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The Challenge of Synthetic Drugs in East and South-East Asia and Oceania

Trends and Patterns of Amphetamine-type Stimulants and New Psychoactive Substances

Global SMART Programme

2015

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A Report from the Global SMART Programme
May 2015

United Nations Office on Drugs and Crime

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General Abbreviations

ACC	Australian Crime Commission
AIHW	Australian Institute of Health and Welfare
ARQ	Annual Report Questionnaire
ATS	Amphetamine-type Stimulants
BNN	National Narcotics Board (Indonesia)
CCDAC	Central Committee for Drug Abuse Control (Myanmar)
CNB	Central Narcotics Bureau (Singapore)
DAINAP	Drug Abuse Information Network for Asia and the Pacific
DDB	Dangerous Drugs Board (Philippines)
DEA	Drug Enforcement Administration (USA)
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EWA	Early Warning Advisory
GDP	Gross Domestic Product
GDVC	General Department of Vietnam Customs
HONLEA	Heads of National Drug Law Enforcement Agencies (Asia and the Pacific)
IDS	Individual Drug Seizures
IMF	International Monetary Fund
INCB	International Narcotics Control Board
KCS	Korean Customs Service
Lao PDR	Lao People's Democratic Republic
LCDC	Lao National Commission for Drug Control and Supervision
MOFA	Ministry of Foreign Affairs (Japan)
NACD	National Authority for Combating Drugs (Cambodia)
NADA	National Anti-Drugs Agency (Malaysia)
NDIB	National Drug Intelligence Bureau (Australia)
NDSHS	National Drug Strategy Household Survey (Australia)
NNCC	National Narcotics Control Commission (China)
NPA	National Police Agency (Japan)
ONCB	Office of the Narcotics Control Board (Thailand)
PDEA	Philippine Drug Enforcement Agency
PEN	Pre-Export Notification
PPP	Purchasing-power-Parity
RMP	Royal Malaysia Police
SMART	Synthetics Monitoring: Analyses, Reporting and Trends
SODC	Standing Office on Drugs and Crime (Viet Nam)
SPO	Supreme Prosecutors' Office (Republic of Korea)
UNCTAD	United Nations Conference on Trade and Development
UNODC	United Nations Office on Drugs and Crime

Chemical Abbreviations

2C-B	4-Bromo-2,5-dimethoxyphenethylamine
2C-I	4-Iodo-2,5-dimethoxyphenethylamine
3,4-MDP-2-P	3,4-Methylenedioxyphenylpropan-2-one
4-MMC	4-Methylmethcathinone (also known as mephedrone)
4-FMC	1-(4-Fluorophenyl)-2-methylaminopropan-1-one (also known as flephedrone)
25B-NBOMe	2-(4-Bromo-2,5-dimethoxyphenyl)- <i>N</i> -[(2-methoxyphenyl)methyl]ethanamine
25C-NBOMe	2-(4-Chloro-2,5-dimethoxyphenyl)- <i>N</i> -(2-methoxybenzyl)ethanamine
25I-NBOMe	2-(4-Iodo-2,5-dimethoxyphenyl)- <i>N</i> -(2-methoxybenzyl)ethanamine
AKB-48	<i>N</i> -(adamantan-1-yl)-1-pentyl-1 <i>H</i> -indazole-3-carboxamide
<i>alpha</i> -PVP	<i>alpha</i> -Pyrrolidinopentiophenone
AM-694	[1-(5-Fluoropentyl)-1 <i>H</i> -indol-3-yl](2-iodophenyl)-methanone
AM-1248	[1-[(1-Methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]tricyclo[3.3.1.1 ^{3,7}]dec-1-yl-methanone
AM-2201	[1-(5-Fluoropentyl)-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone
AM-2232	3-(1-Naphthalenylcarbonyl)-1 <i>H</i> -indole-1-pentanenitrile
AM-2233	(2-Iodophenyl)[1-[(1-methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]-methanone
bk-MDMA	3,4-Methylenedioxy- <i>N</i> -methcathinone (also known as methylone)
BZP	1-Benzylpiperazine
CB-13	1-Naphthalenyl[4-(pentylox)-1-naphthalenyl]-methanone
DMA	<i>N,N</i> -Dimethylamphetamine
DMAA	Dimethylamylamine
JWH-018	(1-Pentyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone
JWH-210	(4-Ethyl-1-naphthalenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone
LSD	(+)-Lysergide
MDA	3,4-Methylenedioxyamphetamine
MDEA	3,4-Methylenedioxyethylamphetamine
MDMA	3,4-Methylenedioxyamphetamine
MDPV	3,4-Methylenedioxypropylamphetamine
STS-135	<i>N</i> -Adamantyl-1-fluoropentylindole-3-carboxamide
TFMPP	1-(3-Trifluoromethylphenyl)piperazine
THC	<i>delta</i> -9-Tetrahydrocannabinol
UR-144	(1-Pentyl-1 <i>H</i> -indol-3-yl)(2, 2,3,3-tetramethylcyclopropyl)-methanone

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1. East and South-East Asia and Oceania in a global context

This report analyses recent trends and developments of the synthetic drugs market in East and South-East Asia and Oceania, comprising both amphetamine-type stimulants (ATS) and new psychoactive substances (NPS). NPS are substances of abuse that are not controlled by the International Drug Conventions but which may pose a public health threat. In this context, the term 'new' does not necessarily refer to new inventions but to substances that have recently become available.¹ East and South-East Asia and Oceania has the largest ATS market in the world and in recent years the scope and availability of NPS has rapidly expanded. Moreover, this synthetic drugs market is becoming more complex and interconnected with other regions. These developments warrant an in-depth study to understand the current threat and impact of ATS and NPS in East and South-East Asia and Oceania within a global context. The analysis of the synthetic drug problem in the region is essential to complement the understanding of the illicit market for synthetic drugs called for in the 2009 Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem.

The availability of quality data and information-sharing in the region has improved with the support of the Drug Abuse Information Network for Asia and the Pacific (DAINAP), which offers a regional control mechanism for drug monitoring.² However, the quality of data and information on some aspects of the synthetic drugs market remains limited. Particularly, demand-related data on the extent and pattern of use, and treatment remains scarce. And yet, methamphetamine and other synthetic drugs that pose a serious health threat to users seem to become increasingly available and are a challenge for health care providers and drug control authorities.

¹ For recent decisions of the Commission on Narcotic Drugs related to the international scheduling of some NPS, see United Nations, Commission on Narcotic Drugs, Report on the fifty-eight session, 5 December 2014 and 9 to 17 March 2015. E/CN.7/2015/15.

² DAINAP is supported by UNODC's Global SMART (Synthetic Monitoring: Analyses, Reporting and Trends) Programme which is working with partner countries in the region since 2008.

Challenges in reducing the supply and demand for synthetic drugs

Methamphetamine continues to dominate the synthetic drugs market in East and South-East Asia and is mainly available in two forms: methamphetamine tablets and crystalline methamphetamine. Increasing methamphetamine seizures and expert perception of high levels of methamphetamine tablet and crystalline methamphetamine use indicate the presence of a large and possibly expanding market in East and South-East Asia.³ For some years, the "ecstasy"⁴ market has been concentrated in parts of Oceania. Recently, according to expert perception, there is an emerging "ecstasy" market in parts of East and South-East Asia with use reported in Indonesia and countries in the Mekong sub-region.⁵

Addressing the trafficking of synthetic drugs in East and South-East Asia involves a number of difficulties. Over the last several years, countries in East and South-East Asia and Oceania have experienced rapid economic expansion. For instance, the share of the regions' global Gross Domestic Product (GDP) based on purchasing-power-parity (PPP), is estimated to have increased from about 10 per cent in 2000 to over 30 per cent in 2014 at a value of more than US\$ 28 trillion.⁶ Except for a sharp drop in 2009, exports and imports to and from countries in East and South-East Asia and Oceania have also significantly increased over the years. Between 2002 and 2013, imports and exports more than tripled to more than US\$ 6.5 trillion and 6.9 US\$ trillion respectively.⁷ Under these conditions of rapid

³ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

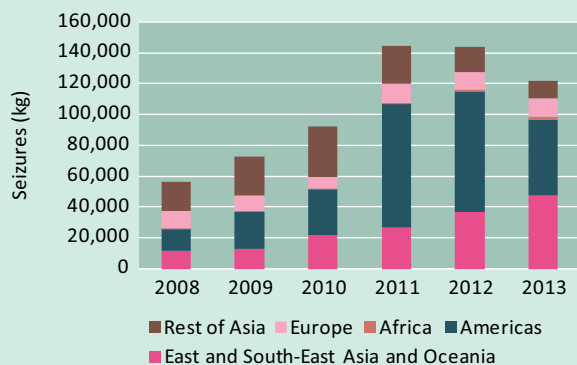
⁴ "Ecstasy" pills sold as ecstasy in East and South-East Asia may contain substances other than MDMA.

⁵ For a more detailed analysis of "ecstasy" use in East and South-East Asia and Oceania, see chapter titled "A growing presence of ecstasy" of this report.

⁶ Calculations based on figures derived from the International Monetary Fund (IMF), World Economic Outlook Database, April 2014.

⁷ Calculations based on figures derived from the United Nations Conference on Trade and Development (UNCTAD) Statistics, 2013.

Figure 1. ATS seizures reported worldwide, by region, 2008-2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008-2013.

expansion of licit trade flows, it is not unlikely that opportunities for misusing the licit trade for illicit purposes have also increased and are being exploited. While in this context many positive economic opportunities opened up, challenges for governments in their efforts to tackle the problem of synthetic drugs evolved as well.

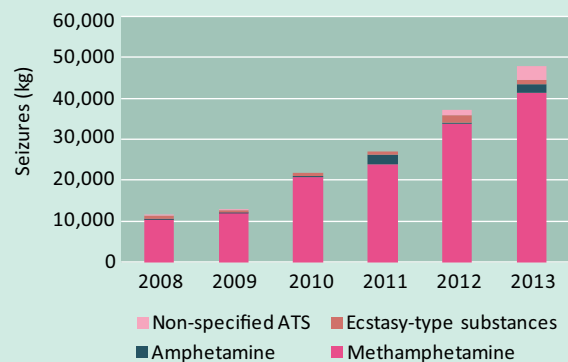
A large and expanding market for synthetic drugs

East and South-East Asia and Oceania is estimated to have the largest market for ATS users in the world. According to the United Nations Office on Drugs and Crime (UNODC) estimates for 2012, East and South-East Asia and Oceania together have the largest number of ATS (excluding “ecstasy”) users worldwide at almost 9.5 million users, as well as the largest number of “ecstasy” users at 3.9 million. In Oceania, the estimated annual prevalence rates for both ATS (excluding “ecstasy”) use and “ecstasy” use for 2012 were the highest in the world at 2.1 per cent and 2.9 per cent respectively.⁸

Moreover, ATS seizures reported in the region have accounted for an increasing share of global seizures and since 2010 have reported the second largest amount relative to other regions of the world. In East and South-East Asia and Oceania, ATS seizures have increased from almost 12 tons in 2008 to about 48 tons in 2013. This significant increase of seizures in the region might partly be the result of effective law enforcement measures, but also points to expanding manufacture and an increase of trafficking to and through the region. Since 2011, seizures in the re-

⁸ United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

Figure 2. ATS seizures reported in East and South-East Asia and Oceania, 2008-2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008-2013.

gion have annually exceeded those reported in Africa and Europe as well as those reported in other parts of Asia although the largest amount of ATS seizures worldwide has been reported in the Americas (primarily North America) since 2009. However, seizures in the Americas have decreased in recent years, dropping from up to 81 tons in 2011 to 49 tons in 2013, only somewhat higher than the amount reported in East and South-East Asia and Oceania that year.

Between 2009 and 2013, a growing number of countries worldwide have identified countries in East and South-East Asia and Oceania as destinations for seized ATS.⁹ Given that the exact annual amount of seized ATS destined for countries in this region is unknown, the trend does not necessarily imply that increasing amounts of seized ATS are destined for countries in the region, but that the interception of trafficking attempts to East and South-East Asian countries has increased. Among the 95 countries and territories worldwide identified as destination for ATS seized between 2009 and 2013, three out of the five most frequently mentioned ones were located in East and South-East Asia and Oceania, specifically Australia, Japan and Malaysia, the other two countries being the Russian Federation and the United Kingdom.¹⁰ Moreover, Malaysia was the most frequently reported destination for intercepted ATS trafficking attempts in the world in 2012.¹¹

⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009-2013.

¹⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009-2013.

¹¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2012.

The rapid rise of ATS seizures reported in East and South-East Asia and Oceania is primarily attributable to the increase of methamphetamine seizures which almost quadrupled from about 11 tons in 2008 to almost 42 tons in 2013. Over the same period, “ecstasy” seizures reported in the region have annually remained below 1 ton, with the exception of 2012, when “ecstasy” seizures increased to about 2 tons. Amphetamine seizures reported in the region have also remained below 1 ton for some years, but have risen to more than 2 tons in 2011 and 2013. On the whole, amphetamine and “ecstasy” together, have annually accounted for a small share of ATS seizures reported in East and South-East Asia, whereas methamphetamine has annually accounted for more than 85 per cent of ATS seizures reported in the region since 2008.

Diversification of the synthetic drugs market

There is a large and growing market for methamphetamine in East and South-East Asia. In the region, methamphetamine is predominantly available in two forms: methamphetamine tablets and crystalline methamphetamine. Methamphetamine tablets, commonly known as ‘yaba’ in the region, are small pills typically of low purity which are available in many different shapes and colours. Crystalline methamphetamine, also called ‘crystal meth’, ‘ice’ or ‘shabu’, is usually of much higher purity than the tablet form.¹² These two forms of methamphetamine portray different trends in their geographic spread and trafficking routes.¹³ Methamphetamine tablets are mainly manufactured in the Mekong sub-region of East and South-East Asia and seizure reports indicate that such tablets are mostly intended for markets within this sub-region. However, there have recently also been some indications of an emerging market for methamphetamine tablets in the Republic of Korea, Malaysia and Singapore.¹⁴ Unlike with methamphetamine tablets, crystalline methamphetamine has become a geographically wide-spread drug trafficked across East and South-East Asia.¹⁵ Although crystalline methamphetamine

continues to be manufactured within the region on a large scale¹⁶, a complex international trafficking pattern of crystalline methamphetamine has evolved in recent years, originating from Western Africa, Western Asia, North America, and, more recently, South Asia.¹⁷

As in many other parts of the world, the synthetic drugs market in East and South-East Asia and Oceania has become increasingly diversified with the rapid emergence of a growing number of NPS¹⁸ that are designed to mimic the effects of substances under international control. Although the total number of NPS in the region has fluctuated over the years, reports on the emergence of NPS in the region have increased from 34 substances in 2009 to a total of 137 substances by November 2014.¹⁹ Certain NPS, such as ketamine and kratom, have had a long established market in several countries of the region while others seem to be transient. Of the 137 NPS that have been reported to have emerged, 36 NPS (mostly synthetic cannabinoids and synthetic cathinones) have disappeared from the market since 2008.²⁰ Moreover, data on NPS emergence suggests that some countries, such as Australia, Indonesia, Japan, New Zealand and Singapore, have a more diversified NPS market than other countries in the region. However, the capacity of forensic laboratories to identify NPS differs between countries in the region and it is likely that this has an influence on how many NPS have been reported.²¹

¹² For more information on crystalline methamphetamine purity, see chapter titled “A diversified market for methamphetamine in East and South-East Asia” of this report.

