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## Kratom in Thailand

### *Decriminalisation and Community Control?*

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In early 2010, the Thai Office of the Narcotics Control Board (ONCB) developed a policy proposal to review different aspects of the criminal justice process in relation to drug cases. The possibility of decriminalising the indigenous psychoactive plant, *kratom*, was included in the ONCB's proposal for consideration by the Ministry of Justice.

This briefing paper provides an overview of issues related to kratom legislation and policy in Thailand as well as a set of conclusions and recommendations to contribute to a reassessment of the current ban on kratom in Thailand and the region. The briefing is based on desk research of existing documentation as well as field research carried out in October and November 2010 in Bangkok, Surat Thani, Trang, Satun, Songkhla, and Hat Yai in Thailand.

Kratom (*Mitragynia speciosa korth*) is a tropical deciduous tree that is part of the *Rubiaceae* family (same family as coffee). Indigenous to Southeast Asia, the tree can reach up to 15 metres or more and produces big broad leaves that have long been used for medicinal and recreational purposes. In Thailand, the kratom tree can mostly be found in the south of the country.

Kratom use has been reported to act on the central nervous system, both as a stimulant and a depressant, depending on the level of dosage. Kratom leaves contain over 25 alkaloids, among which the alkaloid mitragyni-



#### CONCLUSIONS AND RECOMMENDATIONS

- Kratom is an integral part of southern Thai culture. Criminalisation of kratom is unnecessary and counter-productive given decades of unproblematic use.
- In the absence of health and social harms, decriminalise use, possession and production of kratom and empower community leaders to control production and manage consumption.
- Revise thresholds for sentencing in regards to boiling 4x100, which should not be considered as the production of a new drug.
- Strengthen and reinforce national pharmaceutical control systems including compliance with prescription laws and policies at pharmacy level.
- Facilitate unhindered access to kratom for scientific research and explore medicinal properties, especially its potential as a substitution drug to manage alcohol and drug dependence.
- Inform and build the capacity of Thai media and the general population to present balanced evidence that does not stigmatize people who use kratom and 4x100.



ne is the most important. Other alkaloids include mitraphylline, speciogynine and 7-hydroxymitragynine etc..<sup>2</sup> Whereas higher concentrations of mitragynine are attributed to act as a stimulant, 7-hydroxymitragynine is the most significant alkaloid for sedation with more potent analgesic activity than that of morphine.<sup>3</sup>

Kratom has been traditionally chewed by people in Thailand, especially on the southern peninsula, as well as in other countries in Southeast Asia. In southern Thailand, traditional kratom use is not perceived as 'drug use' and does not lead to stigmatisation or discrimination of users. Kratom is generally part of a way of life in the south, closely embedded in traditions and customs such as local ceremonies, traditional cultural performances<sup>4</sup> and teashops, as well as in agricultural and manual labor in the context of rubber plantations and seafaring. People from the southern provinces, especially in Pattani, Yala and Narathiwat pro-

vinces, are predominantly Muslim and are prohibited from drinking alcohol based on the dictates of Islamic beliefs. With strict controls on alcohol, kratom is an alternative substitute, not specifically prohibited by the clergy, but regulated by the state.

### TRADITIONAL OR TRENDY – PATTERNS OF USE

Recent research confirms that kratom is popular in Thailand, especially in the southern provinces and around Bangkok. Across the southern provinces, the three most commonly used drugs are kratom, yaba (methamphetamine) and cannabis. The 2008 *National Household Survey on the Status of Drug and Substance Use* shows an increase in the number of people who reported use of kratom compared to 2007 (1,078,152 in 2008 in comparison to 1,018,304 a year before).

Available data shows two distinct profiles and patterns of kratom use. On the one hand, traditional use involves chewing fresh leaves or swallowing powdered fresh leaves. Traditionally, kratom chewers start using kratom at 25 years of age or later and many continue chewing all their lives. On average, chewers will eat between 10 and 60 leaves daily though some have been reported to eat more. Kratom is chewed in teashops, at certain ceremonies (though this practice is fading) and other informal social events, as well as while engaging in manual labor and in the comfort of one's own home. Eating kratom is a tradition that has been practiced for centuries in southern Thailand and up to 70% of the male population in some districts use kratom daily. Indeed, many people in southern Thailand consider chewing kratom similar to drinking coffee.

On the other hand, recent drug use trends in Thailand indicate that a second pattern is emerging. Approximately five years ago, young people from teenagers to people in their thirties started boiling kratom leaves (15 to 100 leaves at a time) to produce a tea



Kratom leaves (Photo: Amaralak Khamhong)

as a base for a cocktail coined 4x100 (สี่กวนร้อย - pronounced: *sii koon roi*). The basic 4x100 cocktail includes the kratom tea, cough syrup, Coca-Cola, and ice cubes. The cocktail is generally prepared twice or more per day, depending on availability of leaves and money.<sup>5</sup> Young people feel the need to drink 4x100 in hidden settings due to fears of arrest by law enforcement. In one district, 21 of 39 villages reported the presence of 4x100 users in their community. Compared to traditional use, 4x100 users are subject to some measure of community discrimination, though community perceptions are far milder than for yaba or heroin users.

