

Commentary

Legal harvest and illegal trade: Trends, challenges, and options in khat production in Ethiopia



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ABSTRACT

The production of khat in Ethiopia has boomed over the last two decades, making the country the world's leading source. Khat is now one of Ethiopia's largest crops by area of cultivation, the country's second largest export earner, and an essential source of income for millions of Ethiopian farmers. Consumption has also spread from the traditional khat heartlands in the eastern and southern regions of Ethiopia to most major cities. This steady growth in production and use has unfolded under negligible government support or regulation. Meanwhile, khat, which releases a stimulant when chewed, is considered an illicit drug in an increasing number of countries. Drawing on government data on khat production, trade, and seizures as well as research on the political, socioeconomic, and development effects of plant-based illicit narcotics industries, this commentary identifies possible considerations and scenarios for Ethiopia as the country begins to manage rising khat production, domestic consumption, and criminalization abroad. Deeply embedded in social and cultural practices and a major source of government and agricultural revenue, Ethiopian policymakers have few enviable choices. Criminalization abroad raises a small but not insignificant possibility that previously nonexistent linkages between khat and transnational organized crime and trafficking networks will emerge. Likewise, more stringent regulation of khat in Ethiopia could merge with lingering political cleavages and anti-government sentiments, exacerbating low-level domestic conflicts.

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Introduction

Khat, a small flowering bush native to the Horn of Africa, is an illegal drug in most countries in Europe, Asia, and North America. It has also become Ethiopia's largest export after coffee, valued at nearly 300 million USD in recent years (Anderson, Beckerleg, Hailu, & Klein, 2007; Csete, 2014; Zenebe, 2014). In fact, khat production has been growing steadily in Ethiopia. Over the last 15 years the amount of land devoted to khat has risen 160 percent. The total amount produced has grown even faster, rising by 246 percent, amounting to hundreds of millions of kilograms of khat annually. From just a few thousand hectares in the 1950s, khat is now grown on one quarter million hectares of land in Ethiopia by millions of farmers (Gebissa, 2008). Ethiopia is the leading producer of khat globally.

While Ethiopia's khat trade continues to expand, a growing number of countries around the world are criminalizing its sale and consumption. At least two dozen countries have listed khat as a controlled substance. The Netherlands banned khat in 2013. In 2014, both China and the United Kingdom added khat to their list of controlled psychotropic substances (INCB, 2015). French, German, and Norwegian authorities each seized over a dozen tons of khat in 2013 (INCB, 2015). Since 2005, federal and state authorities in the United States have arrested and prosecuted dozens of individuals for trafficking khat. At a single Canadian airport, Toronto's Pearson International, authorities report making almost daily confiscations of khat (Shephard, 2012).

Ethiopian law neither explicitly allows nor prohibits the cultivation, consumption, or sale of khat (Dessie, 2013). Yet the national economy, and in particular specific regional economies, is becoming more and more dependent upon the production and trade of an increasingly criminalized substance. This commentary will not argue for or against khat's legality nor will it examine the health implications of khat use. Rather, we focus upon the potential consequences of the rising prominence of khat in

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Ethiopia's economy and its potential political and socioeconomic implications in Ethiopia.

This commentary is divided into three parts. First, drawing primarily on Ethiopian government data complemented by previous independent surveys of khat consumption, we examine trends in production and consumption of khat in Ethiopia over the last 15 years. We then use seizure data from customs and law enforcement institutions in major importing countries in Europe and the United States to demonstrate the significant changes to policies and perceptions of khat. Lastly, we combine a review of research on the political and socioeconomic effects of the production and export of other forms of illicit narcotics to analyses of contemporary Ethiopian political dynamics to reflect on the challenges and dilemmas that the country faces as the khat trade both booms and increasingly becomes criminalized.

Khat production and trade in Ethiopia

Khat (*Catha edulis*) is a small leafy tree that primarily grows in East Africa and the Middle East, the leaves of which release the stimulant cathonine when chewed. The tree has a thin bark that is light grey to dark brown, and its leaves range from green, yellow, and red in colour, depending upon its stage of growth (Brooke, 2000). Like coffee, khat production may have originated in Ethiopia, where references to its cultivation have been made for centuries (Huffnagel, 1961).

The amount of Ethiopian land currently used to cultivate khat (249,359 ha) is 44 percent of that used to cultivate coffee. Coffee is the nation's largest export earner, accounting for 28 percent of total export value in 2012 (OEC, 2015). However, the expansion of khat cultivation is unrivalled (see Chart 1). Land used for khat production increased by 160 percent from 2001/02 to 2014/15 and rapidly expanded to new regions of the country where it had not previously been grown (see Table 1). For comparative purposes, during this same period, coffee cultivation grew by 133 percent from 243,834 to 568,740 hectares; oilseeds by 101 percent from 426,130 to 855,763 hectares; root crops by 96 percent from 110,628 to 216,971 hectares; vegetables by 86 percent from 74,986 to 139,717 hectares; pulses by 53 percent from 1,016,786 to 1,558,422 hectares; and cereals by 30 percent from 7,813,021 to 10,152,015 hectares (CSA, 2004, 2015). Khat is now one of the country's largest crops in terms of total land coverage, more vast than all roots crops combined, and all vegetables combined although less than coffee, cereals, and oilseeds. Ethiopian farmers have also achieved significant gains in khat yields: from 796,520

Table 1
Regions of Rapid Khat Production, in Hectares (2003/04–2014/15).