¹³ For regional analysis of methamphetamine tablet and crystalline methamphetamine markets in East and South-East Asia, see chapter titled “A diversified market for methamphetamine in East and South-East Asia” of this report.

¹⁴ For more information on the methamphetamine tablet market in East and South-East Asia, see chapter titled “A diversified market for methamphetamine in East and South-East Asia” of this report.

¹⁵ Drug Abuse Information Network for Asia and the Pacific (DAIN-AP); United Nations Office on Drugs and Crime (UNODC), Annual Reports Questionnaire 2009-2013.

¹⁶ China National Narcotics Control Commission (NNCC), Ministry of Public Security, “China country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; National Anti-Drugs Agency of Malaysia (NADA) and the Royal Malaysia Police (RMP), “Malaysia country report”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; United Nations Office on Drugs and Crime (UNODC), Annual Reports Questionnaire 2009-2013.

¹⁷ United Nations Office on Drugs and Crime (UNODC), 2014 *Global Synthetic Drugs Assessment: Amphetamine-type stimulants and new psychoactive substances*, Vienna, May 2014; International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, “Japan country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Royal Malaysian Police (RMP) and National Anti-Drugs Agency (NADA), “Malaysia country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Office of Narcotics Control Board (ONCB), “Thailand country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

¹⁸ For the purpose of this report, the analysis of NPS includes ketamine which differs from other NPS in that it is widely used in human and veterinary medicine, while most NPS have little or no history of medical use.

¹⁹ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory (EWA). Accessed in November 2014 at www.unodc.org/LSS/Home/NPS.

²⁰ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory (EWA). Accessed in November 2014 at www.unodc.org/LSS/Home/NPS.

²¹ For an in-depth analysis of the NPS market in East and South-East Asia, see chapter titled “The NPS market in East and South-East Asia and Oceania” of this report.

So far, it remains unclear whether there is a link between the growing availability of NPS and the “ecstasy” market. However, evidence from New Zealand points to the existence of a two-pronged market in which “ecstasy” high in MDMA is being supplied from countries outside the region, predominantly Western Europe, and “ecstasy” containing various controlled and non-controlled substances is being manufactured within the region.²² In East and South-East Asia and Oceania, there are reports of seized “ecstasy” tablets that have been found to contain little or no MDMA and consist mainly of a blend of non-controlled substances including NPS.²³ Overall, it remains unclear whether certain NPS are replacing MDMA, in either the short or long term, or whether they are simply being used to supplement the “ecstasy” market. The large amount of ecstasy chemical precursors seized in recent years in East and South-East Asia and Oceania indicates the potential for significant ecstasy manufacture. Moreover, “ecstasy” seizure data suggests that the region accounts for an increasing share of the global “ecstasy” market.²⁴

International efforts for an integrated response

The synthetic drugs market in East and South-East Asia and Oceania is not a separate and self-contained entity, but part of a larger complex global network with interconnected channels for the supply and demand of synthetic drugs. Therefore, information exchange and cooperation on national, regional and international levels is crucial to establish an effective response to the growing problem in East and South-East Asia and Oceania. Given the dynamic nature of the NPS market in the region, as well as most other regions of the world, it remains important to share information on the emergence of and national responses to NPS. This assists Member States to better understand the threat of NPS and emerging challenges in the wider synthetic drugs market.

²² United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand 2013; For a more detailed analysis of “ecstasy” trends in East and South-East Asia and Oceania, see chapter titled “A growing presence of ecstasy” of this report.

²³ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Brunei Darussalam, Hong Kong (China), Indonesia, the Republic of Korea, Macau (China), Malaysia, New Zealand, Singapore and Thailand 2012 and 2013; Health Sciences Authority, “An Overview of the Drug Situation and Forensic Laboratories in Asia”, Singapore, 21 May 2014.

²⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2011-13; Drug Abuse Information Network for Asia and the Pacific (DAINAP); International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

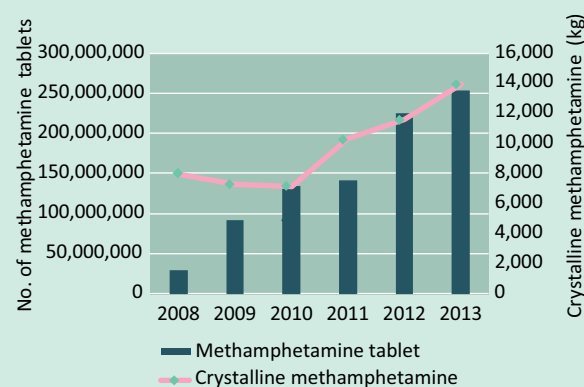
2. A diversified market for methamphetamine in East and South-East Asia

Methamphetamine sold in East and South-East Asia is available in two main forms: methamphetamine tablets and crystalline methamphetamine. In both presentations, methamphetamine is available in salt form, most frequently as methamphetamine hydrochloride which, in principle, can be smoked, nasally insufflated, orally ingested and injected. Methamphetamine tablets, commonly known as 'yaba' in the region, are small pills typically of low purity weighing about 90 mg which are available in many different shapes and colours.²⁵ In addition to methamphetamine, such tablets often contain a large portion of caffeine and a range of adulterants. For methamphetamine tablets, ingestion but also smoking of crushed tablets is common. Crystalline methamphetamine, also called 'crystal meth', 'ice' or 'shabu', is usually of much higher purity than the tablet form. On the illicit drug market, it is encountered as (crushed) colourless crystals of various sizes.²⁶ Information on seizures and use indicate that the market for both forms of methamphetamine is expanding. Both, methamphetamine tablet and crystalline methamphetamine seizures increased in East and South-East Asia between 2008 and 2013. Over this period crystalline methamphetamine seizures in the region almost doubled, while methamphetamine tablet seizures have risen at a more rapid rate resulting in an eight-fold increase.

²⁵ The weight of 90 mg per tablet as a conversion factor which was established based on information from forensic laboratories, has been used by UNODC since 2011 to convert seizures reported in kilograms into tablet equivalent and vice versa in South-East Asia (cf. UNODC, World Drug Report 2011, p. 266). A recent analysis of methamphetamine samples from over 8,000 seizure cases in Thailand in the first half of 2014 confirmed the continuing validity of this conversion factor: almost two-thirds of the samples had a weight ranging between 85.00 and 94.99 mg (official communication with the Office of the Narcotics Control Board, Government of Thailand, March 2015).

²⁶ United Nations Office on Drugs and Crime (UNODC), *Terminology and Information on Drugs*. Second edition. New York, 2003; United Nations Office on Drugs and Crime (UNODC), *Recommended Methods for the Identification and Analysis of Amphetamine, Methamphetamine and their Ring-substituted Analogues in Seized Materials (revised and updated)*. New York, 2006.

Figure 3. Crystalline methamphetamine and methamphetamine tablet seizures reported in East and South-East Asia, 2009-2013



Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Expert perception indicates high levels of methamphetamine tablet and crystalline methamphetamine use in East and South-East Asia. In 2013, crystalline methamphetamine was the primary drug of concern in Brunei Darussalam, Cambodia, Indonesia, Japan, Malaysia, the Philippines and the Republic of Korea and the second drug of concern in China, Singapore and Viet Nam according to expert perception.²⁷ Methamphetamine in tablet form was also the primary drug of concern in Cambodia, Lao People's Democratic Republic (PDR) and Thailand and the second drug of concern in China and Viet Nam.²⁸

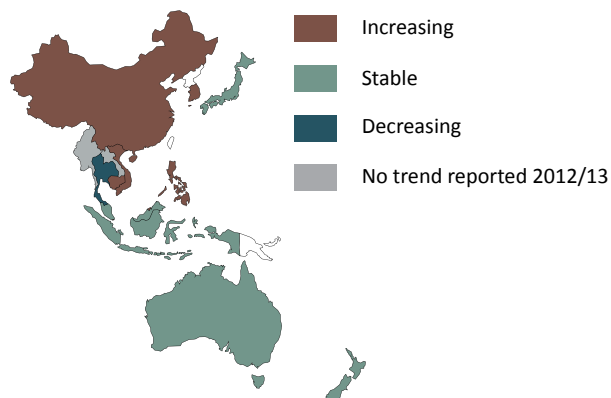
Moreover, in 2013, there was an increase in the use of crystalline methamphetamine according to expert perception in 7 countries of the region, namely Brunei Darussalam, Cambodia, China, the Philippines, the Republic of Korea, Singapore and Viet Nam.²⁹ In the same year, experts perceived an increased use of methamphetamine tablets in countries of the Greater Mekong sub-region, namely Cambodia, China, Lao PDR,

²⁷ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

²⁸ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

²⁹ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Map 1: Crystalline methamphetamine use trend according to expert perception, 2013

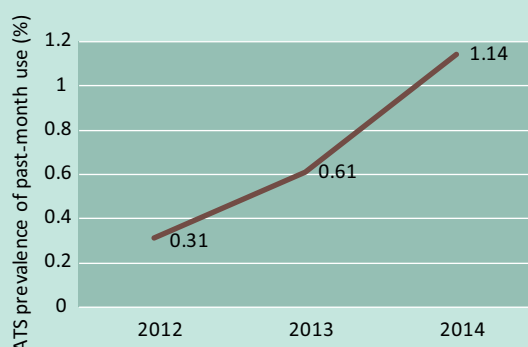


The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Australian Institute of Health and Welfare (AIHW), Illicit use of drugs (NDSHS 2013 key findings) and NDSHS 2013 data & references, 2014 (accessed online at <http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use/>); United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Japan 2013; Official communication with the National Drug Intelligence Bureau (NDIB), New Zealand, October 2014; Official communication with the Supreme Prosecutors' Office (SPO), The Republic of Korea, Narcotics Division, October 2014.

Myanmar, Thailand and Viet Nam.³⁰ In Myanmar, for example, the past-month prevalence of amphetamine-type stimulant (ATS) use, as reported by survey respondents in poppy-growing regions, tripled between 2012 and 2014. While this survey is not representative for the general population, it might indicate an increase in the use of methamphetamine tablets.

Figure 4. Past-month prevalence of ATS use among the population aged 15 and above, poppy-growing regions, Myanmar, 2012-2014



Source(s): United Nations Office on Drugs and Crime (UNODC), Myanmar Central Committee for Drug Abuse Control, Lao National Commission for Drug Control and Supervision, *Southeast Asia Opium Survey 2014*. Lao PDR, Myanmar, 2014.

³⁰ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Map 2: Methamphetamine tablet use trends according to expert perception, 2013



The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Differences between methamphetamine tablet and crystalline methamphetamine market segments

The existence of two forms of presentation of methamphetamine in the region, both showing recent increases in terms of seizures and use, leads to the question of whether they are serving the same or different market segments. This chapter discusses differences between tablet and crystalline methamphetamine as reflected in information on their prices, purity, perceived origin, trafficking flows and geographic spread.

The price and purity of crystalline methamphetamine and methamphetamine tablets vary considerably between countries in the region. A caveat regarding the analysis of tablet purity data needs to be made. The actual weight may vary from tablet to tablet and batch to batch as they are produced under clandestine conditions. Considering tablet purity alone can be misleading as tablets of different weights contain different amounts of methamphetamine even if the purity is the same. However, data on tablet purity is available for many countries in the region while the methamphetamine amount per tablet is not regularly reported. As available information does not indicate large variations in tablet weight, tablet purity is used as a proxy indicator for methamphetamine content per tablet.³¹ On the whole, in 2013, similar to previous years, methamphetamine tablets were reported to have a purity of 5-20 per cent, with the remainder often consisting largely of caffeine. These tablets are available among the low-

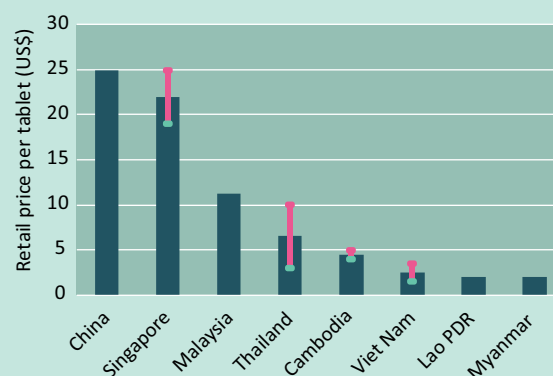
³¹ See footnote 25.

priced segment of drug markets in East and South-East Asia. Nevertheless, prices of methamphetamine tablets varied considerably, wherein different levels of purity are one example among several contributing factors. For instance, in the Mekong sub-region, Viet Nam was among the countries to have reported one of the lowest retail prices for methamphetamine tablets, ranging between US\$ 1.5 and US\$ 3.5 per tablet with an average purity of 8-10 per cent.³² Low retail prices for methamphetamine tablets were also reported in the northern parts of Thailand, close to the border with Myanmar. In 2013, methamphetamine tablet samples analyzed by forensic laboratories in Thailand had a purity of 10-20 per cent.³³ According to expert perception, methamphetamine tablets continued to be the cheapest and most widely available illicit drug available in Lao PDR and there were indications that prices were decreasing, reaching around US\$ 2 per tablet in 2013.³⁴ According to expert perception, the decline in methamphetamine tablet prices in Lao PDR might be due to an increasing availability of the drug resulting from large volumes of methamphetamine tablets transiting the country from Myanmar to other markets.

