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## **Regulating Khat – Dilemmas and Opportunities for the international drug control system**

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### **Abstract**

Khat is the latest psychoactive plant based substance to become available on a global market. In contrast to other traditional substances, the use of khat is expanding rapidly, as a result of the dispersion of people from the Horn of Africa and particularly from Somalia as consequence of ongoing civil war, and because production and consumption is increasing across Africa. The sudden arrival of khat in new settings poses challenges to the regulatory arrangements of societies where the drug was hitherto unknown. Yet, there is also an opportunity to weigh the risks and dangers against the benefits of the khat trade and move towards a system of regulation based on evidence and guided by the principles of containing harm and maximizing benefits. There are strong arguments for harnessing the positive aspects of the khat economy, with particular regard to rural livelihoods, processing industries, regional trade and tax revenues in one of the poorest and economically fragile parts of the world. Ultimately, the framework for khat may provide both a model and an opportunity for revising the international treaties governing the control of other plant based substances.

## **Introduction**

Among scholars in the weakly delineated 'drugs field' it is an anthropological commonplace that all cultures enjoy the use of some psychoactive substance, extracted from one (cannabis, opium poppy, grape) or several naturally occurring plants (ayahuasca, kava). In traditional settings, so it is widely asserted, the use of these substances was integrated into the calendar of social life and religious practice. Access was moderated by customary codes of propriety, often backed up by mythical charters that laid down the respective rights for different categories of persons along lines of age and gender. Custom and taboo therefore acted as 'protective factors' against the dangers inherent in these 'peculiar substances' (Sherrat 1996). The onset of 'modernity', the subjugation of traditional cultures by colonialism, the disenchantment of the world via secular rationalism, and the displacement of communitarian ownership by notions of private property and the dynamics of a profit driven market economy have dismantled systems of containment. In the great narrative of drug control, it is this erosion of 'tradition' which necessitates the imposition of rational, law based, state imposed, systems of regulation, anchored in science and monitored by an international bureaucracy (UNDCP, 1997).

There are two distinct processes at work revolving around the drug users and around the drug. The first begins with the implosion of existing protective systems under the diverse pressures of state, market and industrialisation. Native Americans may have been able to contain the risks of tobacco in pre-Columbian days, but as the formerly sovereign tribes were confined to reservations, economically reduced to welfare dependence and exposed to advertising, the shift from communal pipe to individual cigarette smoking has corrupted a culturally integrated practice into a public health problem.

The second process is based on the plant; in traditional cultures the naturally occurring species of psychoactive plants are collected and their consumption is tied into the rhythm of the seasons. Alternatively, subsistence farmers or peasants intercrop drugs with food crops. With modernity, subsistence farming is replaced by cash cropping, the farmer is replaced by the agricultural labourer, and the objective is no longer to provision a community but to generate profit for the owners of the property. The plant is stripped of any spiritual or magical properties and its former

value in a symbiotic relationship between multiple species is reduced to proletarian utility. Post harvest marketing, distribution, and retail is decoupled from production, often in distant markets where the final product acquires a distinct identity quite unrecognizable from its 'natural' state (Sheller, 2005). Various stakeholders combine their interest towards the expansion of existing demand and markets for the product, which feeds back into raising levels of production on the farm or plantation.

This process of commodification has been documented for a number of crops and is classically associated with the early modern period, the colonisation of the Americas, and the development of the plantation complex. Psychoactive substances – tobacco, coffee, cocoa, and an ambiguous crop, sugar, described as a 'drug food' (Mintz, 1985) were the key drivers of this process. The significance of these early drug products in the formation of wealth and surplus at this 'heroic' stage in the history of capitalism, and for the development of mechanisms and skills has long been recognised (Williams, 1944) But it has also been asserted that this first phase of globalisation, was critical for establishing the status of drugs as global commodities, because, it has been asserted, "only drugs that were widely used in western societies became global commodities" (Courtwright, 2001:69). And though both opium and coca, and particularly the synthesised extractions of the poppy and coca leaf enjoyed short periods of medical celebrity, they were ultimately brought under control and demonised. This regulation suggests that it was only those products which came in the first wave of capitalist expansion that could establish themselves as global drug commodities – coffee, tea, tobacco, cocoa and sugar. The key to success was the alignment of pharmacology with prevailing ideology:

'coffee functioned as a historically significant drug...it spread through the body and achieved chemically and pharmacologically what rationalism and the Protestant ethic sought to fulfil spiritually and ideologically" (Schivelbusch, 1992 39).

