

Research article

## **Socio-Economic Impact of Khat in Mana District, Jimma Zone, South Western Ethiopia**

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### **ABSTRACT**

Khat (*Catha edulis* Forsk) is a flowering evergreen tree and a controversial crop in Ethiopia. By accounting 13.4% of the export earnings; khat is the third largest export crop, next to coffee and oil seed. Hence, it plays a considerable role in the national economy, and it is a means of income to millions of producers and small and large scale traders who directly or indirectly depends on it. But on the other hand, its psychoactive action has largely hampered the socio-economic and health status of the society. Thus, with aim of identifying its beneficial and harmful socio-economic effects, a multistage sampling technique was used in the study. To this effect, a total of 51 chewers and 51 non-chewers were selected for comparing its socio-economic impacts in the District. To this effect semi-structured interview schedule was used for quantitative data collection and focused group discussion, key informant's interviews and personal observations was used for qualitative data collection. The result showed youths were more accustomed to khat chewing; and the mean age difference was statistically significant at 5% (SD=4.23). Similarly 84% of youngsters spent a session of  $6.1 \pm 3.13$  hours for khat chewing per day. These behaviors had undesirably affected the labor productivity of the study area. Similarly, among regular chewers, 44% had a daily habit, while 5%, 7%, 9% of them chewed once, twice and trice a week, respectively. The logistic regression result also showed that, odds of khat were two times higher in males than females; and singles were more inclined to khat chewing than married chewers [OR and (95%CI) = 2.08 (1.01, 4.26)]. Alcohol use after khat chewing [OR and (95%CI) = 3.14] has also adversely affected the socio-economic and health status of chewers. But in the paradox, the country is earning a lot of foreign income with a tradeoff of socio-economic ills. Hence, 28.47% of khat producers earned an average annual income of about 500 USD, while 5.49% of producers earned an average income of more than 3000 USD per year per household, respectively. This helped the farmers to earn income for the household in pay off of

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detracting impacts. However the ills by far outweigh the merits, since the former disintegrates the socio-economic and health status of the community at large. Therefore to reduce such impacts awareness should be provided to change the behavior of new generations who are more inclined to use this psychoactive drug and thereby decrease the chewing habit. Educational campaigns should also be in place to reduce prevalence of khat chewing by inserting its core elements in the curriculum of elementary school; since most of chewers were from illiterate and lower school people. However banning of khat chewing especially at school and higher learning institution should be more encouraged to reduce the tendency of chewing habits and thereby to institute sustainable development. **Copyright © ASETR, all rights reserved.**

**Keywords:** Impact, Khat, Mana, Socio-economic

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## 1. INTRODUCTION

### 1.1 Background and Justification

Khat (*Catha edulis* Forsk) is a flowering evergreen tree, cultivated as small tree and it was first identified by a botanist whose name was Forskal in 1762 in Yemen and he categorized the plant in group spinosa. However, currently it is botanically classified under the family Celastraceae. Khat grows primarily in East Africa and the Arabian Peninsula. Ethiopia is the country of its origin and it is the world's largest khat producer; where a khat chewing habit was started in the 15<sup>th</sup> century, just before the start of use of coffee. The crop now grows well at higher altitudes of Horn of Africa and the Arabian Peninsula where khat chewing has a long history as social custom dating back thousands of years. By now there are more than 10 million people in the world who use khat on a daily basis for its euphorizing and psycho-stimulant effect (Andualem, 2002; Bongard *et al*, 2011).

Like many other countries, khat chewing for social and psychological reasons has been practiced in Ethiopia for centuries; and its use has been gradually expanded to worldwide (Ezekiel, 2005; Yeshigeta and Abraham, 2004; Wabel, 2011). But until few decades, khat chewing in Ethiopia was mainly limited to older men and members of Muslim communities. However recent trends indicated its consumption of large quantities has become a pastime activity and far reached across large members of the population resulting in serious consequences on their health and socio-economic conditions (Ashbury, 2005; Dawit *et al.*, 2005).

With these realities, khat is now a controversial crop to the world in general; and to Ethiopia in particular. For instance, by accounting 13.4% of the export earnings, khat is the third largest export crop, next to coffee and oil seed. Hence, it plays a considerable role not only in the national economy, but also it is a major income source for millions of farming households, and traders who directly or indirectly depend on it. But on the other hand, its psychoactive central stimulation substance, Cathinone and Cathine, are widely abused in East Africa, particularly in Ethiopia; where Khat chewing is a daily routine and deeply integrated socio-cultural norm in the country. Hence this psychoactive action has largely hampered the social, economic and health status of the society (Aden *et al*, 2006;

Bongard *et al*, 2011).