	2003/04	2014/15	Increase
Amhara	2718	9563	252%
Benishangul-Gumuz	46	1183	2471%
Dire Dawa	713	1325	86%
Gambella	39	393	908%
Harari	2038	4844	138%
Oromia	75,196	156,522	108%
SNNP	22,570	69,505	208%

Source: CSA (2004–2015). Note that this data is from 2003/04, not 2001/02, as the earliest regional data we were able to access started at this point. However, national data from 2001/02 was available, thus national figures listed in the paper refer to 2001/02 while this regional data refers to 2003/04. Data was unavailable for Afar and Tigray and are not included in this chart. Data for Harari is from 2013/14, as the 2014/15 data was unavailable.

units of 100 kg in 2001/02 to 2,758,345 units of 100 kg in 2014/2015 (see Chart 1), which amounts to a 33 percent increase in production per hectare.

The causes of khat's rapid rise are debated. Belwal and Teshome (2011) suggest that the expansion in the 1990s and early 2000s was a product of market forces, as khat fetched higher profits for farmers. Migration of people for whom khat is traditionally consumed has resulted in demand in places where it was previously unknown. In a number of countries, including Ethiopia, consumption has also significantly increased. In addition to changes in the khat market, small-scale Ethiopian farmers have experienced volatility in the coffee markets, acting as a push factor for crop diversification (Gemetch & Struthers, 2007). Another factor is improved export transportation networks, as the freshness of khat is highly valued, making its global export within a 24–48 h window much more feasible than in decades past. Rather than a single causal factor, it is probably a combination of these push and pull factors that have contributed to the expansion of khat production and rapid rise of smallholders cultivating it.

The socioeconomic implications of the boom in khat production are significant. Khat is now one of Ethiopia's largest sources of internal tax revenue (Gebissa, 2008) and one of its largest export commodities with annual earnings in the hundreds of millions of dollars. Total national tax revenues from khat may have been as much as US\$289 million in 2010 (Dessie, 2013), and this number excludes tax collections at the regional, zonal, and district levels. While the export market is large, the majority of khat trade is domestic, and many of Ethiopia's regional state administrations are dependent upon it as a primary source of tax revenue (Dessie, 2013). For Dire Dawa, a major khat distribution hub, taxes on khat have comprised 60 percent of all municipal revenues in some years (Gebissa, 2010). There are other beneficiaries and stakeholders in Ethiopia's khat trade. For example, at least four official trading associations employ over a thousand Ethiopians to facilitate khat brokering and transportation (Belwal & Teshome, 2011).

Since most of the stimulative qualities of khat diminish within three days of harvesting, khat must be moved to market quickly, and therefore it is often transported by airplane, including on Ethiopian Airlines, the national carrier (Belwal & Teshome, 2011). In 1949 Ethiopian Airlines introduced flights to Yemen for khat exports. By 2013/14, about 52,000 tons of Ethiopian khat were exported, or roughly 20 percent of the total measured annual yield. Most exports are destined for nearby countries, such as Somalia and Djibouti, but also to new consumer regions including China. In 2009, the spokesperson for an umbrella organization representing khat producers in Kenya said China's growing market was being specifically targeted (AFP, 2009). Since 1997/98 the export value of khat has risen steadily, and at a much more stable rate than coffee (see Chart 3). These two commodities have accounted for almost

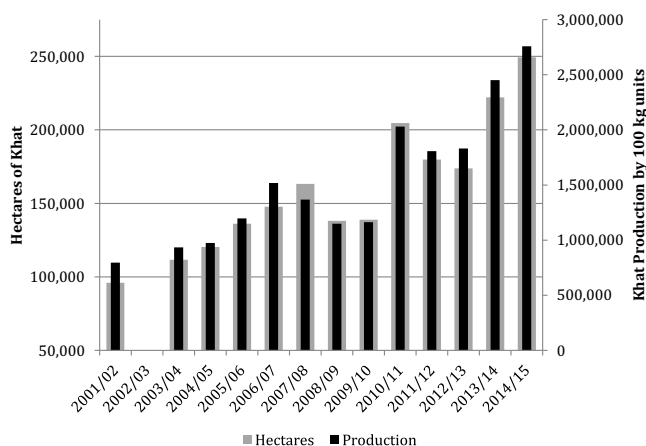


Chart 1. Hectares and production of khat grown in Ethiopia by year.
Source: CSA (2004–2015).