Most recently, the discrimination has come especially from increasingly conservative elements within both the Buddhist and Muslim communities paralleled by an increasing volume of media attention related to supposed cocktail additives such as benzodiazepines, powder from fluorescent tubes, powdered mosquito coils, road paint, pesticides, ashes from dead bodies, and other substances found in the local environment to 'enhance' the effect of the cock-

tail. Armed with such information, community members living in the southern provinces are increasingly worried about the rapid increase in 4x100 use in the past five years among young people. This research, however, has found limited evidence of the use of these dangerous and unconventional additives.

In both cases, kratom users are predominantly male – very few women currently use kratom, especially for recreational purposes. Women in southern Thailand chew betel nut<sup>6</sup> instead, which remains outside legislative controls. Betel nut also has psychoactive properties and has been widely used in southern Thailand and the rest of Southeast Asia for thousands of years, though recently mostly by women rather than men. The International Agency for Research on Cancer (IARC) regards the chewing of betel nut as a known human carcinogen, yet betel nut remains legal and uncontrolled by legislation or policy in Thailand, owing to its cultural heritage. Kratom, though less harmful and just as important in the local culture as the chewing of betel nut, is criminalised. Thai Natio-

**Table 1: National Data on Cases, Arrests, and Seizures of Kratom in Thailand**

YEAR	2005	2006	2007	2008	2009
# CASES	1,100	2,494	3,702	3,778	5,485
# ARRESTS	1,251	3,241	5,372	5,083	7,388
QUANTITY (kg)	1,743	8,544	42,268	12,716	20,877

nal Household Surveys indicate that approximately 10% of kratom users are women.<sup>7</sup>

### **CRIMINAL OR TOLERATED – LEGISLATION AND ENFORCEMENT**

Despite the fact that the international drug conventions do not compel UN member states to control or criminalise kratom use, possession, production, distribution and trading, an increasing number of countries have seen fit to do so in part because of its potential negative health effects (see more on health issues related to kratom in the next section). In 2004, both mitragynine and kratom were placed under Schedule 9 (the most restrictive level) of the Australian National Drugs and Poisons Schedule.<sup>8</sup> Though not illegal in the US, the Drug Enforcement Administration (DEA) has recently added kratom to its list of drugs and chemicals of concern. Wikipedia and erowid websites report that some European countries are also starting to deploy legislation to control the widespread distribution of kratom through the Internet.

In Southeast Asia, kratom is also a controlled substance: in Malaysia under the Poisons Act since 2003;<sup>9</sup> and in Burma/Myanmar<sup>10</sup> under the 1993 Narcotics Drug and Psychotropic Substance Law (section 30). In Thailand, kratom was first scheduled for control in 1943 under the Kratom Act. At the time, the government was levying taxes from users and shops involved in the opium trade. Because of the increasing opium costs, many users switched to kratom to manage their withdrawal symptoms. However, the launch of the Greater East

Asia War in 1942 and declining revenues from the opium trade pushed the Thai government into action to curb and suppress competition in the opium market by making kratom illegal.

In the words of Police Major General Pin Amornwisaisoradej, a member of the House of Representatives from Lampang in a special meeting on 7 January 1943: “Taxes for opium are high while kratom is currently not being taxed. With the increase of those taxes, people are starting to use kratom instead and this has had a visible impact on our government’s income.”<sup>11</sup>

After World War II, the Kratom Act was never enforced with much vigour and, for many years, kratom trees could be grown with moderation and their leaves chewed openly. In 1979, kratom was included in the Thai Narcotics Act, under Schedule 5 (the least restrictive and punitive level) along with cannabis and mushrooms, effectively reducing sentences and punishments from those intended by the Kratom Act.

Over the past ten years, the application of laws and policies concerning kratom control has become increasingly rigid. At the turn of the 21<sup>st</sup> century, there was an increase in the number of arrests and seizures related to kratom. Then, in 2003, kratom seizures and arrests soared in southern Thailand, coinciding with the government’s bloody war on drugs campaign implemented through repressive and far-reaching law enforcement efforts across the country. Shortly thereafter, official statistics revealed a new surge in control efforts, at the time

when 4x100 started being used in southern Thailand.