These controversies is also found among the international community, where some didn't classify khat as addictive drug, like the World Health Organization (WHO); and those who strictly banned it with enforced law, like Saudi Arabia. But some countries, like the UK, had classified the crop as a drug, but they didn't take serious measure to ban it. Hence there were no legal prosecutions taken in UK to date but even to worse paradox, the UK is a major destination for imports and exports of khat; and it is the largest depot to distribute the crop onto other countries in the world. For this reason, In the first 6 months of 2005, there were imports 5-7 tons from Kenya, 500kg from Ethiopia and 175 kg from Yemen in daily basis and the bulk of which was transited for export to the US. Correspondingly, its importation is legal in the US and in most African countries; but illegal to some countries like: France and Switzerland (Rawlins, 2005).

This controversy is also the same to Ethiopia, where the government neither encourages nor takes any action against its cultivation, trade and use. However, the silence assisted for the extensive multiplication of the crop and; therefore, khat has now taken an area of 94330 hectares of land in nationwide, which is equivalent to one third of the area allocated to coffee (Telake, 2007). But on the other hand, its use by thousands has provoked and intensified the states of euphoria and feelings of well-being which later shifted into emotional instability (Getachew, 1996; Reginald, 1991).

With introduction of modern transports in Ethiopia, khat production and consumption has been expanded across the nation (Andualem, 2002; Dechassa, 2001; Guesh, 2012). Similarly due to the increasing national revenue generated from crop, production rate and total population who depend on khat is sky rocketing (Guesh, 2012). For instance, during 2010 alone, the export value of this plant increased by 51 per cent, while that of coffee increased 40 percent and leather products were down by 25.4 per cent (Gesese, 2013).

Though experiences of prohibition of khat in Kenya, Yemen, Uganda and Madagascar resulted in increased illegal importation, with possible controversial socio-economic effect, and lack of any law enforcement, khat had being circulated freely in Ethiopia today. Hence, there are quite thousands of people who chew khat regularly and who are vulnerable to its associated effect which finally could end up aggressive manic actions and recklessness (Dawit, 2005).

In Ethiopia, khat is commonly used for social recreation. Occupational groups such as motor vehicle drivers, truck drivers, who chew khat during long distance driving, to keep awake, also use it under a variety of other conditions. A significant number of students chew khat to be alert especially during examination periods. There is also specific usage of khat by the special sections of the community: craftsmen and farmers use khat to reduce physical fatigue and traditional healers to heal ailments. Although khat has an extreme social nature (individual feelings of sociability in social gatherings), it influences socioeconomic consequences for individuals and the community (Yeshigeta and Abraham HM, 2004).

Despite these controversies, the plant is an integral part of everyday life in the study areas. But no study has been conducted so far on socio-economic effect of khat despite its extensive observations. Therefore a little is known about its effect and magnitude of the socio-economic impact in the study areas. Hence this research is conducted with the aim of generating data on socio-economic impact of khat in Mana District of Jimma Zone, South Western Ethiopia.

### **1.3. Objectives**

#### **1.3.1. General objective**

- To find beneficial and harmful socio-economic effects of khat in the study areas

#### **1.3.2. Specific objectives**

- To identify the effect of Khat chewing on coffee production of Mana District.
- To assess the prevalence of khat chewing among different groups of users
- To identify the levels of khat use and its risks

## **2. MATERIALS AND METHODS**

### **2.1. Description of the study area**

Situated in South western part of Ethiopia, Khat is the major stimulant narcotic plant produced in Mana District; which is one of the 18 Districts of Jimma Zone. Mana District is located 369 km away from the capital city of Ethiopia, Addis Ababa. Mixed cropping system is mainly practiced in the District and it is one of the major khat growing areas of southwest Ethiopia.

The District is well endowed with natural resources contributing significantly to the national economy of the country and the major crops grown other khat include: coffee, maize, tef (*Eragrostis tef*), sorghum, pulses (beans and peas), root crops (enset-false banana and potato) and fruits. By producing over 5000 hectares of land, Khat production and consumption is prominent in the District, where most of the khat produced from the District is transported to main markets for consumption (CSA 2004).

