustafa Amayu

beginning of March, spring rain will start though they are not sure of its occurrence nowadays.[46]

3.4.2. Scarcity of Rainfall Distribution

Irregularity of rainfall distribution is another basic challenge for livelihood strategies of the community. Most households depended on availability of rainfall for their livelihood strategies although its distribution is not reliable. They face scarcity of rainfall and do not have any alternative solutions. According to them, in the past, while the lakes were alive, they copped up this problem through irrigation system using water from the lakes. The disappearance of lakes accompanied with rainfall scarcity undermined farmers means of livelihood. Rainy season is not entering and ending on time. The farmers further explained that they do not get adequate rainfall in the months of March and April as before.[47]

Because of scarcity of rainfall, cereal crops, such as, sorghum and maize seedling tend to wilt shortly after germination in the field. I observed seedlings of sorghum and maize wilting in the field due to scarcity of rainfall. Accordingly, informants feel insecure for their basic subsistence. One of my informants described his feeling as:

> …one year, we may get good harvest and the other year we may get poor harvest. Previously, when there were abundant rainfall distributions, we harvested our *jimaa* three or four times in a year. This is because when *jimaa* get rain, it is fast to regenerate branches and shoots for another harvest. However, at present, we harvest our jimaa hardly more than two rounds. After we harvest two rounds, the rain has stopped and thus we stop to harvest it until rain comes back (Musa Aliye, 23/3/2013 at Ganda Ali).

In general, the community is in short of water for human and animal consumption. As explained by most informants, if lakes are alive, they can manage rainfall scarcity with irrigation. Those farmers who own land near dried lakes cultivate vegetables and *jimaa* by digging *eellas* on locations of former lakes. Nevertheless, farmers who do not own land near lakes are in serious trouble.

[46] Mohamad Musso, Mahabub Yusuf, Musa Ahmad, and Mohamad Musa

[47] Mohamad Taha, Musa Aiye, Chala Dawi, Wardi Abdurazaq and Mohamd Aliye

3.4.3. Land Scarcity

Land scarcity is another challenge for community's livelihood strategies. There is no extra or free land to be distributed for the youth across the watershed. Newly married sons get land from the already small household holdings. As households' land size is getting tiny, household means of livelihood get insecure.[48]

Musa Ahmad, one of my key informants, was so sad while he was explaining how scarcity of land challenges their basic livelihood strategies. He stated as there is no solution to come out of land scarcity and explained his feeling metaphorically in his own native language as follows:

> *Nmnii ciitoo itii butee yoo qeesaa qabbatee niihooqaa, yoo qeesaa qabbatuu baatee ifuumaa riigaa male waan ishiin hooquu qabba.* Literally, a person who suffers from itch can get relative relief if he has claws for itching his skin. However, if he does not have claws he is just brushing his skins and no temporal relief from itching. Similarly, we do not have any solution for the scarcity of land. We are living with our problems (Mussa Ahmad, 18/3/2013 at Ganda Bubba).

Added to land scarcity, effects of *amadaay* on *jimaa*, vegetables and cereal crops is another challenge for households' livelihood strategy. Productivity of crops from small plots land at households' disposal is affected by effects of *amadaay*.

3.4.4. *Amadaay* (Frost)

Amadaay (frost) is one of the challenges for existing livelihood strategies following the disappearance of lakes. Scholars explained that during daytime, warm air blows from terrestrial land to water bodies. However, during the night, warm air blows from water bodies back to terrestrial land. Hence, warm air that blows from lakes during the night time warms terrestrial land. As a result, the effect of *amadaay* on crops was limited while the lakes were there.[49]

The agro-ecology of the study area is conducive for coffee production and they used to cultivate it. However, farmers abandoned its production since it is too sensitive to *amadaay*. In October, November, and December there occurred *amadaay* that strikes *jimaa* and other crops. Of course, *amadaay* that devastate everything is rarely

[48] Mohamad Musso, Musa Ahmad, and Ismael Adma

[49] Tegegn Sishawu (PhD) and Abdulatif Ahmad (PhD)

occurred. *Jimaa* plants struck by this devastating frost have no fate except uprooting and replacing them with new seedlings since frost impacts the stems and even the roots. I was an eyewitness for this kind of frost when it made most of *jimaa* plantations on the watershed dry in the year 2005. The common type of frost occurs every year but its impacts are incomparable with the devastating one.[50]

4. Concluding Remarks

In the 16th century, Alla and Nolei Oromo inhabited Lake Haramaya-Tiniqe watershed as pastoral communities. Gradually, through their contact with Harari sedentary agriculturalists, some section of Oromo abandoned pastoralism to sedentary agriculture. However, the turning point of their conversion came into being in the last quarter of the 19th century with Egyptian occupation of the region in 1875.

Initially, the Oromo shifted from pastoralism to sedentary agriculture as cereal cultivators. But, with gradual population increment and subsequent land scarcity they shifted from cereal to *jimaa* cultivation. Market opportunities and infrastructures development are also factors of change in livelihood strategies. These are factors related with political systems of successive Ethiopian governments. Hence, they can be understood from the perspective of political ecology approach. But, political system is not sole factor of change in livelihood strategies. Farmers' decisions on types of crops best harvested from small plots of land at their disposal are also factors for change in livelihood strategies. Consequently, change from principal cereal to *jimaa* cultivation also viewed from actor based model of human ecology.

Alongside with *jimaa* expansion, vegetables cultivation spread as an alternative livelihood strategy across the watershed. Onion, beetroot, tomato, garlic, carrot, green pepper, potato and cabbage are common types of vegetables cultivated on the watershed. Households cultivate vegetables using rain water and water from *eellas*. Households that own land on shores of former lakes cultivate vegetables using *eellas* constructed on the site of the lost lakes. Nonetheless, those that do not own land on shore areas cultivate during spring and summer season using rainwater.

In contrast to *jimaa* and vegetables, cereal cultivation is in state of decline. From varieties of cereals, households prefer to cultivate sorghum and most households cultivate it in the middle of their *jimaa* through intercropping. Yet, there are few

[50] Mohamad Musa, Musa Aliye, Taha Mohamad, and Abdulatif Ahmad

households that own relatively large land size and cultivate cereal crops in separate plots of land. The existing livelihood strategies are challenged by frost, scarcity of water, erratic of rainfall distribution and scarcity of land.

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Informants Profile

No	Name	Sex	Age	Date	Village	Remark
1.	Abedella Mume	M	75	31/5/2013	Ganda Migno	Knowledgeable informant
2.	Aysha Ahmad	F	38	21/5/2013	Ganda Aradda	Key informant
3.	Chala Dawi	M	37	1/5/2013	Haji Din	Knowledgeable informant
4.	Dr. Abduletif Ahmad	M	60	27/6/2013	HU	Key informant
5.	Dr. Tegegn Sishawu	M	54	12/6/2013	HU	Knowledgeable informant
6.	Ismael Adam	M	78	25/5/2013	Ganda Hulul	Key informant
7.	Mahabub Yesuf	M	46	29/4/2013	Ganda Hulul	Key informant
8.	Mohamad Aliye	M	60	2/4/2013	Ganda Hulul	Knowledgeable informant
9.	Mohamad Musa	M	53	23/3/2013	Ganda Ali	Key informant
10.	Mohamad Musso	M	86	30/3/2013	Ganda Kara Gala	Key informant
11.	Mohamad Teha	M	58	31/5/2013	Ganda Migno	Knowledgeable informant
12.	Musa Ahmad	M	65	15/9/2013	Ganda Buba	Knowledgeable informant
13.	Musa Ahmad	M	86	19/3/2013	Ganda Buba	Key informant
14.	Musa Aliye	M	78	23/3/2013	Ganda Ali	Knowledgeable informant
15.	Musetefa Ameyu	M	71	1/5/2013	Ganda Hulul	Key informant
16.	Shartu Mohamad	F	40	21/5/2013	Ganda Aradda	Key informant
17.	Wardi Abdurazak	M	44	25/5/2013	Ganda Hasene	Knowledgeable informant

Extent of *Chata edulies* Distribution in Homegarden Agroforestry: A Case Study from Hintalo Wejerat *Woreda*, Tigray, Ethiopia

Hintsa Muruts and Yohannes Desta

1 Introduction

Khat (*Catha edulis* Forsk), belonging to family Celastraceae, is considered an evergreen plant, cultivated mainly in home gardens for the production of leaves having sympathomimetic actions which are used commonly for gradual chewing. A much-branched shrub or tree, usually kept two to seven meter but reaching 25 meter in forests. *Khat* trees look like eucalyptus with rounded clusters of bending branchlets bearing the leaves. The bark is smooth grey-white, later rough and dark brown. Leaves are opposite oval to 11 centimetre (cm), long leathery grey-green above, paler below with clear veins, edge regularly toothed; leaf stalks reddish about 1 cm allowing leaves to twist in the wind. Flowers are very small, pale yellow in bunched clusters beside the leaves (Azene, *et al*, 1993)

This plant is called by different names in different countries: '*chat*' or '*khat*' in Ethiopia, '*qat*' in Yemen (Atrooshand Al-Moayad, 2012), '*mirra*' in Kenya (WHO, 2006). In most of the literature, it is largely known and called as *khat*. In Ethiopia, *khat* is grown extensively in the middle altitudes between 1,400 and 2,200 meters above sea level and performs better on well-drained soil under diverse climatic conditions (Azene, *et al*, 1993). It can tolerate drought conditions for several months. The crop can be harvested around the year, thereby becoming a source of permanent income for the farmer.

Khat was recommended to the UN Commission as Narcotic Drug due to its addictive effect (UNCND, 1996). Ethiopia, which is the world's largest producer of *khat*, has not so far issued laws that regulate its production, distribution and consumption. Recently, the plant in Ethiopia has become an important export commodity. Due to the policy ambiguity that prevails regarding *khat*, growers receive no assistance in terms of subsidized fertilizers or extension services. *Khat* is, therefore, only grown because it can be sold at a price, which is profitable to the grower. Like elsewhere in Ethiopia, the Tigray regional government does not encourage the consumption of *khat*. There

are, however, a large number of people cultivating the crop in the region, including in the study sites of this research.

As noted above, the issue of *khat* consumption has not been given due attention by the public in general and the government in particular. As a result, there are no strategies that could help minimize the negative consequences its consumption. In recent years, *khat* consumption has been increasing, particularly among the youth in many urban/peri-urban areas of the Tigray region. Concomitantly, in those localities, which are suitable for *khat* farming, farmers are engaged in the production of the plant. This chapter examines the causes for the introduction and expansion of *khat* in homegardens and the socio-economic and ecological impacts of *khat* farming by taking the Hintalo Wejerat *Woreda* of the Tigray regional state. It, moreover, seeks to explain factors that influence farmers' decision-making regarding species selection.

2 Methods and Materials

2.1 Description of the Study Area

2.1.1 Location

This study was conducted in Hintalo-Wejerat *woreda* (district), 20km south of Mekelle city. The district is located at 39°27'-39°87'E and 12°88'-13°44'N. The altitude ranges from 1,825-2,625 meters above sea level. The mean annual maximum and minimum temperatures are 26.55°C and 11.06°C respectively. Meanwhile, annual rainfall of the district ranges from 336-933mm. The district is placed in an area of 1933 km^2 of which 63% are *weina dega* (midland), 13.75% is *dega* (highland) and 22.5% is *kola* (lowland). According to the 2007 national population census, the total population of Hintalo-Wejerat *woreda* is about 152,219 (CSA, 2008). It borders with Afar regional state in the east, Samre Seharti and Alaje *woredas* in the west, Raya Azebo in the south and Mekelle in the north.

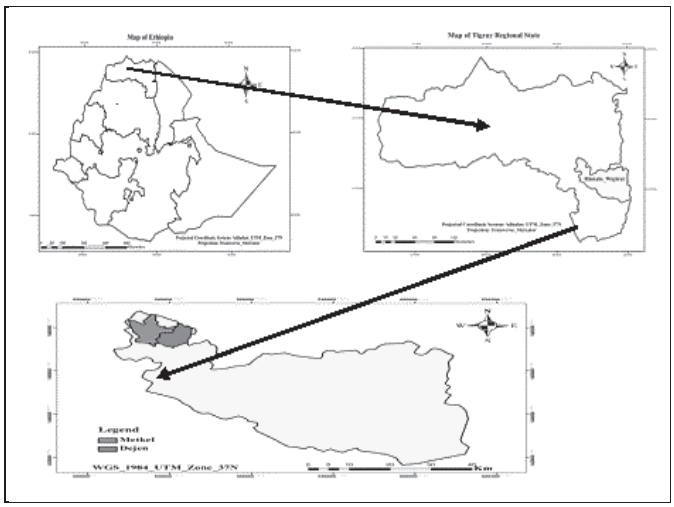

Figure 1: Location of the study area

2.2 Sampling Strategy

2.2.1 Study Site Selection

The study was carried out in two nearby sites of the Hintalo Wejerat district. The two sites (i.e., Dejen and Metkel) were selected based on the inclusion of *khat* in homegarden agroforestry practices and accessibility of the areas for the researchers.

2.2.2 Key Informants and Household Selection

Key informants (KIs) who lived in the area for long period of time and are knowledgeable about their respective localities were selected from each site. The KIs were also used to classify farmers at the study sites into three major wealth categories; this classification was verified by information provided by the *kebele* administrations. To select key informants, site tour was made with *tabya* (neighbourhood) council members and development agents. Totally 20 key informants were selected for the whole study. The sample size for the survey was determined based on the equation recommended for survey studies (Cochran, 1977). Accordingly, a total of 60 households were selected from the two sites constituting about 5% of the households.

2.3 Data Collection and Analysis

Data for the study was collected using a set of structured and pre-tested questionnaire. The questionnaire included issues on motivation of farmers, perception, source of

planting material and year since when they start planting *khat* in their farmlands. The history of the farming practices would be also based on interviews. Frequency of occurrence of plant species in homegarden agroforestry practices would be studied based on presence or absence of species. The presence of each species would be expressed by the percentage of stands in which it occurs.

The quantitative data collected from household questionnaire survey was analysed using descriptive statistics with help of SPSS Inc., Chicago, USA, (2007).

3 Results and Discussions

3.1 Demographic Characteristics of Respondents

Analysis of demographic characteristics of respondents with regard to age, sex, and educational background are presented in Table 1 below. Results show that age groups above 45 years had the highest number of respondents (67%). This shows in reality that majority of the respondents lived for a long period of time in the study area and should be able to know the dynamics in the farming systems within their communities. The majority of the respondents (82%) were males, while 18 % were females, which means that the respondents should be knowledgeable and able to give reliable information, as males are more involved in *khat* farming in the study villages.

Most of the respondents (52%) completed primary school education, while 48% had no formal education. No secondary school certificate holders recorded (Table 1). Although the educational level of the people is low, they have good indigenous knowledge about the common environmental resources and their utilization in their localities.

Table 1: Socio-economic characteristics of the respondents (n=60) at the study villages.

Socio-economic characteristics		Frequency	Percent (%)
Sex			
	Male	49	81.6
	Female	11	18.4
Age			
	28-35	9	15.00
	36-45	11	18.33
	46-55	23	38.33
	> 56	17	28.33
Education			
	Illiterate	29	48.30
	Literate	31	51.70
Family size			
	2-4	12	20.00
	5-7	34	56.67
	> 7	14	23.33
Wealth status			
	Poor	20	33.3
	Medium	20	33.3
	Rich	20	33.3

3.2 Extent of *Khat* Production

3.2.1 Frequency of Occurrence

The frequency occurrence of woody species across the study agroforestry homegardens is presented in Figures 3 below. *Rhamnus prinoides* (78%), *Psidium guajava* (58%) and *Catha edulis* (53%) were the most frequently recorded woody species.

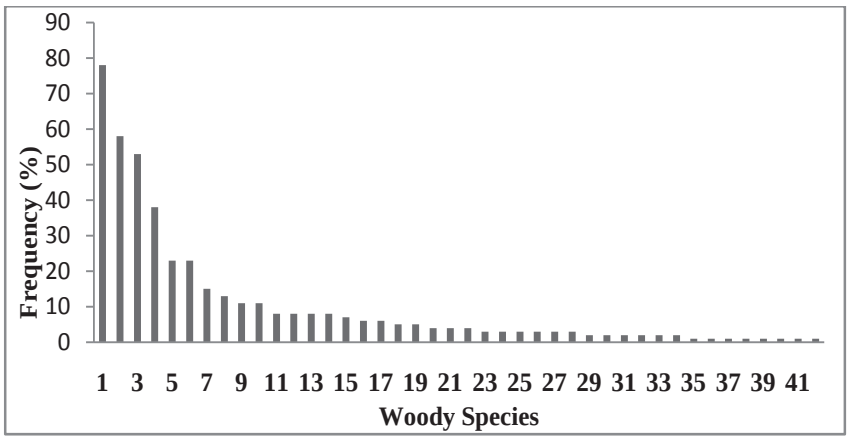

Figure 2: Overall frequency occurrence of woody species across the study agroforestry homegardens.

No	Botanical Name	No	Botanical Name	No	Botanical Name
1	*Rhamnus prinoides*	15	*Maytenus senegalensis*	29	*Carisa edulis*
2	*Psidium guajava*	16	*Ceropegia aristolochoides*	30	*Malus sylvestris*
3	*Catha edulis*	17	*Sesbania sesban*	31	*Opuntia ficus-indica*
4	*Eucalyptus camaldulensis*	18	*Citrus sinensis*	32	*Becium grandiflorum*
5	*Cordia africana*	19	Shewo kerne	33	*Bersama abyssinica*
6	*Olea africana*	20	*Ziziphus spina-christi*	34	*Ricinus communis*
7	*Acacia saligna*	21	*Grevillea robusta*	35	*Prunus persica*
8	*Eucalyptus globulus*	22	*Citrus aurantifolia*	36	*Citrus medica*
9	*Schinus molle*	23	*Casuariena equistifola*	37	*Carica papaya*
10	*Rumex nervosus*	24	*Mangifera indica*	38	*Acacia etbaica*
11	*Dodonaea angustifolia*	25	*Persea Americana*	39	*Euphorbia abyssinica*
12	*Luceana leucocerphala*	26	*Buddleja polystachya*	40	*Phytolacca dodecandra*
13	*Azadirachta indica*	27	*Juniperus procera*	41	*Citrus limonia*
14	*Coffea arabica*	28	*Otostegia integrifolia*	42	*Dovyalis abyssinica*

The frequency of occurrence of woody species was estimated to find out the extent of species distribution and enhances understanding of species selection for homegardens. *Rhamnus prinoides* was the most frequently distributed woody species followed by *Psidium guajava* and *chata edulies.* The high frequency of occurrence of *khat* could be due to households' preference due to its economic value.

3.2.2 Abundance of *Chata Edulies* per Homegarden

Table 5.Mean (±std) abundance of *khat* per homegarden of the study villages

Wealth categories'	Abundance
	Mean(±std)
Rich	21.13^{a}±6.89
Medium	16.01^{b}±2.13
Poor	15.17^{b}±2.10
Overall mean	15.90±3.19

Note. Different letter(s) ordered vertically on mean values show a significant difference ($P< 0.05$) among the three wealth categories'

The study indicated that there was a high number of *khat* (abundance) in the farms of wealthier households. This could be partly explained by the relatively better access that wealthier farmers have to *khat* seedlings. Moreover, farmers with better income often tend to emphasise on a high-value species instead of staple foods.

To evaluate the importance of individual woody species, the importance value index (IVI) of individual woody species was estimated. Accordingly, *Rhamnus prinoides* ranked first, followed by *Psidium guajava* and then *Chata edulies*. Woody species with high IVI have either multiple uses or high commercial value or both.

3.3 Awareness of Existence of *Khat*

Table 2 shows that all the respondents (100%) had knowledge about the existence of *khat* in the locality, which means that the species is noticeable in the study areas. According to Table 2, 32 households (53%) have *khat* in their homegardens. Differences exist in the extent of *khat* distribution among the households. The probability of having *khat* in the homegardens of rich households (16) was highest than medium (10) and poor households (6). This can be connected with the fact that *khat* has become common in the study sights. Indeed, 53% of the respondents indicated that they grow *khat* in their homegardens. There are cultural taboos in consuming *khat* in the study areas, but there are no taboos associated with the planting of the species.

3.4 Farmers' Perception on Drivers of Changes

According to the opinion of key informants and the response of 92% of the respondents of the questionnaire, *khat* was introduced in their homegardens during the past 11 to 20 years. *Khat* was less common in homegardens some two decades ago; however, its rate of introduction has significantly increased in the past decade. Although the amount of income generated from the sale of *khat* leaves might not be relatively large, it can play an important role in helping the households with their day-to-day expenses and can lead to the planting of more *khat*. Market demand is becoming a major factor that encourages farmers to grow *khat* in an unprecedented level.

4. Conclusions

This study has evaluated the extent of *khat* distribution in Tigray region, which used to be considered as almost *khat* free area some decades before. Currently, *khat* is not only adopted by many farmers, but also becoming a predominant cash crop largely grown in homegardens in the study area. From the results discussed above it can be inferred that in the study area, there are no cultural taboos that discourage *khat* production, while consumption is not still approved by the society. In fact, *khat* production got social support because of its economic value. The direct and immediate income that can be generated from *khat* production is the major driving force for its social acceptability and made farmers free to plant the species with little social and cultural resistance.

In sum, the study clearly indicates that cultural and social values are often overridden by economic benefits generated from the production of *khat*. As a result, *khat* has overwhelmed the homegardens of the farmers in Hintalo Wejerat *woreda.*

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Khat-Related Employment: A Futile or a Neglected Reality? Cases in *Khat* Distribution and Retail-outlets in Addis Ababa

Daniel Megersa

1 Introduction

Khat, scientifically known as, *Catha edulis* is a flowering plant native to Horn of Africa and the Arabian Peninsula. *Khat* chewing has a history as a social custom dating back thousands of years (Almughwhed *et al* 2008). The World Health Organization (WHO) noted that *khat* abuse is a regional problem, so that, it is best to be controlled at that level. For this reason, *khat* was not scheduled under the single convention on Narcotic Drugs. In 1980, the WHO classified the plant as a drug of abuse that can produce mild to moderate psychological dependence, (Nutt *et. al*., 2007).

Although the WHO does not consider *khat* to be seriously addictive, it is a controlled substance in some countries largely in Europe and America, while its production, distribution, sale and consumption are legal in other nations, including Djibouti, Kenya, Somalia, Yemen and Ethiopia. According to some sources, *khat* was first grown in Ethiopia (DEA, 2006; Ezekiel, 2004). The city of Harar is cited as the birthplace of the plant and said to be introduced to Yemen in the 15th century.

The exact number of people who chew *khat* worldwide is not exactly known. However, an estimate ranges from 5 to10 million people predominantly living in the Horn of Africa and the Arabian Peninsula, most notably in Yemen, Somalia and Ethiopia (Nutt *et. al*, 2007). *Khat* use has traditionally been confined to the regions where it is grown because only the fresh leaves have the desired stimulating effect. The practice of *khat* chewing is still primarily restricted to its original area of cultivation in the Red Sea area (Feyisa *et al* 2003); and over the years the *khat* plant has found its way to other countries. In recent years, however, improved road and air transportation have increased the global distribution of this perishable commodity, and as a result, the plant has been reported in other countries. Its fresh leaves and tips are chewed or, less frequently dried and consumed as tea to achieve a state of euphoria and stimulation.

Traditionally, *khat* is used as a socializing drug, and this is still very much the case in Ethiopia, where *Khat* is predominantly a male habit (Ezekiel, 2004). At present, *khat*

production and marketing create employment for millions of farmers, traders and other service providers.

Export wise, *khat* has become one of the leading foreign currency earners for the country. The revenue generated by regional and federal governments from the *khat* trade, and employment opportunities that the *khat* 'industry' has created are fascinating. The growing demand for the crop in the national and international markets brought considerable changes, on the techniques of production and marketing all along the value chain from the farm gate to the various centres of distribution (Klein, *et al* 2009).

Critics emphasize on the negative health, social, political and economical impacts of *khat* and overlook the basic reasons for the rapid expansion of the *khat* 'industry' and its contribution to the livelihood of the producers, distributors and traders. In order to understand the *khat* 'industry' from livelihood point of view, it is necessary to consider, among others, the diversity and scope of employment that the *khat* 'industry' has created. *Khat* is also Ethiopia's third largest export item next to coffee and gold (NBE 2013).

Studies show that the *khat* 'industry' has created additional opportunities for unemployed urban youth whose livelihoods are limited (Gessesse, 2013). The logistics network, market link and the participation of different actors involved in *khat* distribution and retail are not well studied. The economic and employment benefits that *khat* provides should be considered duly in the preparation and formulation of policy on the subject.

2 General Objectives

The main objective of this chapter is to investigate *khat*-related employment profile and the diversification and scope of employment created in the *khat* 'industry'. The chapter specifically examines:

- The empirical evidence on the nature of the *khat* trade and its importance to the Ethiopian economy;
- Social problems and economic benefits that are associated with *khat* with the purpose to open a debate whether the national economy should live with it or without; and
- Provide ideas for policy discussion on *khat*.

3 Methodology

The study mainly used primary and secondary data, which were collected through unstructured interviews, Focus Group Discussions (FGDs), systematic observation and literature review. Accordingly, FDGs and unstructured interviews were organized with *khat* wholesalers and retailers, consumers, community leaders, health officials and other professionals working in Ministries of Trade and Agriculture. Systematic observations were also used for data gathering as an additional means of data collection.

Sources of the secondary data were official records that were obtained from various governmental and non-governmental organizations and published materials on the subject.

The study taken as its point of departure the major and popular *khat* distribution centres in Addis Ababa, namely, the Merkato (Cinema Ras); Sidamo Tera in Addis Ketema sub-city; and Saris in Akaki-Kaliti sub city and followed their distribution channels to wholesale and retail traders.