Europeans, or Westerners, then established the cultural patterns of consumption for a select range of psychoactive substances, controlled their production and distribution, and finally established the international agencies to control the production, distribution and use of alternatives. The control agencies called into being at the end of the 19<sup>th</sup> beginning of the 20<sup>th</sup> century concentrated initially on the trade in alcohol

and opium, with coca and cannabis swept up almost accidentally (Willoughby, 1925). Since then the list has been expanded, mainly to synthetic substances. In spite of some efforts to extend global controls plant based substances with cultural roots, like kola, betel nut, kava, have so far escaped. It is around khat, however, that the ability of the system to extend its control over culturally integrated plant based substances will be tested.

In contrast to the other drugs listed above, khat is expanding its customer base dramatically. This process is not driven from the capitalist core. Already under the scrutiny of control agencies, the management of khat, the most recent plant based psychoactive commodity to have become globalised, presents a number of challenges as well as opportunities. These have to be studied against the following framing conditions:

1.1 The production and distribution of khat is controlled almost entirely by non western farmers and enterprises.

This is not unique, as kola, kava and betel are also within regional production and distribution networks. Kava has even found a niche export market as a health product with outlets in the USA, and there have been shifts in domestic consumption and the level of production. With the deconstruction of traditional controls kava drinking, for instance, is no longer restricted to ceremonial settings but a regular recreational indulgence. The detrimental effects on productive activities and family life have been reported from Fiji, where kava is also being planted as a more lucrative alternative to food crops. Across the South Pacific the production for local market has increased, and also the production for export – this is good for the farmers, but has environmental consequences – in Pohnpei Island in Micronesia, for instance the expansion of kava production is the main driver behind deforestation (Westermeyer, 2005). At the same time, however, overall levels of kava use are declining in countries like Papua New Guinea, where it is giving way to betel nut, and right across the Pacific it is competing with alcohol, which has given rise to speculation that kava consumption will eventually die out and kava become an abandoned narcotic (Brunton, 1990).

The consumption of both kola and betel is deeply embedded in West Africa and South to South East Asia respectively. There have been changes in the patterns of consumption facilitated by greater mobility and improved transport links within the regions, allowing for instance, kola nut from the southern, forest zone to be shipped with greater efficiency to the markets in the northern savannah, where consumption rate is far higher (Lovejoy, 1980). Yet, these quantitative rises have not been accompanied by qualitative changes in the production and consumption. In other words while kola and betel consumption is rising among populations with a history of use this is in line with overall changes in cultures of consumption and the trends in commodification. By contrast, there is a qualitative shift in the change of khat consumption.

Khat production remains concentrated in three countries – Yemen, Ethiopia and Kenya. The bulk of production in all three countries supplies local markets, followed by a significant trade to regional markets, particularly Djibouti and Somalia, and thirdly the intercontinental export. Even at the top end, least significant in bulk but crucial in foreign exchange earning, the entire commodity chain from farm gate to retail outlet is (i) highly diversified and (ii) in the hands of African and Middle Eastern operators. Khat farming, marketing and retail level is an exception in the increasingly concentrated world of agribusiness, in that it is run at every level by small enterprises in a steadily expanding market.