### **2.2. Sampling Techniques and Procedures**

A multistage sampling technique was used for the study, where in first step; Mana District was selected purposively due to its prominence in khat production and consumption. Then at the second step, a total of three Kebeles<sup>2</sup> namely: *Gube Muleta*, *Buture Gebisa* and *Yebu*, were selected by using simple random sampling so as to represent the target population. Then Slovin's sampling formula with 90 percent confidence level was used to resolve and to capture the total representative sample

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<sup>2</sup>Kebele is the lowest socio-political administrative strata in Ethiopia

$$n = \frac{N}{1 + N * (e)^2}$$

Then, the total sample size were stratified into two groups (khat chewers and Non-chewers group) in which the first stratum includes: **Producers**, Persons who produces and consumes khat at least for more than once in his/her lifetime, **Traders**, persons who are mainly involved in khat selling and chewing at least for more than once in his/her lifetime; and **Consumers**, who never involved in khat never sells or produces Khat, rather spent some money to buy Khat for his own consumption. But in the other strata **Non-chewers**, persons who never used khat in any form in his/her lifetime are purposively selected for comparing the socio-economic effect of khat in the study areas. Based on this essence, finally a total of 102 respondents (51 chewers and 51 non-chewers) were selected for the study in the study areas. Hence, population proportional to size (PPS) was finally used to make the total composition of respondents to be 18, 14 and 19 respondents of khat producers, traders and consumers, respectively.

### 2.3. Source of Data and Method of Collection

Both qualitative and quantitative data were collected from primary sources. But before that, exploratory survey was undertaken to gain familiarity with the study areas and of having firsthand information about socio- economic impacts of Khat. Then in light of revising the semi-structured interview schedule, pre-testing was done among non-sampled respondents of matching characteristics. Afterwards qualitative data were collected through focused group discussion, key informant's interviews, personal observations; and five-point Likert scale was used to measure affective state of chewers. In addition, secondary data were collected from reports, and published materials.

Data related to social and economic affairs was collected from different stakeholders like Kebele Administrators, ministry of finance and ministry of agriculture. Data collected from FGD and key informant disclosures are transcribed through Microsoft Excel 2010 database.

### 2.4. Method of Data Analysis

Statistical Package for Social Sciences (SPSS) version 16 and MS-excel 2010 were used to analyze the quantitative and qualitative data, respectively. SPSS was run to analyze descriptive statistics such as frequencies and to generate tabulated reports, charts; and to identify factors influencing for chewing or non-chewing behavior of respondents, accordingly. T-test; and Chi square tests are also computed to signify mean differences among continuous and discrete variables, respectively. STATA 10.0 was run to estimate Tobit regressions among censored variables. Microsoft Excel 2010 database system is used to compute common themes and thereby narrate the results

But before running for regression analysis, the degree of association among discrete variables was verified and existence of multicollinearity was checked by using Variance Inflation Factor and Tolerance Level. Qualitative data gained from FGDs and group interviews were described, analyzed and interpreted on spot during data collection to avoid missing relevant information.

## 3. RESULT AND DISCUSION

### **3.1. Social impact**

#### **3.1.1. Age**

The mean age of khat producers, traders and consumers were 30.24, 31.42 and 27.22 years, respectively. The mean age difference among khat chewers was statistically significant at 5% (SD=4.23). The involvement of the youngsters (with age interval of 18-30), in khat chewing has negatively affected labor productivity; since 84% of them spent more time in khat chewing with a session of  $6.1 \pm 3.13$  hours of chewing per day. Due to the associated depression effect of khat, the youngsters have allotted lesser time for agricultural activities. The study also showed that, use of khat was highest among khat sellers (97.1%); followed by producers (68.8%) and consumers (49.2%) who habitually chewed khat in the study areas. Engagement of these socio-economically active parts of the community made them vulnerable to the associated risky behaviors of khat like: alcohol drinking, cigarette smoking, and exposure to HIV/AIDS due to unprotected sex with implication of unsuccessful adult outcomes.

The finding is line with Kebede (2002) and Maregn and Gistane (2013) who reported 24.8% of Jimma university students were regular chewers and youths were more accustomed to Khat chewing in Ethiopia. Correspondingly Tekalegn *et al*, (2011) also reported regular khat chewing behavior of youths was the predisposing factor to gastritis and peptic ulcer disease, mental illness, and cardiac arrhythmia.