4 Result and Discussion

4.1 The *Khat* 'Industry'

Khat production and sale have a long-standing history in Ethiopia. It was thought to be originated in eastern part of Ethiopia, Harar, and become popular in due course to central and southern parts of Ethiopia. Commercialization of *khat* has started at the beginning of the 20th century in Eastern Ethiopia and other growing regions soon followed suit. The reasons behind chewing of *khat* take different explanations ranging from religions to recreational ones (Gemechu, 2002).

Closed to three millions of farmers in Ethiopia derive their income from the production of *khat* (CSA 2015). Millions are also engaged in distribution and retail of the product in urban centres in almost all parts of the country.

Despite the controversy surrounding *khat* and the policy ambivalence towards its production, distribution and use, the plant has become the third largest foreign exchange earner for the country. The export market for *khat* by and large is limited to the neighbouring countries. Exports to Europe and North America were ceased as many European countries and the USA banned the distribution and use of the plant.

As a result, the *khat* 'industry' mainly relies on domestic demand. According to CSA 2014/15 report, 249,358 hectares of land were covered by *khat* farms and over 3 million smallholder farmers were involved as producers in all the regional states of the country. Moreover, it was estimated that more than 243 wholesale and 3,500 retail traders were engaged in *khat* trading throughout the country.

4.2 *Khat* – A Brief Introduction

Khat is a slow growing shrub of tree that typically attains a height between 1 and 5m (3.3 and 16.4ft). However, it can grow up to 10 meters (33ft) in equatorial areas. The plant usually grows well in watered area with a temperature ranging between 5 to 35 ^{0}C (41 to 95^{0}F). (*Khat* facts 2013, Ahmed, 1994)

Khat goes by various traditional names such as *kat*, *gat*, *ghat*, *chat*, *tschat*, *Abyssinia Tea*, *Somalia tea*, *Miraa*, *Arabian Tea* and *Kafta* in its endemic regions of the Horn of Africa and the Arabian peninsula (Dechassa, 2001). In Ethiopia, there are different brands of *khat* based on the size/package colour of the young shoots of the plant, and place of production. The chewing of *khat* is so integrated in the daily routines of people in parts of the country where there has been a long tradition of *khat* use that the chewing of the leaves got specific names with respect to timing of consumption, namely, *Ijabanaa* –the morning chew – *Bartcha* – the afternoon chew and *atarora* – the evening chew.

Table one below summarized the commonly found brands of *khat* in the market by their production origin, size/package and retail price in Addis Ababa *khat* markets. As shown in the table, there are about 15 types of *khat* in the market of Addis Ababa, much of the product comes from Oromia, Southern and Amhara regional states. There is a big price variation ranging from 1,000 birr to 35 birr per KG. As the demand for *khat* increased, the price also increased. In the past ten years the average price of a KG *khat* increased from 20 to 30 birr to120 to 300 birr.

Table 1: Vernacular Name of *khat* in the Market by brand name, Origin, Size/Package and Retail price

No	Brand Name	Origin	Size/ Package	Retail price (in birr)
1.	Aweday	Harar	1000gm	70- 1000
2.	Basha	Hawasa	300 gm	20-45
3.	Beleche	Hawasa	400gm	60-80
4.	Gelemso	Harar	500 gm	50-70
5.	Gourdema	Bahrdar	100gm	40
6.	Gurage	Gurage	500 gm	50-100
7.	Hirna	Harar	600 gm	80-120
8.	Infrans	Bahrdar	100gm	35
9.	Kobo	Harar	300gm	80
10.	Matakesha	Harar	300gm	150
11.	Mesenti	Bahrdar	100gm	30
12.	Mismar (Abu)	Harar	1000gm	80-100
13.	Sabata	Sabata	200gm	35
14.	Wondo	Hawasa	250 gm	20-45
15.	Zenzeluma	Bahrdar	100gm	35

There are a number of procedures employed to ensure the marketable value of *khat* after harvest. The consumable part is harvested and put in shawls or plastic sacks at the farm and taken home for sorting and grading. At this stage, plucking of leathery leaves and trimming of long stems will be done. The selected material and the unfit/unmarketable portion, locally called *garaba*, are separated. The unfit part is set aside for animal feed and for the production of manure. The selected and marketable part is tied into *haqara* (bundles) (40-60 selected slender twigs) and splashed with water to keep it wet and fresh and then wrapped with fresh leaves and twigs of different plants and grasses.

The bundles of the commodity will finally be placed in burlap or plastic bag, sack or shawl ready for transport to market for sale. The way the commodity is packed varies depending on the distance to the final destination and the purpose it is sent for (local consumption or export) (Dechassa, 2001).

Export of *khat* has a different story of presentation divided and graded by height and weight specifications that prevail for Stock-Keeping-Unit (SKU). For Grade 1 exports, height and weight specifications are respectively 35cm and 200gm per pack and this is

sold at a price of 8 USD. For Grade 2, usually exported to the Djibouti market, height and weight specifications are respectively of 28 cm and 90 grams and sold at 6 USD per pack. Grade 3 and 4 are exported to Somalia (Mogadishu) and Bosaso using airplanes (Rakesh *et al*, 2011).

4.3 The Structure of *Khat* Trade

From farm gate in rural areas to consumers in urban areas, the *khat* trade follows a similar pattern. Two types of sales are conducted, first, for local consumers living in the production/marketing areas and second wholesale selling for major consumption areas within the country. The *khat* trade for export is slightly different in that associations or individual exporters either by their own or through agents will directly collect the product form the producers. The *khat* product flow and *khat* market linkage from the farmers' fields retailers are presented in figure 1.

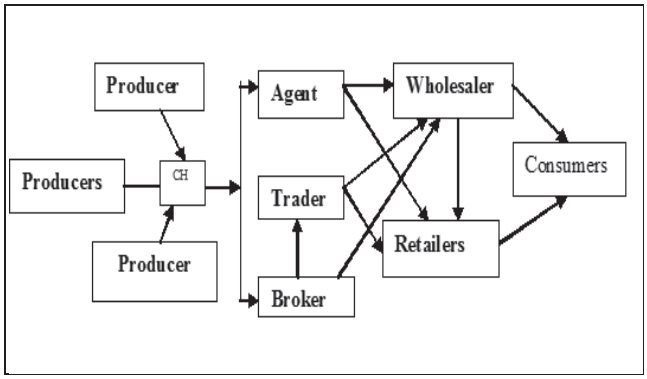

Figure 1: The *khat* product flow and *khat* market linkage from the farmers fields to retailers.

•P= Producers CH= Collection Hub

Farmers generally sell *khat* to buyers, brokers and/or agents who visit their own farms in search of the product. Some big and experienced farmers access the exporters of *khat* directly and negotiate for the best possible price, while others either sell on their farms or approach brokers in their local markets. The brokers work on a commission basis, which they receive from the seller of the product. The difference in the price of *khat* can be attributed to the quality of the product.

The number of people involved in the *khat* trade increases as the product moves from the farm get to actual centres of consumption. *Khat* related employment is direct and

indirect. In addition to the large contingent of retailers, there are small traders who sell food, soft drinks, tea/coffee, cigarettes and plastic bags and nuts to those who visit the *khat* market and use *khat*.

As shown in table 2 below, in 2013/14 fiscal year there were 243 wholesale and 2,801 licensed retail *khat* traders in Ethiopia. Of the 243 wholesalers, 16.5% were share companies, 19.6% cooperatives and 63.8% were individual traders. In contrast, individuals ran all of the retail businesses. According to the data from CSA, about 60% and 80% of the wholesale and retail *khat* businesses were respectively established within the past five years (CSA 2013/14).

Table 2: Number and Percentage Distribution of Wholesale and Retail *khat* Trade by Proprietorship in 2013/14

Proprietorship	Wholesale *khat* traders		Retail *khat* traders	
	Number	%	Number	%
Individual proprietorship	155	63.8	2,801	100
Partnership	-	-	-	-
Share company	40	16.5	-	-
Private Limited	-	-	-	-
Government owned	-	-	-	-
Cooperative	48	19.7	-	-
Total	243	100	2,801	100

Source: CSA 2013\14

4.4 Economic and Financial Benefits of *Khat*

There are about 160 active exporters of *khat* to different destinations, in which Somalia and Djibouti taking the lead. The volume of *khat* export and the amount of foreign exchange it brings to the nation has been steadily rising over the past years. The country exported 22,000 tons of *khat* in 2007/08, earning 108 million dollars. In 2008/09, export reached 25, 500 tons and export earnings rose to 139 million USD. The volume of exports increased to 36,000 tons in 2009/10 and 41,000 tons in 2010/11. Likewise, there has been a surge in the amount of foreign exchange *khat* brought to the country. In 2009/10, the country earned 209 million dollars; and in 2010/11 the product produced 238 million dollars.

The rise, both in terms of volume and earning, has also continued in 2012/13, reaching 271 million dollars in earnings from the export of 47,017 tons of *khat*. This was followed by 297 million dollars earned in 2013/14. A slight decrease in earning (273 million USD) was observed in 2014/15 due to the ban on importation of *khat* into the U.K. (Table 1). In 2015/16 for the period of six months a total volume of 24,961 tons of *khat* were exported and earning a revenue of 140, 185 USD that was equal to the volume and value of *khat* exported in 2008/09 fiscal years (Table 3)

Table 3: Trends of *Khat* Export in Ethiopia Earnings and Volume (2007/08 – 2015/16)

No.	Year	Volumes (in tons)	Values (,000)
1.	2007/08	22,000	108,000
2.	2008/09	25,000	139,000
3.	2009/10	36,000	209,000
4.	2010/11	41,000	238,000
5.	2011/12	41,100	271,000
6.	2012/13	47,667	271,507
7.	2013/14	51,692	297,362
8.	2014/15	49,208	272,436
9.	2015/16*	24,981	140,115

* a six month report (July – December 2015/16),

Source: Fed. MOI 2007-2016

Among the top three export destinations of *khat* from Ethiopia, the UK used to be the third largest market following Somalia and Djibouti. In 2012/13 alone, Ethiopia had reaped 14 million dollars from its *khat* exported to the U.K. In the same year, Somalia that contributed 78% of the earnings, bought 201 million dollars worth of *khat*, followed by Djibouti with 42 million dollars. A small proportion of the earnings (1.6 million dollars) was also earned from export to Israel.

Nonetheless, the country is exporting only a small portion of the total amount of *khat* it produces. In 2012/2013 only 47,667 tons made its way to the foreign market, out of the estimated 190,000 tons of *khat* produced by close to 2.5 million farmers cultivating the crop on a total area of 201, 115 hectares of land. In the 2014/15 fiscal year, this number increased to 49,208 tons in volume and the country earned 272, 436 USD. In the same year, the estimated area used for *khat* cultivation reached 249,358

hectares of land and more than 3 millions farmers were engaged in the production of the crop (Source).

Table 4: The major *khat* exporter destination by earnings and volume 2012/13-2014/15

Sr. No	Destination	Volume (in tones)			Value (000)		
		2012/13	2013/14	2014/15	2012/13	2013/14	2014/15
1.	Somalia	41,058	45,185	42,655	210,695	231,925	217,588
2.	Djibouti	5,569	5,910	6,359	42,017	44,663	48,106
3.	U.K	408	469.5	-	14,240	16459	-
4.	Israel	46.4	48.3	41.5	1,623.4	1690	1,450.8
5.	Netherlands	30.2	-	4.1	1,056.9	-	143.6
6.	India	14	23.6	13	1490	746	453.7
7.	Vietnam	12.6	9.1	21	439	319	733.6
8.	Germany	-	-	11.9	-	-	417
9.	United States	0.04	-	21.3	1.37	-	745

Source: MOI 2014\15

When we consider regional distribution of production, the Oromia region in 2012/13 accounted for 64% of the total production and close to 1.25 million farmers were engaged in the cultivation of the crop. The southern region, which contributed 24% of the total production, follows Oromia and an estimated 714, 276 smallholder farmers were engaged in production of *khat*. A considerable amount of farmers also produced 3.2% of the production in the Amhara regions. The remaining 12% of production was produced in the Ethiopia Somali, Harari, Dire Dawa and Benishangul Gumuz regions.

Table 5: Regional Distribution of *Khat* Production and Cultivated Area (2013/14)

Sr. No	Regions	Cultivated Area (in ha.)		Production (in Quintals)	
		2012\13	2014\15	2012\13	2014\15
1.	Tigray	605	-	-	-
2.	Amhara	7,840	9,563.77	57,198	66,572
3.	Oromia	125,849	156,522	1,159,812	1,671,320
4.	Somali	4,725	4,430	45,600	83,092
5.	Southern Region	34,042	69,505	441,186	759,309

Sr. No	Regions	Cultivated Area (in ha.)		Production (in Quintals)	
		2012\13	2014\15	2012\13	2014\15
6.	Harari	4,833	2,253	82,651	
7.	Dire Dawa	1,127	1,324	12,797	8,791
8.	Benshangul Gumuz	754	1,183	8,021	16,708

Source: CSA 2014\25

The Agricultural Samples Survey of Ethiopia, (2014/15) revealed that *khat* production involves a substantial number of farmers, providing a significant amount of tax revenues and producing a large amount of foreign currency. Table 6 below shows that over three millions of farmers, which is 5.1% of Ethiopian farmers, cultivate *khat*, allocating about 18% of the farming land.

Table 6: *Khat* production, Area, Producers involved and Calculated Consumers and Revenues By the year 2014/15

No.	Description	Unit	Values	Remark
1.	Area	Hectare	248,964.56	CSA,2014/15
2.	Producers	Number	3,006,653.00	CSA,2014/15
3.	Land holding	Hectare	0.083	Calculated[1]
4.	Production	kg/Year	275,834,528	CSA,2014/15
5.	Export	kg/Year	49,207,500	Fed. MOI,2014/15
6.	Domestic Consumption	Kg/year	226,627,028	Calculated[2]
7.	Amount consumed/day	Kg	0.5	Estimated[a]
8.	Domestic consumers	Person/Year	453,254,056	Calculated[3]
9.	Price/ daily consumption	Birr	25	Estimated[b]
10.	Tax (Excise Tax)	Birr	3	ECRA
11.	Total tax Revenue	Birr	827, 503,584	Calculated[4]
12.	Total Export Revenue	USD	272,436,000	Fed.MOI, 2014/15
13.	Consumer's Domestic expense	Birr	7,931,945,980	Calculated[5]

Source: CSA, MOI and Federal Ministry of 'industry'[1],

[1]Calculated 1 – dividing the producers to land Area, Calculated2 - Subtracting the Export Volume from total Production, Calculated3 – Dividing the Domestic consumers by price/day, Calculated4 – the product of excise tax and production, Calculated5 - the product of Domestic consumers, Price/daily consumption with 70% domestic *Khat* traded locally estimated - consumption and price are estimated on the existing

Studies also revealed that for each *khat* farmer, there are 1.4 coffee farmers and 1.7 *enset* farmers. With regard to cultivated areas, for each *khat* hectare, there are 6 hectares of coffee and 1.7 hectares of *enset* (Gessesse, 2013).

Both the production and consumption of *khat* are currently expanding in Ethiopia. Domestically, *khat* growing regions collect high tax revenues. In 2012/13, over 193 million kg of *khat* was produced and of which 30% was used for household consumption and 70% for sale. In 2014/15 over 272.43 million USD was earned from export and that the Ethiopian government collected 0.8 billion birr from *khat* taxes on both domestic and export trade (Table 6 above). The *khat* revenue covers 1.7% of Ethiopia's GDP (Hailu 2005). In 2010, *khat* accounts for 10.5% of the national export with over 209 million USD in 2013 (NBE, 2013). The above figures showed the strong position of *khat* in the economy of the country.

It is difficult to estimate the tax- revenue collected from *khat* wholesalers and retail traders in Addis Ababa, as no accounting code specifically given to *khat* revenues. However, alcohol and alcohol related drinks; beer; and tobacco and tobacco related products have their own separate accounting codes for tax collection. The total tax revenue was estimated to 0.8 million (Table 6 above). In 2014/15, the Addis Ababa administration collected 0.9 million birr from license renewal, and registration fees from *khat* traders.

The government uses *khat* excise tax (proclamation No. 767/2012) in order to reduce the domestic consumption of the crop. The desire to use excise tax by the government to reduce consumption came due to the alarming rate of expansion in the consumption of the crop across the country. According to this proclamation, any *khat* locally produced and to be supplied for sale or destined for sale will be charged at a tax rate of five birr per kilogram, previously the tax rate was 3 birr per kg.

In the 2014/15 fiscal year, close to 3.1 million of peasants were engaged in the production of *khat*. They cultivated 249, 603 hectares of land and produced 2,758,345 quintals of the crop (CSA 2014/15). According to the Addis Ababa office of the Ministry of Trade, in the 2014/15 fiscal year, there were a total of 45 wholesalers and 3,425 retailers of *khat* in the capital (MOI 2014/15).

price . It is estimated that about 70% of domestic *khat* is traded while the remaining 30% is consumed by the producers.

Analysis made about the state of the *khat* 'industry' in Addis Ababa revealed that *khat* trading (wholesale and retailing) created a huge income for many, and a daily employment opportunity for about 12,000 people. Adding the illegally opened *khat* chewing houses, commonly known as **"***Mekamia Betoch***"** in private houses, guesthouses, in retailing *khat* trade shops, this number could go up to 15,000.

Table 7: Diversity and scope of employment by income in the whole and retail *khat* trade in Addis Ababa

Employee	Wholesale Trade		Retail trade	
	Number	**Income**	**Number**	**Income**
Owners	48	6,000/day	3425	250/day
House Renters	48	5,000/month	3425	2500/month
khat Vendors/ Assistances	115	120/day	1935	50/day
Recorders	90	80/day	-	45/ day
Cashiers	48	50//day	1712	60/ day
Cleaners	48	30/day	-	
Boiled-coffee Vendors	270	50/day		
Roasted- peanut Vendors	200	80/day		
Delivery Services	120	130/day		
Plastic bags / cigarettes vendors	225	25/day		
Transporters	16	600/day		
Loading/Unloading	145	70/day		
Guards	120	30/day		
Roasting peanut and packer	36	180\day		
Total	**1,503**		**10,497**	**12,000**

Source: Data collected from the selected *khat* market in Addis Ababa during the study

As shown in table 8 below, *khat* trading is a male-dominated activity, female participation in the business in general is estimated at 20% only. The number of women in the retail sector in particular is comparatively high, estimated at 31%. In Addis Ababa, the highest number of wholesale and retail *khat* traders were found in the Akaki-Kaliti and Kolfe-Keranio sub-cities being 30% and 17 % respectively

Table 8: Percentage of wholesale and retail trade of *khat* trade by sex and sub- city in addis ababa market

No	Sub-city	Whole Sale trade			Retail Trade		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**
1.	Addis Ketema	4	2	6	337	98	435
2.	Akaki-Kaliti	11	3	14	190	85	275
3.	Arada	4	1	5	252	117	369
4.	Bole	3	1	4	378	120	498
5.	Gulele	1	-	1	108	75	183
6.	Kirkos	1	1	2	214	157	371
7.	Kolfe-Keranio	6	1	7	362	221	583
8.	Lideta	4		4	134	65	199
9.	Nifas silk-Lafto	3		3	236	58	294
10.	Yeka	1	1	2	148	70	218
	Total	**38**	**10**	**48**	**2363**	**1061**	**3425**

Source: MOI, Addis Ababa city Administration, 2015

While it is difficult to provide a reasonable estimate of average daily income of wholesalers and retailers, as the traders do not maintain proper accounting records, it is possible to say that *khat* trading brings lucrative income. It is also important to note that *khat* marketing created new business model, including out-door services and after sale services and delivery of goods to the doorsteps of customers. Motorcycles and bikes are used for the delivery of *khat* and these service providers get an income of up to 150 birr daily.

5 Conclusions

Khat has been closely linked to debates about health and economy. It creates employment in rural and urban areas. This study showed that *khat* trading in Addis Ababa alone employs about 15,000 people daily. One of the most important justifications for maintaining the *khat* trading is the income that it generates for people who work in the sector and its contribution to tax revenue. Moreover, *khat* has also emerged as a premier export item, despite lack of government policy about its production and distribution.

As discussed in this chapter, *khat* has a significant impact on the livelihood of millions of producers, wholesalers and retailers. At the same time, millions of people across the country consume the crop on a daily basis.

In spite of this, the Ethiopian government does not yet have a clear policy on *khat*. The government, however, collects tax and secures foreign exchange from the exportation of the product to foreign countries.

It is important to note here that policy directions regarding *khat* must consider the positive and negative aspects of the crop. It is important to devise policies that minimize the adverse health and social impacts of *khat*, while recognizing the economic contribution of the corp.

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An Overview of Economic, Religious and Social Aspects of *Khat*: The Hararghe Experience

Abdulmalik Abubaker

1. Introduction

Scientifically, *khat* is known as *Catha edulis*, a name that signifies edible leaves. *Khat* has different names in different languages: It is called *Chat* in Amharic and Harari languages, whereas *Jimma* in Afan Oromo, *Kat* in Arabic, *Mirra* in Swahili, and *Abyssinian tea* and *African Salad* in Colloquial English (Addis Zemen, 1991). Furthermore, it is also called as *qat, Jat, ka-t, khat, gat, Arabian or Somali tea,* and *'Flower of Paradise'* by different authors and people (Amare and Krikorian*,* 1973).

As there are name differences across languages and communities, there are different traditions about *khat's* origin. As noted by Amare and Krikorian (1973), a Yemeni herder named Awzulkernayien, who, noticing the effect of *khat* on his goats, tried it himself and found out that it boosted his energy during the day and made him stay awake in the night and enabled him to pray and meditate for long hours. According to this lore, the origin of *khat* is Yemen. Burton (1894), however, pointed out that, another Yemeni named Sheikh Ibrahim Abu Zaharbui, introduced *khat* to Yemen from Abyssinia (Ethiopia). The view that Ethiopia is the origin of *khat* was shared by Huffnagel (1961) and Hagos (1963). *Khat* was mentioned in the chronicle of King Amda Tseyon (1314-1344 AD), as a plant that Sultan Subrad-Din, the Sultan of Ifat, threatened to plant in Tegeulet, the capital city of Amda Tseyon (Trimingham, 1965: 228). Preceding Burton, the presence of *khat* in Ifat was reported by Harris (1844) and in southern Ethiopia by Charles Beke (Ezekiel, 2004:3).

Harar is mentioned by Rushby as the place where the best *khat* is grown and hence, "some people say that the tree came from there and was taken to Yemen" (Rushby, 1999). As narrated by Abdulmuheimen[1] traditionally, Hararghe people believe *khat* was brought from heaven by a heavenly saint named *Aw* khazir, father khazir, who they say was ordered by the summit of saints who, observing reluctance and laziness in the people towards physical work, brought a bough of *khat* from heaven to solve the

[1] Interview held on February 11, 2016 in Harar with kabir Abdulmuheimen, who is 71, independent researcher and authority on Harar history. I would like to thank all my interviewees, my editor, and others who gave priceless help in the writing of this paper.

problem. During the interview conducted with Ezekiel on January 19, 2000 in *Awodday*, Adem Aliyu Jaylan, 61, said: "*khat* is a tree that God loves. It's a tree blessed by Rabi (God) and given to us. …This tree is not just another ordinary plant; it's a 'Leaf of Allah" (Ezekiel, 2004:3).

The short account on the origin of *khat* above provides a hint as to why most Hararghe people chew *khat*. This chapter will discuss this point further. First, however, it is worthwhile to look at *khat* related problems briefly.

2. *Khat* Related Problems

In illustrating the harmful effects of *khat* chewing, apart from scientific findings on subject, the experiences of individuals who frequent *khat*, and the researcher's personal observations of these individuals are expounded. Fouad Bekri,[2] a 60- year-old businessman in Harar, chewed *khat* for 45 years. During this time, he usually starts chewing *khat* early in the morning and continues up to 10 pm in the evening. Later, however, he stopped chewing *khat* for health, economic, family and religious reasons. When he chewed *khat*, his body used to glow, got annoyed easily and squabbled with his customers who came to his store. He used to fear that he would get mentally unstable and soon become like those wild eyed guys in dirty clothes who wander the streets picking and chewing discarded *khat* leaves dropped by people on the ground.

His average daily *khat* expense was 400 Birr and used to smoke up to 40 cigarettes a day. His relation with his wife and children was worsening as he failed his wife and children, including his customers. Moreover, he failed to live up to his religious expectations, as he was unable to perform the required prayer properly as required by Islam. According to Islam, a Muslim has to pray five times per day. But Fouad used to miss two of the five obligatory *salats*. He missed the *Subhi Salat* (the dawn prayer); as he is in bed after spending most of the night chewing *khat*. Similarly, he missed the *Asri salat* (the late afternoon prayer) as he used to be indulged in chewing *khat* during this time. As he himself admitted, his indulgence in *khat* harmed his relationships with his family, Creator and customers.

Yusuf Mehdi[3], 60, is another individual who quit his *khat* chewing habit after 40 years of chewing the stimulant plant. He quitted the practice as he developed hypertension

[2] Interview held on February 17, 2016, in Dire Dawa. Fouad lives in Beddesa, 330 km from Harar and known for its *khat* and coffee market.

[3] Interview held on March 08, 2016 in Harar. Yusuf is a businessman.

and diabetics. His wife and children were delighted when he gave up chewing *khat*. He said the toxin from the *khat* had left his entire body and now he joins his friends in their *khat* sessions without any temptation to return to his old habit. According to him, all that is required for one to quit the habit of chewing *khat* is strong commitment.

Like Yusuf, other individuals who quit the habit of chewing *khat* said that they benefitted in many ways. They said they saved the money they were spending on *khat* to buy important assets. Fouad, for example, said he bought goats from the money he spared by stopping chewing *khat* and gave them to his wife. He doesn't get angry with his wife and his customers anymore. Moreover, he regularly attends all the five prayers, thanks to his decision to quit *khat*. He also claims that quitting his addiction improved his sex life with his wife.