## 1.2 Khat is sold in a dramatically expanding global market

In February of this year Spanish newspapers were excited to report the interception of a ‘new drug’ at Barcelona airport. *Interceptado en Barcelona un alijo de una nueva droga: khat* (diario de Ibiza 13/02/08) – *Khat: la ‘coca’ del Africa oriental llega a Espana* (La Opinion de Malaga, 13/02/08)

A consignment of some 24.5 kg with an estimated value of US\$ 15,000 was found in the possession of a British citizen en route to New York. It was compared to cocaine and described as addictive and dangerous. While some of the articles did refer to popular use in Yemen and the Horn of Africa, our brief news scan noted that khat was a licit substance in the UK and in the Netherlands, the two largest export destinations.

In London, the seized consignment would be the rough equivalent of a hundred bundles, trading between £5-7 each depending on locale and quality, totting up to a maximum of £ 700 (US\$ 1,400).

The Spanish – or Catalan – seizure is a little different from similar stories recorded in Canada, Sweden and the US (Anderson et. al, 2007), in that the consignment was destined for re-export. There is an international export market for khat, but only in countries with populations that originate from the khat producing and consuming region. There are in the UK, for instance, well established communities of Yemenis (Halliday, 1992); Salam, 2005), Ethiopians and Kenyans, yet the largest and most conspicuous group of consumers are the Somalis. With hundreds of thousands of people displaced by the 17 year old, and still ongoing, civil war in Somalia, and scattered over Canada, the US, Scandinavia, the Netherlands, Germany, Australia and New Zealand new khat markets have grown across the developed world.

The scale of this migratory stream has created a demand for khat of far greater significance than the equivalent for kola, betel or kava. And for the producer countries, it has opened a hard currency revenue stream with profound implications for national economies, rural producers and nascent industries. Importantly, however, the consumption of khat in Western countries is largely confined to immigrants from Somalia, Yemen, Kenya and Ethiopia who have taken their preferences with them. There has not (as yet) been a cross over to majority population groups, with the possible exception of Israel (Avrahami 2004).

In Africa, on the other hand, a different pattern of diffusion has emerged. Khat is moving rapidly across Kenya and into areas such as Uganda and even into Rwanda and Burundi (Beckerleg, 2006). In Ethiopia khat was despised in the Highlands as a Muslim pastime, but is now consumed across the country (Gebissa, 2008), Strongly associated with particular ethnic or religious groups in the past, khat consumption has in recent years fulfilled one of the promises of nation building by overcoming ethnic and religious difference. Orthodox Christian students at the University of Addis Ababa are now chewing their khat while pouring over their books, indulging a habit their grandparents would have abhorred as a Muslim abomination. As new markets

open up in Rwanda, Tanzania and particularly Uganda, a lively public discussion has begun as to what to do about khat.

### 1.3 Failure of successive attempts by colonial authorities and international control agencies to suppress production and consumption

The first efforts by the Advisory Committee on the Traffic in Opium and Other Dangerous Drugs of the League of Nations to review the regulation of khat go back to 1933. The French, British and Italian colonial administrations across the 'khat belt' stretching from Yemen to the Nyambene Hills of Kenya did prohibit the cultivation and trade of khat at different points in time - French Djibouti (1956-57), British Somaliland (1921-57), South Yemen (1957-58) and Kenya (1945 – 1956). The frustrations for the authorities in making these bans work are nicely encapsulated by Sir Gerald Reece, the British governor of the Somali Protectorate (1948-54) who sought to combat the evils and ills of khat-chewing in the growing towns of Somaliland during his tenure. As Governor he worked hard to try and stem its usage which he viewed as another example of how urban living would lead to the dissipation and lethargy among heretofore vigorous and healthy nomads. Eventually, he all but abandoned his anti-qat efforts when he discovered that his driver had been easily and safely transporting khat around Hargeisa in the boot of the Governor's car. (ref)

In Somaliland as in the other colonial settings, the prohibitions were quietly replaced with licensing systems and tax regimes. In each case the rationale behind the ban was the economic calculation that khat chewing drained resources away from regional economies to the producer regions, and diverted the users from more productive activities (Brooke, 1960).