#### **3.1.2. Sex**

Traditionally khat is used as socializing drug widely consumed among males (80.1%) than females. But when compared to participation of different partakers, 74.1% of khat producers, all of the khat traders and 86.1% of consumers were habituated to khat chewing. Hence, significant difference ( $p < 0.01$ ) was found not only between sexes but also among rural and urban areas.

The result is in line to Yeshigeta and Abraham (2005) who found that more men (75%) chewed khat regularly compared to their counterparts.

#### **3.1.3. Religion and Marital status**

Similar to their predominant in number, the Muslim community members (69.4%) were the major Khat chewers in the study areas, followed by Orthodox Christians (27.8%) and Protestants (2%). Likewise 52.8% of married farmers were accustomed to khat chewing than singles (36.15). The latter result indicated that these much number of chewers are vulnerable to divorce due to reduced sexual activity, low erectile and ejaculatory responses between married couples which finally could lead to lack of strength in sexual intercourse and thereby terminating a marriage association through divorce. The qualitative information also indicted that khat chewing habit is one of the cause for risky behaviors that could fuel the spread of HIV.

This finding is in line with Guesh (2012) and Dawit (2005) who claimed khat chewing induces excessive sexual arousal, impotence and strained relations between spouses and most likely to precipitate family fragmentation and/or multiple sexual practices.

### 3.1.4. Educational status

The prevalence of mean of khat chewing behavior of illiterates (58.3%) is by far greater than those of literates; and this conduct has decreased as their level of education increased. Thus education has assisted for the logical reasoning of the participants and thereby assisted to reduce the khat chewing behavior and or its frequency that in turn assisted to lessen the socio-economic and health chaos that may arise in their household. However the mean consumption difference among different user groups (producers, Traders and chewers) was insignificant indicating the level of use among these users is almost equal. The logistic regression result also showed that the odds of khat were two times higher in males compared to females (Table 2). Likewise, compared to married respondents, singles were more inclined to khat chewing [OR and (95%CI) = 2.08 (1.01, 4.26)]. Hence khat use was positively associated with being male [OR and (95%CI) = 2.24, alcohol use after khat chewing [OR and (95%CI) = 3.14, and communication with parents [OR and (95%CI) = 1.54 with adverse effect on socio-economic and health status.

Hence measures such as educational campaigns should be instituted to create awareness and to reduce the prevalence of khat chewing habit and its adverse social and health consequences.

**Table 1.** Demographic characteristics of khat chewers

Variable	Items	Producers (N=38)		Traders (N=14)		Others (N=40)		Total (N=92)		F	P value
		Mean	SD	Mean	SD	Mean	SD	Mean	SD		
<b>Age</b>		30.24	10.54	31.42	1.25	27.22	7.41	23.31	6.97	<b>4.23</b>	<b>0.032**</b>
		(%)		(%)		(%)		(%)			
<b>Sex</b>	Male	74.1		100		86.1		80.10		1.25	0.007***
	Female	25.9		0		13.9		19.90			
<b>Religion</b>	Orthodox	14.8		0		27.8		27.8		3.21	0.000***
	Muslim	85.2		100		69.4		69.4			
	Protestant	0		0		2.8		2.8			
<b>Marital status</b>	Single	14.8		60		36.1		36.1		5.54	0.781
	Married	74.1		40		52.8		52.8			
	Divorced	3.7		0		5.6		5.6			
	Widowed	7.4		0		5.6		5.6			
<b>Education level</b>	Illiterate	18.5		0		8.3		8.3		1.47	0.593
	Read and write	44.4		100		27.8		27.8			
	Primary (1-4)	11.1		0		22.2		22.2			
	Post-primary (5-8)	18.5		0		19.4		19.4			
	Secondary (9-10)	7.4		0		19.4		19.4			
	College	0		0		2.8		2.8			
<b>Monthly income</b>	≤32USD = 600 ETB <sup>3</sup>	49.12		14.71		24.05		29.29		4.52	0.845

<sup>3</sup> 1USD=18.752 (January, 2013)