Authorities became increasingly concerned when various media started reporting the inclusion of strange substances such as powdered mosquito coils in this dubious new cocktail being used by young people. With the stated intent of protecting young people from the harms such a cocktail could have on their health, authorities have been regularly directed to eradicate kratom trees wherever they grow,<sup>12</sup> set up check points and actively search for kratom and 4x100 users in targeted communities.

This emerging pattern of kratom policing is confirmed by data on arrests, judicial cases and seizures in Thailand, as presented in Table 1.<sup>13</sup> Almost three quarters of all kratom seized in 2009 in Thailand was found in the southern provinces (14,829 kg out of a national total of 20,877 kg). In addition, the highest number of arrests for kratom related crimes took place in the southern provinces (6,112 persons out of a national total of 7,388). Comparatively, the highest number of arrests both for cannabis (5,372 people out of a national total of 14,404), and heroin (478 people out of a national total of 763) have also been recorded in the southern provinces, whereas the southern provinces are home to the lowest national

numbers of arrests for yaba related crimes (9,724 persons out of a national total of 131,950). As a final yardstick, 111 people were arrested by authorities for opium plants while seizures accounted for 40,662 kg in 2009.

Official legislation includes severe punishments for kratom use, possession, distribution and production, including provisions for both incarceration and fines (see Table 2), although prison sentences are rarely handed out in practice. In that respect, there has been significant leeway and flexibility in the application of laws and policies regarding kratom, especially in southern Thailand, up until the beginning of the decade. However, the emergence of 4x100 has motivated stronger fines and punishments, especially for 4x100 users.

Across Surat Thani, Trang, Satun and Songkhla provinces, sentencing has been applied generally fairly and within policy boundaries, though community leaders have noted some exceptions. In Satun, a young man was arrested for boiling 4x100 based solely on the evidence of possession of a boiling pot and consequently fined THB 15,000 (USD 463) and his motorcycle was confiscated. In Trang, a young man was fined THB 150,000 (USD 4,626) for boiling 4x100 on the basis of evidence that

<b>Kratom-related Crime</b>	<b>Punishment</b>
Production, Import and Export	Incarceration for no more than two years; and a fine of no more than 200,000 Thai Baht (THB) (USD 6,168)
Selling, Possession for selling	- For quantities below 10 kg: Incarceration for no more than two years; and a fine of no more than THB 40,000 (USD 1,234); or both - For quantities of 10 kg and above: Incarceration for no more than two years and a fine of no more than THB 200,000 (USD 6,168)
Possession	Incarceration for no more than one year and a fine of no more than THB 20,000 (USD 617)
Use	Incarceration for no more than one year and a fine of no more than THB 2,000 (USD 62)

## Kratom in the Media

A summary media analysis of newspaper articles published in the south indicates that the media draws a strong correlation between 4x100 users and networks of insurgents working to destabilise the government in order to separate from Thailand. However, those reports are unconfirmed and usually generated by law enforcement. They are then related to the public by journalists and rarely include the voice or perspective of those suspected or arrested for 4x100-related crimes, much less those suspected or arrested for insurgency.

An independent consultant noted that “there really isn’t much of a correlation between 4x100 and insurgency in the deep south. It seems like a very small minority of insurgents use drugs. Insurgent recruiters demand that recruits not use drugs – the vast majority seem to obey. When they do use drugs, the recruiters try to get them to stop.”

Similarly, the hundreds of articles regarding the mixing of substances such as powdered mosquito coils, powder from fluorescent light bulbs, road paint and pesticides are perceived by the large majority of young people who use drugs, particularly 4x100 users, as an exaggeration to demonise young people, creating a pretext for warrants to search and arrest potential insurgents who may be using 4x100.

The interviews conducted by TNI indicate that the inclusion of household substances is extremely rare and that media reports could be overplaying the need for repressive measures to curb use of 4x100 and other cocktail additives. It is easy to overestimate the scope of this issue in an environment where the rare atypical case has become the focus of attention, thereby distorting the real value and risks associated with the plant.

he was involved in the production of drugs, a sentence similar to those meted out for operating methamphetamine laboratories. Other reports from southern provinces highlight similar cases where the laws and policies regarding kratom are applied inconsistently.

The increased sentencing targeting 4x100 users has quite obviously been implemented to deter demand, as several ONCB reports indicate. However, demand reduction for kratom in Thailand has evolved in parallel with important supply reduction efforts. Those have been implemented as eradication campaigns across the southern provinces, including community patrols to find and eliminate trees grown in the community as well as those growing wild.

Over the past five years, several such eradication campaigns have led to a large proportion of trees being cut down in the

south, either by law enforcement officers or community groups themselves (voluntarily or not). These efforts have been reportedly incredibly successful in the three southern-most provinces of Naratiwat, Pattani and Yala where few trees are even left in the wild. By comparison, in Satun, Surat Thani and Trang, local authorities apply a degree of flexibility, informally tolerating the presence of a few trees in the community, up to a single tree per household.