Some of the highest prices for methamphetamine tablets have been reported by countries outside the Mekong sub-region, by countries such as China and Singapore, both of which had reported of an average retail price above US\$ 20 per tablet. However, these comparatively high prices might not necessarily be due to a higher purity. For instance, methamphetamine tablets analyzed in Singapore in 2013 had a purity of only 2.4 per cent.³⁵

In contrast to methamphetamine tablets, which require additional components in the tableting process such as binding agents, crystalline methamphetamine can be of comparatively high purity. For instance, in 2013, crystalline methamphetamine in Thailand reportedly had a purity of 40-90 per cent and an average retail price of US\$ 35-100 per gram.³⁶ In Indonesia, crystalline

Figure 5. Typical retail prices of methamphetamine tablets of unknown purity in selected countries in East and South-East Asia, 2013



Note: The high-low bars represent the upper and lower limits of the price ranges for those countries which reported such ranges in addition to the typical price.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); China National Narcotics Control Commission (NNCC), Ministry of Public Security, "China country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Central Narcotics Bureau (CNB), "Singapore country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Standing Office on Drugs and Crime of Vietnam (SODC), "Vietnam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Lao National Commission for Drug Control and Supervision (LCDC), "Lao PDR country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar 20-21 August 2014.

methamphetamine samples tested by forensic laboratories had a purity of 40-53 per cent in 2012.³⁷ In 2013, the retail price for one gram of crystalline methamphetamine in Indonesia ranged between US\$ 200-285.³⁸ The highest average retail prices per gram of crystalline methamphetamine were found in countries outside the Mekong sub-region such as in Brunei Darussalam, Japan and the Republic of Korea while the average retail price in most other South-East Asian countries was lower. In Brunei Darussalam, Indonesia, Malaysia, the Philippines and Singapore, crystalline methamphetamine prices have fluctuated in recent years. The data available on methamphetamine prices and purity has improved in recent years but does not yet allow for an in-depth analysis e.g. calculating purity-adjusted prices.

³² Standing Office on Drugs and Crime of Viet Nam (SODC) "Viet Nam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

³³ Office of the Narcotics Control Board of Thailand (ONCB), "Thailand country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

³⁴ Lao National Commission for Drug Control and Supervision (LCDC), "Lao PDR country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar 20-21 August 2014.

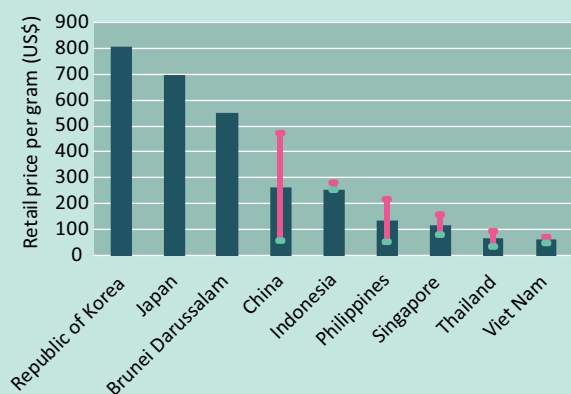
³⁵ Central Narcotics Bureau (CNB), "Singapore country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar 20-21 August 2014.

³⁶ Office of the Narcotics Control Board of Thailand (ONCB), "Thailand country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

³⁷ Drug Abuse Information Network for Asia and the Pacific (DAINAP); United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Indonesia in 2013.

³⁸ National Narcotics Board of Indonesia (BNN), "Indonesia country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

Figure 6. Typical retail prices of crystalline methamphetamine of unknown purity in selected countries in East and South-East Asia, 2013



Note: The high-low bars represent the upper and lower limits of the price ranges for those countries which reported such ranges in addition to the typical price. Data from the Philippines refers to the crystalline methamphetamine price in 2014. Dangerous Drugs Board of the Philippines (DDB), "Philippines country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Narcotics Control Bureau (NCB), "Brunei Darussalam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, August 2014; Supreme Prosecutors' Office (SPO), "Republic of Korea country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Central Narcotics Bureau (CNB), "Singapore country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Standing Office on Drugs and Crime (SODC), "Viet Nam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

Tablet and crystalline methamphetamine prices are not easily comparable. As with other drugs, users may attribute properties to one or the other form or have usage preferences which are not measurable in quantitative terms with one-dimensional indicators such as prices. Individual consumption patterns, e.g. dosage and frequency of use, can also vary considerably. Still, taking these caveats into account and assuming that users may take one or a small number of methamphetamine tablets per consumption event, and that a gram of street quality crystalline methamphetamine could represent about a dozen doses, crystalline methamphetamine in Japan, the Republic of Korea and Brunei Darussalam seem to be well above tablet prices. However, methamphetamine tablets are not typically encountered in these countries. In other countries of the region, par-

ticularly where both forms of methamphetamine are commonly available, such as Thailand and Viet Nam, the price ranges seem to be much closer.

Clearly, more investigation is needed to understand if and how tablet and crystalline methamphetamine use is linked and whether they serve distinct segments of the drug market.

Methamphetamine tablet trafficking – a sub-regional problem?

Differences between the tablet and crystalline forms of methamphetamine also exist in terms of geographical area of manufacture and main destination countries for trafficking. Methamphetamine tablets are mainly manufactured in the Mekong sub-region of East and South-East Asia and seizure reports indicate that such tablets are mostly intended for markets within this sub-region. Myanmar is perceived to be the main country of origin for methamphetamine tablets seized throughout the Mekong sub-region and to some other parts of East and South-East Asia. Reports of methamphetamine tablets originating in Myanmar and seized in China and Thailand indicate that increasing quantities are being trafficked from Myanmar across their joint borders.³⁹ By 2013, almost 85 per cent of methamphetamine tablets seized in China were reported in Yunnan province in China, which signifies an 8 per cent increase of seizures reported in this province from the previous year.⁴⁰ Moreover, analysis of seized methamphetamine tablets at the National Narcotics Laboratory in China in 2013 showed that more than 90 per cent of these tablets had originated in Myanmar.⁴¹ According to government and media reports, consignments of methamphetamine tablets are frequently discovered inside compartments of motor vehicles as well as boats travelling along the Mekong

³⁹ China National Narcotics Control Commission (NNCC), Ministry of Public Security, *Annual Report on Drug Control in China 2014*, Beijing, 2014; Official communication with the China National Narcotics Control Commission (NNCC), Ministry of Public Security, November 2014; Office of the Narcotics Control Board of Thailand (ONCB), "Drug situation in Thailand and trends", presented at the Thirty-eighth Meeting of Heads of National Drug Law Enforcement Agencies, Asia and the Pacific (HONLEA), Bangkok, 21-24 October 2014.

⁴⁰ Yunnan province is adjacent to Myanmar, Lao PDR and Viet Nam. China National Narcotics Control Commission (NNCC), Ministry of Public Security, *Annual Report on Drug Control in China 2014*, Beijing, 2014.

⁴¹ China National Narcotics Control Commission (NNCC), Ministry of Public Security, *Annual Report on Drug Control in China 2014*, Ministry of Public Security, Beijing, 2014; Official communication with the China National Narcotics Control Commission (NNCC), Ministry of Public Security, November 2014.

River. As a response, China, Myanmar, Lao PDR and Thailand formed a joint anti-trafficking task force to patrol the river in 2011, which has been conducting close to 30 joint patrols since then.⁴²

Given that interdiction efforts have been strengthened along the joint border between Myanmar to China and Thailand, there are indications that drug traffickers have shifted routes to avoid detection. For instance, methamphetamine tablets are increasingly being trafficked from Myanmar via Lao PDR to China and Thailand, and to a lesser extent to Cambodia and Viet Nam. In 2014, up to 10 shipments totalling around 19 million methamphetamine tablets were reported to have been seized in Loei Province in Thailand, bordering Lao PDR.⁴³ Over the years, Lao PDR has become a major transit point for drug trafficking and the mountainous parts of the country and riverine terrain account for large parts of the country which are particularly hard to patrol. In 2013, methamphetamine tablet seizures in Lao PDR increased by more than a third to over 15 million tablets from about 10 million tablets in 2012 and 4.6 million tablets in 2011.⁴⁴

In Myanmar, methamphetamine tablets are reported to be mostly manufactured in the north-eastern Shan state, bordering China, Lao PDR and Thailand.⁴⁵ Between 2004 and 2013, law enforcement authorities in Myanmar have discovered 31 methamphetamine tablet pressing machines,⁴⁶ nearly all of which were located in the Shan State. In a recent case reported in August 2014, a tableting machine was discovered in the Mine Twin village tract of the East Shan State together with around 1.6 million methamphetamine tablets, 84 kg of methamphetamine powder, and large quantities of precursor chemicals and other illicit drugs.⁴⁷ Over the years, most dismantled methamphetamine laboratories in Myanmar consisted of small-scale mobile facilities in areas controlled by active or former ethnic insurgent

Map 3: Perceived methamphetamine tablet trafficking flows to and from countries in the Mekong sub-region, 2011-2013*



* Not actual trafficking routes.

Source(s): National Authority for Combating Drugs (NACD), "Cambodia country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Lao National Commission for Drug Control and Supervision (LCDC), "Lao PDR country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Central Committee for Drug Abuse Control (CCDAC), "Myanmar country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Standing Office on Drugs and Crime (SODC), "Viet Nam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Office of the Narcotics Control Board of Thailand (ONCB), "Annual Report 2012", Thailand, December 2013.

groups.⁴⁸ Although, annual methamphetamine tablet seizures have fluctuated in terms of quantity, the number of methamphetamine tablet seizure cases have increased between 2007 and 2013, from over 400 cases in 2007 to over 1,700 cases in 2013.⁴⁹ Moreover, a recent decline was observed in the retail price for methamphetamine tablets in Myanmar. In 2013, the average retail price of

⁴² Xinhua (2011): China launches joint patrols along Mekong River with neighbors, 10 Dec 2011. (Accessed online at http://news.xinhuanet.com/english/china/2011-12/10/c_131298679.htm).

⁴³ Office of the Narcotics Control Board of Thailand (ONCB), "Thailand country report", presented at the Thirty-eighth Meeting of Heads of National Drug Law Enforcement Agencies, Asia and the Pacific (HONLEA), Bangkok, 21-24 October 2014.

⁴⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Lao PDR 2013.

⁴⁵ Central Committee for Drug Abuse Control (CCDAC), "Myanmar country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁴⁶ Official communication with Central Committee for Drug Abuse Control (CCDAC), April 2015.

⁴⁷ Central Committee for Drug Abuse Control (CCDAC), "Myanmar country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁴⁸ United Nations Office on Drugs and Crime (UNODC), *Transnational Organized Crime Threat Assessment in East Asia and the Pacific: A Threat Assessment*, Bangkok, April 2013.

⁴⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Myanmar 2007 and 2013.

a methamphetamine tablet was about US\$ 2, signifying a decline from US\$ 5 in 2011.⁵⁰

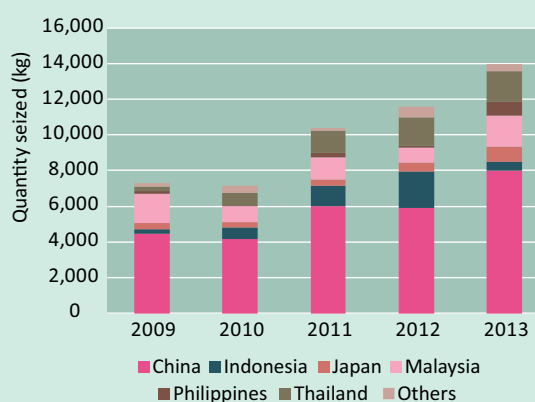
Although most methamphetamine seized in Thailand is perceived to have originated from Myanmar, methamphetamine manufacture has recently also re-emerged in Thailand. Between 2012 and 2013, 11 methamphetamine laboratories were dismantled,⁵¹ most of which were found in locations close to Bangkok, including 5 home-based methamphetamine tablet pressing laboratories.⁵²

Methamphetamine tablets were also reportedly manufactured in China. According to an analysis of seized methamphetamine tablets at the National Narcotics Laboratory in China in 2013, around 5 per cent of these tablets had originated from within the country.⁵³ The high availability of ATS precursor chemicals in China could increase the risk of their diversion for methamphetamine manufacture.⁵⁴ In recent years, there have also been reports of methamphetamine tablets being possibly manufactured in Cambodia and Viet Nam.⁵⁵

Emerging developments in the methamphetamine tablet market

Recently, there have been some indications of an emerging market for methamphetamine tablets in the Republic of Korea, Malaysia and Singapore. Although the use of methamphetamine tablets in the Republic of Korea remains low, methamphetamine tablet seizures have recently increased in the country. In 2013, around

Figure 7. Crystalline methamphetamine seizures reported in East and South-East Asia, 2009-2013



Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP). UNODC Annual Report Questionnaire for the respective years and countries, 2009-2013.

4,000 methamphetamine tablets were seized, which marks an almost ten-fold increase from the previous year.⁵⁶ Increasing methamphetamine tablet seizures in Malaysia over recent years, also suggest an increasing availability for this form of methamphetamine in the country. Methamphetamine tablet seizures increased significantly since 2011, rising to 525,000 tablets in 2013.⁵⁷ According to expert perception, methamphetamine tablet use in Malaysia remains limited, so that the increase in seizures might be due to an increase of transit trafficking.

However, in 2013, most methamphetamine tablet seizures in terms of weight were reported by China (45%) most of which originated in Myanmar,⁵⁸ followed by countries in the Mekong sub-region, such as Thailand (44%), Lao PDR (6%) and Myanmar (4%).⁵⁹ Less than 1 per cent of total methamphetamine tablet seizures reported in the region were reported in Malaysia Cambodia and Viet Nam.

⁵⁰ Central Committee for Drug Abuse Control (CCDAC), “Myanmar country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Official communication with the Central Committee for Drug Abuse Control (CCDAC), October 2012.

⁵¹ Office of the Narcotics Control Board of Thailand (ONCB), “Thailand country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Office of the Narcotics Control Board of Thailand (ONCB), *Annual Report 2012*, Thailand, December 2013.

⁵² Office of the Narcotics Control Board of Thailand (ONCB), “Thailand country presentation”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁵³ China National Narcotics Control Commission (NNCC), Ministry of Public Security, “China country report”, presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁵⁴ International Narcotics Control Board (INCB), *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, New York, March 2015.

⁵⁵ Cambodia and Viet Nam have reported several cases of methamphetamine manufacture and/or attempted manufacture in recent years, and tablet pressing machines have been dismantled in both countries. However, it is not clear what forms of ATS were being manufactured, due to the paucity of data in the two countries.

⁵⁶ Official communication with the Supreme Prosecutors’ Office (SPO), Narcotics Division, October 2014.

⁵⁷ Official communication with the Royal Malaysia Police (RMP), October 2014.

⁵⁸ According to the analysis of seized methamphetamine tablets by the National Narcotics Laboratory in China (China National Narcotics Control Commission (NNCC), Ministry of Public Security, Annual Report on Drug Control in China 2014, Ministry of Public Security, Beijing, 2014; Official communication with the China National Narcotics Control Commission (NNCC), Ministry of Public Security, November 2014).