>32-64 USD	39.70	35.07	27.12	33.96
>64 USD	12.22	51.79	42.85	35.62

\*\*\* Significant at 1%, \*\* 5%, and \* 10% probability level

**Table 2.** Results of logistic regression analysis

Explanatory variable	Crude OR (95% CI)	Adjusted OR (95% CI)	P-value
Sex	1.35	2.24	0.007
Male	?		
Female			
Education	0.78	1.13	0.071*
Literate			
Illiterate			
Marital status	0.05	0.091	0.834
Married			
Unmarried			
Alcohol use after khat chewing	2.56	3.14	0.075*
Yes			
No			
Communication with parents	0.94	1.54	0.024**
Yes			
No			

### 3.1.5. Social participation and its associated behavior

Khat chewing is a profound habit, and part of social and cultural construct in the study areas. According to 78.2% of respondents, khat chewing plays important social participation role in ceremonies such as weddings in positive way. Hence 85.2% of khat chewers chose to chew in groups compared to those who selected to do it alone (14.8%).

Regarding the associated risking behaviors of khat, 53% of khat chewers and 20% of non-chewers are accustomed to smoking. Similarly with high significant difference at 1 percent (SD=15.41) association to use of coffee, alcohol beverages and soft drinks (76%, 57% and 54%) is greater than non-chewers, respectively (Table 3). these addictive behaviors during and after khat chewing was common to break the aftermath effect of khat, which is known as insomnia- a condition of users to overcome withdrawal effect, and they played harmful role to hasten susceptibility of sexually-transmitted diseases, including HIV/Aids. Similarly the one associated behavior; cigarette smoking, has been disposing the household members to its secondary smoker effect, especially to infants and pregnant women.

This is in line to Abdu (2003) who reported khat chewing induced psychological dependence and its withdrawal brought mild depression, slight trembling and recurrent bad dreams. Its discontinuation also resulted in improvement of sleep, appetite and constipation problems.

**Table 3:** Association between Khat chewing and smoking, Coffee use and alcohol intake

Variables	Khat chewers		Non chewers		Total		X <sup>2</sup>	P-value
	n	%	n	%	n	%		
Smoking								



Yes	27	53	20	31	47	46.08		
No	24	47	31	39	55	53.92	15.41	<0.001
Coffee using								
Yes	39	76	4	8	43	42.16	21.21	<0.001
No	12	24	47	92	59	57.84		
Alcohol in take								
Yes	29	57	11	22	40	39.22	11.78	<0.001
No	22	43	40	78	62	60.78		
Using soft drinks								
Yes	28	54	11	22	39	38.24	14.25	<0.001
No	23	46	40	78	63	61.76		

### 3.1.6. Reasons and time for chewing

Khat chewing in the afternoon was the principal schedule for 83.3% of chewers. However, only 8.3% of chewers used it both in the morning and afternoon period; while the rest (3.4%) used it during the night time only. Despite this fixed schedule, the reason for khat chewing varied immensely where most chewers (33.3%) used it for relaxation in leisure time, followed 30.6%, 22.2%, 11.1% and 2.8% of chewers who used it for initiation in work, engaging in community social activities, to get relief from sense of joblessness and due to addiction, respectively (Table 5). However the FGD result showed oral administration of khat induced rapid manic behaviors where individuals became very talkative under its influence during khat chewing; but finally ends up to mild depression, showing unusual lack of energy and nightmares, loss of appetite and permanent tooth darkening to greenish tinge.

This finding is similar to Mekonnen (2006) who reported most chewers (42.9%) started khat chewing for mild euphoria and excitement, similar to that conferred by strong coffee. Academic purpose, relieving from anxiety and get relaxation was also mentioned as reasons. Feeling of well-being, sense of euphoria, and increased energy levels, increased alertness, increased ability to concentrate and addiction to khat chewing were the other reasons mentioned for khat chewing, in that order.

### 3.1.7. Frequency of chewing and Productivity of youths

By spending an average of 3.45 hours per day, youths were more accustomed to khat with negative effects on individual's productivity. Hence, among regular chewers, 44% had a daily habit, while 5%, 7%, 9% of them chewed once, twice and thrice a week, respectively (table 4). But the rest of regular chewers had reported while 8%, 11%, 16% of them chewed four, five and six days a week, respectively. But khat chewing was not only limited at homes, but including at work offices, shops, public sitting place and walk sides.