Because of this uneven application of laws and policies, many people who use drugs, including kratom, note that corruption amongst law enforcement officers is rampant and that bribes can be offered to avoid entering the judicial system and prosecution altogether. After arrest for kratom-related crimes, access to drug treatment is not possible given that the Narcotic Addict Rehabilitation Act 2002 does not recognize kratom dependence as requiring treatment.



The basic 4x100 cocktail includes kratom tea, cough syrup, Coca-Cola, and ice cubes (Photo: Amaralak Khamhong)

In the end, the fact that kratom is a scheduled substance in Thailand requires law enforcement agencies to intervene to control its use, possession, production, distribution and trade. Despite personal and professional preferences, top-level pressure from government authorities forces the police and community leaders to act. However, many law enforcement officers, including ONCB's national and regional offices, have clearly expressed that enforcement of kratom laws and policies is not a priority at the present time.

These debated demand and supply reduction efforts have therefore caused divisions between law enforcement authorities and communities across southern Thailand. In the words of a senior law enforcement officer:

“With kratom being illegal, we have to intervene. That means giving people fines and cutting down trees in their communities. Most of us don't really want to do this given that there are more important drug crimes to attend to. So we spend precious time dealing with kratom

and, in return, we lose face with the community because we invaded their space, took their trees and money from their families.”

In the wake of prohibition efforts and the consequent reduction in supply of kratom leaves in southern Thailand, a growing black market for kratom distribution has emerged. The almost complete eradication of kratom trees and the continuing demand for kratom leaves from the three southernmost provinces has meant that leaves from further north in Thailand and from Malaysia are being trafficked across provincial and national borders.

In fact, prices for kratom leaves vary, with very high prices near the southern tip of the country (THB 8-10 [USD 0.25-0.31]/ leaf in Songkhla) and decreasing northward (THB 0.5 [USD 0.02]/ leaf in Surat Thani). Reports indicate that in Bangkok, each leaf costs THB 3 [USD 0.09]. In Satun and Trang, a kilo of leaves costs THB 400-800 [USD 12.33-24.66] and THB 1,500 [USD 46.26] respectively. In Indonesia, kratom is legally cultivated for export in large planta-



Felled kratom tree (Photo: Pascal Tanguay )

tions and sold, often through Internet pharmacies, to users across the world.

Ultimately, efforts to control kratom use and production over the past 10 years have had limited positive consequences. Traditional users continue to chew regular doses of kratom, although they have often had to reduce their intake to ensure sustainable access to fresh leaves given the reduction in the number of trees. The traditional chewers often own the land on which the trees grow, and are therefore usually targeted by eradication campaigns.

By contrast, younger 4x100 users sometimes have to resort to stealing from trees in the community to ensure their own supply, leading traditional chewers to protect their trees with barbed wire and other makeshift anti-theft devices and strategies. In addition, efforts to reduce use and production of 4x100 has almost exclusively

focused on kratom control instead of attempting to develop systems to regulate and control licit pharmaceuticals such as cough syrup and benzodiazepines, the most harmful ingredients of 4x100.

## **DRUG OR MEDICINE - PUBLIC HEALTH IMPLICATIONS**

In spite of the fact that kratom remains illegal in Thailand, a large proportion of the local communities throughout the southern peninsula continue to perceive the leaves as a traditional medicine. Indeed, many Internet pharmacies and traditional medicine clinics all over the world are making kratom powders and extracts<sup>14</sup> available for various medical conditions.

A large proportion of kratom leaves are exported from Indonesia and Southeast Asia to North America and Europe for processing and re-distribution. According to the DEA, the wide availability of kratom on the Internet suggests that demand is extensive.<sup>15</sup> However, it is fair to say that most governments have not yet developed the systems to monitor national kratom use and there are significant gaps in epidemiological data on kratom use outside indigenous areas.

There is a general consensus among community members and leaders, academics and policymakers, as well as public health and law enforcement representatives in southern Thailand that kratom use and dependence carry little, if any, health risks. In general, people reported that kratom (use and dependence) is less harmful than heroin, yaba, cannabis and even alcohol.

Many studies report that the effect of kratom on the body reduces pain from withdrawal symptoms and helps manage detoxification.<sup>16</sup> Interviews with community members and leaders indicated that many people have been using kratom to wean themselves off heroin, yaba and even alco-



Kratom tree protected with barbed wire (Photo: Amaralak Khamhong)

hol and tobacco dependence. Indeed, 60 years ago, when kratom became a controlled substance in Thailand, its potential for management of opiate dependence had been widely recognised.