⁵⁹ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Complex intra-regional crystalline methamphetamine trafficking

Unlike with methamphetamine tablets, which, by and large, remained a feature of the Mekong sub-region, crystalline methamphetamine has become a geographically wide-spread drug across East and South-East Asia. Between 2009 and 2013, the largest share of annual crystalline methamphetamine seizures in the region were reported by China, annually accounting for more than 50 per cent of regional seizures. Crystalline methamphetamine seizures in China almost doubled from about 4.5 tons in 2009 to 8 tons in 2013. Over the same period, crystalline methamphetamine seizures in Thailand have also annually increased from 0.2 tons in 2009 to 1.7 tons in 2013. Crystalline methamphetamine seizures in Japan have more than doubled between 2009 and 2013, but seizures have annually remained below 1 ton. In the Philippines, crystalline methamphetamine seizures have also increased from about 0.1 tons in 2010 to more than 0.8 tons in 2013. In Indonesia and Malaysia, crystalline methamphetamine seizures have annually fluctuated, the largest amount having been reported in Indonesia in 2012 at more than 2 tons and in Malaysia more recently in 2013 at 1.7 tons. The question arises whether the additional methamphetamine seized was manufactured clandestinely within the region or if trafficking from other regions also played a role.

Crystalline methamphetamine is reportedly manufactured in some countries in East and South-East Asia. In 2013, almost 390 methamphetamine laboratories were dismantled in China, a large share of which were found to be manufacturing crystalline methamphetamine.⁶⁰ An additional 18 laboratories manufacturing crystalline methamphetamine were dismantled in Malaysia.⁶¹ Myanmar reported to have dismantled a large-scale crystalline methamphetamine laboratory in 2012 in the Kokang Special Region of the eastern part of the Shan State bordering China⁶² and there have

been reports of crystalline methamphetamine seizures in other countries of the region that were perceived to have originated in Myanmar. According to expert perception, some crystalline methamphetamine manufactured in Myanmar was perceived to have been intended for the domestic market. This would represent a new development in a market traditionally characterized by methamphetamine tablet use.⁶³ Crystalline methamphetamine was also perceived to have been trafficked from Myanmar to Thailand both for the Thai market as well as for onward trafficking.⁶⁴

From China, crystalline methamphetamine is reportedly trafficked to the Philippines and Australia. In 2013, more than 0.4 tons of crystalline methamphetamine were reported to have been seized in a single seizure at Subic Freeport in Zambales in the Philippines.⁶⁵ Law enforcement authorities in the Philippines report that Chinese drug trafficking networks operating from mainland China and Hong Kong (China), are involved in the trafficking of crystalline methamphetamine to the Philippines.⁶⁶ In Australia, crystalline methamphetamine was the most frequently seized ATS with over 1.2 tons perceived to have been trafficked from China between July 2012 and June 2013.⁶⁷ Australia identified Hong Kong (China), and Thailand as the other embarkation points for crystalline methamphetamine in East and South-East Asia between 2012 and 2013.⁶⁸

The Republic of Korea is primarily identified as a transit country for crystalline methamphetamine trafficking. According to the Korea Customs Service (KCS), more than half of the crystalline methamphetamine seizures reported in 2013 were discovered in the post.⁶⁹ All in all, trafficking of crystalline methamphetamine, which is manufactured in and destined for the region, remains an important feature of the regional market and shows an increasingly complex pattern.

⁶⁰ China National Narcotics Control Commission (NNCC), Ministry of Public Security, "China country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; National Anti-Drugs Agency of Malaysia (NADA) and the Royal Malaysia Police (RMP), "Malaysia country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁶¹ National Anti-Drugs Agency of Malaysia (NADA) and the Royal Malaysia Police (RMP), "Malaysia country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁶² Official communication with the Myanmar Central Committee for Drug Abuse (CCDAC), September 2012.

⁶³ Official communication with the Myanmar Central Committee for Drug Abuse (CCDAC), August 2014.

⁶⁴ Official communication with the Office on Narcotics Control Board of Thailand (ONCB), April 2015.

⁶⁵ Dangerous Drugs Board (DDB), "Philippine country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

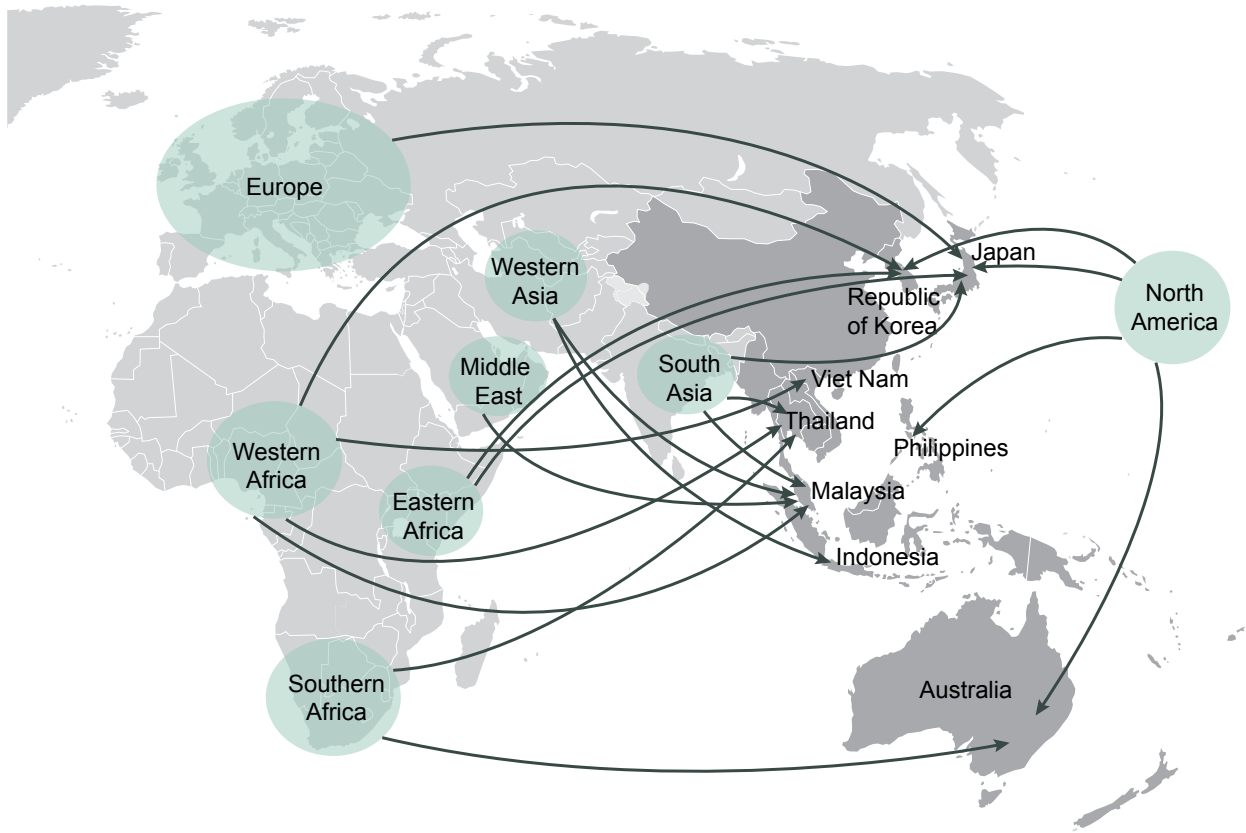
⁶⁶ Dangerous Drugs Board (DDB), "Philippine country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁶⁷ Australian Crime Commission (ACC), *Illicit Drug Data Report 2012-13*, Canberra, April 2014.

⁶⁸ Australian Crime Commission (ACC), *Illicit Drug Data Report 2012-13*, Canberra, April 2014.

⁶⁹ Korea Customs Service, "Drug Enforcement Activities of KCS", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

Map 4: Inter-regional crystalline methamphetamine flows as perceived by recipient countries to East and South-East Asia and Oceania, 2011-2013*



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

* Not actual trafficking routes. Perceived region of origin may not be region of manufacture.

Source(s): United Nations Office on Drugs and Crime (UNODC), 2014 *Global Synthetic Drugs Assessment: Amphetamine-type stimulants and new psychoactive substances*, Vienna, May 2014; Standing Office on Drugs and Crime (SODC), "Viet Nam country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; The Office of the Narcotics Control Board of Thailand (ONCB), "Thailand country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014;; Australian Crime Commission (ACC), "Illicit Drug Data Report 2012-13", Canberra, April 2014; National Narcotics Board of Indonesia (BNN), "Indonesia country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, August 2014; National Anti-Drugs Agency of Malaysia (NADA) and the Royal Malaysia Police (RMP), "Malaysia country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Supreme Prosecutors' Office (SPO), "Republic of Korea country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Dangerous Drugs Board of the Philippines (DDB), "Philippines country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

A growing inter-regional dimension of crystalline methamphetamine trafficking

Although crystalline methamphetamine continues to be manufactured within the region on a large scale, a complex international trafficking pattern of crystalline methamphetamine, originating in other parts of the world, has evolved in recent years. Large amounts of crystalline methamphetamine were perceived to have been trafficked to East and South-East Asia from Western Africa, Western Asia, North America, and, more recently, South Asia.

For some years, crystalline methamphetamine has been trafficked from Africa to a number of countries in East and

South-East Asia, such as Cambodia, China, Japan, Malaysia, Thailand, Viet Nam, and, more recently, the Philippines.⁷⁰ In

⁷⁰ National Authority for Combating Drugs (NACD), "Cambodia country presentation", presented at the Global SMART Programme Regional Workshop, Jakarta, 28-29 August 2013; China National Narcotics Control Commission (NNCC), Ministry of Public Security, "China country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Standing Office on Drugs and Crime of Vietnam (SODC), "Vietnam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Dangerous Drugs Board (DDB), Office of the President and the Philippine Drug Enforcement Agency (PDEA), "The Philippine Drug Situation", presented at the Global SMART Programme Regional Workshop, Phnom Penh, 24-25 July 2012; Op. cit. PDEA country report, February 2014; United Nations Office on Drugs and Crime (UNODC), 2014 *Global Synthetic Drugs Assessment: Amphetamine-type stimulants and new psychoactive substances*, Vienna, May 2014.

Malaysia, in Kuala Lumpur, law enforcement authorities reported to have seized around 70 kg of crystalline methamphetamine in April 2014 which was perceived to have originated from Lagos, in Nigeria.⁷¹ According to expert perception, there has been an increase of crystalline methamphetamine seizures in Thailand in 2013 perceived to have originated in African countries.⁷² Crystalline methamphetamine trafficking by African drug trafficking networks has also been reported by Cambodia, the Republic of Korea and Viet Nam in 2013.⁷³

In recent years, East and South-East Asian countries have also reported of crystalline methamphetamine seizures perceived to have originated from Western Asia. Recently, there have been reports of large crystalline methamphetamine seizures perceived to have originated from the Islamic Republic of Iran that have been trafficked by ship. Indonesian law enforcement authorities, for example, have reported seizures of methamphetamine shipments perceived to have originated from the Islamic Republic of Iran, including 40 kg in February 2014.⁷⁴

For some years, large shipments of crystalline methamphetamine, perceived to have originated in Mexico were reported to have been seized in some parts of East and South-East Asia.⁷⁵ In 2013, consignments totaling more than 0.4 tons of crystalline methamphetamine perceived to have originated from Mexico were reported to have been seized in Japan,⁷⁶ followed by another crystalline methamphetamine

seizure reported in Japan in March 2014, consisting of almost 0.2 tons of crystalline methamphetamine perceived to have originated from Mexico.⁷⁷ Law enforcement authorities in the Philippines have reported of a methamphetamine laboratory that was dismantled in the country in 2012 operated by a Chinese drug trafficking group that was found to have connections with a Mexican criminal network.⁷⁸ The Republic of Korea has also seized around 15 kg of crystalline methamphetamine in 2013, perceived to have originated from Mexico.⁷⁹ According to a report by the Australian Crime Commission, Mexican drug cartels involved in methamphetamine trafficking have actively sought criminal partners in Australia to import the drug into the country.⁸⁰ In addition, some countries in East and South-East Asia, such as Japan⁸¹, have reported seizures of crystalline methamphetamine that were perceived to have originated from India.

On the whole, it seems reasonable to assume that lower priced methamphetamine tablets in East and South East Asia might be more attractive in lower income countries or to lower income groups of the population while crystalline methamphetamine appears to be more typical for higher income countries where its higher price and purity might be more affordable. While both the methamphetamine tablet and crystalline methamphetamine market segments seem to be expanding, the inter-regional dimension of trafficking has so far remained a feature of crystalline methamphetamine.

A number of questions arise from this development. Is more methamphetamine originating in Mexico shipped towards Asia because stagnating or even declining consumption of crystalline methamphetamine in North America is not absorbing the large amounts manufactured? Is the growing economic prosperity in many Asian countries and their large, young population attracting drug traffickers more than other regions? Clearly, the current dynamics of the crystalline methamphetamine market in East and South-East Asia and Oceania can no longer be explained with

⁷¹ Official communication with the National Anti-Drugs Agency (NADA), August 2014.

⁷² United States Department of State, Bureau of International Narcotics and Law Enforcement Affairs, International Narcotics Control Strategy Report, March 2014.

⁷³ National Authority for Combating Drugs (NACD), "Cambodia country presentation", presented at the Global SMART Programme Regional Workshop, Jakarta, 28-29 August 2013; International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, August 2014; Supreme Prosecutors' Office (SPO), "Republic of Korea country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; Standing Office on Drugs and Crime of Vietnam (SODC), "Vietnam country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁷⁴ National Narcotics Board of Indonesia (BNN), "Indonesia country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014; United Nations Office on Drugs and Crime (UNODC), *2014 Global Synthetic Drugs Assessment: Amphetamine-type stimulants and new psychoactive substances*, Vienna, May 2014.

⁷⁵ Supreme Prosecutors' Office (SPO), "Republic of Korea country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁷⁶ International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, August 2014.

⁷⁷ National Police Agency of Japan (NPA), October 2014.

⁷⁸ Dangerous Drugs Board (DDB), "Philippine country report", presented at the Global SMART Programme Regional Workshop, Jakarta, 28-29 August 2013.

⁷⁹ Supreme Prosecutors' Office (SPO), "Republic of Korea country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar, 20-21 August 2014.

⁸⁰ Australian Crime Commission, "*The Australian Methylamphetamine Market. A National Picture?*", 2015.