After independence, the governments of a number of countries renewed their efforts of control for religious and public morality reasons, and for the promotion of economic development, with varying success. In Somalia, for example, government officers apprehensive about the formation of a potentially subversive counter-cultural community (Cassanelli, 1986) declared khat to be "a real scourge, abuse fosters

corruption, prostitution, family disintegration and other criminal acts.” (Elmi, 1983, p 85). The ban was introduced in 1983 and crop eradication in the north of the country (Elmi *et al*, 1987), sparked off violence which contributed to the spiral of violence that pushed Somalia into ‘collapse’.

The Somali government did enjoy the support of both the Commission on Narcotics Drugs, which determined that clarification on the chemical and pharmacological identification of the active principles of khat was needed (WHO 1964). In 1973 the WHO expert committee listed khat as a ‘dependence producing drug’, and in 1985 cathine and cathinone, the two main active ingredients of khat, were assessed as meeting the criteria for control under the Convention of Psychotropic Substances and recommended for scheduling (Pantelis *et.al*, 1989). The WHO advisory group found that the pharmacological effects of khat chewing were analogous to those of amphetamine (WHO, 1980), and that khat abuse was similar to amphetamine addiction. An international conference was held in 1983, but was inconclusive. There have since been presentations for closer controls of khat by regional offices of the UNDCP (1999), calls for a technical review by the WHO expert committee in 2002, and a strong recommendation by the INCB that khat should be brought under international control (INCB, 2006).

## 2.1 Challenges and Opportunities

Khat then has in the recent past undergone a dual process, whereby it was (i) ‘deracinated’ from traditional settings to become a commodity, (ii), has found new markets of users to whom khat was hitherto unknown. We have argued elsewhere that many of the associated problems with khat among the Somali community in particular relate to the fact that there is little time depth in the encounter with khat (Klein and Beckerleg, 2007). Similar problems of lack of experience among users, distributors and control agencies alike are recurring across the outer limits of the khat belt, in Uganda, Rwanda and Tanzania, as well as in the diaspora. From the first beginnings, the khat cash crop enterprise has been under diverse systems of state centred control, most of them ending in failure. At present, there is a vigorous and sustainable base of khat producers, supplying a growing global market.

## 2.2 Challenges

The dramatic changes following from the commodification of khat for producers and consumers alike have thrown up challenges in the field of public health and public safety that need to be carefully examined. In African cities as well as in the diaspora, khat consumption is rarely subject to customary restrictions. It is readily available from numerous outlets, with the only barrier to consumption being the purchase price. There has therefore been a shift from a culturally integrated and moderate level of khat use, to an individualistic, hedonistic pattern. As khat is both psychoactive and possibly habit forming, this is potentially risky for the user, his or her family and the wider community. There are a range of medical conditions that have been associated with khat use, summarised by Salam and Croucher (2006):

*Table 1. Reported and suggested adverse effects of khat in man*

Cardiovascular system	tachycardia, palpitations, hypertension, arrhythmias, vasoconstriction, myocardial infarction, cerebral haemorrhage, pulmonary oedema
Respiratory system	bronchitis
Gastro-intestinal system	dry mouth, polydipsia, dental caries, periodontal disease, chronic gastritis, constipation, haemorrhoids, paralytic ileus, weight loss, duodenal ulcer, upper gastro-intestinal malignancy
Hepatobiliary system	fibrosis, cirrhosis
Genito-urinary system	urinary retention, spermatorrhoea, spermatozoa malformations, impotence, libido change
Obstetric effects	low birth weight, stillbirths, impaired lactation
Metabolic and endocrine effects	hyperthermia, perspiration, hyperglycaemia
Ocular effects	blurred vision, mydriasis
Central nervous system	dizziness, impaired cognitive functioning, fine tremor, insomnia, headaches
Psychiatric effects	lethargy, irritability, anorexia, psychotic reactions, depressive reactions, hypnagogic hallucinations
Ref	

At the same time, the actual causal relations between khat use and any of the above conditions remains to be proven. What can be concluded,, at this moment, is that there is a correlation between some of these conditions and khat use, but there are a number of important qualifications.