**Table 3. Wastage of time per day for chewing**

Frequency of khat chewing	Chewers			Time wasted for chewing (Hrs./day)	
	Male	Female	Total	Male	Female
Everyday	9	5	44	4	1
Once in a week	7	13	5	4.5	2

Twice a week	9	8	7	4.5	2
Thrice a week	9	7	9	4	2
Four days a week	10	4	8	3.5	1.5
Five days a week	6	5	11	3.5	1.5
Six days a week	5	3	16	3	1

Source, survey result, 2013

**Table 4. Reasons and subjective experiences due to khat chewing**

Positive experiences explained	Rank					Total	Mean
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>		
Feeling of well-being	32.60	24.20	13.70	11.60	8.40	90.50	18.06 (1 <sup>st</sup> )
Sense of euphoria	28.42	23.16	24.21	12.63	-	88.42	17.68 (2 <sup>nd</sup> )
Excitement	12.60	5.30	17.90	13.70	20.0	69.50	13.90 (3 <sup>rd</sup> )
Social participation	15.03	4.12	10.87	12.71	24.04	66.77	13.35 (4 <sup>th</sup> )
Increased alertness,	18.80	10.00	4.3	15.12	16.22	64.44	12.89 (5 <sup>th</sup> )
Increased ability to concentrate	14.21	21.12	8.85	12.54	6.11	62.83	12.57 (6 <sup>th</sup> )
Addiction	13.52	17.45	9.34	10.74	9.05	60.10	12.02 (7 <sup>th</sup> )
<b>Withdrawal symptoms and aftermath effect</b>							
Nightmares	45.12	21.56	10.42	7.12	4.54	88.76	17.75 (1 <sup>st</sup> )
Sight trembling	34.21	21.21	13.14	6.59	5.28	80.43	16.09 (2 <sup>nd</sup> )
Depressive disorder	21.45	18.45	14.56	10.1	3.22	67.78	13.56 (3 <sup>rd</sup> )

## 3.2. Economic impacts

### 3.2.1. Financial Cost incurred for Khat chewing

The per capita consumption of male khat chewer was one bundle<sup>4</sup> (0.50Kg) with cost of 1.50 USD per day; while the per capita consumption of women was half bundle (0.25 Kg) which cost them 0.75 USD. Similarly, the annual total consumption of khat was 180 kg and 52Kg for male and women, respectively; which made the average cost per annum 270 USD and 78 USD for male and women, respectively. This indicated this much money would have been used for another beneficial purposes. This result was by far greater than the national annual consumption of khat which is 5.3 kg per capita (Ezkiel, 2005). Hence chewers spend money for buying khat without considering cost-benefit analysis.

The result also showed, with no statistical difference among group of chewers, respondents with lower annual income were the major user than with better off monthly income. This was due to ability of the psychoactive leaves to give temporary relieve for the poor who were suffering from fatigue, loss of excitation, sleep and hunger.

Table 6: Households expense for purchasing khat per day

<sup>4</sup> 1 buddle of chat weighs about 0.25Kg and

Chewers by sex	Khat consumption per day per capita (Kg)	Total Cost per day (USD)
Male	0.50	1.50
Female	0.25	0.75