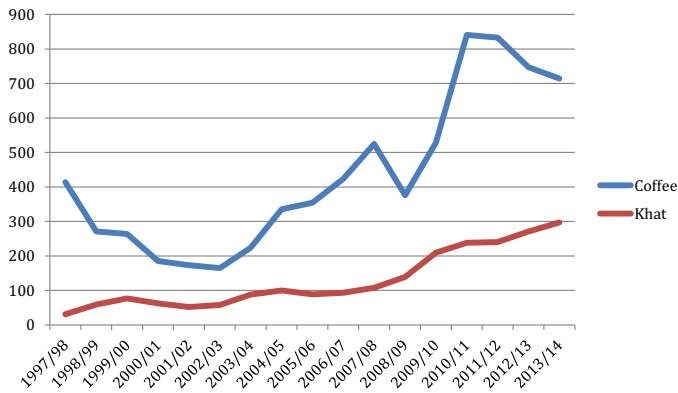


Chart 3. Export value of coffee and khat (USD millions).

Source: Belwal and Teshome (2011), NBE (2007), NBE (2008), NBE (2009), NBE (2010), NBE (2011), NBE (2012), NBE (2013), NBE (2007–2014). Note: Figures from 2002/03 onwards were listed in USD in the NBE reports. Figures from 1997/98 to 2003/04 were listed in ETB, and converted based on the following annual exchange rates: 1998: 6.98, 1999: 7.81, 2000: 8.08, 2001: 8.21, 2002: 8.07, 2003: 8.19 (historical exchange rate data obtained from oanda.com).

half of Ethiopia's total export value during these years (see Chart 4).

Khat is produced mostly by smallholder farmers, who sell their yields at trading centres for onward distribution or export. More than three million Ethiopian farmers now grow khat, which offers higher and more consistent sale prices than other commodities. In the Harar highlands, for instance, khat generates the highest return per hectare for farmers and is the major source of farm income (Rivera, 2012). In fact, for many smallholder farmers, khat cultivation is replacing food crops, increasing their reliance upon its cultivation and trade, as well as markets for the purchase of food commodities for consumption. According to Gebissa (2010), a leading scholar on khat in Ethiopia, the benefit of producing khat is substantial: income from a half hectare of khat can be six times greater than Ethiopia's per capita income.

Domestic demand consumes the bulk of Ethiopia's khat production, and khat is deeply integrated into many social, cultural, and religious practices. Many Ethiopian Muslims commonly use khat in religious and social functions (Gebissa, 2008). According to the elders of Harar, Ethiopia's historical khat heartland, khat was traditionally consumed in the evenings following agricultural work to provide energy for reading or writing of the Quran. Khat also is an essential component to many festivals and events, such as weddings and religious rituals. Many of these practices have migrated to Europe, North America,

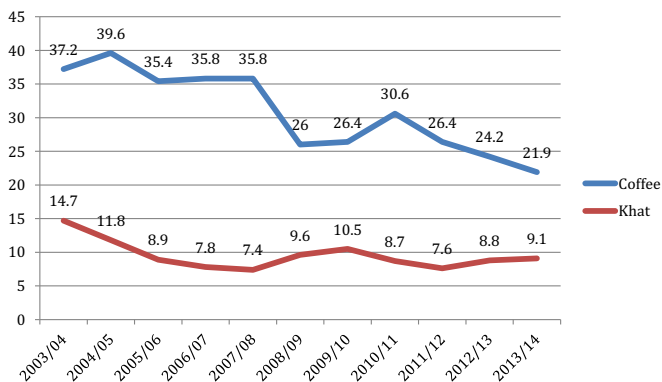


Chart 4. Percent of total export value.

Source: NBE (2007–2014).

and elsewhere with the emergence of East African diaspora communities.

Historically, khat was consumed largely in the Muslim regions, and was opposed by the Orthodox Church (Anderson et al., 2007). Increasingly, however, consumption of khat has become more commonplace and less ceremonially and regionally specific. Throughout Ethiopia the consumption of khat is now common and a visible component of daily life. National surveys conducted during the late 1990s determined that lifetime prevalence of khat use among Ethiopians was roughly 30 percent and similar in urban and rural areas (Gebissa, 2010). Numerous subsequent studies in multiple regions of Ethiopia indicate that khat consumption has become widespread, including among school-aged youth (e.g., Adugna, Jira, & Molla, 1994; Feyissa & Aune, 2003; Gebrehanna, Berhane, & Worku, 2014; Gebreslassie, Feleke, & Melese, 2013; Gelaw & Haile-Amlak, 2004). One survey of secondary school children in Harar found that 24 percent had chewed khat at least once and 5 percent were daily chewers (Reda, Moges, Biadgilign, & Wondmagegn, 2012). Over time, Gebissa notes, “khat chewing has become a ubiquitous pastime in Ethiopia's urban centers” (2010, 58).