A large proportion of people who are actively using drugs or recovering from substance dependence currently chew kratom and/or drink 4x100. This has led to the establishment of a third pattern of kratom use in Thailand. A high number of clients accessing harm reduction services operated by Population Services International (PSI), Raks Thai, and the Thai Drug Users' Network (TDN) in southern Thailand, currently chew kratom and drink 4x100. In many cases, they report switching to kratom to manage their dependence to other drugs.

Two testimonies from recovering drug users lend weight to these reports:

“I had been using heroin for seven years and wanted to quit. I had tried methadone before but it was difficult to access regularly. But I knew that I could use kratom to manage my withdrawal symptoms. So I chewed kratom for about one month, many leaves every day when the pain would come, and beat the heroin! No methadone, no medicines, just the kratom! Of course, methadone would have been better but kratom really helped a lot!”

“I was using heroin for about seven years. I knew that I needed to quit because I was hurting people around me and getting in trouble with the police quite often. I tried so many times to quit – I tried methadone at least 12 times and twice checked myself into a drug treatment centre run by the military, but nothing worked. Then I moved down South and started to chew kratom and was able to stop using heroin. Heroin users in this area all know that kratom is a great way to deal with drug dependence.”

Kratom is attracting increasing attention as a natural alternative to medically supervised opioid substitution therapy (OST) because of its capacity to attenuate potentially severe withdrawal symptoms.<sup>17</sup>

Pharmacologically, mitragynine, binds to opioid receptors, but has additional receptor affinities that might increase its effectiveness in mitigating withdrawal symptoms. The Prince of Songkhla University is currently involved in further research into the pharmacology of kratom alkaloids as well as the development of kratom dependence and withdrawal measurement scales and other kratom related research.

As a medicinal plant, kratom has been reported to have several potential applications. Beyond its stimulating effects that are appreciated in the context of manual labor, kratom acts on the digestive system by reducing appetite, and controlling diarrhea



Kratom tree (Photo: Amaralak Khamhong)

and stomach cramps. It has also been reported on several occasions by community members to have an important impact on diabetes.

One community member relates how she came to use kratom:

“I was recently diagnosed with diabetes. When the doctor informed me, he recommended I chew on a few kratom leaves or boil the leaves and drink the tea. I followed the doctor’s recommendations and I have not been taking any other medication to control the diabetes. I’m very healthy at the moment.”

Kratom’s potential as a local medicine is attracting increasing attention. Whether in the context of diabetes, gastro-intestinal or dependence management, additional research into developing herbal medicines for market purposes could create new

employment and revenue opportunities for the national and provincial governments. An interview with a respondent from Prince of Songkhla University revealed that a group of Japanese researchers is in process of developing kratom-based medicines and accompanying patents, suggesting that clinical research into kratom may be benefiting people outside Thailand.

The criminalisation of kratom has created critical barriers for research. Although a procedure is in place within the ONCB for researchers to have access to kratom despite its illegality, the process is apparently so time-consuming that, by the time access is granted and kratom is obtained, the leaves have dried and lost many of their key alkaloids. It is reportedly easier to obtain yaba or heroin for research purposes than kratom.

Many academics are therefore forced to break the law to find kratom in the community or in the wild in order to generate evidence of its properties. While almost every scientific article about kratom acknowledges the dearth of evidence and information in this area, research is severely hampered by the number of eradication campaigns taking place in the south.

Although kratom seems to have interesting potential benefits for the health of users, some mild negative side effects have also been reported. Even though regular use of kratom can lead to dependence, withdrawal symptoms from cessation appear very weak with recovering users suffering mild joint pains, sweats and sleeplessness. Recovering users who were dependent on heroin and yaba compare their withdrawals from kratom as ‘annoying’ or ‘distracting’ rather than painful or debilitating.

Kratom psychosis (or overdose) has been reported haphazardly and remains a rare occurrence in the medical literature. Where such events take place, the symptoms can include convulsions, confusion, hallucinations, dizziness and headaches.<sup>18</sup> In such



Picking kratom leaves (Photo: Amaralak Khamhong)

cases, the patients had been chewing kratom daily for 10-35 years. However, there has never been a single documented lethal case of kratom overdose.<sup>19</sup>

Some anecdotal reports indicate that potential intestinal blockages can occur from repeated daily chewing of kratom. The veins of the kratom leaf are reportedly high in one type of alkaloid that reduces intestinal motility – to a point where a kratom paste can accumulate in the intestinal tract.

The negative health impacts of kratom in cocktail form have more to do with the addition of cough syrup than to kratom itself. Cough syrup<sup>20</sup> abuse and dependence have been documented in the US and other countries with long-term use leading to urinary problems, short-term memory loss and mental confusion as well as damage to the liver. The World Health Organization's Expert Committee on Drug Dependence currently plans to discuss the scheduling of

dextromethorphan, a key ingredient in the production of cough syrups, which could lead governments to be forced, under UN Conventions, to include it in national acts on controlled substances. It is also worth noting that the combination of high doses of cough syrup mixed with alcohol or other depressants can result in a dangerously slowed heart rate. In contrast, cough syrup mixed with amphetamines or cocaine can result in an equally dangerous accelerated heart rate. Certain types of cough syrups can lead to dependence with frequent use.