Aw Ali Khayro, 83, is one of the elders in Harar, who, even though has never chewed *khat*, says from his observation, *khat* has a negative effect on individuals.[4]He said "*Khat* impairs the mind as it makes people sleepless. It also makes people lazy as they sleep late in the morning rather than being in their daily jobs, which jeopardizes their careers." In contrast, those who do not have the habit of chewing *khat* attend their work properly and are punctual. He asserts that in his capacity as an elder involved in solving marital disputes, he observed that sexual incompatibility caused due to *khat* chewing and smoking hookah (*shisha*) is one of the major causes for divorce.

Fethia Michael[5], who is 30 and addicted to the smoking of hookah, holds a similar view. She believes that people who chew *khat* and smoke hookah can develop cancer. She does not support spending a lot of money on *khat* and insists people should use *khat* only during their leisure time. She does not object chewing *khat* as long as it is not abused in a way that it prevents people from work. She believes that if people, disassociate themselves from *khat*, they associate with themselves, customers, family and the Creator Moreover, being so, they save themselves from being affected by mental problems.

The account of these four individuals is also shared by millions of people and is supported by scientific findings. For instance, Professor Ermias Dagne, one of Ethiopia's leading chemists, has disclosed that, apart from the social and economic problems associated with addiction to *khat* chewing, "*khat*" may cause hypertension because of the active ingredient in it, called *cathinone* (*Addis Zemen*, 1991 E.C).

[4] Interview held on March 17, 2016 in Harar.

[5] Interview held on March 12, 2016 in Dire Dawa. Fethia owns a small shop in the city.

It is also reported that long-term use of *khat* can cause insomnia (sleeplessness, restlessness), nervousness, impotence and nightmare. Gastro-intestinal problems such as anorexia (persistent loss of appetite) and constipation are also common phenomena associated with long-term *khat* use. It is also a well-established fact that anorexia leads to malnutrition and increased susceptibility to infectious diseases. Furthermore, chronic use of *khat* is known to cause reproductive toxicity in human beings and in experimental animals. Several studies on the harmful effects of *khat* chewing have indicated significant decrease in testosterone (male hormone) levels, sperm count and motility (swimming of sperm cells). Reduced birth weight of babies and inhibition of lactation (production of milk) have also been reported in *khat* chewing mothers (Magdum, 2011).

In light of the above facts and negative economic, social, religious and health consequences of *khat*, it is pertinent to ask the question why people continue to grow and chew *khat*? It is equally important to ask why the government does not intervene? And what could be the possible solution for the problems associated with *khat*? The following sections try to address these questions and forward some ideas that could help to curb the negative impacts of *khat* use and abuse.

3. People's Association with *Khat*

Why people are closely associated with *khat*? Some of the possible explanations for this question are the following:

3.1. Sense of Long-Standing Camaraderie between Human Being and *Khat*

It has been mentioned earlier that according to the tradition of the Yemeni herder, *Awzulkernayien* who discovered *khat*, *khat* was the contemporary of Mosses or Musa. From this assertion, one can imagine the time and space human beings and *khat* travelled together. As noted by Kalix "the chewing of this material has been practiced for many centuries in certain areas of East Africa and of the Arab Peninsula" (Kalix, 1988: 163). It would not, therefore, be possible to break this companionship and Camaraderie easily.

3.2. The Popular Belief Held by the People

It has been indicated that *khat* users in general and those in Hararghe in particular, believe that *khat* is a leaf that is brought down from heaven by the Saints. Moreover, as stated by Adem Aliyu Jaylan earlier, it is considered as a tree that God loves and

then blessed and gave it to human beings (Ezekiel, 2004: 3). In all the shrines[6] in and around Harar, various religious ceremonies and *Mawlid*, the birthday of Prophet Muhammad, are preceded by *khat* chewing ceremonies. Equally, during Ramadan (the fasting month for Muslims), people come together and chew *khat* to stay awake at night and recite the Holy Quran and praise Allah. Hence, one can observe how use of *khat* is associated with religious beliefs. Even street boys and girls in Harar have modified the praying 'our blessed father' to fit their purpose as it can be observed from the *duwaa* that precede their *khat* session as follows (Abbink, 2016):

Our blessed father!	አባታችን ሆይ
Who lives in the *Jezboch* Quarter in the *Faras Magala*	በጀዝቦች ተራ በፈረስ መጋላ የምትኖር፣
May your *khat* session be blessed	በርጫህ ትቀደስ፤
Like your session on the mat	በርጫህ በሰሌን እንደሆነች፣
Let it be (the same) on the mattress	እንዲሁም በፍራሽ ትሁን፣
Give us our daily stimulus	የዕለት ምርቃናችንን ስጠን ዛሬ፣
Also, forgive us our inertia	ድብርታችንን ይቅር በለን፣
So that we forgive others who caused the inertia in us	እኛም የደበሩንን ይቅር እንድንል።
Neither led us into senility	ወደ በዘበዛም አታግባን፣
And save us from the evil *khat* spirit!	ከዱካክ ሁሉ አድነን እንጂ፣
The *ch'epsi* is yours	ጨብሲ ያንተናትና፣
Until tomorrow's time of chewing, Amen	እስከ ነገ ሀራራ ድረስ! አሜን።

Similar ritual is adopted by Harari town people preceding their *khat* session.

አው ኸዚር አሌይሂሰላም፤	May peace be upon *Aw* khazir!
አው ዙልቀርኔይኒ አላሁመርሐም፤	Allah's mercy be upon *Awzulkernayien*
መስኸስኻ ዛላዩ ኢማም አርዲንሊ የቦርዲ፤	be it so to the planter imam –ardin
ቀምቲቀባራ ዛላዩ አው አባዲርሌ የቦርዲ፤	be it so to the bough owner Abadir
ጫቶው ዚሐያት ኢንሹው፤	Oh *khat*! the tree of life
አሃድ ኢንኻው ቁት፤	May one shoot be edible
አሃድ ኢንኻው ሐያት፤	and the other be life
ጫቶው መኣሚን ኢንሹው፤	Oh *khat*! tree of innocent
መኣሚን ከርሲዩበአው፤	and edible by innocent
ጫት ጫት የውለድ፤	May *khat* give birth to *khat*

[6] In Harar city alone, there are 438 shrines and similar numbers are found in Hararghe province

ቡን ቡን የውለድ፤	coffee gives birth to coffee
ሙእሚን ቀልቢ፤	and the innocence heart
ዲንዋ ኢማን የውለድ፤	religion and faith (Islamic)
ኑር አሶሰም፣ አዳል ቂምሂቲ፤	the bunch of Nur and Adal's eating,
ሐጢው ዚገደሉሎ፣ ፈረሰሶው ዚመረኹቦ፤	for which they killed *Atse* and took his horse
ጫቶው ዘበቀል ኼዚጀነት፤	Oh *khat*! let your planter enter paradise!
ዘኔሬኽ ዚሪህመት፤	and your cultivator to mercy
ዚቀመሄ ኽዚሐያት፤	the chewer to life (Harmony)
ዞአሌ ኽኽዚር አረዋጫ፤	and the idea be khazir's disciple

The effect of *khat* chewing goes beyond a certain group. How *khat* affects even individual judgments could be observed from Rushby's reaction to the London Institute for the Study of Drug Dependence Bulletin's assertion that "in cultures where its use is indigenous, *khat* has traditionally been used socially, much like coffee in western culture." Rushby reacted, stating how *khat* consumed his money, decided his friends, chosen his house, taught him some Arabic, and gave him a love for the country more powerful than his own. He found it difficult how all of these could be summarized by saying *khat* is "much like coffee in western cultures" (Rushby, 1999: 8). Moreover, Rushby explains how all the paranoia and irritability evaporated when he started to pick up shoots of *khat*. Then Rushby said *khat* rearranges his day, making his afternoon bright and beautiful; and concludes "as with most drugs, the pleasure of having it had become the pleasure in ending the lack of it" (Rushby, 1999: 173).

4. *Khat* and the Hararghe Economy

According to the tradition narrated by *kabir* Abdulmuheimen Abdulnassir,[7] when *Aw* Abadir[8] came to Harar from Mecca about 940/950 A.D, he introduced division of labour among the people of Harar and its vicinity in accordance with their environment and way of life. It is said that the people in Harar proper and its vicinity were assigned to plant *khat* on their farms. On top of *khat*, they were told to cultivate coffee. When he was asked to add some more plants, Abadir replied: "*khat* and coffee are sufficient for my people. I have made their woods to be used for making fire. May my people possess their property from coffee and earn money for their daily expenses

[7] Interview with kabir Abdulmuheimen, February 11, 2016. Harar.

[8] He is the saint regarded by Hararghe people as who organized the administrative units of Harar after it was stricken by famine. Even the Hararghe Amharas have the motto, which runs as "*ኣባዲር ጦም ኣያሳድር*" meaning *Abadir never let you hungry.*

from *khat*." Hence, Hararghe people earn their daily income from *khat*. To illustrate this, it is worth observing the following dialogue between *khat* and coffee, as told by *Kabir* Abdulmuheimen.[9]

Coffee: I am superior plant than you are to the Hararghe people

***Khat*:** how?

Coffee: I am more important and of more valuable than you are

***Khat*:** But tell me how?

Coffee: Don't you know it yourself?

***Khat*:** No, I don't, hurry up and tell me

Coffee: I am their capital

***Khat*:** Uhhu!

Coffee: The houses and farms they own are from my sale.

***Khat*:** Uhhu!

Coffee: I enable them to cover their mourning and wedding ceremony expenses as well

***Khat*:** Uhhu! Anything else

Coffee: Yes, there is

***Khat*:** What is that?

Coffee: With my transaction, they do improve their living and do their pilgrimage to hajji.

***Khat*:** You're right coffee!

Coffee: Of course, I am. Then am I not superior than you are *khat*?

***Khat*:** You're not!

Coffee: How? --------Why?

***Khat*:** It is not me who let you become more valuable to them than I am?

Coffee: Let me know how it happened, *khat*?

***Khat*:** Listen!

Coffee: Speak it out!

***Khat*:** Covering their daily expense with my daily sale, you can be stored for you are annual product.

Coffee: That is right. But with the money they make out of me, they possess house, farmlands and do the pilgrimage, the mourning and wedding ceremonies. Hence, well I am their sole capital!

[9] Interview with kabir Abdulmuheimen, February 11, 2016. Harar

> ***Khat*:** Still, it is me who let you be their capital and let them accomplish what you've said above by covering their daily needs with my daily sales….
>
> **Coffee:** (silence)
>
> ***Khat*:** …… all year round till you be of value to them once in a year.
>
> **Coffee:** (silence)
>
> ***Khat*:** Coffee! Don't you agree and accept that my daily contribution made you of great value to the Hararghe people than I am?
>
> **Coffee:** (silence)
>
> ***Khat*:** Without me you wouldn't have made it!!

Khat is, therefore, of great importance as a source of the daily incomes for the Hararghe farmers. As a result, *khat* growing farmers have improved their living as it generated better income. From these observations, it can be argued that the conditions of farmers who do not grow *khat* are on the disadvantage. Rushby notes that the non-*khat* growers "did not have nice tin roofs houses like those in Aweday, their children were dressed in rags and their women were forced to walk miles collecting firewood to sell" (1999:80). According to Ahmedin Muktar, who has been a *khat* trader for over a decade, "if you compare *khat* farmers with those who do not grow *khat*, you can easily observe that the standard of living of *khat* farmers is much better. They have good houses and some even have cars". He concludes, "*khat* is very good for Hararghe. It is the backbone of the economy". [10]

The following narration given by a farmer, Adem Aliyu Jaylan, who was interviewed by Ezekiel (2004:181), further illustrates the fundamental changes that *khat* brought in the lives of *khat* farmers.

> For the last four years (1990-4) I have been paid 200 birr for a day's worth of work by my employer, that is, the exporter who extended the money for purchasing *khat*. Sometimes I sell my own *khat* to the exporter, the *khat* that I purchased with my own money, and make more money.
>
> Today, I own three vehicles; one is my private family car, two are used for commercial purpose. All three are driven by my three sons. Apart from my own residence, I own 30 houses that I rent to tenants here in Aweday. I also own two shops (stores) carrying consumer commodities. This business of *khat* has completely changed our lives.

[10] Interview held with Nita Bhalla, BBC news on August 20th 2002

> I remember the days when there were a few radio sets in town. I used to go to the houses of those who own them to listen to radio programs. Today, I have a television set and a telephone in my house. My father lived in a hut. I live in a very modern house with my 13 children whom I am raising without any financial problem. You asked me to compare my life to that of my father. I really can't say my father had a life, let alone a decent life. I can't compare our life with that of my father. It's night and day.

The economic importance of *khat* is not limited only at individual level. Burton (1894) mentioned that *khat* had been an export item a century ago and currently it has become one of the major foreign currency earners for Ethiopia. Hence, *khat* in 1999 had become the second largest foreign exchange earner to the country. According to a study undertaken by the Ministry of Industry and Trade, Dire Dawa Foreign Trade Office, Ethiopia earned 150 million USD in 2009/10 from *khat* export. This figure had increased to 200 million USD in 2010/11. Hence, as Ahmedin Muktar stated, *khat* plays a significant role not only for Hararghe farmers and traders, but also for the national economy as well. Millions of Ethiopians, as well, earn their living as *khat* farmers, collectors, transporters, packers and distributers.

5. Social and Cultural Aspects of *Khat* Use

5.1. Energy Getting for Hard Labour

There is a popular belief that *khat* helps to achieve the energy necessary for physical labour and to concentrate for mental work. Hence, it is a source of energy that is required for physical labour like farming, house building, woodwork, book copying and binding and tailoring. The belief is that use of *khat* adds energy and motivates one to do his/her work effectively. One university graduate told Rushby that had it not been for his use of *khat*, he would not have graduated. He narrated to him how he discovered that he could read more and memorized better after he began using *khat*. (Rushby, 1995:74)

5.2. Spiritual Gatherings

During the month of Ramadan, people get together in a sort of "*jamaa*" or group to chew *khat* and recite the Holy Qur'an and other religious texts through out the night. It is also customary to take *khat* including incense, sugar, tobacco or cigarettes to the shrines of saints to attend the overnight session in the celebration of religious festivals. The pilgrims prefer to take *duwaa* (blessing) from men chewing *khat*.

In Hararghe, it is a common practice to spend the overnight of the eve of Monday, Wednesday and Friday in *khat* ceremonies either individually or as a group praying to God or reciting religious books. Besides, in Harar on the eve of Friday, there is a nightly *khat* session throughout the year in '*Nabi Gar'* (Prophet houses). These are houses where people spend the night reciting holy books written in local languages using Arabic alphabets. As it is summarized by Ezekiel, *khat* is "institutionalized in the religious life and practices of the Muslim population of Hararghe" (2004:11).

5.3. Social Gatherings

It is the habit of the people of Hararghe to invite guests to their houses for '*Barcha*', (*khat* sessions) of the afternoons. According to some elders in Hararghe, this type of session started after the Italian occupation. Before the occupation, it was unusual for one to chew *khat* the whole afternoon, except idle individuals. It is since then that young and middle age people started to get together for *Barcha* on weekends and public holydays, which is said to be adapted from the Arabs.

At a certain *Barcha* session in Harar, one participant told Rushby that had it not been for *khat*, they would not sit and enjoy talking among themselves. Respected group of merchants meet to discuss business and religious and social matters over the *barcha* sessions, while others meet and talk about their common love of poetry, literature and/ or football (Rushby 1999:61).

One Diaspora participant of the *barcha* session from Canada told Rushby how he had missed *khat* session saying, "When I was in Canada, I didn't find anything to replace it. Not alcohol, a *khat* session is nothing like standing in a bar. People in bars don't often discuss serious issues or ideas and they have no other place for such conversation" (Rushby 1991:74). *Khat* is also used in other social occasions, such as the beginning of the construction of a new house, the blessing of a newly bought house and the return from the holy pilgrimage to Mecca and Medina. It is also used during conflict mediation events.

5.4. Mourning and Wedding Ceremonies

Khat is part and parcel of mourning and wedding ceremonies of the Hararghe people. Both Muslims and Christians in Hararghe, whenever they go to the mourning houses to express their condolence, they take a bundle of *khat* with them to express their sympathy by attending the *khat* session. Similarly, when one goes to a wedding

ceremony, one takes *khat* with him. *Khat* sessions continue till the end of the mourning and the wedding ceremonies. Likewise, the Qur'an recitation and the religious ritual called '*maw loud'*, the book of poetry, the prophet's praising text reading on the day of the wedding are usually preceded by *khat* chewing sessions which serve as stimulant to facilitate these activities.

Yusuf Ahmed (1965), in his article on *Afocha*, noted the importance of *khat* in the social life of the Harar people by illustrating how a judge was embarrassed by his fellow men for not following this culture:

> … There was a Qadi judge in a Shari'a court who, unlike all other members of *Afocha*, used to go to every ceremony without *khat* and as soon as he arrived he asked permission to leave and then departed. However, a few years later he had a wedding for his daughter. Then it was the members' turn to retaliate. All went without *khat* and as soon as they entered, they asked permission to leave, and left, until only three were left in his house. Thus it was a sad wedding ceremony." Hence, as Rushby tells, "the pleasure of *khat* session was not really about *khat* at all, but the companionship…" (Yusuf, 1965:16-17).

5.5. Important and Long Term Contracts

When a young man wants a girl for marriage, his parents send the nearest relatives of the boy to the girl's home with a bundle of *khat* to request the girl's family to give their girl's hand to their boy. If the girl's family agrees, a date is fixed for the boy's family to come with *kusha khat* (*Fiancé khat*) to fix a date for *Zagan* (date of engagement). On the date of the *Zagan*, the boy's family brings the *kusha khat* to the girl's family along with the dowry. Part of that *khat* would be distributed among the guests who would take part of it home and distribute to those relatives who could not attend the ceremony. The part that would be sent to the women, who attended the ceremony, would be distributed among the relatives together with pieces of *Halawa* (sweet).Hence, as noted by Ezekiel, "As a social institution, *khat* is used to seal important and long-term contracts" (2004:11).

5.6. Stigmatization

Different segments of society and culture in Hararghe have reacted negatively to *khat* use. Among these were conservative Christian northern rulers and settlers (Amhara) in Hararghe who condemned *khat* as a 'curse' to society and a vice for the Muslims. To illustrate this, Rushby tried to visualize how king Menelik would have reacted had he

been resurrected and observed the *khat* market that is established around the church he established in *Jugal* as follows: "…Menelik and his forebears would have shuddered to see [*khat*] so close to their church [….]" (1999:47).

Understanding *khat* as a Muslim vice has a long history. Sebra'din, the Sultan of Ifat and rival of King Amda Tsion's promised to plant *khat* at the capital city of the king after defeating him. According to Rushby, this infuriating threat by the Sultan obliged the king to mount every enormity against Muslims (Ibid.). Hence, associating *khat* with Muslims might have led some to use *kha*t as self-identification and, thus, continue using it. Some say as alcohol is for the Christians, *khat* is for Muslims. People believe that stigmatization of *khat* users, rather than deterring people from using it, push them to continue with the practice using *khat* as a means of expressing self-identity.

6. Conclusions

Yawing and a feeling of restlessness express the craving for *khat.* This yawning and restlessness of the individual is called '*harara*', a forceful desire for *khat*. The *khat* user will have pleasant time during the first hour of the *khat* session and then, towards the end of the session, silence and seclusion prevail. During the *harara* time the *khat* users are pervert and are reluctant to do anything; they become quick in making wrong decisions. *Harara* makes them aggressive and they are just like the saying goes, '*a hungry stomach has no ears.*'

On the contrary, during the post-chewing phase, the chewer will be idle and self consumed. Among other things, he stares at the ceiling, scratches his beard or hair and breaks the *khat* sticks into pieces. Put in other way, the harmonious and excited mood of the person during *khat* session will give way to silence, fear, blind wishfullness and illusion. To avoid this post-*khat* depression, many *khat* users take alcohol.

In terms of the link between *khat* use and sexual experience, there is no consensus among the users. Some argue *khat* increases sexual desire, while the majority indicate *khat* weakens both their sexual desire and performances.

The treatment of *khat* addicts should not be exclusively left to health professionals. It requires the overall cooperation and effort of all who are involved in, particularly the *khat* users themselves. The users need to show willingness and determination to be free from *khat* addiction through at least engaging in conversations on the problem.

On the other hand, the overall effort to reduce the negative impacts of *khat* needs to start with the liberation of associating the use *khat* with certain group of people or religion as *khat* currently has become pervasive and makes no discrimination on religion, race, age or sex.

The debate on *khat* also needs to look at its economic importance at different levels as millions of people earn their living by involving in *khat* farming and trade. For instance, the *khat* farmers' wives collect and sell the poor quality type of *khat* called *tacharo.* This gives them financial independence from their husbands. Equally, hundreds of thousands of women in rural and urban areas earn their living by making money from *khat* trade. Furthermore, as the rural population is steadily increasing, scarcity of farmlands has become apparent in many rural areas. The farmers in Hararghe manage this problem by resorting to the production of *khat* that has high productivity per unit of area and high monetary value.

Therefore, all efforts to find a solution to the problems associated to *khat* use should engage all those who are involved in the *khat* farming, distribution and consumption. The *khat* farmers have already started to use *khat* as a way out. From the sale of *khat*, they have created, as Ezekiel stated "the badly needed capital investment to leave their farms and look for non-agricultural opportunities elsewhere." (Ezekiel, 2004:183) Moreover, other alternative cash crops should be identified that will bring similar income to the farmers. Similar options should be put in place for those who rely on *khat* as a source of livelihoods and job opportunities.

On the other hand, *khat* is increasingly used for recreational purposes. The number of youths who use *khat* for this purpose is increasing as many others are joining the rank due to the absence of recreation facilities. Thus, the government and communities should establish facilities, which enable the youth to spend their leisure time without harming themselves. Finally, it is essential to engage the people who use *khat* for various religious, social and cultural reasons and ceremonies and allow them to decide on their *khat* use. By doing so, it is possible to create a winning mentality in the combat against the negative impacts of *khat*.

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Changing Trends in Culture of *Khat* Consumption in Ethiopia: A Multisite Ethnographic Portrayal

Ephrem Tesema

1 Introduction

Khat assumes a travesty of cultural objects following complex paths along with converging and diverging encounters with other objects, life styles and newer contexts. In its trajectory, *khat* goes to the extent of imposing its commodification impacts on the social relations and everyday life of social groups. It is also being equally affected to the extent of exhibiting essential transformations in terms of its norms of use, the meaning it evokes in relation to specific consumer groups and on individual and social identity. In general, the change in its material positioning over time[1] depicts the emergence of new entities, which are different from its customarily acknowledged socio-cultural positions assumed by the stimulant hitherto. However, focusing only on the "role of the leaf in Ethiopia's socio-political history[2]" may conceal the role played by value chain actors involved and *khat* itself in a number of ways. Indeed, the socio-cultural biography of *khat* would emerge as a result of interactions of people and *khat*. The mutual interaction of *khat* as a material culture and people as authors of social practices and life styles will be given a greater emphasis in this chapter.

With a little digression by broadening our insights, we can argue that an object like *khat* could assume an outwardly independent processual journey in the following ways: First, as a living plant with all its qualities as part of a natural endowment; second, as a potentially interacting living entity with other living plants, tiny as well as giant members of the animal kingdom; thirdly, as potentially flowing and traversing entity across socio-cultural boundaries with numerous possibilities of assuming various physical forms and elements appealing to our senses (length, width, weight, colour, smell, test etc.). Therefore, there is no one single definite realm for such a multifaceted trajectory to take place. Like any other potentially transforming entity which might include humans, animals, other plants, landscapes, it could interface with

[1] See Burton (1856:254) reciting *dua'a* or blessings in the name of the prophet during *khat* sessions in Harar during his ten-day visit to the city in 1955.

[2] See Ezekiel (2004:179)

one or more than one elements that might again trigger the rebirth of a new form of culture of consumption or disposition. In the socio-cultural life of objects, such processes are endlessly following diverging and converging paths (Appadurai, 1986:16-18) in temporal and spatial contexts.

Here, *khat* can be discussed as an object with commodity potential with a socio-cultural life whether its position is contested or not among groups who hold conflicting arguments over its existence, changing norms of use and possible societal impact on consumers and others.

Like any other culturally regulated and evolving commodity, *khat* characterizes contradictory trajectories, which at times reflect the change in the political stands of those who are at the helm of power and in the political economic changes occurring in producing and consuming countries and communities. *Khat* simultaneously assumes different statuses, commoditized as well as de-commoditized material within changing socio-cultural milieus. This implies that its socio-cultural trajectory characterizes as an object flowing along contested paths and spheres and usually keeps oscillating between a "stimulant" and a "drug" (Carrier and Geon, 2009: 21-24).

Related to the trajectories of *khat* as a commodity, Appadurai (1986) critically exposed how political power and the political economic contexts in a country could cause conversion and diversion of its flow to the extent of affecting the entire value chain altogether.

In line with this, this chapter focuses on the reconstruction of the socio-cultural biography[3] of *khat* as a consumable stimulant. A stimulant that has been transformed through remarkable commodification trajectories involving social practices, institutions, technologies, political and ideological discourses and actions which have been triggered by agents of change originating from local, trans-local as well as global spheres with considerable impacts across the *khat* value chain.

The concept transforming culture of consumption throughout this chapter suggests the involvement of concerted human skills with the help of multiple variables, among others technological inputs, productive capital(s), interface with Information and Communication Technologies (ICT) and globalized entertainment media products, and

[3] "A biography is to be understood as a narrative of transformation of meaning through time, rather than that of a life cycle" (London, undated: 1).

finally appropriating emerging practices and ideas which partly through movement and migration of people who commute across trans-local contexts.