In Harar, and across Ethiopia, there are debates about the religious and social acceptability of khat. Traditionally the plant was banned by the Ethiopian Orthodox Church but was accepted and common in the Muslim regions, however in recent decades the religious permissibility of khat has been greatly debated (Anderson et al., 2007). The conservative Muslim position advocates the plant is akin to an intoxicant and is therefore impermissible, as Islam forbids anything that intoxicates (Klein, 2013a). The World Islamic Conference for the Campaign against Alcohol and Drugs held in Medina in 1983 put forward a ruling opposing its consumption. This prohibitionist position is supported and spread by conservative Ethiopian Islamic religious scholars sponsored, including the Salafist *Ahl al-Sunna* group, which banned the chewing of khat as un-Islamic in the 1990s (Østebø, 2014). Such conservative Islamic ideologies are rooted in doctrines that Ethiopian scholars adopted and adapted during student exchanges to Saudi Arabia that have grown more numerous since the early 1990s as well as from support from conservative Persian Gulf-run charitable organizations building mosques in Ethiopia (Østebø, 2014; Shinn, 2014). A second, middle-ground position, is that khat can have some negative individual and social impacts and therefore consumption should be regulated but not criminalized. This position is held and advocated by those for whom khat consumption has been a traditional practice, and for whom its moderate consumption is considered not disruptive, nor ought consider khat an intoxicant in the way that alcohol is, and therefore hold it permissible. The position based upon tradition also argues that its consumption in the past was a means to enhance spiritual practice and as such has a positive religious role. A third position advocates that khat is an important agricultural crop about which no regulation or limitation is required. Within Harar, itself a centre of spirituality for many Ethiopian Muslims, the three different opinions continue to confront one another in households, gatherings, and mosques.

Among a small but vocal Ethiopian minority, the controversy over khat consumption is also framed in ways that mirror some of the country's religious, ethnic, political, and urban-rural divides. These campaigners often depict khat in variegated and poorly substantiated ways, including as a sign of “social decadence,” a threat to family and community cohesion, an example of the deep differences between predominantly Christian and Muslim areas of Ethiopia, and a policy failing of the current government (Gebissa, 2010). While these historical realities of religious, ethnic, and regional divisions persist, the expanding consumption of khat in recent decades has blurred these lines. Based on the current climate it is highly likely that opponents and supporters of the

current government may be able to utilize khat policy to promote political, religious, and ethnic objectives. Likewise, even if the government sought to regulate khat it would inevitably be drawn into these broader debates.

Legalities of khat

Cathinone, a stimulant that occurs naturally in khat, is listed as a Schedule I substance in the United Nations Convention on Psychotropic Substances (Cathinone was added in the 1986 update). Khat itself is not listed in the convention, nor on any other international list of controlled substances, and therefore the legality of the plant itself is debated and can vary from country to country. Moreover, due to oxidization, the cathinone in khat becomes cathine within 48–72 h of harvest, a far less potent stimulant that is listed as a Schedule III drug in the 1971 UN Convention (Armstrong, 2008). This could be interpreted to mean that if khat is a Schedule I controlled substance, it is only temporarily so.

Descriptions of the effects of khat chewing vary widely (Armstrong, 2008), but it is generally described as a stimulant comparable to but less potent than amphetamines (EMCDDA, 2015a). Research indicates that the potential for khat dependence among users is “mild” (WHO Experts Committee, 2006), perhaps less than alcohol or cigarettes. Government commissioned studies in the United Kingdom and the Netherlands found little evidence that khat users were more violent than non-users or that the plant is associated with organized crime (Armstrong, 2008). There is some evidence that consistent khat use may be linked to some health complications, including insomnia, gastrointestinal problems, and cardiovascular events, among other symptoms (WHO, 2006a, 2006b; Ageely, 2008).

A number of countries from all parts of the world have increasingly treated khat as a controlled substance, including China, the United Kingdom, and the Netherlands in just the last few years (see Table 2). Some have explicitly listed the plant khat as a controlled substance. Others have interpreted bans on cathinone to apply to khat. However, it is legal (or has not been made an illegal or a controlled substance) in some nations, including Djibouti, Somalia, South Africa, and Yemen. Some Ethiopian neighbours with sizeable numbers of khat consumers have banned its possession and consumption, including Eritrea and Tanzania. The Ugandan parliament passed a bill in November 2014 that will criminalize cathinone, but it has yet to be signed into law. For its part, Ethiopian law has little to say on khat. The lack of discussion on the topic by the Government of Ethiopia is perhaps driven by silent contentment over rising tax revenues as well as concerns over the sensitivities of regulating a substance grown by millions of farmers and consumed by millions of citizens.

Seizures of khat and arrests for its trade in Europe, the United States, and China have spiked in recent years. The quantity of khat seized in Europe since 2001 increased nearly tenfold, with recent spikes in France and Germany (see Table 3). In 2011, the European Monitoring Centre for Drugs and Drug Addiction estimated that khat consumption was increasing in Europe, though there are no surveys or data sources that consistently monitor its use (Goulão, 2011). Due to the criminalization of khat and rise in seizures in Europe, the retail price of khat is rising (Kubania, 2015; Lepidi, 2013).