The addition of household products detailed earlier can also lead to serious health hazards, particularly in the case of pesticides which are recognized as outright poisons in most countries in the world, and mosquito coils which contain pyrethrum that are classified as “likely human carcinogens” and can cause headaches, dizziness, and difficulty in breathing, as well as trigger life-threatening allergic responses including heart failure and severe asthma. According to the US Environmental Protection Agency (EPA), pyrethrum is one of the leading causes of poisoning in the US.

When drinking 4x100, some youths also swallow amphetamine-type stimulant or benzodiazepine tablets. Clearly, the case for the risks of mixing 4x100 and yaba has been made above and the fact that benzodiazepines are powerful depressants extends the case for concern with regards to mixing 4x100 and other drugs.

It is clear that kratom alone, chewed or boiled, is relatively harmless despite the potential for dependence, although additional research and better documentation of clinical cases is still needed. Given the limited health risks of kratom use, its criminalisation has not been founded on the basis of health and social harms. Rather, the criminalisation of kratom was initially used as a tool for economic control at the end of the opium trade, and later as a tool for law enforcement to better access

particular population segments, whether they are young people, drug users, or insurgents.

## **OPPORTUNITIES OR CHALLENGES - LEGAL REFORM**

The intersection of media focus on the linkages between insurgents and kratom, and the emergence of 4x100 in the south of Thailand created an opportunity to revive dormant and loosely applied legislation on kratom control. However, there are significant paradoxes in the efforts deployed in Thailand to control kratom.

Despite the informal consensus in southern Thailand that kratom is relatively harmless, and that it has been used with no record of negative health or social consequences for many decades, kratom is increasingly subject to law enforcement action because it has more recently been mixed with pharmaceutical substances (cough syrup, benzodiazepines) and perhaps, occasionally, household products.

Instead of tightening control over the distribution of licit pharmaceuticals through the Ministry of Health, the responsibility to address the threat of 4x100 cocktails remains within the ONCB and is managed through legal mechanisms rather than through public health structures. Indeed, in ONCB Region 9's (Pathalung, Satun, Songkhla, Trang provinces) seizure statistics for 2010, 103 and 207 arrests were made for cough syrup and benzodiazepines respectively, compared to 21 and 132 in 2009.<sup>21</sup>

The multiple media reports that claim widespread use of toxic household substances need to be confirmed by users and additional research. The mixing of mosquito coils, fluorescent light bulbs and ashes was not confirmed by the investigation conducted by TNI. As a young 4x100 user reports: "Most of us know that adding that junk into 4x100 is not good for our health. We want to get high, not kill ourselves!"

The widespread concerns around the popularity of 4x100 have little to do with kratom, as noted above, given its relatively innocuous nature. However, repeatedly, community members and officials raised fears about the harms caused by the inclusion of dangerous household additives and the frequent use of pharmaceuticals. Despite the lack of evidence of widespread use of household substances, there are nevertheless valid concerns about easy and cheap access to licit pharmaceuticals.

Most 4x100 users reported going in and out of local pharmacies to buy cough syrup and benzodiazepines. One remarked:

"We go in a few times a day to get the cough syrup. The pharmacists know what we're going to do with the medicine but they don't care. Well, that's not entirely true. In the neighboring village, the pharmacist became wiser and increased the prices of the bottle from THB 40 to THB 80! [USD 1.23-2.46]"

Both dextromethorphan-based cough syrup and benzodiazepines are considered as dangerous drugs under the Thai Pharmaceutical Act 1977, which calls for control by pharmacists. Though cough syrup does not require a prescription, access to benzodiazepines does technically require an official medical prescription. Pharmacists distributing such medicines without proper authorization can be sentenced to up to five years in prison and a fine reaching a maximum of THB 100,000 [USD 3,085].

Along with calls to tackle increasing 4x100 use through health infrastructures and pharmacy controls, community groups have also expressed a strong interest in controlling kratom use and production at community level, without law enforcement involvement. Community leaders have repeatedly noted that it should be their responsibility to control the number of kratom trees in the community, to inform young people about the risks associated

with the repeated use of licit pharmaceuticals and to oversee kratom intake and support those who are drug dependent.

## CONCLUSIONS AND RECOMMENDATIONS

The information presented in this report shows that kratom is an integral part of southern Thai culture. Criminalization of kratom is unnecessary and counter-productive given decades of unproblematic use, especially as community groups themselves are interested and willing to play a role in the control of kratom production and consumption.