In areas targeted for this chapter, the pervasive presence of *khat* in everyday life of social groups could invoke a metaphor "blindingly obvious"[4] to the extent of *khat* being considered as an object obviously known to be there although provokes little attention as an entity of visible disposition. This partly reflects the power of objects "to fade out of focus" and yet impacted on everyday life in different ways (Miller and Woodward, 2007: 337). Focusing on its multiple trajectories spatially and temporally, the chapter gives insight on commodification trajectories and culture of consumption dynamics by looking further into the elements and factors that contributed for the change and transformation of *khat* as a commodity of national, regional and global impact in the 21st century.

2 *Harara, Mirqana* and Time in *Khat* Trajectories

Time is an important notion that needs conceptualization in the discussion of *khat*'s socio-cultural life, its commodification trajectories and consumption dynamics. Time means both potentially rewarding and threatening to those involved as part of the social life of the leaf from the threshold of the farm via the differently arranged abodes of consumptions and ultimately from far afield to big urban centres. However, time becomes meaningful only when it is relationally contextualized with the dynamics of the motion of the object in spatial specificity and a specific social context.

Time represents seasonality of boom and slump, which in turn affect quality and quantity of the product. The availability or absence of rain in some places could either be taken as rewarding or threatening factors for *khat* farmers. With that in mind, producers have learnt few ways such as constructing irrigation schemes and exploiting ground water to ensure the smooth production throughout the year in some areas. The active involvement of some farmers in exploiting the available water resources has enormous implications in market prices, product quality and on the economic conditions of the poor as well as rich farmers. All of the efforts made by individual/group of farmers against the unwanted influence of season however do not bring about equal benefit to all. First, irrespective of the difference in capacity of the users, as well as adequacy of water supply, around specific locality, the concerned

[4] See Miller and Wood Ward (2007: 337) arguing in a work entitled "Manifesto for the Study of Denim" about the problematic of material objects known for their globally ubiquitous presence and yet defy the curiosity of people to be taken as a subject of serious inquiry.

farmers do not equally benefit from the intervention. Second, the quality of irrigable *khat* by and large is believed to be lower in quality particularly in the eyes of the majorities of the consumers.

In addition to this, time has always been related to the age of the *khat* tree to be harvested. For instance, consumers at large favour *khat* cut from older stems in comparison to that of leaves collected from quickly matured trees through irrigation. Similarly, time also matters in terms of the number of rounds of production across a given season and on a particular farm and from specific trees. In situation where producers harvest *khat* within the range of three to six months, the one, which takes around six months, is preferable by chewers for its taste. However, producers strive to make their farm to provide yield before the conventional time so that they could prevent the impact of time on their income. As a result, there are various practices in different farming localities and regions that farmers device to lessen the impact of time against their wish to fasten frequencies of yearly harvest. Farmers in different *khat* producing areas of Ethiopia differently conceptualize time/season and the frequency of annual harvest[5] partly due to the kind of harvesting practice[6] they appropriated and due to the difference in the commodification[7] practice adopted in the aforementioned areas.

On the other hand, time, in the consumption sphere implies *ye-harara se-at*, i.e. a time when chewers in a specific context get ready to join the *khat* session in their everyday life as consumers. In its everyday use, the term *harara* can be understood as the specific time of the day when the urge of a *khat* chewer reaches its heightened momentum of need to take his/her daily portion of the stimulant in order to reach at an anticipated height of "ecstasy" called *mirqana*. The *harara* hour is marked by the

[5]A farmer in Aweday and in localities surrounding Haromaya in Eastern Harerge Highlands and in Wondo Genet and Melga districts in the south-central highland could harvest four times per year from the same *khat* farm. Whereas in the North-eastern Highlands of the country specially around the city of Bahir Dar, a farmer can harvest as many as 24 times as possible from the same *khat* farm per annum.

[6] The difference emerged not from the variation in agricultural input or technology application but the harvesting practice is entirely different across regions. For instance, in localities surrounding the city of Bahir Dar, farmers pluck only the chewable twigs leaving the branching stem intact with the mother tree. Thus, there is a high possibility for the leaf to grow up and get ready every fifteen days so long as water is available in the dry season. In the case of Eastern Harerge highland and south-central highland the branching stem is cut off along with the chewable twigs, which demands three month, or more till the other branches to get matured for the next harvest.

[7]In North-western Highland only the chewable twigs are cut, packed and entered the market where as in the rest of the country it is difficult to measure the chewable twigs from the branches as one is the component part of the substance that constitute the commodity -*khat*.

manifestation of recurring verbal and facial expressions and bodily gesticulations of the chewer that can be observed and deciphered by a careful observer of the everyday nuances of the urban consumption scene.

Among others, the specific time of distribution of *khat* in a specific locality on a daily basis, seasons, *khat* colour, type and package, place of consumption, peer group to consume with, the dynamics in the "political mood" of the immediate environment where the consumption takes place are forces that specify time of chewing on the basis of which a *khat* consumer fixes his/her regular time of *harara*. Therefore, *harara* is a context specific notion which indicates socio-culturally specified time that is subject to continuous process of reshaping partly due to factors involved in the sphere of production, distribution and the catering of consumption related services within the consumption sphere. One could further assume that *harara* is a socially designated moment for consuming *khat*, which is dynamically dependent on factors intertwined with each other across the commodity chain. While *harara* has become an agent to reordering the everyday life of *khat* consumers and non-consumers in a number of ways, it is again dynamically being reshaped and reoriented through the continuous commoditization processes of *khat* across the value chain over time. Thus, the conceptualization of *harara* as a dynamic notion would enable us to capture the nature of change and the transformation of the culture of consumption of *khat* and its role in the reordering of everyday life of consumers and others over time.

In most cases, *harara* time, although varies across countries and continents, depends mainly on the transportation facility and the distance from the place of production of *khat* to its destination. However, since *harara* is a socially "sanctioned" time, it is commonly respected by those who facilitate the trade activity at the consumption sphere.

Time also includes mythological time on the margins of which people recount origin myths of *khat* along with the lives of "saints" and sublimed beings[8] that actively provide metaphors for prayers, blessings, mock relics such as *dezi bercha*,[9] curses that actively regulate and engender social control on existing communities and their living members.

[8] For more details about the origins of *khat*, see Chapter 5 of this book

[9] It is a one-page homily written as a replica of the one pager *desiderata* in Amharic and distributed ten years before by an unknown author. The final lines claims that it is a document discovered in 19th century from a *khat*-chewing cave called *Yuye*.

Time also constitutes collective social memories of people on the basis of which they reconstruct chronologically acknowledged periods (nationally recognized events) that relate their social and political existence with the trajectory of the leaf in the history of the nation[10].

In its strict sense, the *harara* time might be adjusted by about half an hour or for one or two hours due to unforeseen reasons at the point of arrival, but cannot be postponed to the next day. Time in the context of *khat* consumption is also related with the span of time the product takes to travel from the production site to the sphere of consumption; a time quite decisive to sustain the freshness of the *khat*.

In a broader perspective, distance from a specific production site to place of destination/consumption is compromised by the speed of transportation. There are also other factors that might affect the safe crossings of the product along its routes and on its physical paths while it is fresh. Among others, robbery, technical failure involving transportations (for example, in vehicles and planes), local conflict, holidays, bad weather condition and sabotage on the part of rival traders on transportation can obstruct the supply of fresh *khat* at the *harara* time and the rhythm of consumption.

As the shelf life of *khat* as a commodity cannot be exceeded for more than 24 hours in most cases, its value as a commodity depends on its freshness. *Bulti*[11] is a term for wilted *khat*, which is usually identified by all consumers in general and experienced ones in particular. Under normal condition, the value of *khat* is, therefore, set on the basis of its freshness than any other criteria known to the sector. Consumers use their

[10] Farmers in Damota Gende Roba divided *khat* farms according to the three regimes ruled (Emperor Haile Selassie (1930-1974, The Military Region from 1974 to 1991, EPRDF since 1991 to the present) the country in the recent history of the nation. *Khat* consumers also count when they have started the consumption habit of *khat* by relating it to events such as the great student campaign of the early 1970s, their college days and time of the red and white terror that went between the military regime with different revolutionary factions where many young people were killed, imprisoned, joined insurgent groups, tortured and hide for years etc.

[11]An Oromo term literally means “one that harvested a day before and presented to the chewer the next day”, which is not fresh and unattractive to the experienced eye, differently smell than the fresh one, change colour from light green or brightly red to deep green /black, the leafs falls apart while shaken. Most chewers believe that chewing *bulti* induced a severe head ache. However, a *khat* harvested and packed today arrives to the urban consumer in Addis and other far of cities and towns the next day. In this case, the term *bulti* applies to the *khat* that is on the shelf for more than 24 hours. The understanding for freshness still suggests that the evaluation is based on relative time span by chewers considering the time of harvest and the distance it travels from the location of the *khat* farm instead of the length of time that the scientifically discovered major elements of stimulation “action” might wither away from it within the time span ranging from 24 to 72 hours from the time of its harvest.

cultural experience to measure the freshness of a *khat* on the basis of which they give higher price for the fresh one than the stale/wilted one. Freshness is not, however, checked through lab test but through the human sense organs: by smelling to check its natural fragrance, by softly fondling the leaf with fingers or shaking the bundle, by looking at the bottom of the stem,[12] and by chewing couple of leaves to examine its natural taste.

Whether the *khat* is going to look appealing to the eye and whether it is going to have a fresh flavour, irrespective of the time it takes to reach its destination, is a source of worry for the traders. Thus, a number of 'strategies' are employed to keep it to appear fresh: among others, sprinkling water on it, wrapping it with wet grass or fresh leaves, immersing the stem part of the bundle in water, and transporting it before sunrise. In light of this, one can see to what extent time plays a key role in the product quality and the nature or appearance of the product in the face of consumers. Similarly, Carrier emphasizes the significance of the "particularity" of "the material nature of the substance" in the following way:

> Perception of objects is conditioned by social and cultural factors, but this does not mean that the materiality of objects can be ignored in analysis: material qualities of objects influence how we perceive them, have a crucial role in generating value, and affect how objects are traded (Carrier, 2007: 16)

The material nature of *khat* and the degree of its reception by consumers entirely depend on the influence of time from the farm gate to the sphere of consumption.

Finally, time also constitutes the frequency of "consumption periodicities" which engenders the quality of goods with frequency of "annual" as well as "life-cycle events" along the discrimination of time and social status of people (Douglas and Isherwood, 1978:115-16). The social life of *khat* involves various annual life cycle and daily events in differing extents both in urban and rural contexts. Time bound events would positively and negatively affect its ebbs, flows, context specific mode of distribution, its politics of consumption and encourages the regeneration of discourse related to its socio-cultural positioning in time and space. Such aspect of consumption periodicities also engender states such as "decommoditized" value where the "aesthetic, the ritual and the social" elements get interwoven in a complex way to create a "specific ritual biography" (Appadurai, 1986:23) of goods or objects. Since

[12] If the *khat* is *bulti* not fresh, the butt of the steam turns black.

the recent years, the trans-local upsurge makes *khat* an object that needs to be seen beyond "time space compression" related globalization discourse by and large.

The nature of the object and its link with global elements in terms of the need to involve speedy transportation, application of new technology of production and consumption, the involvement of trans-local discourse on politics and ideology of consumption necessitates the relevance of looking into the impact of globalization in the socio-cultural life of the stimulant. Its commodity characteristics (much needed as a fresh leaf) also make it unique when compared to other agricultural commodities flowing across multiple boundaries.

3 Contested *Khat* Consumption Spaces

3.1 Spaces of Consumption

The reasons for selecting a particular space to consume *khat* and fixing the time for chewing in the urban context are elements that call for further exploration. In terms of time, civil servants and self-employed citizens, for instance, prefer to chew *khat* immediately after lunchtime (between 12 am to 1 pm).The best consumption space for these social groups is *khat Mekamiya Bet(s)* (*khat* chewing houses) located closer to their working places so that they would be able to rush to their workplace after chewing. Such brief lunchtime chewing is referred to as "*bercha chulule*"[13] to express the situation where chewers chew hurriedly and run to their work timely. It is like the *hawk* that snatches a chick and run to its abode without being trapped or caught. This is another sort of, may be, escaping from the trap laid between time for work and the time to enjoy the *khat* chewing session. *Khat* chewing corners, which are suitable for such swift chewing, are readily available in many major urban centres, including Addis Ababa.

However, chewers tend to go to *khat* chewing corners where they could be able to meet other people with whom they could socialise while chewing. Therefore, chewers try to find a suitable place that enable them meet friends for socialising and also to share information. Chewing places closer to work places, accessible to transportation services, affordable, and up to the social status of a chewer are usually preferred. Accordingly, individuals and social groups rendezvous at different locations and in different parts of Addis Ababa. Most of these different categories of *khat* chewing

[13] Like a bird of prey/hawk is *chulule* in Amharic language. People snatch their *khat*, chew and then fly to their work places as a hawk flies after snatching a chick.

places have been flourishing in the last three decades (1991-2016). In a broader view, based on certain criteria and peoples envisaged preferences, *khat* consumption spaces in Addis Ababa include, public places (parks, street corners, open temporary work places), private spaces, *khat* kiosks, *khat* villas, and *khat* retail shops, and *khat Mekamiya Bets* (*khat* chewing houses). Moreover, contested *khat* consumption spaces such as verandas of private villas where coffee and tea are served, within parked taxis, private business establishments such as stores, garages, coffee and tearooms and individual residences used by different individuals and social groups.

In addition, it is common to observe people stuffing their pockets with *khat* cut in small chewable twigs and chewing the leaves while working or travelling. Garage boys, taxi drivers and construction workers commonly practise this. The ubiquitous nature of the *khat* consumption culture in Addis Ababa in recent years gives little opportunity to the casual observer to designate specific consumption spaces by and large. The following part of the chapter gives insight on the nature of various spaces of consumption of *khat* in the city in recent years.

3.2 Chewing *Khat* in Public and Private Places

In most busy parts of Addis Ababa where open markets, squatters, cinema and theatre establishments are located, chewers either use public places or work stations as a place of consumption. In most cases, in the old parts of the city which include *Merkato*, *Arada* mainly *Doromanekia*, in the surrounding areas of Addis Ababa Stadium, along the street between *Saris* and *Kality*, it is quite common to observe youth and adults squatting around kiosks or tea houses chewing *khat*. Most of the chewers work and spend the larger part of their daily activities in the vicinity of these chewing quarters. Among others, long distance truck drivers, garage boys, the unemployed people who hunt for causal work, hawkers and others whose job keep them moving in the outdoors across familiar urban quarters try to revitalise their physical exhaustion by chewing the stimulant while moving and working. Shop owners, located in these squatter in the neighbourhoods chew in their shops while running their businesses simultaneously.

Truck and lorry drivers and their assistants take time to sit in one of the *shisha*[14] and chewing houses around Saris, Meganagna, Ayer Tena and Adisu Gebeya areas. These

[14]In Yemen narghile and al-magahi stand for the *shisha* and the house where smoking takes place respectively (Ahmed 2010:23).

places are located at different directions of Addis Ababa on the roads leading to Harar, Dessie/Mekelle, Wollaga and Bahir Dar respectively.

One of my key informants suggested that long distance truck drivers stay for long hours or days until the goods are loaded or unloaded from their trucks. Up until everything is ready for the long trip, many drivers and their assistants often stay around the chewing squatters located around the four gates of Addis Ababa. The old and congested rear rooms, *khat* corners (for example in *Saris* and *Maselitegna* - Drivers' Training Centre on the same road along Debrezeit road) provide *khat* chewing services for a number of long distance drivers not only to enjoy chewing and smoking *shisha*, but also sharing information related to their trip along the Ethio-Djibouti highway. While chewing, they recount about adventures and incidents they came across during their long trip along the 'desert' into Djibouti. The mood of the *khat* squatters is always jovial as it is accompanied with humour and laughter.

The other categories of chewers who congregate the chewing quarters and back alleys in Saris and Drivers' Training Centre areas are custom officers whose conglomerate offices stood at the opposite side of the kiosks, bars, tea and coffee houses, insurance, bank and other establishments which stretched, parallel along the Addis Ababa–Bishoftu/Debrezeit road. For the casual onlooker, it is difficult to understand the reason why hundreds of people[15] - youth and adult - squat in front of kiosks and tea and coffee houses for longer hours after lunch. This is because the *shisha* smoking and *khat* chewing establishments located at the backside of buildings and in between old residential houses and winding alleys are not affordable to the average worker. They are rather very much liked by urban elites including civil servants and office workers who in most cases are not comfortable to chew in public sight and open places.

In much recent years, one of the new factors that facilitates the expansion and deepening of the culture of *khat* consumption in Ethiopia is the migration of young women into different Arab countries such as the Arabian Gulf countries and Yemen since the mid 1990s both as legal and illegal migrants. Up on their return, these young women have been active agents in introducing two additional elements to the culture of *khat* consumption in Ethiopia. The first one is the habit of smoking *shisha*, which in recent years goes along with chewing *khat*. The second is the practice of using the

[15]Many people, both chewers and non-chewers, go to a spot where *khat* and *shisha* are served; the objective being not only to chew and smoke, but to meet friends, or pass the time and get solution for problems related to their work and private life through discussions.

Arabian *mejlis*[16] for chewing. The two elements are common mainly in Yemen where *khat* is consumed officially. Surprisingly, the relatively newly introduced elements to the culture of *khat* consumption have been spreading rapidly as they have been welcomed by substantial number of *khat* chewers in most regional urban centres of Ethiopia. The young female returnees from Gulf States have also played key roles in establishing new *khat* establishments in many towns and cities across the country.

Along with the young women's involvement in *khat* consumption spheres, young waitresses, locally known as *Basharies* (*Kentash or Kadami*) joined the ranks of actors in many *khat* chewing establishments. Since the presence of young girls in a *khat bet* shows the level of income of the owners, *khat bet*(s) are presumed to have become job givers to unemployed youth.

The habit of smoking *shisha*, coupled with the role played by female employees in *khat bets*, is an element which attracts new classes of consumers - the newly enriched ones. Taking the case of Addis Ababa, for instance, there are 'high-class' *khat bets* in specific quarters in *Bole, Gerji, Hayahulet Mazoria* and *Chechnya*[17] frequented by the economically well-to-do categories of people. For other categories of chewers (for the economically less-to-do ones), there are different *shisha* smoking and *khat* chewing places in different quarters of the city such as in Megenagna, Kazanchis, Saris, and Mekanisa.

Young ladies, the majority of whom recently returned from one of the Gulf Arab countries dominantly run the *khat bet(s)*, where *shisha* and *khat* are served. The owners, with their Arabian accented Amharic, Arab like dressing and *shisha* smoking styles, seducing treatment of male clients, and availing female *khat basharies*[18] entirely changed the landscape of *khat* consumption culture in today's Addis Ababa.

3.3 *Khat* Kiosks and Retailing Shops

In the urban context, the term *khat bet* (*khat* house) is a name generally given to all kinds of establishments where *khat* is retailed and chewed. In the 1960 and 1970s *khat*

[16]Meaning meeting place in Yemen (Ahmed, 2010), but here refers to the comfortable sponge mattress used to sit in many Muslim houses.

[17]It is located near to the Bole Airport and known for its nightlife and popularly called Chechnya.

[18]Mostly young girls who serve *khat* chewing clients in the *khat* villas call *khat bets* in Addis Ababa. Different names are giving to them according to the type of speciality of services they give to the chewers: *Astenaga*j (Amharic term for hostess), *qentash* (those who cut and put in the hand or mouth of the chewer), *aqaqami* (co-chewers). There are places where young men also get employed in *khat bets*.

used to be sold in kiosks run by Muslims mainly from Gurage community. Then, the availability of *khat* in these shops was little known to most people except to the few with the habit of *khat* chewing, particularly those who are migrants from *khat* growing areas of the time and publicly acknowledged as the *de-facto* chewers. Then, as *khat* trade itself was not lucrative as it is today, there was no need to hang *khat* kiosk signs (*enset*-false banana-leaves) at the front side of the shops. In the late 1980s and early 1990s, *khat* brands such as Gurage *khat*, Wondo-basha, Gemeto, and later Gelemso appeared in congested small business quarters in all directions of Addis Ababa, which includes: Merkato, Cinema Ras, Teklehaimanot, Anbessa Gibi, Arada, Doro Manekiya, Sidist Kilo and Arat Kilo (around the Addis Ababa University campuses), Gotera and Saris areas. Like the previous decades, the wholesalers as well as the retailers were largely from the Gurage community. Most consumers chewed in their own home and there was little tendency to allot a space for chewers to sit and chew in the rooms or behind the counters of *khat* kiosks.

With the growing number of returnees and internally displaced people in Addis Ababa at the end of the civil war (after 1991), it became common to see people in groups sitting in squatter settlements in many quarters of the city to chew and pass their time. Then, most young chewers held *khat* parties and invite friends, be it a male or a female one. Apart from this, there were *khat* gatherings in private homes and places such as campus dormitories, hotel rooms, saloons of sex workers, shops and/or stores. These places indeed seemed pioneers of *khat* consumption spaces as precursors to the huge gathering that we currently witnessed in big as well as small *khat* establishments.

Over a decade from 1991 to 2000, the young generation employed in the various public and private offices started to enjoy chewing either after working hours or weekends. Through time, rented houses by young graduates, which soon proved the best, became preferred chewing spaces attributed to ever increasing number of young chewers. Other stuffs and gadgets such as tape recorders, if not CD players, a couple of western fictions or literary works by Ethiopian authors, local newspapers and magazines, tea and coffee thermos, a clean room and a chewing corner with extra pillows have become the normal scene of the inside of residential houses of chewers. Invitation for *khat* sessions, and getting together for chewing over weekends and after working hours gradually became part of the urban life style. The increase in the number of *khat* chewers, cultural constraints to chew in the presence of family members, and what is more, lack of private rooms at the level of individuals abode seemed to contribute to the emergency of alternative spaces in the form of *khat*

maskamiya bet(s) and quarters. Through time, the new spaces began to serve other needs of *khat* chewers, which include tea, coffee, soft drinks and cigarette.

During and after the political transition that followed the ending of the civil war in 1991, the silent expansion of the *khat bet*(s) as a space of consumption, with growing users, owners and suppliers expanded almost in all urban centres even outside of Addis Ababa. In short, throughout the post conflict political environment in general and in subsequent conflicts that the nation passed through, the culture of *khat* consumption infiltrated and expanded in the everyday life of the people and, subsequently, began to impact on the overall economic and social processes by and large.

The visible and dominating upsurge of *khat bets* during the 1990s all over the country and in the capital city rekindled *khat* abolitionist rhetoric and 'paranoia' among some social categories. The decade, the 1990s, also saw press freedom with oppositional political tabloids that cover new political and economic discourses in a tantalizing manner. Correspondingly, topics related to multi-party politics and ethnic-based federalism began to dominate discussions in *khat* chewing sessions along with stories about the civil war narrated by those who participated in it in different forms and time. The decade in general characterised with the enigma of impunity and permissiveness. Then after, internet, cell phone, western films and English premier league football matches usher into the public and private life of the nation after 17 years of socialist orientation. As a result, most of the *khat bet*(s) and chewing establishments in recent years have transformed into a sphere where chewers share books, internet based news and reading materials, and bluetooth/xender supported visual and verbal messages. In a few of the *khat* establishments, young consumers have space to post their feelings and ideas in the form of graphic representation, graffiti, verses, quotations, poems, puns and political jokes. Posting newspaper cuttings, pictures of footballers, politicians, artists and celebrities in chewing saloons with the signature of the client who brought the material are ubiquitous day-to-day scenes of *khat* chewing houses.

3.4 *Khat Maskamiya Bets*

Chewing houses are private or rented houses and run by people with meagre income or without permanent earnings. The *khat* rooms host mostly chewers who stay for a while before, after or in between working hours. Since, most of these establishments are located in back alleys and in between congested poor and old quarters of Addis Ababa. They keep chewers from being observed by workmates, non-chewer friends

and family members. Among others, *Hayahulet mazoria, Merkato, Teklehaymanot, Doromanikia/Piaza, Somali Tera* and *Anbessa Gibbi* were pioneers for the recently flourishing *khat bets*. In recent years, particularly in the newly developed parts of Addis Ababa such as *Hana Mariam, Mekenissa, Lafto, Lebbu Ertu and Welete,* one can find small shacks here and there for *khat* chewers. These hidden *khat maskamiya bet(s)* render services for those who would like to spend a few hours chewing and socialising with others.

Since 1991, the growing culture of *khat* consumption, the concomitant change in the leisure and life style of the economically active members of the urban population, created the need for different kinds of *khat* establishments that can accommodate the new 'army' of *khat* consumers. As a result, in the 10 sub-cities and 99 *kebeles* of Addis Ababa, hundreds of *khat maskamiya bet(s)* flourished and successfully joined the urban economy. The *khat* business also sounds a sector to which many men, women, young and old could get into and survive. The government charges only *birr* 250 to give a trading licence and *birr* 50 income tax per year. There are, however, variations in the issuance of *khat* trade licenses among *kebeles* within Addis Ababa and cities in other regions. The reasons for the variations are not clearly known. However, after thousands of people started the *khat* business and after millions embraced the habit of chewing, questions about the legality of *khat bets* and the health, economic, security and moral impacts of *khat* began to surface. Among others, due to criticism by a few public institutions, NGOs and the media, local governments and law enforcement bodies began to take measures on *khat maskamiya bet(s)* on the pretext that chewers should not be given services within the establishments. However, there is no law that disallows providing services to *khat* chewers. In other words, local officials and law enforcement bodies try to enforce an order, which is not articulated in the laws of the country.