At the 2012 announcement of a decision to ban khat in the Netherlands, government ministers described khat as “addictive” and that it “leads to damage to the health of users and to major social problems. Municipalities experience major hindrance from the distribution of, trade in, and use of khat. Problematic khat use also causes socio-economic disadvantage” (Government of the Netherlands, 2012). The Dutch Minister of Immigration explained that he supported the ban because khat “appears to cause serious

Table 2

Chronological list of select countries where khat is treated as controlled substance.

Year	Country	Law/source
1971	Saudi Arabia	Brooke, 2000
1981	New Zealand	PCO, 2015
1986	Germany	Betäubungsmittelgesetz (BtMG)
1986	Australia	Douglas, Pedder, & Lintzeris, 2012
1988	Jordan	Law on Combating Illegal Narcotics
1989	Norway	Forskrift om narkotika m.v. (Narkotikalisten)
1989	Sweden	Förordning (1992:1554) om kontroll av narkotika
1990	France	Code de la Santé Publique, Articles R. 5150 à R. 5188
1993	Denmark	Bekendtgørelse nr. 698 af 31
1993	Finland	Huumausainasetus 1603/1993
1993	United States	U.S. Federal Register Vol. 58 No. 9
1993	Ireland	S.I. No. 342/1993 – Misuse of Drugs (Amendment) Regulations, 1993.
1995	Tanzania	The Drugs and Prevention of Illicit Traffic in Drugs Act
1995	United Arab Emirates	Federal Narcotic Law 14
1996	Switzerland	Loi fédérale sur les stupéfiants et les substances psychotropes (812.121)
1997	Canada	RCMP, 2015
1999	Belgium	BFPSJ, 2014
2005	Poland	Ustawa z 29 lipca 2005 roku o przeciwdziałaniu narkomanii
2005	Italy	Modificazioni del decreto-legge 30 dicembre 2005, n. 272
2012	Israel	Zeiger, 2012
2012	Rwanda	Law governing narcotic drugs, psychotropic substances and precursors in Rwanda
2013	Netherlands	Klein, Metaal, & Jelsma, 2012
2014	China	EPRC, 2014
2014	United Kingdom	BBC, 2014

Note: Narcotics regulations and controlled substances lists can be updated, modified, and expanded multiple times after their initial adoption, making it difficult to determine precisely when khat becomes a prohibited substance in a particular country. For this table, the listed year of prohibition was determined by reviewing available narcotics legislation for each country and locating the first appearance of “*Catha Edulis*” or “cathinone” as a controlled substance. Finding on Germany is based on personal communication with the German Federal Ministry of Health on 25 July 2015. The laws in Australia differ by state and territory; it is illegal to possess, supply, or cultivate khat in Queensland, Western Australia, and the Northern Territory, but is legal in New South Wales, Tasmania, and Victoria.

problems, particularly in the [Dutch] Somali community. Ten percent of Somali men experience very serious problems; they are lethargic and refuse to co-operate with the government or take responsibility for themselves or their families. We cannot and will not accept it” (RNW, 2012). Comments such as these have been interpreted as representative of a discriminatory undercurrent to khat policies in some countries (Klein, 2013b).

In the United States, totals have fluctuated significantly over the last 15 years, though dozens of tons of khat are seized annually (see Table 4). Federal and state authorities have also arrested dozens of individuals during lengthy investigations against alleged khat traffickers, including major cases in 2006, 2011, and 2014. However, prosecutions against many of the defendants have resulted in acquittals. Indeed, several U.S. federal courts have ruled in favour of those accused in khat-related offenses because khat itself is not specified in any U.S. law (Armstrong, 2008).

Criminal penalties for khat possession, sales, consumption, or importation went into effect in China at the beginning of 2014, though seven tons were seized by authorities between 2008 and 2013 (INCB, 2015). Incidentally the first individual in China sentenced to prison for khat smuggling was an Ethiopian man who was arrested in possession of less than a kilogram upon arrival at Hangzhou International Airport on a flight from Addis Ababa (Xinhua, 2014).

Table 3
Kilograms of khat seized in Europe.

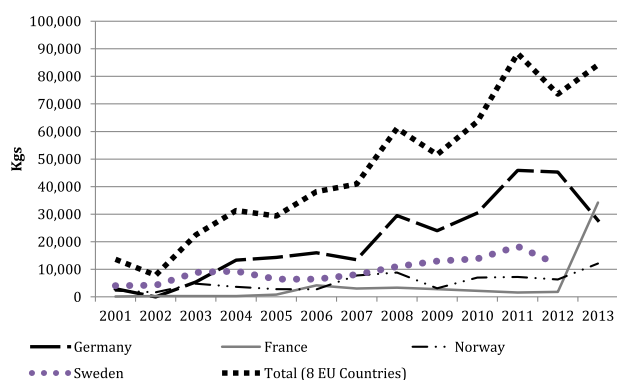
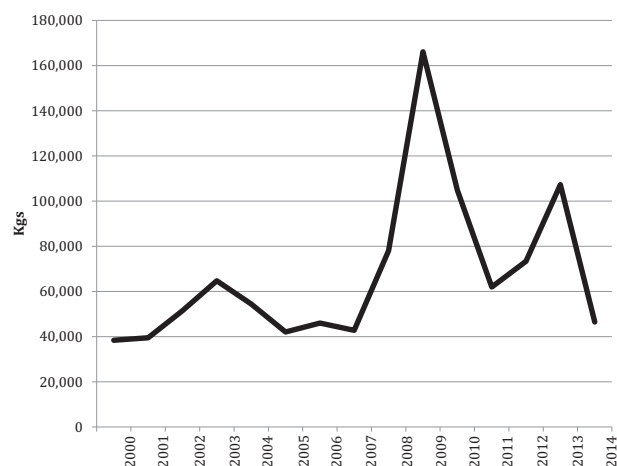