In addition, there is ample evidence to justify the further exploration of kratom's potential in drug and alcohol dependence management in both social and clinical settings. Restrictions on access to kratom for research purposes should be urgently lifted.

In the context of the ONCB proposal to decriminalise kratom, TNI's and IDPC's recommendations are as follows:

- ***Decriminalise use, possession and production of kratom:*** use and possession of kratom leaves should not be an offence under criminal law. Similarly, the law should not restrict the growing of kratom trees. In the absence of health and social harms, criminal punishment for production and possession appears disproportional. In addition, decriminalising kratom would reduce pressure on the judicial system. Instead of addressing kratom through legal structures, empower community groups and their leaders to control production and manage consumption.
- ***Revise thresholds for sentencing:*** growing a kratom tree or boiling kratom leaves can lead to serious legal implications with severe punishments. If kratom production is decriminalised, it will be important to regard boiling 4x100 not as the production

## Methodology

In November 2010, the Transnational Institute (TNI) conducted a community-based study and review of the cultivation, trade and use of kratom. A desk-based review of the literature was undertaken in parallel with a series of in depth interviews and focus-group discussions with kratom users and growers as well as key stakeholders from law enforcement, public health, and local and national government. Over 60 interviews were conducted across six sites in Thailand (Bangkok, Surat Thani, Trang, Satun, Songkhla, Hat Yai). The on-site interviews were graciously supported by PSI (Satun), Raks Thai (Surat Thani) and TDN (Trang). The involvement and contributions of PSI, Raks Thai and TDN outreach workers and clients has generated high quality data for further analysis.

The kratom study and the present report are elements of the Drug Law Reform Project operated jointly by TNI and the International Drug Policy Consortium (IDPC). This project aims to develop locally appropriate alternatives and support legislative and policy reforms on drug-related issues in the region in line with human rights and based on rational, cost-effective, and sustainable principles. The preliminary results contained in this report were presented at the *Civil Society Consultation on Drug Laws in Burma and Thailand*, held in Bangkok, Thailand, on 22-24 November 2010

of a new drug. Alternatively, if consumption and production are not decriminalised, consideration should be given to reducing sentences and fines to make the punishment more proportional with the committed offence.

- ***Strengthen and reinforce pharmaceutical control systems:*** the concerns that are being raised around 4x100 are closely linked to the consumption of licit pharmaceuticals. In that context, the Ministry of Health and

the national Food and Drug Administration should take the lead in strengthening systems to ensure that medicines are reaching those who need them for medical purposes and that pharmacists comply with prescription laws and policies controlling their profession.

- **Facilitate access to kratom leaves and trees for scientific research:** if kratom possession and production are decriminalised, this would facilitate unhindered access to such materials for further scientific investigation. However, if production and possession are not decriminalised, the government, particularly the ONCB and the Ministry of Justice, in collaboration with the Ministry of Health, should ensure that requests for kratom plant materials are expedited with little restrictions or controls.

- **Explore medicinal properties through clinical research:** with greater access to kratom plant materials for research, more attention should be paid to the potential benefits of kratom as a local medicinal drug for market exploitation. Moreover, kratom's potential for OST purposes should be urgently explored as well as in the context of dependence to other substances such as yaba, alcohol and tobacco.

- **Inform and build the capacity of Thai media and the general population to present balanced evidence:** civil society and relevant government agencies should work more closely with Thai media agencies and their staff to ensure that messages do not demonise drug users and presents evidence that is nuanced, including the perspective of people who use drugs.

- **Ensure access to evidence-based drug treatment:** all relevant stakeholders should work to promote low-threshold access to OST, including methadone, as well as voluntary drug treatments based on international guidelines that respect the human rights of people who use drugs.

## NOTES

1. At the time of the preparation of this report, Pascal Tanguay was an independent consultant affiliated with the International Drug Policy Consortium (IDPC) and the Transnational Institute (TNI) based in Thailand. Pascal is now the Harm Reduction Program Director at PSI/Thailand, based in Bangkok.

2. Chittarakarn, S. et al. 2008. "A high-performance liquid chromatographic method for determination of active substances in kratom (*Mitragyna speciosa* Korth.) cocktail".

3. Chittarakarn, S. et al. 2010. "The neuromuscular blockade produced by pure alkaloid, mitragynine and methanol extract of kratom leaves (*Mitragyna speciosa* Korth.)", in *Journal of Ethnopharmacology*, doi:10.1016/j.jep.2010.03.035.

4. Asnangkornchai, S. & Siriwong, A. (eds.) 2005. *Kratom Plant in Thai Society: Culture, Behavior, Health, Science, Laws*.