According to one of my key informants,[19] local officials who find owners providing services to *khat* chewers shut the shop. Such businesses are also fined *birr* 1,000 to 3,000 to get their shops reopened with strict warning not to provide services for chewing and *shisha* smoking in their shops in the future. Despite the repeated penalties many of the *khat* shop owners continue giving services for their clients. Some get caught more than once and even face court chargers for *denb metelalef* – meaning 'violations of regulations'. As a lawyer working in one of the courts in Addis Ababa told the writer that since there is no clear provision about *khat* and *shisha* in the

[19] Interview: Ato Sefa Senbetu, 32, Saris, Addis Ababa, October 23, 2010.

civil and penal code of the country, shop owners providing services to *khat* chewers are charged just for violation of regulations (*denb metelalef).* This is, however, open to different legal interpretations. In most cases, after being fined establishment owners hardly refrain from providing services. A case in point is an establishment owner (around Gofa sefer) who was fined a total of *birr* 20,000 at different times within a span of a year. The lack of a law that disallows provision of services to *khat* chewers and *shisha* smokers and the inconsistency that prevails in the measures taken against the establishments appeared to have opened a soft passage for corrupt practices. For instance, as many of the key informants involved in this study noted, '*denb askebaries* (law enforcers) and a few local officials and sometimes policemen take bribe (*gursha/af maseyagia)* from *khat* establishment owners.

Some chewers argue that one cannot tell groceries and bars to sell alcoholic drinks but do let their clients drink the liquor somewhere else. According to some consumers, for *khat* to be as a "social stimulant", the social gathering is fundamental to its life and without secure space of consumption, *khat* chewing does not have meaning for most chewers.

The above mentioned dynamics have brought other unforeseen consequences and given birth to a new trajectory for *khat* culture of consumption in urban Ethiopia. Despite the restrictions and heavy fines, large numbers of *khat* chewing places have been flourishing with new strategies and even better services. As already mentioned, the ambivalent policy environment reinforces informality, corruption, paranoia and conflictive consumption scenario that encourage new and illicit *khat* chewing establishment to flourish in very secure private places and richer neighbourhoods of the city. A case in point is the appearance of retailing shops that either allow chewers to chew in selected hours of the day when the municipal police and the *denb askebaries* are away, such as lunchtime for example, on weekends and late afternoons and night times. The old chewing establishment owners have also created new networks with private villa owners by assigning guides who help clients to secured villas where they could chew comfortably even in active surveillance hours by local law enforcement entities. What is more, a few establishments with better financial capacity shift their address to the upper middle class areas like *Bole* and run lucrative *khat* consumption services renting private villas as well as with shareholding arrangements with rich villa owners. Put another way, due to the restrictions, the small and transparent *khat* shops are giving way to new establishments illicitly run by rich people in hidden but well established quarters and places in Addis Ababa. Those who

are legally established are forced to close[20] or in most cases to continue networking with illicit establishment owners as suppliers of *khat* with a better price. The following part of this paper gives insight on the politics of *khat* consumption resulted from tension between service providers and local government law enforcement entities.

4 The Emergence of New *Khat* Establishments

Unlike the old chewing corners, most of the new establishments are out of the network of *khat* producers, wholesalers and distributors. This is because the establishments do not retail *khat*, but simply allow clients to directly order it from retailing shops through pageboys who run back and fore, or do errands throughout the day. The new *khat* establishment owners cater services that only facilitate chewing, which include comfortable rooms, mattresses and pillows, soft drinks and bottled water, tea and coffee, *shisha* and cigarettes and assign female or male attendants.

The restrictions aimed at the small, and ordinary *khat* kiosks, therefore, draws a new social group with financial power in the trajectory of the wider *khat* consumption sphere. Within a few years, the involvement of the new groups proved significant, as they have transformed the sphere of consumption to a level that has never been envisaged by the society in general and the stakeholders in *khat* trajectory in particular. The new establishments indeed also seem to control the *khat* related businesses directly or indirectly through the best services that meet the interest and status of the well-to-do category of the urban *khat* consumer. These establishments have been able to secure lucrative profit from room services, sale of soft drinks, cigarettes, *shisha* smoking, payment from card games and English Premier League football matches. In addition, they are free from externalities imposed as a result of taxation and bribes for local officials. The recent looming conflictive scenario between ever expanding *khat* consumption culture and the effort of the government to control the norms of consumption has resulted in the emergence of new *khat* establishments and new groups of chewers. In the context of the new *khat* consumption landscape, *khat* Restaurants, *khat* Villas, and *Shisha Bets*[21]are the major spaces of consumption in major urban areas of Ethiopia.

[20] See BBC News 2007, and Hamrawi Amharic News Letter *Tir* 2001 E.C. Year 3, No. 18 pp.14 on the recurrent closure and clampdown of *khat* establishments in Ethiopia.

[21] See the Amharic weekly for details Hamrawi News Letter: *Tir* 2001 E.C. Year 3, No.18:14.

4.1 Schism of *Khat* Consumption, Use and Abuse by Different Social Groups

Contrary to external pressure and demonization of *khat* consumption, there are also internal dissent and stigmatisation among consumers themselves. This is manifested as a conflict of life style followed by some people who are seen as abusers of *khat* due to an unorthodox consumption pattern they have adopted for quite some time. They are seen as against those consumers who take *khat* 'for the right purpose' and at the 'right time and place', in the words of one of the informants of this research. The everyday life experience in the *khat* consumption spheres is expressed in the dynamics of using consumption spaces among the different categories of chewers. Partly this negotiation for consumption space is expressed by physical mobility of chewers from one urban quarter to another or from one *khat* establishment to another in search of comfortable space of consumption according to group and individual preferences.

On the main, involuntary sharing of money for *khat* as well as sharing the *khat* itself between those who can afford and those who could not in the context of chewing establishment is common. However, the prevalence of the habit of sharing depends on a number factors, for instance, the nature or combination of chewing mates and the discipline or the personality of at least the receivers are two of the factors that determine the existence of sharing habit among certain groups. Those who ask for money for chewing and mix themselves with a group without being invited are called *Chulilewotch*, literally means hawks/scavenger. The social background of the 'scavengers' in all places seemed quite similar. Most of them are jobless, underemployed or some are suffering from one or other form of obsession or are victims of uncontrolled 'vagrancy' or other form of paranoia that immediately surfaces after chewing. Not all "scavengers' are from poor economical backgrounds, some are from the well-to-do families, while others have someone abroad who sends them money in the form of monthly remittance. Still the few might have been fired from their jobs due to different reasons. Few of 'scavengers' are gifted with one or another form of 'talents' such as storytelling, persuasion of people for gifts, cracking jokes, singing, recalling even details of minor events and phenomena at both national and international levels, having information about the current gossips of the city, rumours about celebrities and/or political figures and the like. And again very few of them look elegant in their dressing styles and careful while conversing with others and most of the times maintain good sense of humour.

Some informants arguing that 'scavenging' is a habit appropriated not from pauperism or chewing *khat*, but rather the result of upbringing and selfish orientation of

individuals to cheat and gain something from others. According to one of my key informants[22], it is very difficult to escape from known 'scavengers' who hunt someone throughout the chewing houses not only to share *khat*, but also to beg for money, fuel for their car, to borrow one's cell phone or laptop or larger amount of money on different pretexts and disappear with the things they borrowed. They roam *khat* establishments to hunt their 'preys' in the time of *mirqana*. One of the features of the these 'scavengers' is that they do not identify themselves with any occupational group and stay aloof, run or try to misdirect when issues related to that end are raised.

It is through time that one learns how to keep 'scavengers' at a distance. According to my informants the best way of avoiding them is not to give one's telephone number, not to tell address, and if possible not to exchange greetings, and even kind glances. They are experts in choosing the best strategic corner to sit in the chewing houses and know where they catch the gullible and generous person with a surprise.

Khat Bet owners temporarily employ some of the *chulules*. The *chulules* are relatively young in age and are obedient in undertaking errand jobs; they are' thus' looked as 'born yes-men'. For them everything is possible, and the word 'no' is not listed in their vocabulary. They are always ready to pick up any kind of work given by establishment owners as well as clients. They are the best sources of information and, therefore, clients who need to know anything in a specific quarter of the city are welcomed and will be furnished with adequate details. They also play the role of middlemen between buyers and sellers of all stuffs, starting from cars to second hand mobiles; what is more, they also serve as pimps. Surprisingly, they seem to have documented data on everything. Ask them anything, for instance about names of regular clients, their profession or family background, the '*chulules*' will tell you. Ask them also about a particular business affiliation between a circle of friends, do not worry they will arm you with detailed information. The following is a summary of an interview made with a young man who has been stationed in Chechnya area for some reason. Our discussion revolves around youth unemployment and chewing.

> Their [the *chulules*] life is like a life of reptiles, serpentine and illusive. It is full of escape and denial. These young people dream and build big things while chewing but get nothing in the morning. It is possible to get out of the habit of chewing as much as possible. But for people like me, it is like getting rid of life itself. I am self-employed *delala* [broker] and

[22]Wasyihun Bekele, 40, Wollo Sefer, Addis Ababa, September, 4, 2009.

> need the leaf to move and think faster across the city to find someone who wants to sale, rent car, house etc. Even I chew a little in the morning to get my head get clear. I have a kid who is 8 and my wife is pregnant. I married to make life better. But, life is not easy. I have been the *fano*[23] of Chechnya for the last 15 years. Now Chechnya is dead, barren and all the big chewing houses and pubs turned to ghettos where veteran sex workers hang around. The chewing houses turn to be a place where *borkos*, *laboros*, *Jazbas* and losers of Chechnya get together and dream back their 20 years of madness. I wonder how and from where those officials, very young rich men and merchants have got the money they have spreading like straw. They are chewing all day long and drinking the whole night and picking the most expensive girls in the city. Now some of them turned scavengers, a few of them died, exiled, turn to be *borkos*. It is very sad (December 10, 2009, Tesfaye Gelaw, Lebu Ertu, Addis Ababa).

From Tesfaye's narrations the terms *borko, laboro* and *Jazbas* are usually related to *khat* 'abusers', those who involve in petty crimes and those who remain unemployed and jobless for long time. *Laboro*s are thieves who pretend to be a good friend and disappear with anything they get into their hand. *Borkos* are those homeless and poor guys who have little hope to return back to a normal way of life. The *jazbas* are the classic cases of *khat* abusers who are usually considered as addicts to *khat*. In Merkato area, particularly near Cinema Ras where the Wellene Gurage variety of *khat* is sold, one can see these social groups (the *khat* sellers mockingly call them 'graduates') sitting in tens and twenties and chewing *garaba* in the open.

The following is the comment given by Hassen Abdella, a *khat* seller in Addis Ababa, Merkato area near Cinema Ras.

> These people who are sitting on the dirt and chew *garaba* are *jezba*. They are tactful 'students' of the *khat* establishment. As they are 'best' and 'qualified' chewers, we name them 'graduates', instead of *jezba*. It is similar with you guys who got your degrees from years of study in the university (turning to me). These people also graduated from years of excessive chewing and now they are *Jazbas*. They have contempt for us to sit here in the clean room with us because they are *jazbas* (Hassen Abdalla, February 15, 2008, Merkato, Addis Ababa).

In the debate between abolitionists and supporters, disfavouring and favouring *khat* respectively, both groups take *Jazbas* as the best example. It is, however, difficult for

[23]The other term for Shifta. The term used by Tesfaye literally mean "a bandit".

both groups to know the duration and size of *khat* consumption turn a 'healthy man' into a *jazba*. As in any walk of life, there are always discussions, debates and wisdoms shared and entertained among actors involved in the *khat* consumption sector. Most chewers forward what they feel in the form of pieces of advice to friends and those close to them on how to balance work and chewing, *khat* and meals, chewing and sleep. Habits such as *chebsi* (alcohol) after chewing are totally condemned by most experienced chewers, but at the same time alcohol is an antidote to late hour *mirqana*. Otherwise in the eastern Harerge, for example, milk is the *chebsi* for the majority of chewers, while alcohol seems a latecomer welcomed and embraced as a habit among few Muslim chewers.

4.2 Anti-*Khat* Clubs

As described in the book entitled "*The Khat Controversy*" by Anderson *et.al*, (2007: 71-72), there was an anti-*khat* Chewing Club organized under the name *Ruh* in *Teklehaymanot* area of Addis Ababa. However, in my visit to the area on the 15th of February 2008 (after reviewing the book as an eye opener for my urban part of the fieldwork), the group had already dissolved long ago. With a little time taking effort, I managed to hold discussion with one of the founding members of the club-Ato Abdu Abafogi.[24]

According to Ato Abdu, *ex-khat* chewers who claimed to have chewed *khat* for so many years founded *Ruh*. One of the founders, nicknamed Gebre, played a prominent role in the formation of the club. After chewing for so many years, one day Gebre came up with an amazing idea; he proposed to his friends to stand as a single person against *khat* chewing, and what is more, vowed to teach others about the negative consequences of *khat*, particularly emphasizing on its impact on the economy and health of the chewers. The idea was supported by many of his close chewer friends, including Abdu. The composition of the club members included both Muslim and Christians. When the idea was shared to people of different walks of life in Teklehaymanot locality, it seemed it was supported. Soon the involvement of elders, *Kebele* and *Woreda* officials, youth groups, the mass media[25]and the business community at large, became kind of moral boost to the founders.

[24] Interview: Abdu Abafogi, 42, Tekelhaimanot, Addis Ababa, February 16, 2008.

[25]Ethiopian TV and State Radio.

The group launched its campaign immediately after the foundation of the association-started to disseminate leaflets, banners, calling meetings for the purpose of sharing views on the negative effects of *khat* on the life of the chewers. One of the strategies was teaching through verses and dramas prepared by the group, which later were broadcasted by the Ethiopian Television. Indeed, it was the beginning of success, as the association became a source of wonder by people who followed the programme.

According to Ato Abdu, problems started brewing after they held a meeting with *khat* traders. The *khat* traders who represent the majority of the business community in Teklehaymanot and Merkato areas of Addis Ababa raised a question about alternative income generating activity to be facilitated for them, if the club members force the traders to stop their *khat* business. However, Abdu confessed that members who have no knowledge on the overall economic, cultural and political implications of the *khat* sector in the country established the club. By the time, they were only able to say that the government would find alternatives to the traders and for those who get their daily bread from *khat* trading. That answer did not sufficiently satisfy the traders. Most of them started opposing the idea of ceasing *khat* consumption.

Meanwhile, local government offices supported the club by all means possible such as providing meeting hall, facilitating, organizing community awareness meetings and facilitating ways to get the activities of the club publicized by public media. On top of that, the officials entrusted the club with legal personality through issuing a license to run their office, producing ID cards for about 700 members of the club and with right to have their own stamps and bylaws. However, the more the club became strong, the struggle to stop their movement from the side of the *khat* traders and chewers got intensified. Because of more fierce rumours and open opposition, members were forced to appraise their roles and the legitimacy of their operation in the middle of their activism.

At the same time, it was alleged that those who established *Ruh* were getting support from *Al-Qaida* and were followers of *Wahabism*. The club did every attempt to defend itself; one of them being proving that the members were both Muslim and Christians as well. Although the evidence was strongly plausible in the eyes of neutrals, the other side shot the final bullet: members dubbed as Christians were said to be Protestants who left the Orthodox Church as members of an extremist group.

According to Abdu, this was the turning point for the life of the club as a legal entity. Following the propaganda, a number of elderly Muslim fathers condemned the

presumed, but unproven, 'motives' of the club members. The club was considered as a divisive manoeuvring and with a dangerous stand against the peaceful coexistence of Muslims and other communities. As a result, without giving any reason, the local government, the mass media and the local community ceased providing support to the club. The banners and mottos posted in public place and street corners were torn apart in broad daylight by opponents. At this 'historical' event (at least in the eyes of the club members) the local government did not try to stop the act of the opposing groups who were spreading rumours behind the curtain. Abdu resented that some individuals accused club members of promoting the agenda of 'hidden forces'. The association's activities afterwards were also considered as an agenda aimed at the very survival of *khat* producers in the countryside.

According to Abdu, since then, let alone activities of the club, no one mentions the name of *Ruh*. Once the dream of *Ruh* turned to a popular movement by uniting members who do not favour all aspects of *khat*, however, in no time the sacred idea of Gebre and the subsequent popular activism evaporated from public memory. According to Abdu, it is a farce, at times a taboo, to mention in public even for the few who remember the first rapturous years of the movement. The one time branch offices of the club located along the streets of Teklehaimanot to Torhailoch direction, turned into a Coca Cola and Pepsi Cola shops, all that is left to remind the association was the signage once posted on the front gate of the association's former office reading, "*Ruh Ye tsere-Chat Mahiber"* which means in English Ruh Anti-*khat* Association). In a recently published article Ahmed (2010) remarked about *Ruh* as follows:

> In the early 2000s, the Ruh Anti-*khat* Club launched a campaign against habituation and posted Amharic slogans on the walls of buildings along the road running from Takla Haymanot Square towards the red pepper market in Addis Ababa. The following are some of its slogans: "Addiction to *khat* is a burden on the country and compatriots;" "Instead of chewing *khat*, let us nurture an anti-*khat* generation." "Use your time properly [and productively]; do not let your mind rust by chewing *khat*." The debate goes on, but it does not seem to have any impact in slowing down the spread of *khat* consumption and production" (Ahmed 2010:25).

Like most attempts to ban *khat* in the past, *Ruh* also faced similar destiny of dissolution although left its footprints in a few scholarly work (Anderson, *et al*., 2007; Ahmed, 2010) at least to be remembered. The entire scenario once more illuminates on the entangled trajectory that *khat* still flows capitalizing on the mistake those who do not like its existence commit. Most members of *Ruh* may have a sense of urgency

to bring change on the consumption habit of their generation, although they were hardly able to observe the complexity of the issue, they brought to the public arena. This is the colossal element that they share with all other abolitionist attempts gone wrong before, during and after the colonial era in Africa as well as in Arabia.

5 Conclusions

The main issue emphasised in this chapter is the rapid change and transformation of the culture of *khat* consumption particularly in terms of its interaction with other objects, life styles, new consumption spaces and impacts affecting value chain actors due to politics of consumption. In order to raise policy related issues in relation to *khat* production, distribution and consumption, it would be advisable to anchor key policy recommendations on the basis of evidence generated from multi-disciplinary research. *Khat* is Ethiopia's natural and cultural endowment deeply interwoven with the socio-cultural, national and regional political history. A policy move without an in-depth understanding and without scientific basis would harm the actors in the value chain and undermine the benefits that the country gains in a number of ways. Multi disciplinary research would generate facts that could enable to mitigate health and economic related concerns.

In a broader perspective, the market oriented policy frameworks and the flourishing of urban based small business initiatives since the early 1990, played vital roles for the current expansion of production, distribution and consumption of *khat* in Ethiopia in a number of ways. The upsurge of new global mediums of communication such as the cell phone, the internet and the visual media such as the video and satellite TV channels which broadcast live European league football games as well as the use of the laptop computer as a portable tool for execution of office work encouraged *khat* consumers combine leisure with work. In recent years, different categories of chewers occupy different spaces of consumption. This indicates that individual economic status; gender, occupation, age, education and social class play important roles in the categorisation of types of consumers and consumption spaces. If inclusive policy recommendation needed to emerge, a holistic approach and analysis that embraces all value chain actors becomes a prerequisite.

The urban and rural *khat* consumption cultures stand in a continuum than a dichotomous phenomenon to each other. However, changes and transformation of consumption characterises across all nodes with context specific peculiarities. Localities where consumption takes place also differ in their history, experiences of

consumption and with factors that shape a specific space, peers to rendezvous with and time of consumption for different categories of consumers over decades if not centuries.

As a result, the consumption experience of social groups in the East, South-central and North-western highlands have their own peculiarities and context specific dynamics. A well elaborated *khat* consumption culture that we observe in the East for decades, could hardly be observed in the South-central and North-western Highland Ethiopia where the onset of *khat* production and trade came a few decades ago comparing to the East. Rhythms of work and meal on every day basis and socio-religious experiences of people in the East knotted in a complex way with *khat* consumption norms than the two aforementioned regions. However, the communalities and differences clearly show across all areas how the *khat* consumption dynamics linked with its commodification trajectories which uniformly affect rural producing communities, regional *khat* markets, transporters and the different types of traders and public institutions who have stakes due to different reason. Thus, the major policy issues needs to involve all stakeholders with genuine leadership by lead public sectors such as Ministry of Agriculture, Health and Education. The task at hand is not a one-time involvement; rather it should be a continuous process to bring about harmonious and scientifically led guidelines and policy documents.

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Impact of *Khat* on Health with Emphasis on Mental Health

Solomon Teferra

1 Introduction

Khat refers to the indigenous Ethiopian shrub that is known by its botanical name *Catha Edulis Forsk* (Krikorian, 1984). Different names of *khat* include: *qat, q'at, kat, kath, gat, chat, Čhat* (Ethiopia, Somalia), and *miraa* (Kenya); the dried leaves of *khat* are also known as Abyssinian tea or Arabian tea. It contains the psychoactive alkaloid cathinone which converts to a weaker form *cathine* (Kalix, 1990). *Cathinone* is an unstable compound which is found in fresh leaves and twigs of the *khat* plant, the reason why chewers prefer this part of the plant (Minaleshewa *et al*., 2013). Although *khat* contains more than forty alkaloids, it is *cathinone* which is the most potent psychoactive compound. Several studies done on *khat* in early 1970s led to the discovery of the active principle chemical in *khat, cathinone*, which has similarity with amphetamine and prompted Peter Kalix, one of the pioneer *khat* researchers, to name *khat* a 'natural amphetamine' (Kalix, 1992). *Khat* chewing habit is fast expanding in Ethiopia and has become a source of concern because of its perceived deleterious health and social consequences. This chapter will focus on current knowledge on *khat* and health, with particular emphasis on its effect on mental health.

2 Chemistry of *Khat*

The interest to identify the active chemicals in *khat* began in the 19th century. Fliickiger and Gerock isolated the first alkaloid in 1887 and called it *katine*. Later on, Mosso isolated another alkaloid in 1891 and named it *celastrine*. *Katine* and *celastrine* were shown to have psychoactive properties by Beitter in 1901 and he discovered that these two alkaloids were the same and he coined the name *cathine*. In 1930, Wolfers observed *cathine* to be a norpseudoephedrine, S,S(+) phenylpropanolamine, responsible for the psychoactive properties of *khat*, but von Brticke noted in 1941 that *cathine's* stimulant property was low. But they used dried leaves of *khat* in their analysis. Later on, studies using fresh *khat* leaves showed the presence of a more potent alkaloid than *cathine*. This more potent alkaloid was the precursor of *cathine* and found in greater proportion in fresh *khat* leaves. In 1958 the United Nations Economic and Social Council asked the WHO to investigate *khat* and the UN Narcotics lab discovered the most potent alkaloid, Salpha aminopropiophenone, which

was named c*athinone* in 1975. The alkaloids found in *khat* were shown to be structurally similar to amphetamine (Kalix, 1990). One of the pioneers in the study of *khat* pharmacology, Peter Kalix, called *cathinone* a 'Natural Amphetamine' in one of his reports (Kalix, 1992).

Recently, there has been extensive development of synthetic *cathinones* in illicit laboratories, which were marketed as 'bath salts'. These synthetic *cathinones* were legally sold in stores, and people were abusing them to get high which resulted in severe toxic reactions (Valente *et al*., 2014). This forced the United States Drug Enforcement Agency (DEA) to label them as schedule-I drugs. Schedule I drugs are considered 'highly addictive with no medicinal value', and illegal to possess or traffic. Reports of bath salts-induced poisoning to Poison Control Centres in USA have decreased from 6,137 in 2011 to 995 in 2013 after it was labelled as schedule-I drug (Baumnn, 2014).

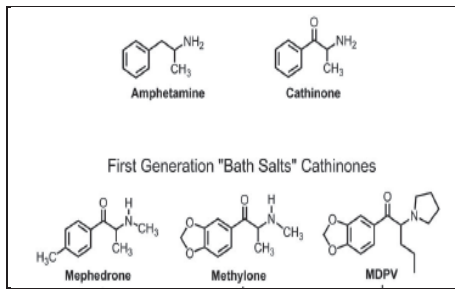

Fig. 3: Chemical structures of amphetamine, *cathinione* and synthetic *cathinones*

3 Varieties of *Khat* and their Concentration of *Cathinone*

Based on the place it comes from, there are different varieties (brands) of *khat* in Ethiopia. The price of a bundle varies based on brand. Some of the brands include: *abu mismar, asano, aweday, baherdar, beleche, gelemso, gurage, kuto, wondo, wollene* and so on. *Khat* shops advertise the brands they have on their shops to attract customers. *Aweday* and *beleche* are the expensive brands: a bundle selling for about 100 *birr* or more; while *gurage* and *gelemso* are the relatively cheapest and preferred by the low income chewers. Studies done by Geisshüsler and Brenneisen in 1987 on different samples collected from Addis Ababa and Aweday in Harrar (Ethiopia), Anivorano (Madagascar) Nairobi and Mombasa (Kenya), Sana'a (Yemen) on different varieties of *khat* showed a considerable variability in the concentration of the psychoactive chemicals. Among the Ethiopian samples, the Wollene brand had the

highest *cathinione* content of 1.87% followed by Aweday (Harrar) with a *cathinone* content of 1.73%. Kenyan *khat* was found to be the most potent with a *cathinione* content of 3.32%. One hundred gram of fresh *khat* contains on average 36 mg *cathinone*, 120 mg *cathine* and 8mg *norephedrine* (Geisshüsler and Brenneisen, 1987).