Table 4
Kilograms of khat seized in the United States.



Despite these new laws and seizures of khat, linkages between the khat trade and regional or transnational organized crime or violent groups appears ambiguous or negligible. Assessments by the United Nations Office on Drugs and Crime (UNODC) have found that khat is popular among Somali pirates and planes that transport the product to Somali cities from Ethiopia and Kenya have in the past reportedly returned with cash earned from kidnapping ransoms and other organized criminal activities. However, there remain several degrees of separation between the two activities. In fact, khat may serve as a pull factor that mitigates piracy since “it provides one of the few industries where comparable incomes can be derived” (UNODC, 2013, 43). Additionally, in Ethiopia some khat traders operate illegally to evade export and other taxes (Belwal & Teshome, 2011), though they do not function as organized criminal enterprises that rely on corruption or intimidation to sustain their business. Beyond this, linkages to organized crime in the country appear to be minimal.

Despite some allegations and evidence from arrests in the United Kingdom and the United States that al Shabaab raises funds through the khat trade, the Somali Islamist militant group prohibits the sale and consumption of khat in those areas under its control (Ahmed, 2011). While al Shabaab has financed itself through the illegal charcoal trade, kidnapping for ransom, and taxing piracy groups, the khat ban appears to be consistently

enforced. According to the UN Monitoring Group on Somalia and Eritrea, Somali “civilians involved in making a living from the khat trade were also targeted and killed. On 24 April 2104 [sic], for example, Al-Shabaab forces fired a rocket-propelled grenade (RPG) at a vehicle transporting khat in Danow village in Lower Shabelle killing one person” (Crisis Group, 2014; UN Monitoring Group on Somalia and Eritrea, 2014, 306). Al Shabaab may benefit indirectly by taxing those in the khat trade, but the overall evidence suggests that the group’s involvement has been minimal.

Other than these relatively indirect connections, the khat trade in Ethiopia and the wider Horn of Africa features negligible levels of violence and weak links to violent groups or organized crime. From a purely logical standpoint, there is little reason for Ethiopian khat traders to work with organized criminal groups. Since it has been legal for so long there are minimal benefits that legitimate Ethiopian producers or traders can gain from cooperating with insurgents or organized crime networks. Similarly, organized crime groups can exercise few comparative advantages in the trade so long as there are licit producers meeting demand. This, however, could change as the legal space for export shrinks.

Reflections

The khat market in traditional consumer countries in East Africa and the Arabian peninsula has grown significantly in recent decades, and may still have some room for additional growth (Van der Wolf, 2013), but with prevalence fairly high across the region further expansion is only likely to be achieved through export to new consumer markets. Consumption is growing in Europe, Asia, and North America, though so far it is thought to be more or less confined to East African and Arabian immigrant communities (Goulão, 2011). Khat exporters seeking to reach these new markets have few options but to try and circumvent emerging foreign prohibitions and bans on khat consumption. A change in distribution networks of this nature, from a legal, controlled, and taxed trade to one that seeks to avoid all interaction with formal institutions poses challenges for governments. One potential outcome is the rise of organized criminal groups engaging with Ethiopian traders, which has the potential to affect revenues as well as stability.

International bans and prohibitions are likely to drive up the retail price of khat. A single bundle of khat – essentially one dose of about 100 g – in the United States is approximately \$45 (DEA, 2006), where it has been banned for over two decades. By comparison, the pre-ban price of khat in the United Kingdom was just 5 euro (EMCDDA, 2015a, a little more than US\$6). In China, the cost of a bundle of khat was approximately \$16 in mid-2014, the first year of China’s new prohibition (Liu, 2014). In other words, prices for khat may spike, raising incentives to supply users. Meanwhile, the significant increase of khat seizures in European Union countries that have long banned the trade suggests a persistent willingness of individuals to pursue the illegal khat trade.