⁸¹ International Safety and Security Cooperation Division, Ministry of Foreign Affairs (MOFA), Japan, August 2014.

an intra-regional approach and global developments on the drug market need to be included into the analysis. More research and information is needed to better understand the differences in market features and the use patterns of crystalline methamphetamine and methamphetamine tablets, as these may require a diverse set of responses from law enforcement, as well as health and treatment providers.

The footprint of methamphetamine use in treatment data

Methamphetamine use in both crystalline and tablet form continues to be a major problem in large parts of East and South-East Asia. Methamphetamine users account for a large share of people receiving drug treatment in a number of countries. In 2013, China, Myanmar and the Philippines reported an increase of people receiving treatment for methamphetamine use from the previous year.⁸² For instance, in China the number of registered methamphetamine users increased by more than 40 per cent in 2013 since 2012.⁸³ Moreover, people receiving treatment for methamphetamine use accounted for the largest share of people treated for drug use in 2013 in Lao PDR at 98 per cent, the Republic of Korea at 96 per cent, Brunei Darussalam at 96 per cent, Cambodia at 94 per cent, Indonesia at 80 per cent, Thailand at 90 per cent,⁸⁴ and the Philippines at 83 per cent.⁸⁵ According to expert perception, methamphetamine is the most commonly used drug among young drug users and among drug users arrested for the first time in Singapore in 2013.⁸⁶ The presence of methamphetamine tablets in the Mekong sub-region is reflected in data available on treatment. For instance, around 84 per cent of people receiving drug treatment in Thailand in 2013 had used methamphetamine tablets.⁸⁷ Methamphetamine tablets are also of major concern in Lao PDR with users annually accounting for 95 per cent of people treated for drug use in recent years.⁸⁸ Moreover, in 2013, methamphetamine tablet users accounted for

more than 98 per cent of people treated for drug use at the Somsanga Treatment and Rehabilitation Center, in Vientiane, in Lao PDR.⁸⁹

With regards to crystalline methamphetamine, treatment data shows that this drug is becoming of growing concern for countries across East and South-East Asia and Oceania. For instance, in the Philippines, crystalline methamphetamine users accounted for around 75 per cent of people receiving drug treatment in 2013, which marks an increase of about 25 per cent from the previous year.⁹⁰ Although the share of people treated for crystalline methamphetamine use in Indonesia is far lower at around 25 per cent, this still signifies an increase of almost 80 per cent from the previous year. Crystalline methamphetamine users also accounted for the second largest share of newly admitted patients receiving drug treatment in 2013 at 31 per cent, after heroin users who accounted for a 36 per cent share.⁹¹ Moreover, in China, crystalline methamphetamine users accounted for 70 per cent of synthetic drug users receiving treatment in 2013, while methamphetamine tablet users accounted for about 16 per cent.⁹² Among recent drug users aged 14 or older in Australia in 2013, crystalline methamphetamine had an annual use of 50 per cent, which marks a significant increase from the 22 per cent annual use of crystalline methamphetamine among this group of recent drug users in 2010.⁹³

In 2011, the Central Committee for Drug Abuse Control (CCDAC) in Myanmar conducted a study of methamphetamine users who had recently received treatment for drug use which found that 69 per cent were poly-drug users.⁹⁴ With regards to methamphetamine tablets, smoking⁹⁵ was found to be the most common mode of administration among this group of methamphetamine users in this study at almost 97 per cent, while injecting use

⁸² Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁸³ China National Narcotics Control Commission (NNCC), Ministry of Public Security, Annual Report on Drug Control in China 2014, Beijing, 2014.

⁸⁴ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁸⁵ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ) for the Philippines in 2014.

⁸⁶ Central Narcotics Bureau Press Release, Singapore Central Narcotics Bureau (CNB), Singapore, February 2014 (updated May 2014) (Accessed at: http://www.cnb.gov.sg/Libraries/CNB_Newsroom_Files/CNB_2013_Stats_Release_final_updated_as_of_15_May_2014.sflb.ashx).

⁸⁷ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁸⁸ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁸⁹ Lao National Commission for Drug Control and Supervision (LCDC), "Lao PDR country presentation", presented at the Global SMART Programme regional meeting, Yangon, Myanmar 20-21 August 2014.

⁹⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ) for the Philippines in 2014; Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁹¹ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁹² Drug Abuse Information Network for Asia and the Pacific (DAINAP).

⁹³ Australian Institute of Health and Welfare (AIHW), *Illicit use of drugs (NDSHS 2013 key findings) and NDSHS 2013 data & references*, 2014 (accessed online at <http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs/2013/illicit-drug-use>).

⁹⁴ The study was conducted jointly by the CCDAC, Myanmar Ministry of Health, the UNODC Global SMART Programme and local NGOs.

⁹⁵ The tablets are typically crushed and then vaporized in glass pipes or on aluminum foil heated by a flame underneath so that the user can inhale the resulting fumes.

accounted for the mode of use for less than 1 per cent of methamphetamine users.⁹⁶ According to expert perception, smoking has also been the most common mode of methamphetamine tablet use in Thailand for several years, followed by oral ingestion. Injecting crystalline methamphetamine and methamphetamine tablets remained a limited mode of use in Thailand in 2013.⁹⁷ Data remains limited with regards to recent developments of poly drug use and injecting drug use involving methamphetamine. These particular forms of drug use pose a serious challenge for treatment and health providers and more information and data is needed to design effective responses.

Treatment figures are difficult to interpret, an important caveat being that the overall prevalence of methamphetamine use and the proportion of users consuming methamphetamine in tablet form as opposed to crystalline methamphetamine among the general population is not known. Still, the available data indicate the importance of both forms of methamphetamine for treatment demand in the region, which, based on the analysis of the methamphetamine market presented is likely to increase.

⁹⁶ The study was conducted jointly by the CCDAC, Myanmar Ministry of Health, the UNODC Global SMART Programme and local NGOs.

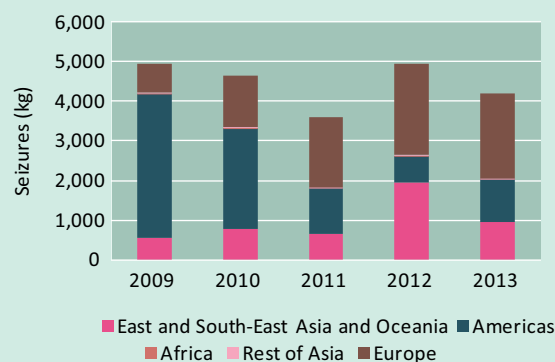
⁹⁷ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

3. A growing presence of “ecstasy”

Seizure and use data indicate that the “ecstasy” market in East and South-East Asia has gained in importance. Europe and the Americas (primarily North America) together used to make up the largest amount of “ecstasy” seized worldwide, annually accounting for more than 80 per cent of global “ecstasy” seizures between 2009 and 2011, while East and South-East Asia and Oceania as a whole accounted for most of the remainder. And yet, in 2012, “ecstasy” seizures in the region have surged to almost 2 tons, just below the amount seized in Europe at 2.3 tons, but far higher than that seized in the Americas at 0.9 tons. In 2013, “ecstasy” seizures in East and South-East Asia and Oceania amounted to almost 1 ton, which was less than the year before but still at a higher level than between 2009 and 2011 when “ecstasy” seizures in the region annually remained below 0.8 tons. In 2014, law enforcement authorities in Australia and Myanmar have also reported of multi-ton “ecstasy” seizures.⁹⁸ East and South-East Asia and Oceania might be becoming an emerging driver of the global market for “ecstasy”, though “ecstasy” seizures continue to only comprise a fraction of ATS seizures in the region.

However, seizures alone do not provide a direct indication for the size of a drug market. Therefore, an increase of “ecstasy” seizures in certain countries of East and South-East Asia might not necessarily be due to a growing domestic demand, but could instead be the result of growing domestic “ecstasy” manufacture, an expansion of transit trafficking or improved efforts in law enforcement. This chapter will start by assessing the demand for “ecstasy” in the region, followed by an analysis of the possible effects of NPS on “ecstasy” markets as well as investigating trends in the supply for “ecstasy” to the region.

Figure 8. “Ecstasy” seizures reported worldwide, by region, 2009-2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009-2013.

Is the “ecstasy” market expanding?

These last few years, significant, and yet, steady levels of “ecstasy” use have been reported in Australia and New Zealand. The most recent 2013 Australian National Drug Strategy Household Survey found that “ecstasy”, as in the previous survey in 2010, continues to be the second most used drug among people aged 14 and over, at an annual prevalence of 2 per cent, after cannabis at 16 per cent.⁹⁹ In New Zealand, the latest drug use survey conducted in the country between 2007/08 showed that in terms of annual prevalence “ecstasy” was also the third most used substance among people aged 16 to 64 at 2.6 per cent, after cannabis at 14.6 per cent and hallucinogens at 3.2 per cent.¹⁰⁰

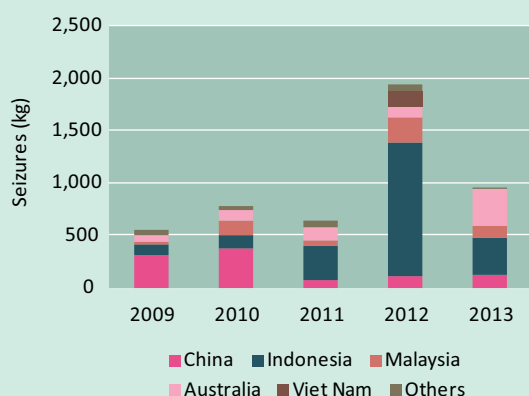
In spite of relatively high levels of “ecstasy” use in Australia and New Zealand, recent “ecstasy” seizures in both countries have not been the main contributors of the higher level of “ecstasy” seizures in the region in 2012 and 2013. A country-by-country breakdown

⁹⁸ Australian Federal Police, “Media Release: Drugs worth \$1.5 billion seized by Joint Organised Crime Group”, 29 November 2014; Official Government communication with the Myanmar Central Committee for Drug Abuse Control (CCDAC), March 2015.

⁹⁹ Australian Institute of Health and Welfare (AIHW), “Alcohol and other drug treatment services in Australia 2012-13”, Canberra, 2014.

¹⁰⁰ Ministry of Health of New Zealand, “Drug Use in New Zealand: Key results of the 2007/08 New Zealand Alcohol and Drug Use Survey”, Wellington, January 2010.

Figure 9. “Ecstasy” seizures reported in East and South-East Asia and Oceania, 2009–2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009–2013.

of “ecstasy” seizures in East and South-East Asia and Oceania shows that the higher levels are primarily attributable to a surge of seizures in Indonesia, having more than doubled to 0.3 tons in 2011 and reaching 1.3 tons in 2012, the largest amount of “ecstasy” seized in the world that year. “Ecstasy” seizures in Australia have remained steady at around 0.1 tons between 2010 and 2012, rising to 0.3 tons in 2013. In contrast, seizures in China have decreased from 0.3 tons in 2009 to 0.1 tons in 2013. Together, all other countries in the region have annually accounted for less than 0.1 tons of “ecstasy” seizures.

“Ecstasy” seized by a number of countries in the region in 2012 was reportedly entirely intended for supplying domestic markets. All “ecstasy” seized in Hong Kong (China), Indonesia, Japan, New Zealand and Singapore that year, was destined for the domestic market.¹⁰¹ This continued to be a trend for Hong Kong (China), New Zealand and Singapore in 2013, where all “ecstasy” seized in these countries was reported to have been intended for the domestic market.¹⁰² “Ecstasy” seizures in most of these countries consisted of amounts less than 5 kg in both years.¹⁰³

¹⁰¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China), Indonesia, Japan, New Zealand and Singapore 2012.

¹⁰² United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China), New Zealand and Singapore 2013.

¹⁰³ In 2012, Hong Kong (China) had reported 0.4 kg of “ecstasy” seizures, Japan 1.1 kg and Singapore 1.2 kg. In 2013, Hong Kong (China) had reported 1.6 kg of “ecstasy” seizures and Singapore 2.3 kg; United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire Hong Kong (China), Japan and Singapore 2012 and 2013.

There remains insufficient data available to establish the size of the “ecstasy” market in the region based on use figures. In Indonesia, use data of specific population groups suggests widespread use. The National Survey on Drug Abuse and Illicit Trafficking among Workers of Transportation Modes (Land, Sea and Air) in 2013, found that “ecstasy” was the second most used drug in terms of annual prevalence at 1.4 per cent, after cannabis at 4.9 per cent.¹⁰⁴ Moreover, in this survey “ecstasy” was identified as the drug of first use by 1.3 per cent of the respondents, after cannabis at 11.9 per cent.¹⁰⁵ In 2012, the results of a drug use survey among Indonesian workers aged 15 to 60 ranked “ecstasy” as the second most used drug in terms of annual prevalence at 1.02 per cent together with methamphetamine, after cannabis at 3.50 per cent.¹⁰⁶ Among students aged 15 to 19, a school survey in Indonesia in 2011 identified the annual prevalence of “ecstasy” as the second most used drug together with benzodiazepines at 0.34 per cent, after cannabis at 1.30 per cent. In this survey, “ecstasy” use at 0.34 per cent ranked higher than that for methamphetamine at 0.26 per cent.¹⁰⁷

Though there has been a reported increase of “ecstasy” seizures in Malaysia in 2012, “ecstasy” was identified as the least used ATS in 2010 and 2012 according to expert perception.¹⁰⁸ However, Malaysia has been identified as a transit country for “ecstasy” seized by several countries in the region in recent years. In Singapore, almost all of the “ecstasy” seized in 2012 and 2013, and almost two-thirds of the “ecstasy” seized in 2011 had been reportedly trafficked via Malaysia.¹⁰⁹ Furthermore, all “ecstasy” seized in Brunei Darussalam in 2011 and 2013, and a quarter of “ecstasy” seized in New Zealand in 2011 had reportedly also been trafficked via Malaysia.¹¹⁰ Therefore, the increase of seizures in Malaysia might point to growing transit trafficking of “ecstasy”.

¹⁰⁴ National Narcotics Board, “*Journal of Data on the Prevention and Eradication of Drug Abuse and Illicit Trafficking: Year 2013*”, Indonesia, June 2014.

¹⁰⁵ National Narcotics Board, “*Journal of Data on the Prevention and Eradication of Drug Abuse and Illicit Trafficking: Year 2013*”, Indonesia, June 2014.

¹⁰⁶ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Indonesia 2012.

¹⁰⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Indonesia 2012.

¹⁰⁸ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Malaysia 2010 and 2012.

¹⁰⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Singapore 2011–13.

¹¹⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Brunei Darussalam and New Zealand 2011–13.

Recently, there are indications of “ecstasy” use in the Mekong sub-region. According to expert perception in 2012, “ecstasy” use had increased in Cambodia, Thailand and Viet Nam¹¹¹ but this was not confirmed for 2013¹¹² and “ecstasy” seizures in Cambodia and Thailand and Viet Nam have remained at a comparatively between 2009 and 2013.