4 *Khat* Chewing: Perceived Reasons and Effect on Individuals

People give different reasons for indulging in *khat* chewing. In situations where *khat* chewing is associated with some traditional practices and events, such as weddings and festivities, chewing usually happens as part of the ritual in group settings. Some people chew *khat* believing it can enhance their performance by making them feel more energetic and staying awake when needed, during farming or studying. But, solitary as well as group chewing also take place in urban areas as a form of leisure activity and pastime. In all situations, the duration in the chewing of *khat* usually takes hours. But at the same time, there have been reports of *khat* decreasing productivity, causing deprivation and disruption in family life by diverting the income to buy *khat* instead of supporting the family in its basic needs (Elmi *et al*., 1987; Selassie and Gebre, 1996; Belew *et al*., 2000). *Khat* chewing is also associated with the spread of HIV in Ethiopia by making people engage in unsafe sex, which is one of the major reasons for HIV transmission (Kebede *et al*., 2005; Dawit *et al*., 2006).

Chewers keep a bolus of fresh leaves in their cheeks and swallow the juice intermittently. This limits the amount of *khat* they take. They often use sugar, coke and tea during chewing to counter the sour taste of the leaves. Enzymes in saliva are believed to contribute in the digestion of *khat* and the psychoactive chemicals can be absorbed through the buccal mucosa (Nencini *et al*., 1984; Toennes *et al*., 2003). Many chewers smoke cigarettes and, nowadays, there is increasing use of hookah (water pipe commonly known as *shisha*) during chewing in urban areas in Ethiopia.

Nowadays, there are many *khat* chewing places in urban areas known by the name *mekamia bet* (*khat* house), where fresh *khat* and cold and hot beverages are served to clients. A chewer passes through three phases during the day: **pre-chewing phase** known by the name *harara* time which is around lunch time characterized by intense craving; the **chewing phase** where the person chews and feels the high which usually lasts for two hours followed by the **post-chewing phase** known as *mirkana*, the resulting effect. Later, the feeling of high, excessive talking and optimism is usually replaced by quiet withdrawal and pessimism. Chewers often drink alcohol to

counteract the resulting feeling of anxiety, dysphoria and sleeplessness, an activity known by the name *chebsi*, meaning breaker of the state of *khat* intoxication.

Table 1: Effect of *Cathinone* in Humans Vs. Animals (Kalix, 1991)

Effect on Humans	Effect on Animals
• Anorexia (loss of appetite) • Insomnia (unable to sleep) • Fatigue (tiredness) • Hyperactivity (increased activity) • Excitation (increased emotion) • Euphoria (happiness) • Logorrhoea (talkativeness) • Hyperthermia (feels hot) • Increased respiration (breathing) • Mydriasis (eyes wide open) • Arrhythmias (irregular heart beat) • Hypertension • Constipation (probably due to tannins) • Compulsive *khat* consumption	• Anorexia (rat. monkey) • Restlessness (monkey) • Hypermotility (mouse. rat) • Stereotyped oral activity (mouse, rat. rabbit) • Hyperthermia (rabbit) • Increased oxygen consumption (rat) • Mydriasis (monkey) • Positive inotropic and chronotropic effect (guinea pig atrium) • Hypertension (cat) • *Cathinone* self-administration (monkey)

5 Epidemiology of *Khat* Chewing in Ethiopia

Millions of people in Ethiopia, Somalia, Yemen and Kenya chew *khat* daily. It is also chewed by people from other parts of the world, as far as Afghanistan, to a lesser extent. Dried *khat* leaves are brewed and drunk as tea; smoking dried *khat* have also been reported in some cases. The dried form is especially used by Diasporas who live in western countries originating from *khat* growing and consuming regions such as Ethiopia, Somalia and Yemen. Although debated, it is generally believed that *khat* originates from Eastern part of Ethiopia.

Khat chewing has very long history in Ethiopia, but was limited to some regions and religious groups for long years. Following the student movement and the expansion of higher education in the early 1960s, the habit of *khat* chewing spread to different parts of the country. Now, one can say there is no place in Ethiopia where *khat* is not chewed. The prevalence of *khat* chewing in Ethiopia varies from place to place, ranging from 0.3% to 64.7% (Fekadu *et al*., 2007). The Ethiopian Demographic and Health Survey showed 11% of women and 28 % of men have history of *khat* chewing. The proportion of *khat* chewing was higher among rural women than urban, 12 and

7% respectively, but there was no marked difference among men in the two residence settings. Tigray region had the lowest *khat* chewing rate with 1% and Harari had the highest with 39% women and 82% men reporting chewing. Among *khat* chewers, 47% of the women and 57% of the men reported chewing *khat* 6 or more days in the month leading to the day of the interview (Central Statistical Agency, 2012).

Higher education institutions are places where *khat* chewing is more frequented. Students chew *khat* to stay awake to study and for leisure. Studies done in different universities in Ethiopia showed a current *khat* chewing prevalence rate of 3.7% at Addis Ababa University School of Medicine and 33.1% at Jimma University (see Table below on the findings in different universities in Ethiopia).

Table2: Prevalence of Substance Use by Students in Ethiopian Universities

Name of University	Alcohol (%)	*Khat* (%)	Tobacco (%)	Remark
Addis Ababa University (School of Medicine)	9.3	3.7	1.8	Current use (Deressa and Aklilu, 2011)
Addis Ababa University (Faculty of Technology and School of Pharmacy)	31.1	14.4	6.1	Current use (Eshetu and Gedif, 2006)
Axum University	32.8	27.9	9.3	Current use (Gebreslassie *et al*., 2013)
Debremarkos Polytechnic College	13	7.8	5.4	Current use (Aklog *et al*., 2013)
Haramaya University	20	23.6	10.8	Current use (Tesfaye *et al*., 2014)
Gondar University	31.1	22.3	26.3	Current use, a bit old study (Zein, 1988)
Jimma University	36.4	33.1	21.3	Current use (Meressa *et al*., 2009)

Although the local consumption shows increasing trend, in almost all countries in the West, *khat* has been banned. Proponents of *khat* argue that chewing *khat* is a cultural practice, but groups who oppose to it prefer to call it a drug, which should be banned or at best highly regulated.

6 *Khat* and Health

According to the World Health Organization (WHO) definition, health is "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". It is, therefore, important to look at the effect of *khat* on all aspects of

health, i.e., the adverse physical, mental and social effects. The discussion in this chapter is limited to some extent to physical and a broader exploration of the mental health impact of *khat*.

6.1 *Khat* and Physical Health

Several reports address the adverse consequences of *khat* on physical and mental health. Because *khat* has amphetamine-like action which affects the autonomic nervous system, the three systems in the body that are most likely to be affected by *khat* are the cardiovascular, gastrointestinal and nervous system. But other systems such as the respiratory, genitourinary and endocrine systems can also be affected (Cox and Rampes, 2003).

Table 3: Summary of Adverse Effect of *Khat* on Physical Health in Humans

Part of the body/organ system affected by *khat*	Observed effect of *khat*
Cardiovascular system	tachycardia, palpitations, hypertension, arrhythmias, vasoconstriction, myocard infarction, cerebral haemorrhage, pulmonary edema
Central nervous system	dizziness, impaired cognitive functioning, fine tremor, insomnia, headaches
Gastro-intestinal system	dry mouth, polydipsia, dental caries, periodontal disease, chronic gastritis, constipation, hemorrhoids, paralytic ileus, weight loss, duodenal ulcer, upper gastro-intestinal malignancy
Genito-urinary system	urinary retention, spermatorrhoea, spermatozoa malformations, impotence, libido change
Hepatobiliary system	fibrosis, cirrhosis
Metabolic and endocrine effects	hyperthermia, perspiration, hyperglycaemia
Obstetric effects	low birth weight, stillbirths, impaired lactation
Respiratory system	tachypnoea, bronchitis

Source: The WHO Expert Committee on Drug Dependence, 2006

6.1.1 *Khat* and the Heart

Several animal and human experimental studies have shown that *khat* affects the heart and circulatory system, known as the cardiovascular system. *Khat* transiently increases heart rate and blood pressure.

The adverse effect of *khat* on heart is particularly well documented by several studies. Myocardial infarction, commonly known as heart attack, which is a result of death of

the heart muscles due to blockade or rupture of small blood vessels will result in heart failure or even sudden death. This phenomenon usually occurs in people who have uncontrolled hypertension, or high blood pressure, and typically happens early in the morning when people wake up from bed. Among *khat* chewers, it has been reported to be more common in the afternoon at the peak hour of *khat* chewing session (Al Motarreb *et al*., 2002; Al Motarreb *et al*., 2005).

6.1.2 *Khat* and Gastrointestinal System

The gastrointestinal system extends from the mouth to the anus. Chronic *khat* chewers experience staining of the teeth, ulceration of the gum and falling of the teeth. The tannins in *khat* are responsible for diseases of the gastrointestinal tract such as periodontitis (inflammation of the gum), esophagitis (inflammation of the esophagus), and gastritis (Al-Motarreb *et al*., 2002). The liver, a very important organ in the body for detoxifying harmful toxins, is also affected by *khat*. Both acute and chronic inflammation of the liver was reported in *khat* chewers.

A case series of seven Somali *khat* chewers with liver cirrhosis has been reported (Peevers *et al*., 2010). *Khat* also causes severe constipation, which results in painful hemorrhoid and anal fissures. Chronic *khat* chewers often suffer from these health complications.

6.1.3 *Khat* and the Reproductive System

The reproductive system is affected both in men and women. In men *khat* causes impotence and spermatorrhea (spontaneous pleasure less emission of semen after urination, often known as ‘milky urine’). It also causes a reduction in sperm count and motility in men in addition to a reduction in serum testosterone levels. *Khat* reduces the frequency and flow of urine in men. Men sitting in *khat* sessions usually remain seated for a long time with retention of urine, predisposing them to urinary tract infection. In women several complications have been reported ranging from infertility to abortion to low birth weight babies. In lactating women, it can cause reduction in production of milk.

6.2 *Khat* and the Mind

Cathinone is a mind altering alkaloid with the potential for psychological addiction. Its main effect on the mind is stimulation making the mind activated. During the peak of *khat* chewing, the *khat* chewer will experience feeling of euphoria, increased

concentration, increased flow of ideas (manifesting as over talkativeness), becomes highly optimistic (may engage in day dreaming, sometimes thinking about grand ideas), feels energetic, and may not feel pain even if seated in one position for a long time. This is the desirable aspect of *khat* and usually lasts as long as the person is actively chewing *khat*. But when the individual stops chewing the *khat*, he will crash into a state of depression, anxiety, withdrawal and introversion. This state is generally undesirable and forces the chewer to drink alcohol or use other tranquilizer, locally termed as *chebsi* (to break the state of *khat* intoxication).

6.2.1 Adverse Effect of *Khat* on the Mind

The deleterious effect of *khat* on the mind has been a subject of interest for many researchers. Several reports confirmed *khat*'s ability to cause psychological dependence. In chronic *khat* chewers, withdrawal symptoms that involve frightening dreams locally termed as *dukak* that last for one to two nights were reported to occur. The *dukak* reported by individuals suffering from *khat* withdrawal tend to be very frightening and dramatic. Some individuals report being crashed and put in a bottle or held upside down and tortured by a ghost who would usually interrogate them why they didn't chew *khat*. They also feel very depressed and irritable (may start a fight easily). They become lethargic (low energy), feeling hot in lower extremities and the desire (craving) to chew *khat* (Al-Motarreb *et al*., 2002).

More severe psychological reactions such as psychoses were reported as well. In a review published in 2007, Warfa reported more than twenty cases of *khat* induced psychosis. It was difficult to establish a causal relationship, but the onset of psychotic symptoms was temporally related with *khat* chewing (Warfa *et al*., 2007). The most common manifestation of amphetamine intoxication is psychosis. Although cathionone is a weak amphetamine and the amount taken from chewing the *khat* leaves is usually small, some individuals who consume large amount of *khat* for days being sleep deprived exhibited acute psychotic symptoms. There was a case report of a 55 year old Ethiopian who chewed *khat* for three consecutive days, sleep deprived, and developed acute psychotic episode. At the peak of this *khat* induced psychosis he murdered his wife and daughter. He was diagnosed with "*khat* narcomania" (Alem and Shibre, 1997). This psychotic state resolved after the intoxication was over. It is controversial whether *khat* causes chronic mental illness.

There are few community based studies which show the association of *khat* with the development of severe mental illnesses (Bhui *et al*., 2006; Odenwald *et al*., 2005). A

study done at Amanuel Specialized Mental Hospital in Ethiopia described the role of *khat* in frequent relapse of cases with psychosis (Bimerew *et al*., 2007). A qualitative study of *khat* chewers in Butajira, Southern Ethiopia, explored why patients with severe mental illness continued to chew *khat* despite advice given by their doctors to quit. The findings from this study revealed both perceived benefits and adverse experiences by patients with severe mental illness and their caregivers. Some of the perceived beneficial effects include social inclusion (*khat* is considered part and parcel of the social fabric in the area), improved occupational functioning, relief of side effect of medications, curbing appetite in food scarce families and making life liveable (endurable by experiencing pleasure). The perceived adverse experiences of *khat* chewing reported by patients and their families were adverse sexual consequences, worsening of psychiatric symptoms, skipping medication or taking more than prescribed (because *khat* makes the medication weak) (Teferra *et al*., 2011).

6.2.2 Diagnosing *Khat* Use Disorder

Not every person who chews *khat* will experience adverse consequences. Some people would argue that *khat* causes minimal problems by citing a number of individuals who have chewed *khat* for many years without experiencing any adverse effects. In the field of mental health, we diagnose *khat* related problems based on the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (APA), the current edition DSM-5 was published in 2013 (American Psychiatric Association, 2013). According to DSM-5, individuals experience either "stimulant use disorder" which focuses on problematic pattern of use with the resulting consequences or "stimulant induced disorders" which focuses on secondary psychiatric complications such as depression or anxiety. The following list will present the DSM-5 stimulant use disorder criteria validated for use in *khat*:

A pattern of stimulant use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. The stimulant is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control stimulant use.
3. A great deal of time is spent in activities necessary to obtain the stimulant, use the stimulant, or recover from its effects.

4. Craving, or a strong desire or urge to use the stimulant.
5. Recurrent stimulant use resulting in a failure to fulfil major role obligations at work, school, or home.
6. Continued stimulant use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the stimulant.
7. Important social, occupational, or recreational activities are given up or reduced because of stimulant use.
8. Recurrent stimulant use in situations in which it is physically hazardous.
9. Stimulant use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the stimulant.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the stimulant to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of the stimulant.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for the stimulant
    b. The stimulant (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

6.2.3 Symptoms of Stimulant Intoxication

The following diagnostic criteria are taken from the DSM-5:

A. Recent use of an amphetamine-type substance, cocaine, or other stimulant.

B. Clinically significant problematic behavioural or psychological changes (e.g., euphoria or affective blunting; changes in sociability; hyper-vigilance; interpersonal sensitivity; anxiety, tension, or anger; stereotyped behaviours; impaired judgment) that developed during, or shortly after, use of a stimulant.

C. Two (or more) of the following signs or symptoms, developing during, or shortly after, stimulant use:

    1. Tachycardia or bradycardia (increased or slowed heart rate).

2. Pupillary dilation (widening of the eye).
3. Elevated or lowered blood pressure.
4. Perspiration or chills (increased sweating).
5. Nausea or vomiting.
6. Evidence of weight loss.
7. Psychomotor agitation or retardation (slowed movement or restlessness).
8. Muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias (irregular heart beat).
9. Confusion, seizures, dyskinesias (abnormal body movement), dystonias (rigidity), or coma.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder including intoxication with another substance.

6.2.4 Symptoms of Stimulant Withdrawal

The following diagnostic criteria are taken from the DSM-5:

A. Cessation of (or reduction in) prolonged amphetamine-type substance, cocaine, or other stimulant use.

B. Dysphoric (unhappy) mood and two (or more) of the following physiological changes, developing within a few hours to several days after Criterion A:

1. Fatigue.
2. Vivid, unpleasant dreams (nightmares).

   Insomnia or hypersomnia (loss or increased sleep).
3. Increased appetite.
4. Psychomotor retardation or agitation (slowed movement or restlessness).

C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

7 Treatment of *Khat* Addiction

People who have *khat* addiction rarely seek treatment. They come to a health facility seeking help for other problems such as different mental health disturbances or physical health problems or for tobacco, marijuana and alcohol addictions. Most people who decide to quit *khat* can do so on their own as *khat* doesn't cause severe physical dependence. They can overcome the distressing psychological withdrawal symptoms, including the disturbing nightmares often known locally as *dukak*, which usually last for few days. Most people are addicted to the social life associated with *khat*. In urban areas, people usually chew *khat* in *khat* chewing cafes, *chat meqamia bet* and form complex social relations with other chewers. This will significantly affect their decision to quit *khat* chewing. Most problematic *khat* chewers also have addiction to other substances like tobacco, *shisha (hookah* or water pipe*)*, cannabis and alcohol, which need treatment on their own.

When they come to treatment facilities, they will be provided with counselling and some may even need medication to manage the distressing withdrawal symptoms such as tranquilizers to help with the nightmares and insomnia.

Besides clinic based interventions in the formal mental health service, different non-governmental organizations provide education and counselling support to *khat* chewers, including peer group support.

The Ethiopian government has committed itself to addressing the problem of *khat* and declared it would work to decrease the number of *khat* chewers in Ethiopia by 35% in the next 5 years, as stated in the Health Sector Transformation Plan (HSTP) that was started to be implemented at the beginning of 2016 (Federal Ministry of Health of Ethiopia, 2015). Detailed planning on how this will be achieved is yet to be developed. Time will tell whether this target will be achieved or remain a wishful thinking.

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Khat and the Need for Legislative Reform in Ethiopia

Selam Gebrehiwot and Birtukan Haile

1 Introduction

Khat is an evergreen plant growing mostly in the eastern part of Africa, dominantly in the Horn, in countries such as Ethiopia, Kenya and Somalia. The plant also grows in Yemen (Alem *et al*, 1999:1). *Khat* goes by numerous names across countries: *Chat* in Ethiopia, *qat* in Yemen, *Mirra* in Kenya and *Qaad* or *Jaad* in Somalia (Basker, 2013: 74). In Ethiopia the plant is widely known as *chat* but the terms *khat* has been used in many scientific literatures (Solomon, 2011:15). Its fresh leaves are chewed and the juice is swallowed for its stimulating effect and sometimes the dried leaf is boiled to make *khat* tea.

In Ethiopia, the plant has different brands based on the place where it grows; and its price depends on quality of such brands in which until recent years the *Aweday* and *Beleche* are said to be the best brands. Currently, many people in different parts of the country chew *khat* regardless of age, gender, ethnicity, religion, level of education and other social status differences (Ayana and Mekonen, 2004). The youth is the major *khat* user for various reasons including as a means of recreation. Members of the Muslim community use *khat* to stay alert for prayers. Moreover, college students use it as it supposedly helps them to remain alert and enhances their capacity to critically analyse ideas and communicate well (Alem, *et al*, 1999:75).

2 What is *Khat*?

Until the 1960s and 1970s *khat* consumption was confined to the region of production (Ezekiel, 2004). It has been, however, consumed for hundreds, if not thousands, of years in the highlands of Eastern Africa and Southern Arabia (Klein and Metaal, 2010). Ethiopia, Somalia and Kenya are major producers in Eastern Africa. The plant is also cultivated outside the domain of Africa in countries such as Yemen, Afghanistan, India and the Arabian Peninsula (Tajure, 2012). The highly increasing number of Diasporas from the Horn of Africa is believed to have been responsible for the introduction and expansion of *khat* chewing habit in other parts of the world.

Decades ago, the process of harvesting and transporting the leaves was time consuming which, as a result, made the habit of chewing to be limited within the areas

of its production. Nowadays, *khat* has become available well beyond the areas where it is produced due to newly built roads and air-transport. This sparked discussions over the risks and benefits of *khat* in countries where it had until recent years been unknown (Alem *et al*., 1999:).

The habit of *khat* chewing was also largely limited to Islamic religious leaders and political elites in the eastern part of the country (Ezekiel, 2008). Up until a few decades ago, it was mainly restricted to older men or members of Muslim communities who used it for religious practices. However, there is different, even opposite, Islamic teaching on the use of *khat*. Some support the ban considering the plant as *haram* (forbidden) in Islamic (*sharia*) law, while others do not oppose its use arguing that it is *halal* (permissible or lawful). Reports have revealed that Muslims mainly consume *khat*, and Muslim nations such as Somalia, Yemen and Djibouti are countries showing high prevalence of consumption. Such prevalence by the Muslim community has led to studies on whether the plant has any association with the religion. The consumption is also observable by Muslim Diasporas in countries like Australia, UK, Canada and US (Douglas, *et al*. 2011a: 30). The history of *khat* is too much associated with the religion because the religious leaders and followers have long chewed *khat* in order to stay alert for prayer (Alem *et al*., 1999:). However, there is no established ground for such stipulation because there are opposing arguments among the followers. Thus, whether chewing *khat* is accepted by the religion or not has been a point of debate for long time (ACMD, 2013:20).

The demographics of its consumption is changing from time to time that currently, people engage in chewing *khat* at early ages and women, who used to be prohibited from chewing *khat*, are now using the substance even during pregnancy and breast feeding.

3 Prevalence of *Khat*

There are no studies that provide reliable data showing the prevalence of *khat* use. However, there is a consensus that *khat* use in Somalia, Yemen, Djibouti and Ethiopia appears to be high. Although it is difficult to tell the exact number of people who chew *khat* worldwide, more than 10 million people are estimated to use *khat* daily mainly in Yemen, Somalia and Ethiopia. At international level, the use of *khat* by the Diaspora community increased especially following the collapse of the Somali State and the subsequent migration of Somalis all over the world. Due to this and the rising demand for mind and mood altering substance, *khat* has become the latest globalized

psychoactive stimulant (Ezekiel, 2004). Besides, the expansion of *khat* use within Africa and the spread of its cultivation from the areas of customary use such as Hararghe in Ethiopia, the Meru mountains in Kenya and North Yemen, to the Ethiopian highlands, the Swahili coast and Yemen's southeast and that of Uganda, Rwanda and South Africa, contributed to the globalization of the plant (Ibid.).

In Ethiopia, even though there is no accurate data as to the exact number of people that use the substance, different studies show that the number of chewers is growing and that the practice is going beyond its traditional conception. The practice has now spread to all parts of the country and by both genders, without age limits (Guesh, 2012). It is even practiced by followers of some religions and members of cultures that used to consider *khat* chewing as a taboo (Ibid.).

It is extensively used in urban areas by the youth as a leisure time activity. Students different educational levels and teachers in higher education institutions and high schools consume it for its alleged ability to provide concentration of mind and 'efficiency' for their work (Dechassa, 2001:4). Secondary school students also adopt the habit, especially in parts of the country where *khat* production is prevalent (Ezekiel, 2004).

4 Harms Associated with *Khat* Chewing

There is a debate among scholars on the negative effects of *khat* chewing. Some argue that *khat*, compared to other prototypical amphetamines such as Methamphetamines, is somehow different as it does not cause physical dependence, and withdrawal is characterized by only a mild depression and hypertension.

On the other hand, a number of studies have shown that *khat* use is associated with some severe physical consequences such as increased alertness, lower birth weight of new-born babies to *khat* chewing mothers, an increased risk of certain forms of cancer or coronary heart diseases, diminished sexual performance, higher exposure to HIV infection, sexual violence, elevated diastolic blood pressure, urinary and digestive system problems, periodontitis, liver injury, psychiatric problems, and ophthalmological problems. Various complex factors underlie the use of *khat*. More recent studies are also reporting associations between *khat* use and aggressive, anti-social and criminal behaviours due to its dis-inhibitory effects (Odenwald *et al*., 2010:617). Furthermore, there is initial evidence that shows early onset of *khat* use in life and excessive *khat* use might be a substantial risk factor for the development of

schizophrenia-type disorders. Moreover, excessive usage of the substance causes serious mental disorder (Ibid: 616). However, some studies indicate that such excessive dose is not the immediate cause of the disorder, but it contributes to worsening it (Ezekiel, 2004).

A study conducted in Saudi Arabia showed that about 50% of patients suffering from neck and head cancer had a *khat* chewing history. Hence, generally, most of the studies concluded that there is a strong correlation between *khat* chewing and oral cancer (Alem et al., 1999).

Even though scientists take different positions whether *khat* chewing is an immediate cause of these problems, there is a general consensus that frequency and duration of *khat* are the determining factors in the level of severity of the negative effects. The negative effect of *khat* is also strongly associated with pregnant women who chew *khat*. In a study conducted on 120 *khat* chewing pregnant women, 60 of them gave birth to children with lower birth weights (Ibid.).

Nevertheless, causal relationships are difficult to establish because of the presence of confounding variables like poverty, famine, war, and the concomitant use of other substances, like nicotine. Although there is no conclusive evidence to show a strong correlation between *khat* chewing and specific diseases, it is widely agreed that a regular consumption of *khat* seriously affects the health, social and economic aspect of the users and the community (Hersi, 2013:249).

The direct effect of *khat* on the health of the chewers is subject to many arguments from the users' perspective too. Many chewers do not accept its negative consequences. Some say that it makes them happier, energetic and helps them to do their work effectively and enhances their efficiency (Douglas, *et al*. 2011b: 667). Some even argue that it is beneficial for human health because, traditionally, it has been used for medical purposes such as in treating depression, obesity, gastric ulcers and tiredness. Additionally, it is perceived as food and its consumption as harmless (Ezekiel, 2004). On the other hand, others support the harms of *khat* as evidenced by studies, which have shown that it has an adverse effect on vital parts of the human body such as the central nervous system, cardiovascular system, respiratory system and reproductive system (Abdi, 2013).