Based on past analyses of other plant-based illicit markets such as cannabis, it is primarily the price elasticity of demand that determines the quantity of khat traded, not the effect of interdiction or law enforcement on supply (Reuter & Kleiman, 1986). In other words, if consumers have sufficient income to continue purchasing khat despite retail price increases, then the supply that reaches consumers tends to remain the same, even if seizures and successful interdiction increase. Given the fact that seizures have increased and retail prices remain high in countries with long-standing prohibitions, such as Norway (Anderson & Carrier, 2011) and the United States, there appear to be substantial numbers of consumers who can afford to maintain consumption and pay for khat at higher prices. Thus, interdiction and law

enforcement efforts are not likely to dramatically affect consumption even if supply-side interventions drive up the price of khat (Reuter & Kleiman, 1986). Moreover, khat consumption does not appear to be associated with other drugs (Armstrong, 2008; WHO, 2006a, 2006b), and so any substitution effect due to rising prices is unlikely. In short, past experience suggests import demand for khat in countries where it is prohibited will not be affected by seizures and interdictions, and producers and exporters will continue seeking to serve this demand.

Unfortunately, any increase in khat prices is unlikely to accrue to khat farmers in Ethiopia. Rather, it is the retailers and importers of khat in countries where it is a controlled substance who are likely to pocket any mark-ups due to prohibition. The mark-up is the premium they earn due to the risks they face in trading an illicit product (Reuter & Kleiman, 1986; Thoumi, 2003). Part of the distribution of this premium will depend on prohibition enforcement strategy and how it affects the distribution of risk. Should law enforcement target retail level sales, then the mark-up that accrues to retailers will increase. However, if importers and traffickers become the target, then they will be able to draw more of the mark-up. Regardless, prohibition may generate substantial incentives to smuggle khat, which essentially would become a form of organized crime and could catalyse ancillary demands for expertise in illicit trafficking and customs evasion, money laundering, and other related crimes. For their part, Ethiopian farmers and even exporters in Ethiopia are unlikely to benefit from any increase in retail prices in export markets, while the Government of Ethiopia will almost certainly encounter challenges for its taxation of the legal export of khat. Ethiopian farmers and exporters may be able to sell larger quantities of khat to compensate for losses due to increased interdiction, but their earnings per kilogram are unlikely to change.

Alternatively, Ethiopia could seek to change its policies on khat to align itself with the imposition of criminal penalties elsewhere. Historically, the trend in global drug policies, particularly prohibition regimes, has tended toward transnational harmonization based on criminal laws in the United States and Europe (Andreas & Nadelmann, 2006). Indeed, the 2014 ban in the United Kingdom was justified in part on the need to harmonize laws with prohibition in other countries despite the fact that studies commissioned by the UK government had concluded that prohibition was unwarranted on medical or social grounds (Government of the United Kingdom, 2013). Pressure to harmonize criminal laws on drugs, however, may be mitigated by ongoing public debates about recent prohibitions in the United Kingdom and the Netherlands as well as emerging high-level discussions on the decriminalization of drug use, particularly cannabis, in the Americas (OAS, 2013). Then again, given the range of arrests, prosecutions, and public health campaigns against khat, there does appear to be genuine concern in China, Europe, and the United States about its health and security implications. Those governments may seek solutions at the source of the drug, as they have when managing other narcotics. In Ethiopia, such an alignment would be problematic and would almost certainly result in domestic opposition. This is due to the fact that millions of farmers are actively growing khat, many millions of others are regularly consuming it, it has been a stable and primary export product for decades, and regulation would inevitably be drawn into political, religious, and ethnic debates.

However, interest within Ethiopia to pursue more stringent limitations on khat production and use is growing. Despite the public revenues and economic benefits that khat exports generate, there is no clear or assertive policy of support for the industry from the Ethiopian government. There are small but vocal groups who advocate for heavier regulation and prohibition (Gebissa, 2010). The *Addis Fortune*, one of Ethiopia's independent daily newspapers,

produced a series of articles in 2014 titled "To Ban or Not To Ban" on khat explaining:

"There is no crop that creates as much confusion for [Ethiopian] policymakers as Khat – a popular stimulant. They are regularly seen being put in a difficult position when the issue of the crop is raised. On the one hand, they are happy about the export earnings the crop brings to the nation, which suffers from a long overdue foreign currency conundrum and expanding budget deficit. On the other, they seem to be concerned of the impact of the stimulant crop on the health and psychology of its ever-increasing consumer population across the country. As a result, there is no clear policy on the crop, which continues to bless the nation with huge export earnings." (*Addis Fortune*, 2014)

Surprisingly, political leaders and representatives from Kenya, the world's second largest producer of khat after Ethiopia, have been vocally and assertively challenging the expansion of khat prohibitions in the United Kingdom and the Netherlands. No similar public protestations have been made by Ethiopian officials (*Addis Fortune*, 2014).

New restrictions on khat in Ethiopia are beginning to emerge. The government has instituted some limits on domestic consumption, including bans on "khat house" venues (Van der Wolf, 2013), though it is unclear the extent to which such restrictions are enforced. Bans have been instituted on chewing khat at universities and in the workplace (Gebrehanna et al., 2014; WHO, 2006a, 2006b). Some regional-states within Ethiopia, such as Benishangul-Gumuz, Gambella, and Tigray, have adopted regional regulations that control khat (Gebissa, 2008). Ethiopia's parliament passed new excise taxes on khat in 2012. The tax, according to domestic news reports, had two somewhat ironic aims: (1) a "reduction of domestic consumption, which is growing at an alarming rate" and (2) "to boost export earnings from khat" (Belete, 2012).