Cost per kg =1.6 USD

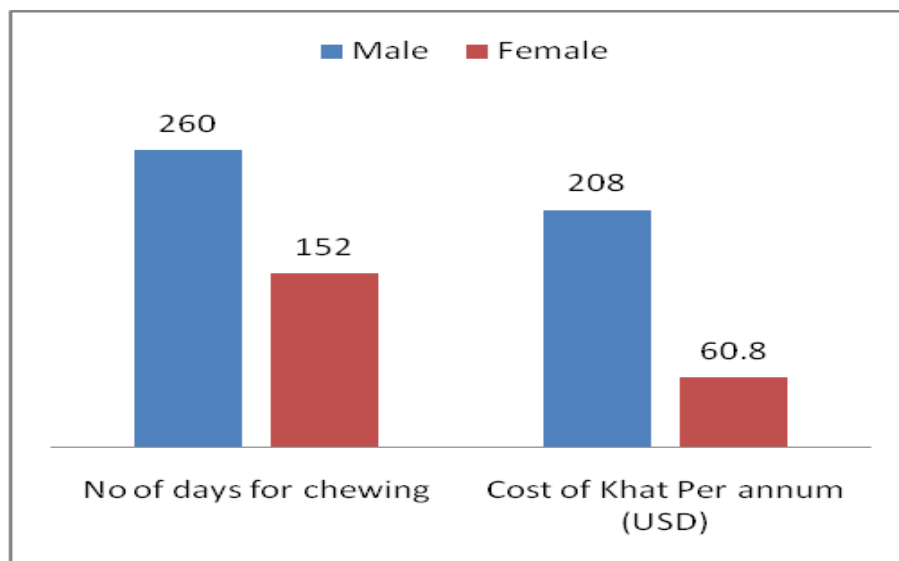


Fig 1. No of days spent for chewing and total cost incurred chewers

### 3.2.2. Revenue earned from Khat

One reason for cultivating khat in the study area is the high income it provides for farmers. Hence 28.47% of khat producers earned an average income of less than 500 USD, while 19.56, 18.45%, 18.45%, 12.21%, 9.3%, 6.45% and 5.49% of producers earned an average income of 500-1000, 1001-1500, 1501-200, 2001-2500, 2501-3000 and more than 3000 USD per year per household, respectively. This helped the farmers as source of household income. Similarly, 63% of farmers reported khat was means of off-farm income by participating in plucking and by using its wood for fuel wood. Khat production had also positively affected the level of income of farming households (83.45%), despite its tradeoffs on social and health factors discussed above. Through a year-round harvest with brought dependable income Khat is now the most important cash crop and integral part of agriculture in the study area where producers are in a better position to send their children to school than consumers and traders. However khat consumers need to incur some cost for khat chewing at the expense of their basic family needs, indicating acquisition of funds to pay for khat until dissipation of their family income. Their addiction in khat chewing behavior addition to the unavailability of adequate income to purchase khat

This finding is in line to Kassa (2012) who showed khat sales constituted major source of income by generating highest return per hectare of cultivated land, compared to other crops grown in Harer, Ethiopia. Similarly Parker (1995) who reported khat was used not only for stimulating effect but also to dispel feelings of hunger and fatigue. In addition poor it was consumed by family members to abate hunger

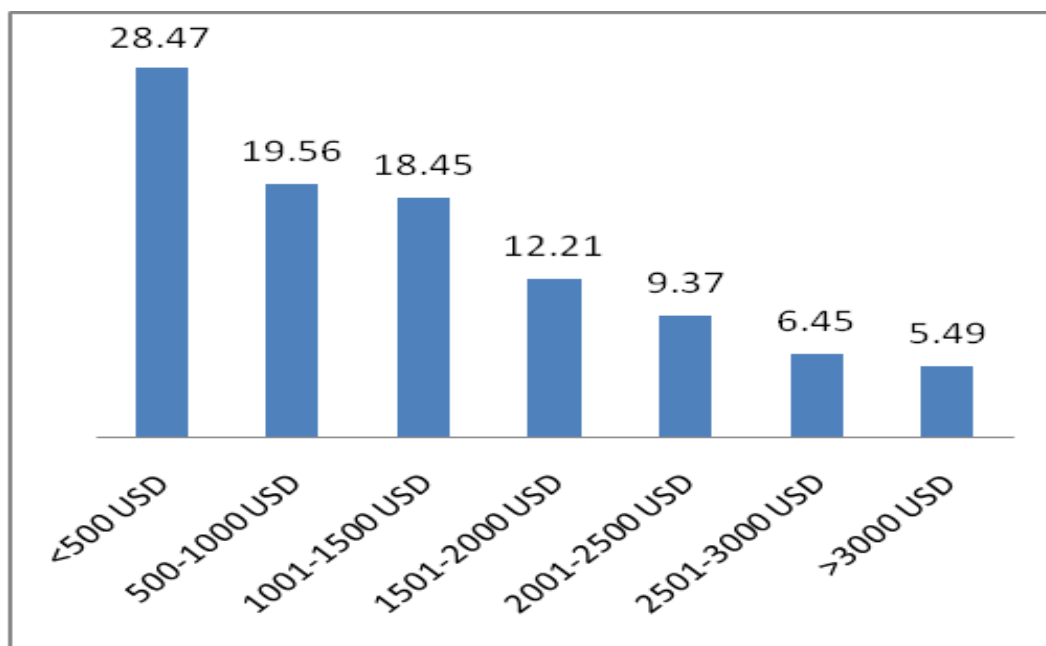


Fig. 2. Average income earned from khat per household per year

### 3.2.3. Job opportunity

Khat played both important contributions both for earning losing incomes by bringing revenues and spending costs. Khat chewing leads to loss of work hours due to spending of 84% of youngsters' time with larger session of chewing ( $6.1 \pm 3.13$  hours during day time); decreased economic production, malnutrition and diversion of money in order to buy further khat. This loss was directly linked to absenteeism and unemployment, which may in turn result in a fall in overall national economic productivity. Similarly 100% of consumers, 97.1% of traders, 68.8% of producers spent some money to buy Khat which could have been utilized for other economic purposes.