In countries with strong paternalist or welfare traditions such as Sweden, France, Germany and Norway *khat* bans have been instituted as a protective measure; while

countries with a strong tradition of laissez-faire such as the Netherlands and the UK have opted for a regulative system. Moreover, some members of the community in many countries who are concerned over the negative impacts of *khat* have taken the issue and campaigned for the control of *khat*. Their main argument lies on the social damage *khat* caused to the Somali families and communities. Accordingly, men gather to chew *khat*, spending precious money on this indulgence instead of feeding their children, paying for education and maintaining the home. Once intoxicated, they become unable to maintain their commitments and on occasions turn violent on wives and children. In the Diaspora, the regular *khat* chewing by Somali men is said to present a serious obstacle to integration into the mainstream community (Ezekiel, 2004).

Khat can be a barrier to employment as its consumption may affect work patterns, or cause excessive expenditure as held by most of the Somali women in their campaign for the banning of *khat*. They, moreover, said *khat* leads to divorce and family breakdown. For consumers, much of the day is spent buying and chewing *khat*, severely affecting working hours and, thus, family income.

Over the past twenty years, a global *khat* market has been flourishing and providing significant regular foreign exchange earnings for the exporting countries (Klein *et al*, 2012). Besides, the production, transportation and sale of *khat* provide sources of employment in these countries. Unlike other cash crops, the *khat* market is both local and regional, without substantial involvement of multinationals and their pressure for low prices. In Kenya, the *khat* trade is a multi-million dollar export business, which contributes to the economic development of some regions that are now amongst the richest in the country. To the producers, *khat* is preferable to other cash crops such as coffee and annual food crops because of the reasonable and stable market prices and because of the resilience of the plant against climatic extremes (Amare and Kirorian, 1973:356). Thus, *khat* growing local communities economically perform better than non-*khat* growing neighbours (Csete 2014:6).

The use patterns of *khat* have changed throughout the last few decades. During this period, *khat* has had a remarkable economic boom and developed from a niche crop to being the backbone of the regional economy. Now it contributes to the livelihoods of millions of people.

In Ethiopia, *khat* is one of the leading exportable commodities. In 2013/14, *khat* was the fourth leading export item preceded by coffee, gold and oil seeds and earned the

country 271 million USD (UNDP, 2014:2). But more than eighty percent of the total product is consumed domestically (Ezekiel, 2004). The proportion of the national GDP from *khat*, for instance, exceeds public expenses for health (Alem *et al*., 1999). The economic benefits from *khat* are believed to be one of the major reasons that made the government reluctant to provide policies for its regulation. The sheer size of people who secure their living by producing, distributing and marketing the crop is very significant to ignore. For stronger reasons, farmers prefer producing the plant as it provides them more secure livelihood due to high demand and thereby less price fluctuation. Besides, *khat* does not require too much labour for growing and is naturally drought resistant (Ezekiel, 2004). There is a high tendency that families dependent on the cultivation of *khat* would fight poverty and create a sustainable income for their household due to its nature of growth with a little amount of rain (Alemayehu, 2014:12).

Ethiopia is in the top listed countries producing *khat* globally. Recently studies showed that larger area of land has been used for *khat* cultivation, which is now competing with the land used for the country's major source of cash, coffee. The land used for the production of the plant has recorded a 160 percent increase from 2001/02 to 2014/15, which indicates a significant increase than that of coffee, which progressed with 133 percent (Cochrane and O'Regan, 2016).

5 Is *Khat* among the Controlled Substances?

5.1 International Domain

Decisions on drug classification in general and the level of control of a drug, the rules for access and distribution and the penalties for breaches in particular, are determined by the potential risk attributed to a given drug. Thus, there are three issues that are considered when decisions are made on drug classification. These are: "the physical harm to the individual user, the tendency of the drug to cause dependence; and the effect of drug use on families, communities, and society" (Ezekiel, 2004). Accordingly, the World Health Organization (WHO) and the US classify all controlled drugs into Schedules I–IV according to their risks and medical benefits. The Netherlands seeks to distinguish between 'hard' and 'soft' drugs and the UK classifies drugs into 'A', 'B', and 'C', based on their potential risks.

Policy makers may face difficulty in arriving at policy decisions regarding a substance like *khat*, where issues are very broad and not amenable to precise measurement. At the heart of it lie professional opinions by experts involving contesting conclusions

and recommendations. Besides, the supposed objectivity of scientific assessment is severely compromised by cultural norms, political calculation and moral posturing.

Khat importation and possession is treated differently in different parts of the world. *Khat* was first brought to the attention of the League of Nations in the early 1930s by a British representative reporting on immoderate consumption in Britain's East African colonies (Ezekiel, 2004). Since then, *khat* appeared on the international agenda several times. Even though the attempts to line up *khat* with other banned plant-based substances were unsuccessful, colonial administrations used to impose restrictions on the sale of *khat* in the territories under their control: French Djibouti (1956–1957), British Somaliland (1921–1957), South Yemen (1957–1958), Kenya (1945–1956). Either the restive spirit of colonial subjects agitated after long *khat* chewing sessions or reverse trade imbalances incurred by rising *khat* imports may have been motives behind the restriction (Ibid.).

Decades after a discussion on *khat* was brought to the table, international efforts were revived with the Commission on Narcotic Drugs, the Food and Agricultural Organisation, the League of Arab Nations and International Council on Alcohol and Addictions (ICAA), conducting inquiries into *khat* in 1956 (Ibid.). Later, the Committee on Narcotic Drugs recommended the need for a closer understanding of the chemical and pharmacological principles of *khat* and called for the WHO to conduct a review.

Several studies subsequently identified cathine and cathinone as the main psychoactive compounds of *khat* and to a lesser degree it contains noreedrine. Due to the first two ingredients, it was considered to meet the criteria for control and recommended for scheduling. Thus, based on a 1985 recommendation of the WHO's Experts Committee, cathinone and cathine were added to the list of controlled substances of the 1971 UN Convention on Psychotropic Substances as Schedule I (substances with higher legal restriction) and Schedule III (substances with lesser restriction), respectively (Klein, 2009). The third substance, norephedrine, was subsequently included in the list of precursors controlled under the 1988 UN Convention Against Illicit Traffic of Narcotic Drugs and Psychotropic Substances (Ibid.). Later in 2002, the Experts Committee of the WHO provided a justification for the need to critically review whether *khat* has to be placed under international control or not. Four years later, the WHO's Expert Committee on Drug Dependence concluded, "The level of abuse and threat [of *khat*] to public health is not significant

enough to warrant international control". Thus, the Committee did not recommend the scheduling of *khat*.

Moreover, the Advisory Council on the Misuse of Drugs (ACMD) concluded that, "it would be inappropriate to classify *khat* and the evidence of harm resulting from *khat* use is not sufficient to recommend its control". The committee did not, however, deny the social and health problems of *khat*, rather, it concluded that the potential for abuse, dependence, and the threat to public health is not significant enough to ban its use. The advisory council concluded that *khat* chewing has a potential dependency effect, but the degree is more like the dependency seen with caffeine (UKOST, 2013:2). It restricted the occurrence of these problems to the excessive use of *khat* and suggested that countries should adopt educational campaigns so as to discourage the use of *khat* to the extent it leads to adverse consequences (WHO, 2006).

Recently in 2013 ACMD recommended that the UK, instead of banning *khat*, should educate the community to minimize the harms of *khat*, as there is no reason that justifies ban (ACMD, 2013). The Government, however, did not consider the recommendation of the Advisory Council so as to show its stand to fight illegal trafficking of *khat* and protect vulnerable members of communities that have traditions of *khat* use (US Parliamentary Office of Science and Technology, 2013). Therefore, decision to ban *khat* seems to base itself on factors other than the health and social harms that *khat* use causes.

The WHO conducted reviews on *khat* (in 1964 and 2006) and did not suggest on the prohibition of the use of the plant. However, cathinone and cathine, which are considered to be active ingredients of *khat*, are scheduled as psychotropic substances. This led to the banning of *khat* in North America and Europe. An indication of the international acceptability of the recommendation forwarded by the committee of the International Narcotics Control Board (INCB), as part of its mandate to monitor compliance with the 1961 and 1971 conventions, began reporting *khat* under the heading of "substance not under international control" (Alem *et al*, 199). However, the INCB continued to call upon the authorities to consider taking appropriate measures to control the cultivation, trade and use of *khat* (Ayana and Mekonen, 2004:4). Accordingly, although the production, distribution and consumption of the *khat* are left to the individual countries to determine, the extraction of the active ingredients of *khat* for non-medical purpose is illegal (Ezekiel, 2004).

5.2 *Khat* Under Selected Jurisdictions

Following the publicity of the WHO investigation, Finland, Germany and New Zealand banned *khat* use in 1981, followed by Norway and Sweden in 1989, Italy in 1990, Denmark and Ireland in 1993, while others such as USA, Switzerland, Canada and Australia controlled the major compounds of *khat*, cathine and cathinone (Ezekiel, 2004:59). However, according to the ACMD, none of these countries based their action on evidenced harm.

Country wise, the legal status of the plant varies from one country to another. The legislations restricting *khat* are challenged and their justifiability is subject to debate by different actors for lack of researched evidence showing its harm. Despite the complexities involved, the number of countries banning the plant is increasing from time to time. The laws of the countries banning *khat* differ based on the nature of the transaction associated with *khat*. Some countries prohibit importation and trade of the substance, while others regulate the consumption and some even restrict possession.

On the other hand, in the countries which are known as the main sources of the production of the plant, i.e. Ethiopia, Kenya and Yemen, *khat*- related activities are not yet banned. Production and trade of the commodity is legal in these countries. The practice, in addition to its social and cultural acceptance, has no legal limits (Ezekiel, 2004).

Chewing *khat* is seen as a criminal behaviour in countries such as USA, Denmark, Sweden, UK, France, Germany, Australia and New Zealand. But historically, banning *khat* chewing did not solve the problems as intended (Anderson and Carrier, 2011:3). UN officials believed that the focus on law enforcement, rather than prevention and treatment, is the main reason for the failure of current policy responses. They also argued that the situation is worse in developing countries where the links between narcotics production, poverty and criminality are more definite (Ayana and Mekonen, 2004). United States, despite the war it has waged on drugs, was not successful (Ibid.). Similarly, attempt to ban the importation, cultivation, trade and consumption of *khat* in Somalia, though destroyed *khat* plantation, was not able to decrease the number of *khat* users (Ibid.). Djibouti also experienced the same failure and *khat* importation and consumption continued unabated.

5.3 The Case of Ethiopia

The African Union puts a duty on member states to determine whether national narcotic laws contain elements of the 1961 convention as amended by the 1972 protocol, and the 1971 convention on psychoactive substances (AUC, 2012:6). Ethiopia has issued a guideline to control narcotic drugs and psychotropic substances and to regulate their use and trade therein in accordance with the Drug Administration and Control Proclamation No. 176/1999 and the International Narcotic Drugs and Psychotropic Substances Conventions (WHO, 1984). According to the guideline, the definition and list of 'narcotic drugs' and 'psychotropic substance', is left to the conventions on Narcotic Drugs and Psychotropic Substances of the United Nations ratified by Ethiopia.

The only law that overtly addresses *khat* is the Ethiopian Tax Law. Both the federal and regional governments have enacted laws that proclaim tax on *khat*. Proclamation No. 307/2002 basically governs excise tax. More specifically, the federal government has enacted "*Chat Excise Tax Proclamation* (No 767/2012)" with the objective to reduce the domestic consumption of *khat*, which is growing at a higher rate, and ensure equity in the collection of tax payable on *khat*.[1]

According to the proclamation, anyone who possesses, carries or handles *khat* for sale or intended for sale, shall be liable to pay the levied tax.[2] It fixed a tax rate of 5 (Five *Birr*) per kilogram for *khat* locally produced and to be supplied for sale or destined for sale.[3] On the other side, the preamble of *Khat* Tax Proclamation No 32/2000 of the Ormoia Regional State provides that its main purpose is to enable the government to generate more revenue. Accordingly, tax on *khat* products intended to be utilized or transported for domestic consumption shall be assessed at the rate of 3 (three) *birr* per kilogram.[4] The proclamation places penalties on those who pass or attempt to pass customs posts without paying tax with fine and imprisonment.[5] As discussed above, it is only the federal government and the Oromia Regional State that put an excise tax on *khat* for domestic consumption so far. This means other regions only require *khat* traders to pay taxes based on the profit they make and do not levy an indirect (excise)

[1] Preamble of *The Chat excise tax proclamation* No 767/2012

[2] Ibid, Article 3

[3] Ibid, Article 4

[4] Article 3(2)(a) of the Oromia Regional State *Khat* Tax Proclamation No 32/2000

[5] Ibid, Article 9(1)

tax on them. This contravenes the desire to discourage *khat* usage in the country.[6] One can also question the level of discouragement the rate fixed per kilogram would bring to a *khat* retailer and consumer as desired.

6 Is Ban a Viable Remedy?

Currently, both the Ethiopian government and relevant stakeholders appear to object the banning of the production, transaction and consumption of *khat*. This is mainly because *khat* chewing is an established cultural tradition for many communities within the country. In addition, many people are financially dependent on the proceeds from production and trading of *khat*. Hence, the government needs to create greater awareness among the most common users and the general public before policies for its regulation are introduced. Considering the current economic status of the producing countries including Ethiopia, it is hard to take banning the substance as a remedy to discourage consumption. However, the alarming rate of expansion in the consumption of *khat* within Ethiopia require policy measures that would help reduce the adverse social and economic impacts of its consumption/addiction.

Indeed, banning *khat* without considering the socio-economic and health impacts may result in unintended consequences, such as worsening of organised crimes, the criminalisation of young people, police corruption and rising of prison populations (Ezekiel, 2004). Even the experiences of countries across North America and Europe show that the policy to ban drugs did not bring about the intended results; rather the use of drugs become deeply entrenched and 'normalised' among young people. The restriction on the cultivation, distribution and consumption of drugs that are considered harmless and rooted in cultures of consumption by the majority of users are persistently ineffective.

Banning *khat* and destroying the existing cultures of consumption carries the risk of further destabilizing vulnerable populations by driving them towards illicit markets where more intense products are traded in less secure environs. From a cultural perspective, outlawing *khat* use in a *khat* producing country is also an unacceptable solution for many people. *Khat* in such places has a long-standing tradition with high

[6]According to the interview with the public prosecutors of the Tigray Revenue Bureau, their office had submitted a draft law on the excise tax to be levied on *khat* to the Tigray Regional state Council. However, they mentioned that as the Council showed a tendency to ban *khat* rather than proving its legality by way of levying excise tax rejects the draft bill and recommended for its amendment by increasing the amount per kilogram. Thus, it is not yet amended and approved as suggested.

cultural value that dates back centuries. *Khat* chewing in '*khat* belt' countries remains a part of many traditional rites and religious practices. Some also consume low to moderate amount of *khat* considering it as a socially acceptable way of relaxation and this does not lead to the problems discussed above (Ezekiel, 2008). Hence, measures that are taken to regulate *khat* consumption should consider the economic context of the producing countries' and, if banning is found to be feasible, *khat* farmers need to be assured an alternative source of income. These are among other issues that need to be addressed.

Ethiopia has a lot to learn from the experiences of other countries. Among other things, if *khat* is banned, the monitoring and controlling mechanism of its use would be much more difficult and the group of excessive users could continue to grow and there would be little way to monitor this change. The ban would also raise the price of *khat* and there is a high risk that the poor would be exposed to greater financial strains.

Alternatively, without banning the substance, adopting a different social and legal perspective towards *khat* may help in discouraging the abuse of the substance. Alcohol and drugs intake are mainly regulated by social and legal norms. For instance, most people would consider alcohol use by a minor unacceptable, without a need for legal enforcement. Though the deeply rooted nature of *khat* chewing culture may be a hindrance for the realization of the effect, a collaborated action between the government and other responsible national and international bodies can bring a change. The role of religious institutions and public service providers will be high for bringing about the desired results.

Discussions about appropriate regulatory systems and their implications on *khat* should also consider social, demographic and cultural trends, and compare the existing models of control that exist worldwide.

Most of the researches conducted to assess the health impacts of *khat* chewing failed to differentiate between moderate and excessive levels of *khat* use and the variation in the consequences when *khat* is used along with or without other harmful substances. Even if the medical effects of *khat* may not provide strong ground to ban the production and use of the plant, there are other associated harms that require regulation. There have been reports showing the reduction of productivity due to long hours people use to chew *khat*. It also has been a cause for family disruption because of spending a substantial portion of an income on the purchase of *khat*. (Alem *et al*; 1999). Moreover, *khat* chewing, in conjunction with alcohol and tobacco, has a high

potential to lead the users to practice unsafe sex, which is the main mode of transmission of sexually transmitted diseases including HIV/AIDS (Dawit, 2005:174).

Including *khat* in to the list of controlled substances without addressing the underlying problems carries substantial social costs. Most of the countries that opted to ban *khat* are *khat* importing countries where consumption is limited to certain minority social groups. However, it is not feasible to follow the same approach in the countries of the *khat* belt, and particularly in Yemen, Somaliland, Djibouti and Ethiopia. Therefore, if we cannot come up with a persuasive form of regulation to be applied in all countries, we need to discuss the principles to be included concerning the regulation of distribution and consumption that can be applied in all countries.

It is important to notice that attempts to suppress established cultures of consumption may cause unsupportable social costs. The debate on whether to ban *khat* or not can be seen from the perspectives of social, economic, political, moral and religious objectives. Thus, the regulation has to be able to ensure the maximum protection to consumers, their families and the wider community. The overarching principle has to be the reduction of *khat* related harms and the management of risks. So, restriction can be made taking into account the possible consequences by addressing some questions such as where, who and what, so as to determine the space, time, person-status and product.

Put in another way, the production of *khat* has to be limited to specified premises and its sale should be restricted to licensed traders. In so doing, the economic realities and traditions within the country has to be considered. In the *khat* producing regions, place of consumption will be the main focus of this form of regulation in order to establish controlled environment. For instance, Yemen introduced bans on *khat* chewing in public offices, moving vehicles, educational establishments and other similar places in 2002. But caution has to be taken in deciding the level of enforceability of the regulations as this may lead into irregularity and disputes.

One of the major problems in *khat* regulation is that its use is often excessive and not restricted by social regulation mechanisms. Under such conditions, problematic *khat* use patterns develop rapidly, exemplified by the growing group of binge users, and it gets to be even more prevalent among especially vulnerable groups such as children, people with mental disorders or pregnant women. The identity of the consumers must also be taken into consideration. There is no issue as to the fact that minors should be prevented from purchasing or consuming *khat*. The current practice shows that the

substance is consumed without age and gender restrictions. However, traditional values of age-based restrictions have to be applied more rigorously. Further elaborations must be made to give recognition to the existence of problems to users, and to oblige *khat* cafe owners not to sell to minors and people who seem unduly intoxicated. For a stronger reason, Ethiopia is party to the International Convention on the Rights of the Child (CRC), which obliges states to take all measures including legislative reforms to protect children from the use of narcotic drugs and psychotropic substances that are categorized by international documents.[7] This stresses the need for an immediate action from the government to regulate the usage of the substance by minors and prove its compliance with its international conventions.

Considering the plant's role in the overall economy of the country, there are certain cautions that need to be taken regarding its cultivation. For instance, the application of various types of pesticides by many farmers to enhance its growth must be avoided. To this end, farmers must be provided with the required knowledge and skill that ensure safe production.

Economic wise, policy debates on the production and consumption of *khat* need to assess the socio-economic consequences of a ban. Awareness creation campaigns on the harmful effects of *khat* should also show that, even though chewing *khat* is a longstanding tradition, it does not mean it is right or beneficial. The potential health risks, which are directly or indirectly caused by excessive usage of *khat*, make regulation imperative.

7 Conclusions

The debate about *khat* is stuck between extreme poles of prohibition and non-regulation. This paper calls for a balanced action. Put another way, what is urgently needed is regulation on the production, marketing and use of the substance in order to reduce its harms.

Any regulatory framework related to *khat* has to consider the following guiding principles: the objective should be to protect public health and ensure social wellbeing i.e. to protect individuals', families' and communities' interests through practical and feasible ways. Moreover, the cost of regulation in general must be flexible to adapt and change over time. Some of the regulatory measures include licensing *khat*

[7] Article 33 of the United Nations Convention on the Rights of the Child

retailers, setting age limit for consumption and establishing a system of quality control for the product.

In addition to regulation, awareness creation campaigns and education programs should be used to educate vulnerable groups of the society about the negative impacts of *khat*. Such activities could help to reduce the alarming increment of *khat* use among the youth. In awareness raising efforts, it is important to create collaboration between different stakeholders including organizations working on health and social aspects of youth, religious institutions, high schools and higher educational institutions and NGOs.

In addition to activities meant to reduce the problem of *khat* use/abuse, it is important to provide treatment and rehabilitation services to those who suffer from *khat* addiction.

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Developing Policy in Contested Space: *Khat* in Ethiopia

Logan Cochrane and Girma Negash

1 Introduction

This chapter reviews the trends in *khat* production, trade and consumption and explores the potential options for *khat* regulation as a package of options crossing sectors and departments. In offering recommendations for policy and areas for intervention, we are cognizant of the need for more research. Policymaking, however, is often made with imperfect information, and there are costs of inaction. Before proposing the areas, this section contextualizes the policy making process, and particularly the challenges of developing policy in highly complex and contested areas, of which *khat* is one. We do not offer new research; rather, this contribution aims to bridge research and practice, offering specific, actionable recommendations based upon the available evidence of *khat* and the experience of regulating other commodities, which are contextualized within the Ethiopian policymaking environment. This chapter argues for a regulation that limits harm while maximizing benefits, following positions taken by researchers such as Klien, Beckerleg and Hailu (2009) and Cochrane and O'Regan (2016).

The chapter is based upon existing research as well as the key ideas that emerged at a national workshop on *khat* in February 2016, organized by the Forum for Social Studies (FSS). The ideas presented here are our own, and do not speak for the organizers, presenters or participants. At the same time, we wish to acknowledge the important role the conference played in formulating the recommendations presented in this chapter.

2 Contextualizing Policy Making

In 1973, Rittel and Webber introduced the idea of 'wicked problems' to describe policy challenges that are complex, for which knowledge is insufficient and wherein a plurality of objectives exist. With regard to the development of *khat* policy in Ethiopia, we find strong alignment with their characteristics that define a wicked problem: there is no definitive formulation or foreseeable termination point; the policy will neither be fully correct or incorrect nor will it provide a permanent solution; any action will have consequences that cannot be undone; the challenge is sufficiently unique and has diverse explanations; the problem is interconnected with others and

could be considered as a symptom of a number of societal challenges; and, importantly, despite its complex, ill-defined and debated nature, public policy planners do not have the 'right' to be wrong.

Researchers seeking to inform *khat* policy in Ethiopia focus on specific, answerable research questions, such as: why is *khat* grown and consumed? What are the pushes and pulls for farmers, traders, exporters and consumers? How does the supply chain operate? To what extent is *khat* addictive? What are the positive social and economic impacts of *khat* production? What are the agricultural and geospatial trends? What are the demographic characteristics of *khat* consumers? Individually, researchers are able to provide portions of answers to these research questions, however, policy makers have the difficult, and at times impossible, task of synthesizing all of the available information to develop evidence-based policy. The process of informing evidence-based policymaking is one that "advocates a more rational, rigorous and systematic approach" with the objective of arriving at more informed policies to produce better outcomes (Sutcliffe and Court, 2005: iii). For this process to be effective, the evidence drawn upon must cover a wide breadth of research, including literature from the social, physical and health sciences, and be representative of the diversity of findings made within each of these fields. In addition to synthesizing the available information, an active engagement with policymaking is necessary for findings to appropriately inform policy; from agenda setting to design and application as well as monitoring. Sutcliffe and Court (2005: iv) also point out the important fact that despite the expectations of some researchers seeking to inform the policymaking process, it is "neither objective nor neutral; it is an inherently political process" and evidence is not the only, nor the most important, factor that influences policymaking. The contested *khat* legislation in the United Kingdom and the Netherlands are two such recent examples.

Despite the fact that Ethiopia is the leading *khat* producing nation with a large number of domestic consumers, it is not a good model to emulate in matters related to policy formulations, policy directives or any sort of regulatory mechanism about *khat* use, production and trade. The policy lacuna has persisted partly due to the intriguing and complex nature of *khat* both as a crop and as a commodity. As a crop, it continues to be attractive to farmers even outside the traditional orbit of *khat* agriculture, such as around Bahir Dar and its environs, in Amhara regional state. *Khat* agronomy in the Ethiopian context is indicative of the fact that it is the only plant/crop that can be harvested four times a year especially in places endowed with sufficient water

resources. This results in a corresponding rise in the income of *khat*-growing communities and a compelling advantage that *khat* farmers do not easily overlook. The progressive rise of the income of *khat* farmers, the visible changes in their material life and overall lifestyle, has a profound impact on fellow farmers, who are shifting to *khat* farming from other perennial crops such as coffee. In addition to its value and spread as a crop, the multitude of people, predominantly youth, who are engaged in the *khat* trade at different levels of its value chain, thus, making it source of their livelihood, seek empathy rather than aversion of others.

While evidence-based policy making is important, we also recognize that complex policy challenges, which we believe *khat* is an example of, requires more than just evidence. Rather than a focus on 'best practice' we believe that there is a need for policy experimentation to arrive at the 'best fit' policy. As Sanderson has argued:

> … the implications of complexity raises our awareness of the limits to prediction and control of non-equilibrium social systems and the increasing significance of unintended consequences of our actions. While we can retain some confidence in our ability to understand and explain the behaviour of such systems, this needs to be tempered with a degree of modesty about what we can achieve. Thus, we need to recognize that policies are essentially 'conjectures' based upon the best available evidence (2002: 19).

As it relates to policymaking for *khat*, the socio-political environment is one wherein significant uncertainty exists, particularly with regard to how that policy would be perceived by segments of the population, or co-opted for political purposes, in relation to seemingly unrelated issues and for a different set of objectives. As outlined by Sanderson (2002), this paper advocates an approach to policymaking that is informed by the available evidence, contextualized within the socio-political milieu, and adaptable so as to adjust and respond based on rigorous monitoring and evaluation.