5. Chittarakarn, S. et al. 2008. "A high-performance liquid chromatographic method for determination of active substances in kratom (*Mitragyna speciosa* Korth.) cocktail"; Asnangkornchai, S. & Siriwong, A. (eds.) 2005. *Kratom Plant in Thai Society: Culture, Behavior, Health, Science, Laws*.

6. Chewing betel quid is a popular practice throughout South and Southeast Asia where approximately 600 million people use it daily as a mild stimulant. It was erroneously called "betel nut" in colonial times, but generally, betel quid consists of freshly picked leaves of the Piper betel L. vine, which are then smeared with slaked lime and wrapped around thinly sliced areca nut. Usually, a small dose of fresh tobacco is added to the sliced nut before it is chewed. For more information, see TNI. 2009. *Withdrawal Symptoms in the Golden Triangle: A Drugs Market in Disarray*.

7. Asnangkornchai, S. & Siriwong, A. (eds.) 2005. *Kratom Plant in Thai Society: Culture, Behavior, Health, Science, Laws*.

8. US Drug Enforcement Administration. 2006. *Microgram Bulletin*, 39(3): 30-35.

9. Chan, K. B. et al. 2005. "Psychoactive plant abuse: the identification of mitragynine in ketum and in ketum preparations", in *Bulletin on Narcotics*, 57(1-2): 249-251.

10. In 1989 the military government changed the official international name of the country from 'Burma' to 'Myanmar'. Using either has since become a highly politicised issue. The UN uses the latter, but it is not commonly used elsewhere in material written in English about the country. Therefore 'Burma' will be used throughout this publication. This is not meant to be a political statement.
11. Asnangkornchai, S. & Siriwong, A. (eds.) 2005. *Kratom Plant in Thai Society: Culture, Behavior, Health, Science, Laws*.
12. In Baan That Wildlife Reserve, in Manang district of Satun province, a large forest of wild kratom trees still grows unaffected by the government's eradication campaigns. In Thailand, Wildlife Preserves are a lot like National Parks and no authority outside of the Forestry Department has jurisdiction inside the park. Cutting trees in a Wildlife Preserve as well as in a national park is a criminal offence.
13. ONCB. 2009. *Narcotics Suppression Report*.
14. Although kratom extract is significantly more concentrated in various alkaloids than kratom leaves, preparation of the tea bears little resemblance to the extraction process which requires alcohol and reducing liquids to obtain a paste. There are not records of seizures of kratom extract in Thailand in the ONCB official statistics. For more information about the extraction process, consult the *Kratom Tincture Extraction Guide*, available online from [www.kratomtincture.com](http://www.kratomtincture.com). Note that many guides are available online to prepare kratom extract and tincture.
15. US Drug Enforcement Administration. 2005. *Microgram Bulletin*, 38 (7). See link: <http://www.justice.gov/dea/programs/forensics/ci/microgram/mg0705/mg0705.html> Accessed 10 March 2011
16. Chan, K. B. et al. 2005. "Psychoactive plant abuse: the identification of mitragynine in ketum and in ketum preparations", in *Bulletin on Narcotics*, 57(1-2): 249-251.
17. Boyer, E. W. et al. 2008. "Self-treatment of opioid withdrawal using kratom (*Mitragynia speciosa korth*)", in *Addiction*, 103, 1048-1050.
18. Suwanlert, S. 1975. "A Study of Kratom Eaters in Thailand", in *Bulletin on Narcotics*, 27(3):21-28.
19. Boyer, E. W. et al. 2008. "Self-treatment of opioid withdrawal using kratom (*Mitragynia speciosa korth*)", in *Addiction*, 103, 1048-1050.
20. Effects of Cough Medicine Abuse | eHow.com  
[http://www.ehow.com/about\\_5044765\\_effects-cough-medicine-abuse.html#ixzz17tQRS3Vb](http://www.ehow.com/about_5044765_effects-cough-medicine-abuse.html#ixzz17tQRS3Vb). Accessed 4 March 2011
21. ONCB. 2010. *Sub-Regional Narcotics Report 2010*.

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## Drug Law Reform Project

The project aims to promote more humane, balanced, and effective drug laws. Decades of repressive drug policies have not reduced the scale of drug markets and have led instead to human rights violations, a crisis in the judicial and penitentiary systems, the consolidation of organized crime, and the marginalization of vulnerable drug users, drug couriers and growers of illicit crops. It is time for an honest discussion on effective drug policy that considers changes in both legislation and implementation.

This project aims to stimulate the debate around legislative reforms by highlighting good practices and lessons learned in areas such as decriminalization, proportionality of sentences, specific harm reduction measures, alternatives to incarceration, and scheduling criteria for different substances. It also aims to encourage a constructive dialogue amongst policy makers, multi-lateral agencies and civil society in order to shape policies that are grounded in the principles of human rights, public health and harm reduction.



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