- (i) The existing data fail to differentiate between moderate and excessive levels of use; some of the incidence of, for example, hypertension, is based on samples of very heavy, long term khat users, who are not representative of typical khat use
- (ii) The causal agent for many of the health risks like bronchitis and dental caries is not khat but the attendant consumption of cigarettes and sugary drinks, often in large quantities
- (iii) The risks of khat use are exacerbated by poor hygiene and self neglect among users.

The strength of the case for a suppression of khat use is therefore based on reported mental disorders, including psychotic reactions with an inherent risk of anti social behaviour, violence and self harm. Yet, this argument is also based on a combination of case study reports, anecdotal observations and by drawing parallels between khat and the aetiological significance of other illicit substances, particularly amphetamine. There is a similarity in the structure of cathine and cathinone, the two most powerful known psychoactive alkaloids in khat, and in amphetamine.

A recent review of the existing literature on khat-induced mental health disorders therefore concluded that while some studies suggested a link between khat use and psychiatric morbidity, others indicated that there was no relationship at all (Warfa et.al, 2007). The review warned against overemphasizing the significance of case reports, and that the existing evidence indicated khat use as a co-factor in a range of conditions among a population exposed to severe psychological stress. It is therefore important to retain a sense of proportion of the health risks associated with khat use and to tailor the responses to any health risks. One of the key issues concerning the assessment of the harm caused by khat lies in the level of consumption at each sitting,

the frequency of use, the conditions in which khat is being chewed and the other measures of self protection applied by the user.

Emphasis should fall on the regulation of khat outlets. In the UK and other developed countries regulation should cover the opening hours, the provision of hygienic conditions allowing for good ventilation, provision for the washing of khat leaves and the availability of water and food. The key lies in the integration of khat use into the pattern of work and play, to prevent the slide into dysfunctional patterns of use and the subsequent anti social behaviour. It is, however, the fear of criminal and even violent behaviour by intoxicated chewers, the growth of drug gangs, organised crime groups and turf wars that has alarmed bystanders and residents all along the khat frontier. These anxieties have been recorded in communities from the Swahili coast of Kenya (Anderson et.al, 2007), to Streatham in London (Klein, 2008), and are usually a response to unfolding social processes in which khat is believed to play a part. Often the arguments are repeated across diverse communities, with no conscious reference to one another. What is important, however, is to explore the similarities in the way in which khat is positioned as a causal factor, with little evidence and often confused understanding of what it does and even what it is. The example from Uganda throws some of these dilemmas into relief.

### 2.3 Case study Policy Debate in Uganda

A new drug law has been presented to the Ugandan Parliament proposing to ban khat. This bill has been in the making for over 10 years, during which time the production and consumption of khat across Uganda has greatly increased, particularly amongst male youth. The discussion is particularly acute in Kabarole District in the Western region, one of the main growing areas. Police, local government officials and civil society groups have united in strongly their negative views about the effects of khat because, as they see it:

- It is a dangerous drug used by criminals who want to stay awake at night to commit robberies

- Khat consumers are prone to commit rape and defilement (a catch-all term covering sex with underage girls and actual paedophilia) because of the effects of chewing
- Khat makes people violent
- It is used by 'idlers' and causes people to be non-productive
- Khat is mixed with cannabis and waragi (distilled liquor) with dangerous results in terms of behaviour – violence, crime and uncontrolled sex
- Taxi and motorbike taxi drivers mix alcohol and khat and thus are very dangerous drivers

In the absence of a law on khat, the plant is treated as if it is already illegal and many people believe it to be a banned substance (Beckerleg, 2006). Policemen talk about the lack of a law and, in the next breath, about regularly and routinely arresting khat traders and consumers. The fall back position of arrest for being 'idle and disorderly' is widely used across the country, although not in Kampala. According to consumers and traders, cases actually reaching court will be changed to vague charges of 'drug abuse' or of cannabis possession. It is the word of the police against the defendant. One consumer in Mbarara had been forced to pay a fine as a result of such a case. A small scale trader who harvested and sold khat from the countryside around the small town of Rukungiri in south-west Uganda, served six months in prison because the police said he was selling cannabis.