Are there different types of “ecstasy” in the market?

Some NPS contain molecules that might share similar effects and profiles of MDMA that they are designed to mimic. For instance, synthetic cathinones can evoke stimulant and empathogenic effects similar to ATS, including MDMA.¹¹³ In East and South-East Asia and Oceania, there are increasing reports of seized “ecstasy” tablets that have been found to contain little or no MDMA and consist mainly of a blend of non-controlled substances. In 2012, only Hong Kong (China), Indonesia, New Zealand and Singapore reported the presence of NPS adulterants in “ecstasy” tablets. In 2013, such reports were also received from Brunei Darussalam, the Republic of Korea, Macau (China), Malaysia and Thailand.¹¹⁴ In both 2012 and 2013, almost all countries had identified piperazines (such as BZP¹¹⁵ and TFMP¹¹⁶) in seized “ecstasy” tablets. Synthetic cannabinoids (such as JWH-018¹¹⁷) and synthetic cathinones (such as mephedrone (4-MMC) and methylone¹¹⁸) were other NPS groups that had been frequently found in seized “ecstasy” tablets.¹¹⁹ Overall,

¹¹¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Cambodia, Thailand and Viet Nam 2012.

¹¹² Drug Abuse Information Network for Asia and the Pacific (DAINAP).

¹¹³ For more information on the stimulant and empathogenic effects of mephedrone see Brunt, Tibor M. et. al. “Instability of the ecstasy market and a new kid on the block: mephedrone”, *Journal of Psychopharmacology* 25 (Sep 2010): 1543-1547; Schifano, Fabrizio, et.al. “Mephedrone (4-methylmethcathinone; ‘meow meow’): chemical, pharmacological and clinical issues”, *Journal of Psychopharmacology* 214 (April 2011): 593-602.

¹¹⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2012 and 2013; Health Sciences Authority, “An Overview of the Drug Situation and Forensic Laboratories in Asia”, Singapore, 21 May 2014.

¹¹⁵ 1-Benzylpiperazine (BZP) is a piperazine not under international control at the time of drafting this report.

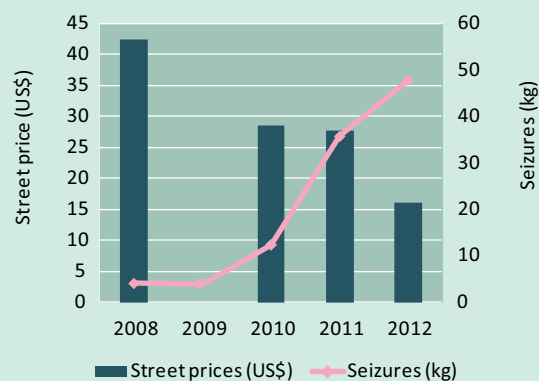
¹¹⁶ 1-(3-Trifluoromethylphenyl)piperazine (TFMP) is a piperazine not under international control.

¹¹⁷ JWH-018 is the chemical abbreviation of (1-Pentyl-1H-indol-3-yl)-1-naphthalenyl-methanone, a synthetic cannabinoid not under international control at the time of drafting this report.

¹¹⁸ 3,4-Methylenedioxy-N-methcathinone (bk-MDMA), also known as methylone is a synthetic cathinone not under international control at the time of drafting this report.

¹¹⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2012 and 2013; Health Sciences Authority, “An Overview of the Drug Situation and Forensic Laboratories in Asia”, Singapore, 21 May 2014.

Figure 10. “Ecstasy” seizures and typical street price per “ecstasy” tablet in New Zealand, 2008-2012



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008-12; Typical street price per “ecstasy” tablet was not reported for 2009 and 2013.

it remains unclear whether certain NPS are replacing MDMA, in either the short or long term, or whether they are simply being used to supplement the “ecstasy” market.

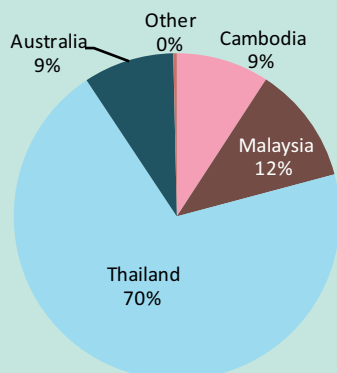
A closer look at the “ecstasy” market in New Zealand, points to a diversified market in which two types of “ecstasy” might be present. According to the National Drug Intelligence Bureau in New Zealand, “ecstasy” is increasingly being trafficked in the form of orders over the internet by individuals and small networks who in this way do not rely on domestic manufacture of the drug.¹²⁰ The authorities in New Zealand believe that this may reflect a market niche for higher quality “ecstasy” tablets in the country with actual MDMA content, especially considering that roughly half of the “ecstasy” seized was perceived to have been trafficked from the Netherlands (where ecstasy mostly contains MDMA).¹²¹

Whilst “ecstasy” trafficked to New Zealand from other regions of the world are found to have a high MDMA content, the drop in “ecstasy” prices in New Zealand might reflect “ecstasy” of low MDMA purity manufactured in the country. This assumption would be supported by the fact that between 2008 and 2012, “ecstasy” seizures in New Zealand have been

¹²⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand 2013.

¹²¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand 2013; Reported to the EMCDDA by the Reitox National Focal Point of the Netherlands, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), 2012.

Figure 11. Safrole and 3,4-MDP-2-P seizures (litres) reported in East and South-East Asia and Oceania, by country, 2011-2012



Source(s): International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

steadily increasing from about 4 kg to just under 50 kg. However, the typical street price per tablet has dropped from about US\$ 43 to US\$ 16 over the same period.¹²² The increase in seizures accompanied by falling prices usually implies an increased availability of “ecstasy”. However, it could be that lower prices since 2010 were reflecting “ecstasy” tablets of low MDMA purity manufactured in the country and not changes in availability. For instance, a laboratory believed to be intended for the supply of “ecstasy” tablets discovered in New Zealand in November 2012, was in fact manufacturing NPS that were sold as “ecstasy”.¹²³ “Ecstasy” seizures in New Zealand have dropped to around 5 kg in 2013, but given that the typical street price per “ecstasy” tablet was not reported that year, the trend for 2013 remains unknown.¹²⁴

It might be that New Zealand has a two-pronged market in which “ecstasy” high in MDMA is being supplied from countries outside the region, predominantly

Western Europe, and “ecstasy” containing various controlled and non-controlled substances is being manufactured domestically. So far, there is not enough information available to establish whether the growing availability of NPS in New Zealand and other countries in the region may have impacted the “ecstasy” market.

What is the extent of “ecstasy” manufacture in the region?

Over the last few years, “ecstasy” manufacture has been reported by a number of countries in the region. In Australia, 16 MDMA laboratories were dismantled in 2011, but only another 2 the following year.¹²⁵ In total, 6 “ecstasy” laboratories were dismantled in Malaysia in 2011 and 2012 respectively and another 8 “ecstasy” or undefined ATS laboratories were dismantled in 2013.¹²⁶ In Indonesia, 5 “ecstasy” laboratories were dismantled in 2011 declining to 2 in 2012 (some of which were reported to be of “kitchen”-size), while one laboratory was dismantled in New Zealand in 2012 and another 2 in 2013.¹²⁷ Overall, there has been a decrease in the number of discovered illicit laboratories in the region from 27 in 2011 to 12 the following year, mostly due to the drop reported in Australia and Indonesia. Given that the size of most laboratories is unknown, the sheer number of dismantled “ecstasy” laboratories does not indicate the quantity produced in the region. Therefore, it is difficult to establish the extent of “ecstasy” manufacture in the region based on the number of dismantled laboratories.

However, in the last few years there have been significant seizures of ecstasy precursor chemicals in the region. The primary precursor chemicals used in the manufacture of MDMA and its analogues, MDA and MDEA, are safrole (including in the form of safrole rich oils), isosafrole, piperonal and 3,4-MDP-2-P¹²⁸. Between 2008 and 2010, ecstasy precursor chemical seizures annually remained below 90 litres, but in 2011 seizures surged to over 58,000 litres and still reached 8,000 litres in 2012.¹²⁹ This significant increase in ecstasy chemical

¹²² The typical street price per “ecstasy” tablet was not reported for 2013. Whether there have been any changes in the purity of “ecstasy” tablets in New Zealand is unknown.

¹²³ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand 2012.

¹²⁴ There was insufficient information to understand the potential impact of the introduction of the Psychoactive Substance Act 2013 in New Zealand on the ecstasy market. The available information suggests that many products containing NPS which received interim licenses after the introduction of the Act (all of which were revoked by May 2014) actually contained synthetic cannabinoids rather than NPS with similarities to ecstasy-type of substances. See Wilkins, C. (2014). “The interim regulated legal market for NPS (‘legal high’) products in New Zealand: The impact of new retail restrictions and product licensing.” *Drug Test Anal* 6(7-8): 868-875 and <http://psychoactives.health.govt.nz>.

¹²⁵ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Australia 2012.

¹²⁶ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2011-13; Drug Abuse Information Network for Asia and the Pacific (DAINAP).

¹²⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2011-13.

¹²⁸ 3,4-MDP-2-P is the chemical abbreviation of 3,4-methylenedioxyphenyl-2-propanone.

¹²⁹ International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

Chemical precursor diversion from licit trade

The majority of chemical precursors for ecstasy seized in East and South-East Asia and Oceania between 2007 and 2012 consisted of safrole, while 3,4-MDP-2-P, isosafrole and piperonal made up less than 4 per cent of seizures.¹³⁰ Safrole is produced mainly from the sassafras plants and according to a study in South-East Asia, the plant is found largely in China, Myanmar and Cambodia.¹³¹ In East and South-East Asia, more than 360 plants containing essential oils rich in safrole were identified most of which were of the *Cinnamomum* species.¹³² Other plant species, rich in safrole, are also found in the Americas. Given that the cultivation of safrole is largely unregulated, there remain high risks of diversion for illicit manufacture.

With regards to licit trade, piperonal has emerged as the main “ecstasy” precursor chemical exported worldwide. Between 1998 and 2000, licit global piperonal exports increased significantly, while exports of other “ecstasy” precursor chemicals, such as isosafrole, declined, after having reached a peak in 1998.¹³³ Worldwide, 38 Governments reported exports of “ecstasy” precursor chemicals between 2007 and 2012 with a total annual value of US\$ 42 million.¹³⁴ Over the same period, the largest exporters of “ecstasy” precursor chemicals were China at 56 per cent, followed by Hong Kong (China) at 21 per cent.¹³⁵ The largest importers over this period were Hong Kong (China) at 18 per cent, followed by the United States at 17 per cent.¹³⁶

While 3,4-MDP-2-P has little licit use and is an internationally controlled precursor, safrole is used in the manufacture of pesticides, insecticides and fragrances, and as an antiseptic to treat infestations, as well as an additive in products such as root beer, sassafras tea or *pinga com sassafras* (Brazil).¹³⁷ Isosafrole and piperonal are also widely used in the chemical and pharmaceutical industries.¹³⁸ Between November 2012 and November 2013, INCB was informed of 50 shipments of safrole, including in the form of safrole-rich oils, with a total volume of about 5,800 litres, via the Pre-Export Notification Online (PEN Online) system. The annual licit global requirements of safrole are estimated at 3,500 tons.¹³⁹ Extensive licit trade of safrole challenges the monitoring of its diversion for illicit ecstasy manufacture.

precursor seizures reported in 2011 is primarily attributable to the surge of safrole seizures reported in Thailand, from where there have been no reports of “ecstasy” manufacture to UNODC. Of the ecstasy chemical precursor seizures reported in 2011 and 2012, consisting mostly of safrole and some 3,4-MDP-2-P, 70 per cent were reported in Thailand, 12 per cent in Malaysia, 9

per cent each in Australia and Cambodia, and less than 1 per cent were reported in China, New Zealand and the Philippines.

The large amount of ecstasy chemical precursors recently seized in the region might indicate the potential to manufacture considerable amounts of ecstasy. Based upon the commonly used MDMA manufacturing methods as provided by the International Narcotics Control Board (INCB), the total of about 66,000 litres of safrole and 3,4-MDP-2-P seized in the region in 2011 and 2012 would have been sufficient to potentially manufacture about 44 tons of ecstasy. This amount far exceeds the total ecstasy seized worldwide in both 2011 and 2012, which amounted to 9 tons.

Although the ecstasy precursor chemicals seized in East and South-East Asia and Oceania may have been intended for the use of domestic manufacture, reports show that large amounts are also being trafficked from this region to other parts of the world. For instance, between November 2012 and November 2013, the Netherlands had reported 3 safrole seizures, two of which occurred at the port of Rotterdam, involving 12,000 litres in a shipment mislabelled as palm oil

¹³⁰ International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

¹³¹ UNODC Regional Centre for East Asia and the Pacific, “Safrole-rich essential oils — risk of illicit use”, *Eastern Horizons*, Summer-Autumn 2007, pp. 9-10.

¹³² United Nations Office on Drugs and Crime (UNODC), *Amphetamines and Ecstasy: 2008 Global ATS Assessment*, Austria, August 2008.

¹³³ For more information see United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

¹³⁴ United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

¹³⁵ United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

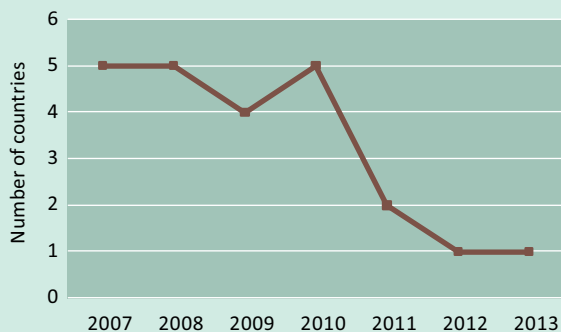
¹³⁶ United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

¹³⁷ United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2014*, New York, June 2014.

¹³⁸ United Nations Office on Drugs and Crime (UNODC), *2014 Global Synthetic Drugs Assessment: Amphetamine-type stimulants and new psychoactive substances*, Vienna, May 2014.

¹³⁹ United Nations Office on Drugs and Crime (UNODC), *Amphetamines and Ecstasy: 2008 Global ATS Assessment*, Austria, August 2008.