Drawing upon the conclusions made by Hallsworth, Parker and Rutter (2011), and contextualizing them within the Ethiopian policymaking environment, the gap between theory and practice for *khat* is a lack of synthesized research that policy makers can draw upon as well as social connections with researchers and research institutes that can support the design, implementation and monitoring of policy. Available literature on *khat* in Ethiopia has so far focused on specific research questions, and has insufficiently taken into account the diversity of perspectives, issues and challenges for policy making, nor are there syntheses that address the

economic, social, and political concerns, which take into account the challenges of *khat* policy at households, community, national and international levels. While this paper does not offer a meta-analysis of the available literature, it offers specific recommendations that take into account the key components of *khat* policy, as identified in an earlier work, which are summarized in the following section (Cochrane and O'Regan, 2016).

3 *Khat* in Ethiopia

Khat production has rapidly expanded over the last century, and particularly within the last fifteen years: the amount of land devoted to *khat* has grown 160 percent, the total amount produced has risen 246 percent, and more than three million smallholders grow it (Cochrane and O'Regan, 2016). Ethiopia is the leading producer of *khat* globally, and it is one of the country's most important and valuable exports (Anderson *et al*, 2007; Clapham, 1998; Csete, 2014; Degol, 2007; Wudineh, 2014). The cause of the growth is debated. Belwal and Teshome (2011) highlight the market forces at the smallholder level, while Gemech and Struthers (2007) frame the change as financial and risk mitigation measures by smallholders. Others focus primarily upon the higher commodity prices (Gebissa, 2010b; Lemessa, 2001; Rivera, 2012). Expanded market opportunities for *khat* were enabled by improved transportation networks and increased immigration (Cox and Rampes, 2003).

At the same time, domestic consumption of *khat* has also risen, highlighting the demand driven changes (Gebissa, 2008; 2010b). *Khat* has a long-standing socio-cultural history, particularly within Muslim communities (Anderson *et al*, 2007), and although opposed by the Orthodox Church, was also consumed and grown by Christians (Tesema, 2016). Consumption is now widespread, cutting cross ethnicities, religious affiliations, geographic regions, gender and ages (Adugna, *et al*, 1994; Alem, *et al*, 2007; Feyissa and Aune, 2003; Gelaw and Haile-Amlak, 2004; Gebreslassie, *et al*, 2013; Gebrehanna, *et al*, 2014; Reda *et al*, 2012).

While production and consumption have increased, a growing number of countries have listed *khat* as a controlled substance, including: Saudi Arabia (1971), New Zealand (1981), Germany (1986), Australia (1986), Jordan (1988), Norway (1989), Sweden (1989), France (1990), Denmark (1993), Finland (1993), the United States (1993), Ireland (1993), Tanzania (1995), the United Arab Emirates (1995), Switzerland (1996), Canada (1997), Belgium (1999), Poland (2005), Italy (2005),

Israel (2012), Rwanda (2012), Netherlands (2013), China (2014) and the United Kingdom (2014) (Cochrane and O'Regan, 2016).

The newly introduced legislations have resulted in rapid rises of seizures in North America, Europe and Asia (Cochrane and O'Regan, 2016). The United Nations lists *khat* as a Schedule III drug, a far less potent commodity than some current legislations may suggest (ACMD, 2013; Armstrong, 2008; WHO Expert Committee, 2006). *Khat* is legal in Djibouti, Somalia, South Africa, and Yemen. Ethiopian federal law is ambiguous; it neither explicitly allows nor prohibits cultivation, consumption or sale of *khat* (Dessie, 2013). However, some regional states within Ethiopia have enacted policies, such as in Tigray, where efforts have been made to ban cultivation and consumption (Wabe, 2012). In other instances, specific measures were adopted to prohibit consumption in university dorms, in some workplace settings and regulating '*khat* houses' (Gebrehanna, *et al*, 2014).

There is evidence that *khat* has negative health impacts, such as insomnia, migraines, mental distress, gastrointestinal problems, psychosis, and cardiovascular problems (Cox and Rampes, 2003; Damena, *et al* , 2011; WHO Expert Committee, 2006; Ageely, 2008; Odenwald, 2007). Some studies find associations with increasing aggression (Wabe, 2012). A number of studies link high-risk behaviours with *khat* consumption, such as unprotected sexual intercourse and, therefore, exposure to HIV, as well as dropping out of school and adopting socio-culturally contested behaviours of smoking and alcohol consumption (Alemu *et al*, 2007; Dawit *et al*, 2006; Kebede *et al*, 2005). Yet, Odenwald *et al* (2010) suggest that problematic consumption patterns, not usage *per se*, are linked with the negative health consequences. Alternatively, the negative health impacts may be indirect, such as the presence of toxic metals and pesticides (Atlabachew *et al*, 2011). One of the largest studies conducted to date (Belew *et al*, 2000) found mixed results of negative impacts on physical and mental health and limited or no impacts on family and social functions, or economic wellbeing.

At the same time, *khat* has been used as a traditional medicine and for socio-cultural obligations, thus contributing to its contested nature and challenging context for policymaking (Gebissa, 2009; Wabe, 20112). It also has a long history of cultivation and use within Ethiopia, which is well documented for almost a millennium (al-Hebshi and Skaug, 2005). While *khat* has economic, societal and health costs, it continues to be considered a lifestyle choice, equivalent to alcohol consumption, requiring limited state regulation (Manghi *et al*, 2009). In the following sub-sections,

we identify components that significantly influence the design of *khat* policy, and which have, as of yet, not been considered as interrelated issues as it relates to policymaking.

3.1 Production

The scale of *khat* production, and specifically the expansion of production within the last fifteen years, is such that any *khat* policy must sufficiently take into account how widespread and common *khat* production has become, and how essential it has become for individual smallholders as well as the government. Ethiopia has made significant efforts to enhance agricultural productivity, while not an exhaustive list these efforts includes: agricultural extension services, farmer training centres, crop breeding for improved varieties, advances in methodologies of planting, the provision of subsidized seed and fertilizer, and the provision of credit in rural setting. Yet, there is no specific policy to promote or support the production of *khat*. Significant policy ambivalence, or incongruity, exists, with certain regional states making progress towards regulation, and others deriving the majority of their income from *khat* taxation.

Over the last fifteen years (from 2001-2014/15), the land devoted to *khat* production has risen 160%, while the total amount produced has risen by 246%; demonstrating rapid advances not only in production by land coverage, but also significant advances in yield per hectare (Cochrane and O'Regan, 2016). This expansion is not a relative growth. *Khat* now covers almost a quarter of a million hectares, and is approaching half the amount of land devoted to coffee production, which is Ethiopia's most important export crop.

While the crop was traditionally grown in the eastern part of the country, within the last fifteen years has expanded to all regions. Regional states that previously had little to no interaction with *khat* production or consumption, such as Gambella and Benishangul-Gumuz, has witnessed its production expansion at extremely high rates. For example, in Benishangul-Gumuz there were 46 hectares of land wherein *khat* was grown during the 2003/04 main growing season, and by 2014/15 this had grown to 1,183 hectares (Cochrane and O'Regan, 2016). While other crops have expanded in land coverage during this time, throughout the country, the growth in *khat* is unrivalled with any of the other key commodities (coffee, oilseeds, root crops, vegetables, pulses and cereals). Even if the causes of this expansion are complex,

policy makers cannot underestimate the influence that *khat* creates throughout the country, and the rapid rate at its land coverage is growing.

3.2 Smallholder Income and Livelihood Options

The most important push factor for smallholder farmers to integrate *khat* into their livelihood portfolio is its high market value as it can fetch as much as six times more income than any other crop (Gebissa, 2010b). This is particularly important in light of trends of declining land size per capita in much of the rural areas as well as pervasive chronic poverty. Therefore, the shift to *khat*, for some, is a necessary livelihood option (Tefera, 2016). In addition to greater income per hectare, *khat* has also demonstrated much greater price stability than other cash crop commodities, such as coffee. Smallholders seeking to mitigate potential risk due to volatile international commodity markets experience a second push factor towards *khat* production. In 2014/15 growing season, more than three million smallholder farmers are reported growing *khat*.

The adoption of *khat* by smallholders throughout Ethiopia is an exemplary example of a farmer-driven diffusion. In many instances, this shift is the optimal choice made by smallholders, who have limited land, few income sources, and often grow crops with relatively low, or volatile, commodity prices. *Khat* offers farmers a high, stable commodity price that can be cultivated on relatively small plots of land, or intercropped, and support soil and water retention. As most of Ethiopian smallholders do not have access to irrigation, yields are reliant upon volatile rainfall (Cochrane and Gecho, 2016). Unlike cereals and root crops, *khat* is more tolerant to water stress, and can offer three to four yields per year. In addition to an income source and crop choice, the *khat* 'industry' has opened new avenues for employment, particularly for the youth, who harvest, package and transport *khat* throughout the supply chain.

3.3 Government Income

Domestic and international export taxation revenues from *khat* are significant. In 2013/14, the export value of *khat* approached US$300 million (Cochrane and O'Regan, 2016). Domestically, some regional states and city administrations raise significant portions of their revenue from *khat* taxation. In Dire Dawa, taxes on *khat* have comprised up to 60% of all municipal revenue (Gebissa, 2010b). Throughout the supply chain, from smallholder producers, which number in the millions, to regional traders, domestic sellers, and international exporters, *khat* has become one of Ethiopia's key economic activities. While the export value has been emphasized in the

media and literature, the majority of *khat* produced in Ethiopia is consumed domestically, which has implications for how resources are allocated (or misallocated) in a country that is relatively resource constrained.

3.4 Socio-cultural Perspectives

Khat is not new to Ethiopia; written records of its consumption date back almost a millennium (al-Hebshi and Skaug, 2005). The dominant narrative is that historically *khat* was consumed by Muslim communities located in eastern Ethiopia, specifically in Eastern and western Hararage. While this narrative only tells part of the history of *khat* in Ethiopia (Tesema, 2016), it also insufficiently takes into account the diversity of opinion about the consumption of *khat* within Islamic legal discourse (Cochrane and O'Regan, 2016). These narratives also fail to take into account the type and amount of consumption, which has significantly shifted from being consumed in relatively small quantities (e.g. several branches a day) at specific times in relation to laborious farming activities to a daily ritual within all settings, from government offices to university campuses in much larger quantities (e.g. several bundles of branches in a day) (Tefera, 2016; Tesema, 2016).

While *khat* plays important social functions at funerals, weddings and marriage proposals, since the 1990s its transformation into a commodity that is consumed daily throughout the country is a new and significant phenomenon (Gebissa, 2010b). Whereas *khat* was previously taboo within Orthodox communities, and prohibited by the Ethiopian Orthodox Church (Anderson *et al*, 2007), and unknown in many parts of northern and western Ethiopia, in recent years *khat* chewing has generally become socially acceptable. There are, however, concerns about its socio-economic and health impacts. The rapid rate of expansion of *khat* production and consumption, particularly among the youth and children is also becoming alarming. In addition to the potential health concerns, Ethiopian researchers and officials are also concerned with the significant role *khat* plays in regional economies, and the potential problems that may arise from dependence upon a single commodity that is increasing being regulated internationally.

While the available evidence on health impacts of *khat* remains controversial, it is widely accepted that *khat* can be addictive, that its consumption can result in harmful direct and indirect impacts on individuals and families. There may be significant costs to society and the healthcare system that must be considered, at least as potentials, while the research on these impacts develops. There is little available data on these

costs at present, and is a key area where additional research is needed to determine if these costs warrant greater regulation from an economic perspective. In this regard, policymaking is different than research because policymakers do not have the luxury of time and some policies need to be developed without all of the answers and information available.

3.5 International Legal Trends

The Government of Ethiopia has yet to develop clear legislation on *khat* cultivation, consumption and sale. However, many countries have, and particularly within the most recent decades have deemed *khat* is a controlled substance, in and of itself or because of the existence of cathinone within it. As outlined above, this includes countries in North America and Europe, as well as in Africa, Asia and the Middle East. These legal shifts do not equate to international law, but they highlight the trend toward international regulation, and often criminalization. There are few countries where *khat* cultivation, consumption and sale is explicitly legal (e.g. Djibouti, Somalia, South Africa, and Yemen), with many countries yet to develop legal policy specific to *khat*. This is why the international trends are important, as more and more nations develop policy to prohibit cultivation, consumption and sale; the current trajectory amongst the global community suggests this trend will continue. It is within this context that Ethiopia must consider its policies, and its export markets. A primary example of the impact of these shifts is the United Kingdom, which was the fourth largest importer of Ethiopian *khat*, but in 2014 added *khat* to its list of controlled psychotropic substances.

While international trends do not affect domestic production and consumption directly, the listing of *khat* as a controlled substance will affect export revenues as the legal export market is constricted. At present, the primary export markets for Ethiopian *khat*, which is the world's largest exporter, are regional markets of Somalia, Djibouti and Yemen (NBE 2010; 2011; 2012; 2013; 2014). The inability to export *khat* legally has not stopped exports, and the emergence of criminal activity for the trade of *khat* globally have expanded, which poses concerns not only for taxation income for the Government of Ethiopia, but also the development of criminal networks for the illegal export of *khat*. Seizures of *khat* in the European Union and North America have risen rapidly during the same period of rapid growth of *khat* production in Ethiopia, from 2001 to 2015 (Cochrane and O'Regan, 2016), indicating that the legal shifts are resulting in a rise of illegal trafficking activity. International bans have increased the retail price where criminalized, raising incentives to supply,

and processes that has already occurred, as demonstrated by increasing *khat* seizures globally (Cochrane and O'Regan, 2016). Experiences of attempts to control other banned substances demonstrate that price is a greater determinant of supply, not the degree to which laws are enforced (Reuter and Kleiman, 1986). Experiences in North America suggest that supply-side regulation through enforcement will have a limited impact, whereas demand-side reduction through activities, such as behaviour change education, have been able to reduce the demand (Blecher, 2008; Garg *et al*, 2014; WHO, 2012; World Bank, 1999).

3.6 Socio-political Context

The timing and context within which policy is designed and implemented greatly affects the process of policymaking and its impact. We believe that this is not simply due to the significant export revenues acquired from *khat*, but also the complex socio-political context the national government must navigate when designing and implementing policy. On numerous occasions, policy has been perceived as an affront to ethnic and religious groups, resulting in mass protests against such policies, thereby negating any potential positive impact. In addition, some policies have been co-opted by opposition parties, domestically and internationally, as a means to encourage anti-government attitudes and action. National *khat* policy will almost invariably result in reactions of this result, and as such there must be a shift away from 'best practices' based on past experience to 'best fit' that aligns with the current socio-political context.

While problematic with regard to national policy cohesion and for the ability to present unified behaviour change communication efforts, the best fit for policy intervention is probably at the regional-state level, rather than the national level. This is primary due to the contextual nature of *khat* within Ethiopia, wherein different regions have varied socio-cultural experiences, perceptions and uses for *khat.* A national policy would be challenging to be appropriate, effective and suitable if developed for Harari Regional State, where *khat* consumption has deep historical, socio-cultural and economic roots, and for Gambella, where *khat* cultivation and consumption is relatively new, and where its existence is limited. As outlined by Sanderson (2002), these regional policies should be approached as adaptive, iterative learning process in order to effectively respond to changing dynamics as the policies are designed, implemented and monitored.

This section has outlined some of the key factors influencing the *khat* policymaking process, and highlights how, as defined by Rittel and Webber (1973), this is a classic example of 'wicked problem' for which a universally accepted simple solution as being 'correct' will not be found. The push factors for the *status quo* of a lack of regulation comes from domestic and international markets as well as high commodity prices and their relative stability. Factors that suggest regulation are required relate to international shifts of *khat* policy, and the potential implications thereof, as well as the potential negative social and health impacts. One of the factors that may contribute to a lack of national discourse, as opposed to regional-state experimentation on *khat* policy, is the sensitive socio-political context. The result of these factors is that any *khat* policy will neither be fully correct or incorrect, nor will it provide a permanent solution. It is a complex, unique challenge with diverse explanations and perceptions about what, if anything, ought to be done about it; no *khat* policy will arrive at a 'solution' but will interact with a policymaking challenge over the long-term; any action may have unforeseen consequences that cannot be undone; it is interconnected with a host of other socio-cultural, political, historical and economic factors. Thus, making *khat* an inherently 'wicked' policy problem. Within the problematic space, the following section offers potential avenues to explore for policymaking.

3.7 Policy Interventions

Evidence-based policymaking does not necessitate that all questions about a subject be answered, rather that the policymaking process be guided by available evidence and be informed by other experiences of policy implementation. Policy makers are unable to be experts in all fields, and, therefore, rely upon researchers and knowledge-brokers to convey relevant information that can inform policy. Policymaking processes, particularly for contested issues, must recognize the uncertainty that exists and the divergence of opinions and perspectives, while at the same time ensuring that proactive measures are taken to avoid harm. While we recognize the need for more research, we also recognize the costs of inaction and a lack of clarity in policy initiatives and, therefore, offer policy recommendations that are low or no regret options, such as regulated sale to minors and the creation of educational efforts for children and youth to reduce consumption.

There is no fully appropriate analogy for *khat*. The cases of cannabis and other controlled substances present different starting points as they (in most instances) are almost fully prohibited, and therefore policy takes a different course, with a greater emphasis on (de)criminalization. Other potential analogies, such as alcohol, are more

aligned, as legal substances for which governments have sought to reduce consumption. However, in the context of Ethiopia, a comparison to alcohol inherently lends itself towards a more permissive policy approach (and shift toward a lack of regulation), due to its socio-cultural place within society. When the authors have discussed *khat* with researchers and policy makers, there is an immediate reaction that *khat* and alcohol cannot be compared, and the evidence-based policymaking processes must understand the degree to which recommendations will be responded to, and adjusted accordingly to the audience. While this socio-cultural disagreement to the comparison of *khat* and alcohol could be contested, the reception of the discussion shifts to defending the analogy, rather than a focused policy discourse on *khat* regulation. As a result, we have opted to avoid making direct comparisons to *khat*. Areca nut (a seed of the areca palm, commonly called the betel nut that is chewed) and tobacco provide interesting comparisons, each posing their own respective challenges, but from which these recommendations draw upon (specifically we draw upon: Blecher, 2008; Garg, Chaturvedi, Gupta, 2014; WHO, 2012; World Bank, 1999). The aim of the components outlined below is to regulate the *khat* market, with an objective to stop child and youth consumption of *khat*, to reduce consumption generally in the population, and regulate the *khat* market.

3.7.1 Research

The Government of Ethiopia needs to actively support continued research on *khat* from diverse academic disciplines. At present available data on *khat* is limited, often based on case studies, and the policymaking environment is constrained by a lack of evidence. The current situation fuels debate, as systematic, nationwide studies are unavailable, and thus the potential regulation policies are questioned which will affect their legitimacy when implemented. Rigorous, national studies are needed for the continued refinement and enhancement of relevant and effective policy. Specifically, a nationwide survey of opinions of people of different ethnic and religious backgrounds is essential in order to better understand perceptions about *khat* and *khat* legislation.

3.7.2 Education

Khat demonstrates that social values can be changed in a relatively short period of time; the government, non-governmental organizations and civil society organizations have an opportunity to change the current trend of acceptability. Tobacco can provide a prominent example of how these processes have occurred elsewhere, but require long-term, consistent and integrated educational activities. Specifically, the

educational system can be used as a means to deter early-age initiation of *khat* consumption through the education of the harmful financial, social and health consequences. While these negative impacts are contested, the existence of diverse opinions and perspectives ought not prevent policy makers from drawing upon the existing evidence and ensuring the educational materials reflect the fact. For example, the consumption of tobacco and alcohol are common lifestyle choices that people choose and support. This, however, ought not prevent discussions about the impacts of these choices. Similarly, the economic benefits and importance for smallholders ought not to bar conversation; educational efforts will be more effective when they recognize the positive economic impacts of *khat* and highlight the negative consequences of its consumption.

As *khat* use is becoming more common amongst teenagers, the integration of value-based and behaviour change communication should be integrated into all the grades, starting from at least the second cycle of elementary school education. The school club system, which currently operates throughout the country, is also an opportunity for changing social values, whereby an anti-*khat* school club educates their peers about *khat* with the aim to reduce consumption. Both of these efforts require a significant investment into curricula development. In addition to this, a strict regulation that disallows *khat* selling kiosks within one kilometre radius of schools will considerably support the concerted national effort for the protection of the nation's youth from initiating *khat* chewing habits.

Outside of the formal education system, behaviour change communication messaging as well as social value change communication can be shared through a host of mediums, ranging from television to radio and billboards. Drawing lessons from the effective marking and packaging efforts from tobacco demand-reduction efforts, Ethiopia may require signage about the detrimental health impacts at major points of *khat* sale, trading centres and at points of consumption, such as *khat* houses. Activities of this sort will be best developed regionally, and speak to the regionally-specific values and priorities, which may range from religious perspectives to cultural values as well as health and financial concerns. In addition to the investment required for educational policies of this nature to be effective, they also require significant amount of research to better understand consumption dynamics in relation to broader social values, in order for the messaging to be relevant and effective.

3.7.3 Regulation

Point of sale *khat* regulation is a challenge to implement in rural setting, but offers opportunities in urban ones, and particular point of sale regulation for the purpose of consumption (rather than trade within the supply chain). There should be a long-term policy plan to regulate who can purchase *khat*, and specifically setting a minimal age minimum for purchase. As with regulation of alcohol and tobacco products, a minimum age can be set for *khat* in alignment with educational and behavioural change communication. The incentives for sellers to enforce this regulation require active engagement of authorities, primarily community-level administrative structures such as *kebele* officials through random checks and heavy fines. Sellers that do not consistently abide by the regulation could be fined by removing their license to sell *khat*. It may be possible to support key *khat* distributors to organize and self-regulate the market, this would legitimize their work, while also ensuring their position in the marketplace. Although of limited feasibility at the present time, this is a policy option that should be implemented when the marketplace is better suited to it.

Some institutions like universities do not allow *khat* consumption in their grounds. Such regulations, as with age minimums, will only be effective if accompanied and supported by socio-cultural shifts in norms and attitudes. These are long-term processes that require strategic efforts in diverse settings – from healthcare to education and trade. Policy that regulates consumption by approved and prohibited locations can be effective, but requires strict and consistent enforcement as well as the socio-cultural support to ensure that breaking those regulations is socially unacceptable. It is indeed important to note that regulations will have a limited impact unless and until there are changes in the social acceptability of *khat* consumption.

3.7.4 Taxation

Some regional states are currently taxing *khat*, although the level of that taxation tends to be limited and does not act as a disincentive for production or consumption. Based on the experience of other commodities, production bans tend not to be effective because of the economic incentives to meet the increasing demand. The fact that opinion about banning *khat* has always been divided among different community members is only one part of the complex circumstances that prevent an effective ban not only in Ethiopia, but even in other producing neighbouring nations. A British attempt to ban and control the use of *khat* in their colonies of Somalia and Kenya in 1921-1957 and in 1945-56 respectively failed to bring about the desired change

(Gebissa, 2010a). Recent ban attempts in Kenya, such as in Lamu during 2001-2002 that involved senior religious officials were not effective (Beckerleg, 2006). The Tigray regional state during the early 1990s tried to implement bans to the same extent as these other nations, and such activities were halted before instituting any formal legal procedure to ban or to control *khat* use.

Based upon international experiences, as well as those attempts within Ethiopia so far, it is expected that *khat* production regulation would have little effect due to the higher commodity value smallholders obtain from it and the high demand consumers have for *khat*. While crop substitution efforts have been attempted, such as in Benishangul-Gumuz regional-state, the expansion of production will only be stabilized, and reduced, through a reduced domestic demand. Thus, a focus on demand side reduction is key, which may eventually have supply side effects. Positive experiences of demand-side reduction exist for other addictive substances, such as alcohol, tobacco and areca nut (Blecher, 2008; Garg, Chaturvedi, Gupta, 2014; WHO, 2012; World Bank, 1999).

For the purposes of taxation, regulation could be tailored to address consumption by increasing taxation on the supply to domestic consumers, which could be implemented in tandem with the existing licensing of *khat* houses/sellers as well as the value-added tax (VAT) system. We do not expect that the price disincentives at the point of sale to consumers to have a significant impact on consumption, however these additional funds could provide avenues to financially support the above-mentioned educational efforts and support systems described below. Outside of major city centres, at present this point of sale taxation would prove challenging, and in some cases unrealistic, however, as with age of purchase regulation, this policy may be implemented when appropriate.

Lastly, the experience of efforts to control and reduce the consumption of products with detrimental health and social consequences suggests that individual policies will have limited impact, and that a more effective approach is a packaged policy approach whereby changes in education, regulation, taxation and support services occur in ways that enforce one another and offer mutually supportive shifts. This will ensure policy coherence and alignment, whereas implementing independent, disconnected changes may result in policy incoherence. As mentioned above, these could be developed and implemented by regional-states, with support from the federal government, the objective here is not a prescription of policies for all places and times, but that policies

ought to be designed to positively intersect with others, rather than as singular initiatives.

4 Conclusion

Developing evidence-based policy is a daunting and complex challenge. This is complicated when the issue for which policy is being developed is contested and when limited information is available. While this paper explored trends and offered potential avenues for intervention, we conclude with a note that decisiveness should not be confused with good, evidence-based decision-making. As *khat* regulation progresses, there is a need to integrate new knowledge and be flexible to adapt to on-going monitoring of activities. The best practices learned from Ethiopian policymaking as well as from the regulation of other commodities in different situations provide important background, yet the 'best fit' practices and policies are those that are tailored, specific and adapted. Since the data required is lacking, and because *khat* regulation is contested, we suggest that moving forward invest in participatory dialogues at the regional and sub-regional levels so that communities gain ownership of policies and move forward based upon agree-upon concern and action plans.

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