Wholesale traders buying supplies in Kabarole District and transporting khat supplies by the sack-load south to the towns of Kasese and Mbarara complain about police harassment. The police routinely accuse them of transporting cannabis concealed in khat consignments and then demand payment of 100,000 Shillings (about US\$55) for 'tea' or phone 'airtime', the usual euphemisms for bribes. There appears to be no motive for khat traders to combine their business with cannabis trafficking, as khat commands better prices and is, technically at least, a legal business. Cannabis, on the other hand is much cheaper than khat, and presumably a less profitable business proposition. However, the extent that police officers actually believe that the khat and cannabis trades are combined is unclear. There is some evidence, from reports of khat traders themselves, that cannabis and pills such as Valium are being sold at some khat retail venues. Hence, the police have some genuine grounds for suspecting that the

technically legal khat trade is merged with illicit drug trafficking. On the other hand, the claim that khat supplies are mixed with cannabis provides a convenient pretext for the police to harass khat traders and extract bribes from them.

The District of Bushenyi in Western Uganda banned the trade and consumption of khat in 2007. Since then khat traders coming from from the Kabarole plantations passing through Bushenyi en route to the large town of Mbarara are sometimes stopped at roadblocks and forced to pay off the police. There is no evidence that the ban has succeeded in reducing the supply of khat to the district, with new rural retailers and consumers emerging along the main road in last few months. Even some of the police officers have dismissed the idea of a ban as unworkable.

As the discussion over the ban gathers apace, it has been suggested to uproot the extensive plantations in the northern part of the district. Police officers worry about the force of any by-law and possible challenges in court, as the national law must take precedence over any by-law. Farmers, alarmed by the prospect of eradication of their livelihood have meanwhile organised themselves into the Hakibale Busoro Kicwanba Mairungi [Khat] Association, to negotiate with district officials. They have also lobbied their MP and hired a lawyer to defend their interests, but also have to contend with the pressure from the medical profession and NGOs.

In 2006 the Ministry of Health psychiatric hospital at Butabika in Kampala opened a unit for the treatment of alcohol and drug disorders. Most patients seek help for alcohol or multi-substance problems, and according to senior staff there no one has presented so far with khat use alone, or for khat induced psychosis. This confirms findings from the mental health units at Mbarara and Fort Portal in western Uganda, where admissions for drug induced psychosis are usually young men after mixing alcohol and cannabis.

In spite of the lack of empirical evidence, however, most health workers worry about khat, asking questions like, ‘how long can people chew khat for before becoming mad?’, and would like to see it banned. These fears are echoed by NGO staff working with homeless people, many of whom are mentally ill. It is widely believed that drug

use is the major causal factor. This puts some of the NGO workers ill at ease, saying, ‘They could burn our houses. They could kill us.’

Officials seem unaware of regional policies on khat, even in neighbouring countries such as Kenya and Tanzania, not to speak of the UK. Few advocates of the ban, if any, have reviewed any studies on khat and its pharmacological or social effects. Even the evident failure of the ban on cannabis, which remains readily available and is widely used, does not modify these positions. What these attitudes do signal, however, is a growing alarm over a range of social phenomenon, including the assertions of young people, the lack of formal sector income opportunities, the fragmentation of social welfare institutions, the rise in crime and widespread corruption.