The result agrees with the findings of Dhaifalah and Šantavý(2004) who indicated khat production had expanded employment opportunity as fastest-growing and most profitable occupation involving hundreds of farmers and traders in the Harer high-lands. It is reported that habitual khat chewing has led to decreased productivity in Ethiopia, Somalia, Uganda and Kenya. since 63.25% of respondents reported creation for employment and other 36.75% explained suppression of work motivation (54.0%).

## 4. CONCLUSION AND RECOMMENDATION

### 4.1. CONCLUSION

- Khat chewing for chewers who spent money to buy khat has led to decreased work-hours and household's economic production, malnutrition, diversion of money to buy khat, absenteeism and unemployment. However in

the paradox the country is earning a lot of foreign income despite the fall of overall national economic productivity where since habitual chewing has led to decreased productivity in Ethiopia.

- Despite the increasing evidence of harmful effect of khat on the general health and its associated socio-economic problems, the crop accounts 13.4% of Ethiopia's export earnings, and it is now the country's second largest export item and which is now acquired the status of cash crop in Ethiopia.
- In the same tone, owing to the stimulant and fatigue-postponing effects khat chewing and sale is popular for moderate use of improved performance and increased work output; with its serious social and economic impacts. Thus khat created both employment opportunities and suppression of work motivation
- Policies and programs to deal with the problem of khat abuse should include the provision of recreational facilities for young people and families especially at weekends
- The customary decision makers of households in the society, males and larger proportion of the population, Muslims were accustomed to khat consumption with negative impact in labor productivity
- Respondents with lower annual income and who are illiterate were the major user than those of better off income in search of temporary relieve from fatigue, loss of excitement, sleep and hunger.
- Despite tradeoffs between khat and food crop production, khat production is being expanded causing negative impact of khat relied on level of income from its production
- Khat was most important cash crop for the study area where growers have better houses, wear better clothes and were in a better position to send their children to school than non- growers.
- Pleasure-inducing effects of khat brought strong influence on social and cultural life of communities. Similarly, because of induced euphoria; chewers were very talkative and emotionally unstable during chewing. Similarly taking alcohol to break the after-chewing depression often led to unprotected sex and HIV/AIDS.
- Mono-cropping of khat was popular and helpful for households through on farm and off-farm income. It was also source of fuel wood and played critical role in reducing soil erosion. Thus its cultivation is expanding and became integral part of agriculture in the study area.
- Consumers (Respondents who spends money to purchase khat for chewing) chew khat at the expense of the basic family needs, indicating acquisition of funds to pay for khat and thereby to dissipation of family income of dissipation
- By spending an average of three hours per day, youths were more accustomed to khat with negative effects on

individual's productivity.

- The per capita khat consumption of male user was 2 bundles while that of women was 1 bundle which made the average cost per annum spent for khat consumption were 208 USD and 60.8 USD for male and women, respectively.
- About 72% of khat producers earned an average income of more than 500 USD which brought positive economic impact on household.

## **4.2. RECOMMENDATION**

Even though Khat has positive role, its deterring impacts overweighed its merits by far through disintegrating socio-economic and health disturbance of the community. Therefore to reduce such impacts;

- Awareness should be provided to change the behavior of new generations who were more inclined to use of the psychoactive drug and thereby decrease the chewing habit.
- Educational campaigns should be instituted to create awareness and reduce prevalence of khat chewing by incorporating its core elements in the curriculum of elementary school since most of the chewers are from illiterate and lower school people. This can be done in disseminating health education awareness through media like television and newspapers, arranging religious programs like lectures in mosques and establishing Khat Quit Clinics
- The banning of khat chewing at school and higher learning institution should be encouraged to reduce the tendency of chewing habits.
- The government should facilitate a condition for creating formal and informal job opportunities to make youths and to reduce the tendency of using the drug. This can be done by launching medium and small scale micro financing and income generating projects.
- Provision of recreational facilities for young people should be in place and the Government needs laws limiting the consumption of khat at the very least, or outright banning it at the best.

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