Figure 12. The number of times countries in East and South-East Asia and Oceania have been identified as countries of origin for "ecstasy" seized worldwide, 2007-2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2007-2013.

from Thailand and 1,800 litres in a shipment from Cambodia, while another 25 litres were seized in a shipment sent via courier service from Indonesia.¹⁴⁰ Over the same period, 1,000 litres of 3,4-MDP-2-P originating in China and heading for the Netherlands was seized whilst transiting Koper seaport in Slovenia in a container mixed with piperonal.¹⁴¹

Geographic diversification in the supply for "ecstasy"

Although ecstasy is manufactured in the region, a decreasing number of "ecstasy" trafficking attempts from countries in East and South-East Asia and Oceania are being intercepted within the region and beyond. In 2008, seized "ecstasy" had reportedly been trafficked from China to Mongolia and New Zealand, from Thailand to the Republic of Korea and the Philippines, and from Indonesia to Niger.¹⁴² In contrast, in both 2012 and 2013 there had only been one report of "ecstasy" having originated from a country in the region and in both years "ecstasy" was perceived to have originated from China.¹⁴³ On the whole, the number of countries in East and South-East Asia and Oceania that were identified as origin or

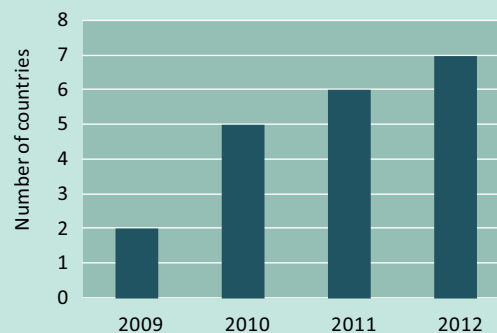
¹⁴⁰ International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

¹⁴¹ International Narcotics Control Board (INCB), *Precursor and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2013*, Vienna, March 2014.

¹⁴² United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008.

¹⁴³ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 20012-2013.

Figure 13. The number of countries outside East and South-East Asia and Oceania identified as the origin or departure for "ecstasy" seized in East and South-East Asia and Oceania, 2009-2012



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009-2012.

departure for "ecstasy" trafficking has decreased from 4-5 times annually between 2007 and 2010, to 3 times in 2011, only once in both 2012 and 2013.

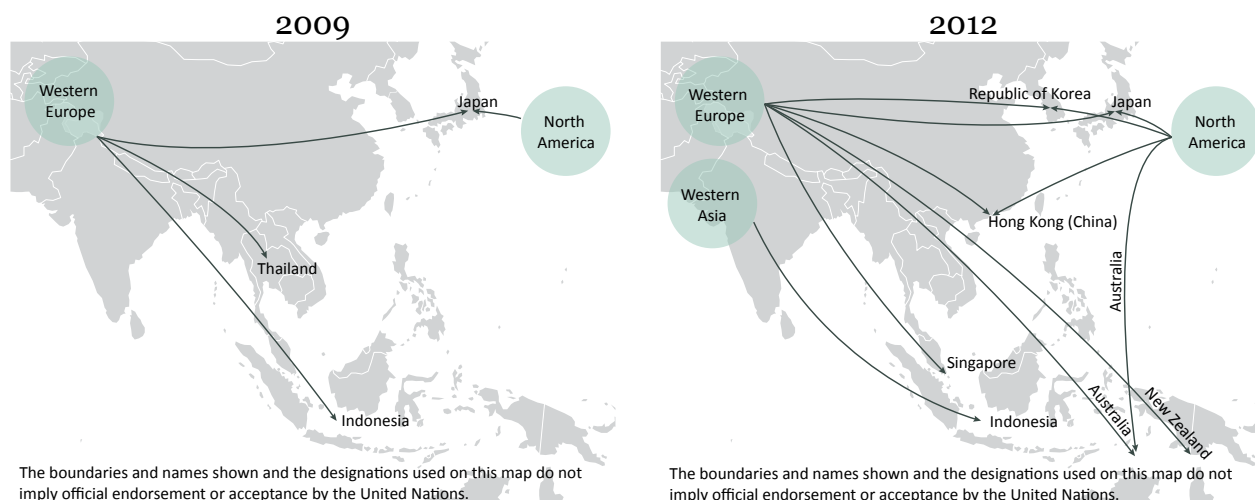
"Ecstasy" has been supplied from countries outside the region for some time. Since 2008, Canada and the Netherlands have annually been identified as countries of origin or departure for "ecstasy" seized in the region, by Australia, Hong Kong (China), Japan and the Republic of Korea.¹⁴⁴ However, the number of countries annually identified for "ecstasy" trafficked from outside the region to East and South-East Asia and Oceania has increased from just 2 in 2009 to 7 in 2012, most of which are located in Western Europe and include France, Germany, the Netherlands and the United Kingdom, in addition to Canada, the Islamic Republic of Iran and the United States.¹⁴⁵

Moreover, there appears to have been a regional diversification of "ecstasy" trafficking to the region, which up until 2011 had been limited to Western Europe and North America, but since 2012 has included Western Asia. The number of recipient countries for trafficked "ecstasy" has also diversified from comprising China, Indonesia, Japan and Singapore in 2009 to additionally include Australia, Hong Kong (China), the Republic of Korea and New Zealand (with the exception of China, which was not identified as a destination country for "ecstasy" seized

¹⁴⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008-2012.

¹⁴⁵ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2008-2012.

Map 5: “Ecstasy” flows to countries in East and South-East Asia and Oceania as perceived by recipient country, 2009 and 2012*



* Not actual trafficking routes.

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2009 and 2012.

in 2012 by any country worldwide). Given that the exact annual amount of “ecstasy” trafficked from outside the region is unknown, this trend does not imply that there are increasing amounts of “ecstasy” being sourced in East and South-East Asia from other countries in the world, but that the interception of trafficking attempts from countries outside the region has increased. For instance, according to the Australian Crime Commission (ACC), the number of small quantity MDMA detections along the Australian border is on the rise, most of which occur in the postal stream and have been trafficked from Western European countries, including Germany, the Netherlands and the United Kingdom.¹⁴⁶

Ongoing gaps and data limitations

On the whole, there are indications of increasing activity in the regional “ecstasy” market. However, information on “ecstasy” prices, purity levels and prevalence rates remains scarce and prevents establishing conclusive arguments on the “ecstasy” situation in the region. Also, there are discrepancies in the data and information regarding ecstasy manufacture. The number of dismantled laboratories provides an incomplete picture, given that the size of the operations are usually not known, and yet, large seizures of safrole point to a high availability of ecstasy precursor chemicals. The emergence of NPS further confuses the analysis of the “ecstasy” market. Given that a number of countries in the region have reported of NPS sold as “ecstasy”

on ATS markets, reports of high level “ecstasy” use in some countries may be misleading. Furthermore, although law enforcement agencies in certain countries have reported increased “ecstasy” seizures, many of these tablets might have contained NPS with little or no MDMA. Therefore, more forensic evidence and analysis is needed to distinguish between “ecstasy” seizures of varying MDMA content.

¹⁴⁶ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Australia 2012 and 2013.

4. The NPS market in East and South-East Asia and Oceania

The amphetamine-type stimulants (ATS) market has long been characterized by a variety of substances. In recent years, a number of new psychoactive substances (NPS)¹⁴⁷ have rapidly emerged on this market.¹⁴⁸ By November 2014, close to one hundred Member States and territories reported the emergence of NPS to UNODC. Many NPS share similar effects and profiles of substances under international control that they are designed to mimic.¹⁴⁹ So far, 9 NPS substance groups have been identified.¹⁵⁰ For instance, synthetic cannabinoids (e.g. JWH-018¹⁵¹) are mimetics of THC (*delta*-9-Tetrahydrocannabinol), the main psychoactive substance of cannabis. Several NPS mimicking the effects of ATS belong to the synthetic cathinone group which have stimulant and empathogenic properties, and the phenethylamine group which includes substances that can induce stimulant and hallucinogenic effects.

Since 2009 until the writing of this report, over 500 NPS have been reported to UNODC worldwide. Data reported to the UNODC Early Warning Advisory on NPS (EWA) indicate that the NPS market is very dynamic and that a number of NPS may be transient. There are notable variations in the substance groups

¹⁴⁷ New psychoactive substances are substances of abuse, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat. In this context, the term 'new' does not necessarily refer to newly developed substances, but to substances that have been recently become available.

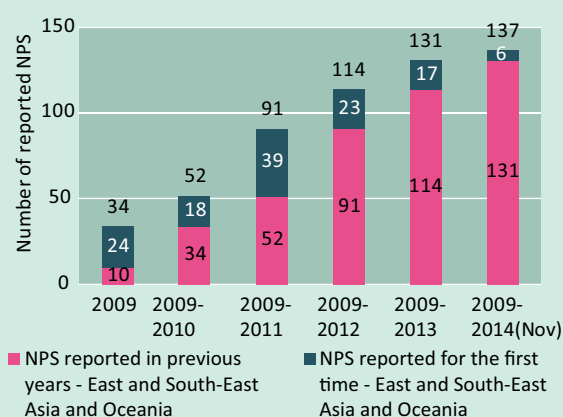
¹⁴⁸ For the purpose of this report, NPS includes ketamine which differs from other NPS in that is widely used in human and veterinary medicine, while most NPS have little or no history of medical use.

¹⁴⁹ So-called mimetics are substances that are chemically different but mimic the pharmacological effects of a particular substance, notably by acting on the same receptors of the brain; See United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2013*, New York, May 2013.

¹⁵⁰ The 9 substance groups identified are: aminoindanes, ketamine and phencyclidine-type substances, phenethylamines, piperazines, plant-based substances, synthetic cannabinoids, synthetic cathinones, tryptamines, and other substances (which refers to NPS that do not fit into the aforementioned groups).

¹⁵¹ (1-Pentyl-1*H*-indol-3-yl)-1-naphthalenyl-methanone (JWH-018) is a synthetic cannabinoid not under international control at the time of drafting this report.

Figure 14. Number of NPS reported in East and South-East Asia and Oceania up to 2014 (Nov)

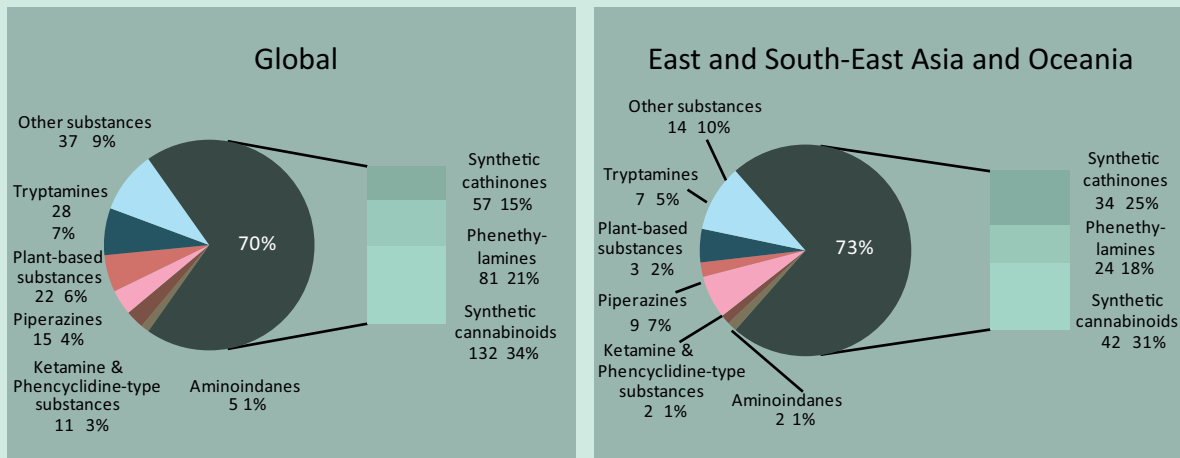


Source(s): United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov).

and the number of NPS encountered, as well as in the patterns of emergence and persistence of NPS.

As on the global level, the number of NPS reported in East and South-East Asia and Oceania, has increased significantly, from 34 substances in 2009 to 137 in 2014 (Nov). The largest increase in terms of newly reported NPS was observed between 2010 (52 NPS) and 2011 (91 NPS), with major increases within the synthetic cannabinoid group and the synthetic cathinone group. Indeed, in East and South-East Asia and Oceania, most reported NPS belong to the synthetic cannabinoid group (42 substances). However, synthetic cathinones account for a larger share of the total NPS reported in the region at 25 per cent, than on the global level where synthetic cathinones account for only a 15 per cent share of the total reported NPS. This may reflect the important role of ATS in East and South-East Asia and Oceania, the effects of which can be mimicked by synthetic cathinones.

Figure 15. Global and regional percentages of NPS by substance group, 2008-2014 (Nov)



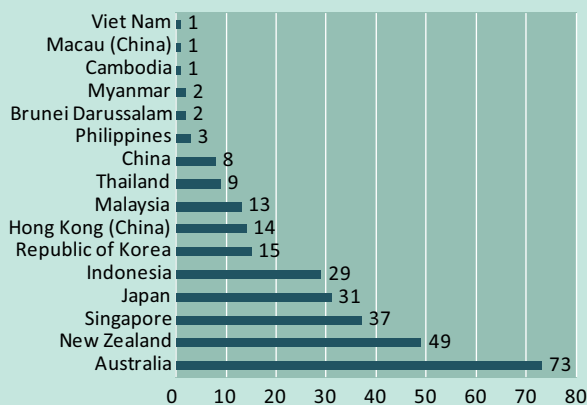
Source(s): United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov)

What is the diversity of available NPS in the region?

Within East and South-East Asia and Oceania, countries reported a large diversity of NPS substance groups, as well as varied emergence patterns and persistence trends. On the whole, the largest number of NPS in the region between 2008 and 2014 was reported by Australia (73 substances), followed by New Zealand (49 substances), Singapore (37 substances), Japan (31 substances) and Indonesia (29 substances).

Aside from these countries, other countries in the region

Figure 16. Number of NPS reported in East and South-East Asia and Oceania, by country, up to 2014 (Nov)



Source(s): United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov)

have also reported NPS, but of a much less diverse range. For instance, Cambodia, Macau (China), and Viet Nam have only reported the emergence of ketamine. This could relate to the many technical challenges in identifying NPS faced by forensic laboratories in the region. To date, the Lao People’s Democratic Republic (PDR) has not reported the emergence of NPS to UNODC.

The NPS market in the region is characterized by a large number of synthetic cannabinoids, synthetic cathinones and phenethylamines. While synthetic cathinones became established on the market as far back as 2009, with 34 substances reported by 2014 (Nov), synthetic cannabinoids only began to play a major role on the market from 2011 onwards. Indeed, the largest increase of NPS in the region has been observed within the synthetic cannabinoid group, rising from only 2 substances reported in 2009 to a total of 42 substances reported by 2014 (Nov).