#### 2.4 Opportunities

Many of the fears are ‘imposed’ on khat and khat use, without providing more than speculative and anecdotal evidence of a causal relationship. The danger is that an emotional response, or arguably, a moral panic, could trigger responses which would fail to address any of the underlying social ills, but crack down on the khat sector. What this fails to recognise is the benefits that have been reaped by rural producers, the processing industry, distributors and the revenue service alike. Khat is first and foremost a smallholder cash crop, that has helped many East African families survive under severe conditions.

#### 2.5 Case study – khat production in Ethiopia

The development of the Ethiopian khat industry owes much to the improvements in transport and the fragmentation of rural land holdings resulting from feudalism, post-revolutionary land reform, demographic pressures, and the sedentarization of pastoralists. Successive governments have deliberately neglected the sector, providing no extension services (fertiliser, pesticides, etc.), tax incentives or export subsidies, only to see khat emerge as the second largest foreign exchange earner worth some US\$413 million between 1990/91 and 2003/04. Khat production has constituted an average of 1.7% of GDP in Ethiopia during the 1990s with public health accounting

for some 1.2 %, meaning that “khat revenues more than finance national expenditure on health.” (Anderson et.al, 2007)

It is apparent that many farmers have switched to khat, in part because of the dramatic fluctuation in the price for coffee, the traditional cash export crop of Ethiopia, “coffee farmers made a conscious decision to increase their khat plantations rather than continue to plant a cash crop that got diseased, fetched low prices and whose marketing was monopolised by the government” (Gebissa, 2004: 153-4). Another factor is the very success of the government’s agriculture-based development strategy, which by raising agricultural productivity through has led to fall in the price of food crops. At the same time khat prices were moving upwards, on the back of local, regional and international demand.

In addition to price stability, khat is attractive to farmers because it can be planted all year ground, in a variety of soils and usually on terraced hillsides and marginal land. In Ethiopia it is pest resistant , requires minimal inputs, produces a range of secondary benefits (wood for fuel and construction, medicine), and does not compete with food crops. “Khat cultivation is also part of risk spreading and diversification strategy. Net return per acre from khat is greater than that from coffee. It only takes 13 per cent of cultivated land, and it accounts 30-50 per cent of the total cash income per year or 40-60 per cent of the total value of home-produced food used by the farm household” (Anderson et.al, 2007)

### 3. Discussion – towards an integrated model of khat regulation

At this point in time the vegetable matter of khat remains legal under international conventions, even though the synthesized forms of the active ingredients, cathine and cathinone, are on the WHO list of scheduled substances. A number of countries have prohibited khat, but it is still legal in key producers states and some of the most important export markets. This diversity of legal arrangements provides an opportunity to study and compare which mode of regulation is best suited for addressing the problems associated with khat use. It allows for a risk assessment which moves beyond the pharmacological relationship of khat and users, to include

all stakeholders – farmers, distributors and users, in the different locales of production and consumption. It can also draw on the experiences of different countries in conducting risk assessments that are not over determined by the propensity of control organs towards prohibiting production, distribution and use.

In addition to allowing for a comparative approach, the current situation allows for the inclusion of a wide range of stakeholders who have hitherto been systematically excluded from the deliberation of drug control. Arguably, this was a sensible precaution in the early 20<sup>th</sup> century as the main players were not the actual poppy farmers of Marwa in India, but the large exporters and trading houses shipping opium to China. Allowing the opium trading interests a voice in drug control would have been akin to asking the large tobacco companies for their view on the workplace smoking ban. With khat, however, there are no multinational companies involved in distribution and trade, and the production is in the hands of smallholders, not large plantations. As khat remains legal, the work is carried out by farmers who own the land and enjoy the profit, without forced recruitment by armed gangs as we know from Colombian coca production, or debt slavery as in Afghani poppy cultivation. The position of the farmers in Kenya, Ethiopia and Yemen, as well as the new khat producers like Uganda, has to be included in any deliberation of changes to its legal status. Any revision of current arrangements should at the very least consider the impact it would have on rural livelihoods in these fragile economies.