Though the Federal government has expressed no interest in doing so, should Ethiopia eventually find itself considering more aggressive restrictions or reductions on khat production the political effects could prove challenging. Research has shown that in some contexts plant-based, labour-intensive illicit economies can become a fulcrum point for instability in weak and fragile states. Though not invariably so, illicit markets involving drugs and narcotics often feature some type of violence, mostly criminal in nature and typically at low levels within and between groups involved in the trade. It is rare, but not unheard of that such violence can escalate to excessive levels, as seen in Mexico, Colombia, or Central America (Reuter, 2009). Nonetheless, criminal violence of some type does feature in nearly all illicit markets:

"Illicit markets are inherently more violent than licit markets—with no legal recourse, business disputes (or disputes with the authorities) are more likely to be dealt with by shooting than by suing. But beyond this basic starting point, sweeping assertions about the connection between illicit markets and violence need to be treated with a great deal of critical scrutiny and skepticism." (Andreas & Wallman, 2009, 228)

Instability and violence related to illicit markets can also take on a political dimension. Once weak and marginalized insurgent groups in Peru, Colombia, Burma, and Afghanistan have been able to dramatically expand their capabilities and political influence by protecting farmers who grow plant-based narcotics such as coca and opium (Felbab-Brown, 2009; Thoumi, 2003). Indeed, conflicts in which insurgents can draw on finances from illicit contraband such as coca or opium last on average 2.6 times longer than civil wars that do not feature such illicit economies (Fearon, 2004, 284). Khat is unlikely to ever fetch the same prices that coca or opium derivatives do, but farm-gate prices for coca and opium in these countries have typically been just a fraction of the end user price.

Ethiopia has struggled with political, ethnic, and religious divides, some of which have fed ongoing secessionist movements and intermittent militant activity. The current government in Ethiopia has expended great energy and attention on creating an ethnically balanced federal system of government, though one that firmly entrenches the authority of the ruling Ethiopian People's Revolutionary Democratic Front (EPRDF) political party and its core cadre of leaders who are predominantly Christian and from the Tigrayan ethnic group. Christian-Muslim religious tensions have also rocked Ethiopia at times, and recently the government has begun to more overtly intervene in religious affairs by seeking to mold a state-sponsored Islamic entity to shape a preferred and manageable "Ethiopian" form of Islam (Østebø, 2013). In other words, the government is trying to deal with various cleavages, but in an interventionist and authoritarian way that often exacerbates anti-government sentiments.

Khat production in Ethiopia may already follow some of these deep political fault lines. Statistical analysis of parliamentary elections in 2005 – arguably Ethiopia's freest and fairest election – found that if a district produced khat it nearly doubled the proportion of the vote that went to the Coalition for Unity and Democracy (CUD), the opposition party that campaigned on the strongest platform against the ruling EPRDF (Arriola, 2008). Interestingly, if a district produced coffee, votes for the CUD tended to drop, though these particular estimates were not statistically significant. Notably, the coffee sector receives government assistance while khat producers benefit from few agricultural services and face significant taxes on their produce. Beyond political contestation at the ballot box, several small and intermittently active anti-government militias, including the Oromo Liberation Front or the Ogaden National Liberation Front, are based in regions that are Ethiopia's biggest producers and exporters of khat and where many opposition party parliamentarians were elected in the 2005 vote. Public protests in 2015 and 2016 throughout Ethiopia, pushed by political and religious motivations, along with heavy handed governmental responses suggest that khat could be a powerful message of the anti-government discourse. Of note is that the strongest opposition to the government in these recent protests are in regions where khat is commonly grown and consumed. Thus, putting the government in an extremely challenging and delicate position with regard to khat regulation.

Conclusion

In 2014/15 there were more than three million smallholders growing khat in Ethiopia (CSA, 2015). Inevitably, these farmers will be affected by an expanding number of prohibitions on khat consumption emerging in countries around the world. How this will affect them largely lies in the ways in which the Government of Ethiopia navigates current and pending challenges related to khat production, consumption, and export. As a result, the Ethiopian government faces legislative and policy dilemmas regarding its khat industry. It has few enviable choices: disregard such bans and condone the export of a substance deemed illicit in many countries, essentially becoming complicit in illicit trafficking and smuggling, or opt to control and restrict the production and consumption of a crop that underwrites the livelihood of millions of Ethiopians and contributes hundreds of millions of dollars to annual spending and potentially incite political instability. Even while ignoring the significant medical, social, and public health implications of khat production and use, the government's ultimate decisions about the industry's future in Ethiopia will have profound impacts on political dynamics and economic development as well as organized crime within and beyond its borders.

Conflict of interest statement

No conflict of interest.

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