Khat use is conventionally only described in terms of costs – health, family cohesion, domestic budget and so on (Borelli and Perali (2004). There is no concession concerning the sociability, relaxation and recreation that all have tangible quality of life benefits for khat consumers. Khat provides an affordable pleasure to a wide range of people in Africa's burgeoning urban spaces. It is locally produced, fresh and far less debilitating than alternative substances, particularly alcohol.

In these fast African growing cities, khat use provides a point of contact across ethnic lines and religious divisions, facilitating contact and the development of a national identity. It is significant in this context, that khat has been embraced by users among groups such as Orthodox Ethiopians, who in the past rejected khat as the symbol of a religious enemy (Gebissa, 2008). The very novelty of khat use in many of these

settings, particularly in Somalia, is replete with challenges that require social regulation and public debate. It is first of all important to recognise that the relative innocence of Somali users in the impact and strength of khat is a contributory factor in some of the problems encountered (Klein, 2007). This requires a constructive and guiding intervention by the authorities to foster a ‘responsible’ attitude. In this vein it should be recognised that the actual health consequences of khat are far less harmful than those of tobacco and many of the prescription medicines available in Africa, and the actual impact is far less debilitating than alcohol or hallucinogens.

The regulatory framework should take full advantage of the revenue raising opportunities arising from this cash crop. Ethiopia, one of the poorest and most aid dependent countries in Africa, derives a large proportion of its domestic revenue from khat. The regional government of the Harare region, for example derives some 40% of its income from khat, while in Djibouti khat taxes reached DJF 3.5 billion by 2002 making up 16 per cent of total tax revenue, the equivalent of 3.4 per cent of GDP against a health expenditure of 3.5 % of GDP.

Total Tax Revenue and Revenue from Khat, in Djibouti Franc

Year	Total Tax Revenue	Revenue from Khat Tax	Khat Tax as a % of Total Tax
1970-1979	3,232,000,000	285,000,000	8.8
1980-1989	10,907,000,000	1,107,000,000	10.1
1990	11,257,000,000	1,522,000,000	13.5
2001	20,862,000,000	3,321,684,239	15.9
2002	22,164,000,000	3,540,140,953	16.0
2003	22,928,000,000	3,519,417,465	15.3

Source: IMF and Ministry of Finance, Djibouti (various reports)

The use of khat has moved from traditional contexts into a new, urban and commercial environment, where custom no longer provides protection against the adverse consequences of problematic use. It should also be recognised that there is an inherent need for recreational facilities in the new urban centres along the khat frontier, where khat can play a constructive part in the evolution of a new culture of consumption. Khat outlets are an important pillar of the urban informal sector, while khat production is:

“a factor of the lack of alternative livelihoods in the growing areas, and reflects the unsustainability of crops that have previously supported the rural economy. The discussion on khat, therefore, needs to place the industry within a development framework.” (Anderson et.al,2007)

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#### Conflict of interest

There is no conflict of interest

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*Table 1. Reported and suggested adverse effects of khat in man*

Cardiovascular system	tachycardia, palpitations, hypertension, arrhythmias, vasoconstriction, myocardial infarction, cerebral haemorrhage, pulmonary oedema
Respiratory system	bronchitis
Gastro-intestinal system	dry mouth, polydipsia, dental caries, periodontal disease, chronic gastritis, constipation, haemorrhoids, paralytic ileus, weight loss, duodenal ulcer, upper gastro-intestinal malignancy
Hepatobiliary system	fibrosis, cirrhosis
Genito-urinary system	urinary retention, spermatorrhoea, spermatozoa malformations, impotence, libido change
Obstetric effects	low birth weight, stillbirths, impaired lactation
Metabolic and endocrine effects	hyperthermia, perspiration, hyperglycaemia
Ocular effects	blurred vision, mydriasis
Central nervous system	dizziness, impaired cognitive functioning, fine tremor, insomnia, headaches
Psychiatric effects	lethargy, irritability, anorexia, psychotic reactions, depressive reactions, hypnagogic hallucinations

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