Of the 137 NPS reported between 2008 and 2014 (Nov), 72 substances were reported in two or more years but 65¹⁵² substances were reported only once, which suggests that a sizeable proportion of NPS may be transient and have not established a permanent presence on the drug market. Most of the substances that, according to country reports, are no longer available on the market¹⁵³ belong to the synthetic cannabinoid and synthetic

¹⁵² Of the 65 NPS, 6 NPS were reported for the first time in 2014.

¹⁵³ Substances included in this group have only been reported in a single year between 2008 to 2014 and no further reports of these substances being observed on the market have been submitted by countries/territories in the region.

Table 1: NPS most frequently reported by countries/territories, 2008 -2014 (Nov)

Substance name	Number of countries/ territories
Ketamine	15
1-Benzylpiperazine (BZP)	9
1-(3-Trifluoromethylphenyl)piperazine (TFMPP)	8
Mephedrone (4-MMC)	7
<i>Catha edulis</i> (khat)	7

Source(s): United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov)

cathinone groups. Some stability has been observed in the cases of 33 NPS that have been reported of in at least 3 consecutive years. In the region, there appears to be an established presence of some NPS, of which 8 substances had been annually reported since 2009. These substances include BZP¹⁵⁴, DMA¹⁵⁵, JWH-018, ketamine, kratom, mephedrone¹⁵⁶, methylone¹⁵⁷ and TFMPP¹⁵⁸. The substance that had been reported by the most number of countries/territories was ketamine (15 countries), followed by BZP (9 countries) and TFMPP (8 countries).

A large market for ketamine in East and South-East Asia and Oceania

As a substance that has a closely related chemical structure to the internationally controlled substance phencyclidine, listed in Schedule II of the 1971 Convention on Psychotropic Substances, ketamine was synthesized as an anaesthetic and marketed as a medical alternative to phencyclidine in the early 1970s. Although it is a widely used anaesthetic in veterinary and human medicine, it is also used throughout the region for recreational purposes and non-medical use dates back to the 1980s and 1990s.¹⁵⁹ Chronic ketamine use can induce several health issues including high blood pressure, abdominal pain, lower urinary tract symptoms, disorientation, impaired vision and confusion.¹⁶⁰

There are indications that non-medical use of ketamine is increasing in some countries. Although the annual prevalence of ketamine use in Hong Kong (China), declined from 0.05 per cent in 2012 to 0.04 per cent in 2013, prevalence rates remained at a higher level than for ATS use at 0.03 per cent. In 2013, ketamine users continued to account for almost 28 per cent of all drug users and between 2009 to 2013, ketamine was identified as the second most used drug, according to expert perception.¹⁶¹ In 2012 and 2013, experts perceived an increase in ketamine use in Brunei Darussalam, China and Macau (China).¹⁶² Among people held in prison in Macau (China), annual use of ketamine in 2013 stood at almost 27 per cent, signifying an increase from 18 per cent in 2012.¹⁶³ An increasing number of ketamine-related treatment admissions have been registered since 2008, rising from 21 admissions that year to 158 admissions in 2013. The number of people treated for ketamine use in Singapore almost doubled to 29 people between 2011 and 2013, which is comparable to Thailand where the number of people treated for ketamine use rose to 31 in 2013.¹⁶⁴ Over the last few years, Australia and New Zealand reported stable ketamine use, at an annual prevalence rate of 0.21 per cent use in 2010¹⁶⁵ and 0.3 per cent use in 2007 among the general population¹⁶⁶ respectively.¹⁶⁷

¹⁵⁴ 1-Benzylpiperazine (BZP) is a piperazines not under international control at the time of drafting this report.

¹⁵⁵ N,N-Dimethylamphetamine (DMA) is a phenethylamine not under international control.

¹⁵⁶ 4-Methylmethcathinone (4-MMC or mephedrone) is a synthetic cathinone not under international control at the time of drafting this report.

¹⁵⁷ 3,4-Methylenedioxy-N-methcathinone (bk-MDMA or methylone) is a synthetic cathinone not under international control at the time of drafting this report.

¹⁵⁸ 1-(3-Trifluoromethylphenyl)piperazine (TFMPP) is a piperazine not under international control.

¹⁵⁹ European Monitoring Center for Drugs and Drug Addiction (EMCDDA), 'Report on the risk assessment of ketamine in the framework of the joint action on new synthetic drugs', Belgium, 2002.

¹⁶⁰ United Christian Hospital (2010), Emergency department presentation of ketamine abusers in Hong Kong: a review of 233 cases, *Hong Kong Medical Journal* 16:6-11; United Nations Office on Drugs and Crime (UNODC), *The challenge of new psychoactive substances*, Global Synthetics

Monitoring: Analyses, Reporting and Trends (SMART) Programme, Vienna, March 2013; T. Okon, (2007) "Ketamine: an introduction for the pain and palliative medicine physician", *Pain Physician*, 10 (3): 493-500.

¹⁶¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China), 2009 – 2013.

¹⁶² United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Brunei Darussalam, China and Macau (China), 2012 and 2013.

¹⁶³ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Macau (China), 2012 and 2013.

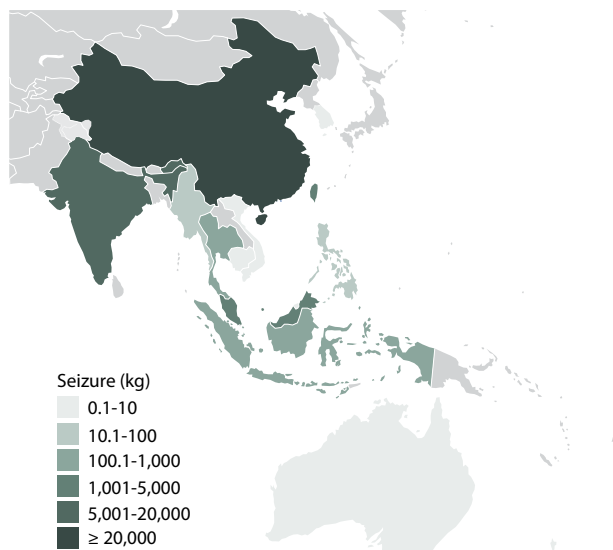
¹⁶⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Singapore and Thailand, 2011-2013.

¹⁶⁵ Australian Institute of Health and Welfare, *2010 National Drug Strategy Household Survey Report*, Drug Statistics Series No. 25, Canberra, July 2011.

¹⁶⁶ In these use surveys, the term "general population" in Australia refers to people aged 15-64 and in New Zealand to people aged 16-64.

¹⁶⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand 2010-2013.

Map 6: Cumulative ketamine seizures reported in East and South-East Asia and Oceania, 2008-2013



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ) and Early Warning Advisory on new psychoactive substances, 2014 (Nov). * Amount is not specified - Drug Abuse Information Network for Asia and the Pacific (DAINAP).

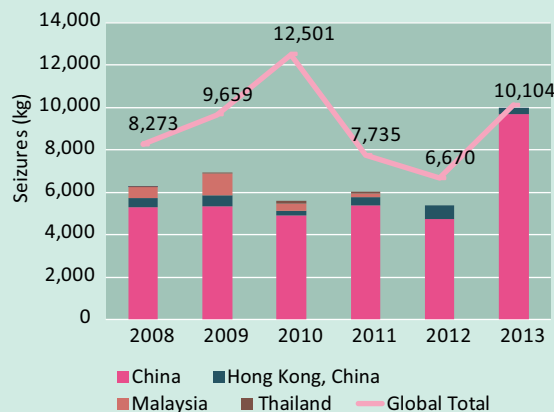
Over the last 6 years, ketamine seizures in the region have accounted for a large share of global total ketamine seized. Ketamine seizures increased significantly to almost 10 tons in 2013, which marks an 85 per cent increase from the amount seized in 2012. Ketamine continues to be the second most seized substance in China at nearly 9.7 tons, after ATS seizures at 18.4 tons. Hong Kong (China), has also reported a more than two-fold increase to about 0.3 tons in 2013 from the previous year. Ketamine seizure increases have also been reported in Australia where 199 seizure cases were detected in 2012/13, rising from 59 seizure cases in 2011/12.¹⁶⁸ Ketamine seizures in other countries, such as Malaysia¹⁶⁹ and Indonesia¹⁷⁰, have been comparatively lower and the amounts seized in these countries have decreased over the last few years. There are indications that a large share of the amount of ketamine seized in the region was intended for the domestic market.

¹⁶⁸ Australia Crime Commission, *2012-13 Illicit Drug Data Report*, Data from: Australian Customs Border and Protection Service, 2014.

¹⁶⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Malaysia, 2009; Drug Abuse Information Network for Asia and the Pacific (DAINAP), 2012.

¹⁷⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Indonesia, 2010; Drug Abuse Information Network for Asia and the Pacific (DAINAP), 2013.

Figure 17. Ketamine seizures reported in selected countries in East and South-East Asia and total global seizures, 2008-2013



Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ) 2008-2013. China data for 2012: National Narcotics Control Commission of China (NNCC).

Between 2008 and 2013, illicit ketamine manufacture has been reported by several countries and territories in Asia, mostly China and India, as well as Taiwan, Province of China, and Hong Kong (China). A total of 122 ketamine laboratories were dismantled in China in 2013¹⁷¹, compared to 81 laboratories in 2012.¹⁷² According to the Chinese authorities, large quantities of ketamine were manufactured in Guangdong, China.¹⁷³ Hong Kong (China), and India both reported clandestine ketamine manufacture, having each dismantled a clandestine ketamine laboratory in 2012.¹⁷⁴

Several countries in East and South East Asia seized ketamine that was perceived to have originated from within the region, namely from China and India. Between 2009 and 2013, Brunei Darussalam, Hong Kong (China), Japan, and Indonesia reported seizures of ketamine perceived to have been trafficked from China and/or Malaysia.¹⁷⁵ Over the same period, countries in Western Europe and North America seized ketamine

¹⁷¹ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for China.

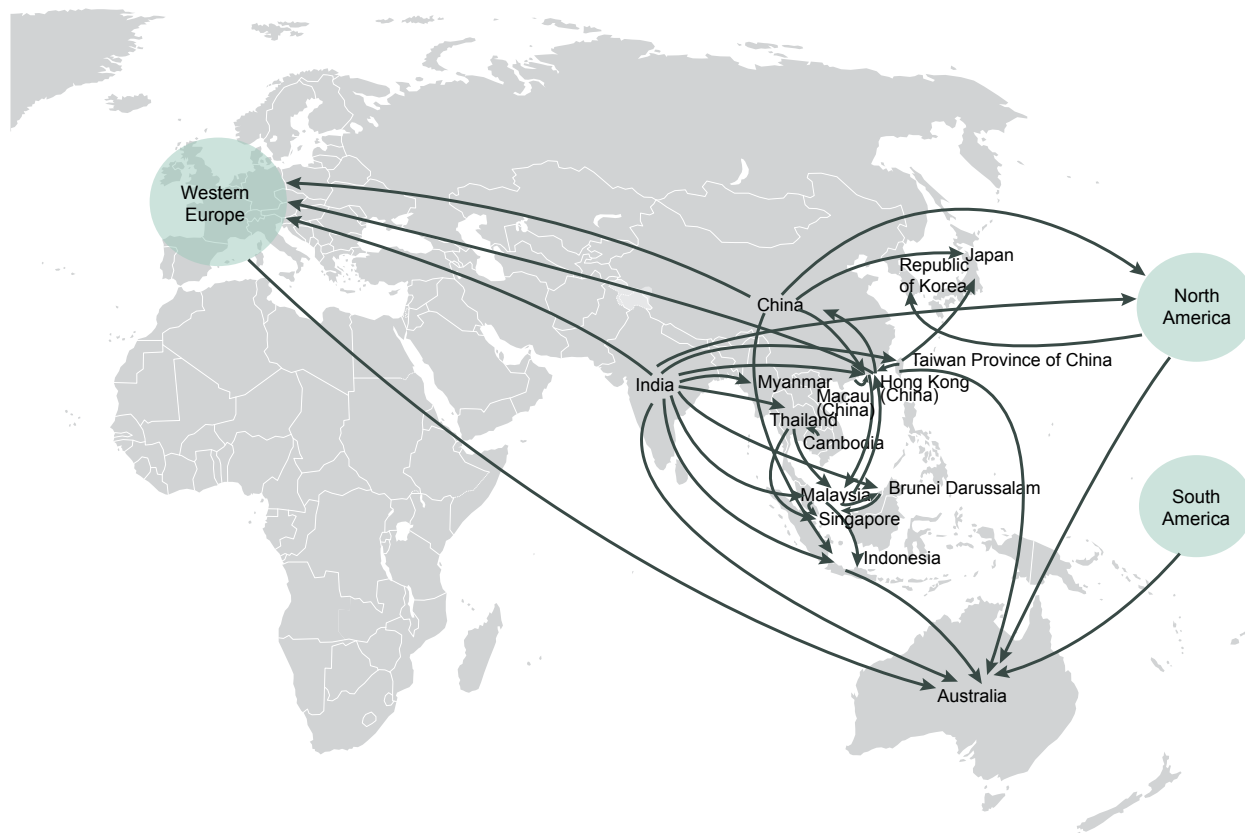
¹⁷² United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for China, 2012-2013.

¹⁷³ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for China.

¹⁷⁴ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China) and India, 2012.

¹⁷⁵ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China), Japan, Indonesia and Brunei Darussalam, 2009-2013.

Map 7: Ketamine flows as perceived by countries of origin and recipient countries, 2009-2013*



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

* Not actual trafficking routes.

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ) 2009-2013; United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for the Republic of Korea; Australia Crime Commission, *2012-13 Illicit Drug Data Report*, 2014.

Note: The origins of the flow arrows do not necessarily indicate the source/manufacture of ketamine. These arrows represent the flows as perceived by recipient countries. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

that was reportedly trafficked from China.¹⁷⁶ Ketamine seizures reported by Hong Kong (China) and Japan between 2008 and 2012 were perceived to have been trafficked from Taiwan Province of China.¹⁷⁷ Some countries in the region, such as Brunei Darussalam, Hong Kong (China) and Thailand seized ketamine between 2009 and 2013 that was perceived to have been intended for onward trafficking to Malaysia.¹⁷⁸

With regards to inter-regional ketamine trafficking, Brunei Darussalam, Hong Kong (China), Indonesia, Malaysia, Myanmar, Taiwan Province of China and

Thailand seized ketamine perceived to have originated from India.¹⁷⁹ According to the Australian authorities, more than half of the ketamine seized in 2013 was perceived to have been trafficked from the United Kingdom and in 2012, some of which had originated from the Netherlands and Peru. The Republic of Korea reported seized ketamine that was perceived to have been trafficked to the country via the United States.¹⁸⁰

Seizure reports, use data and dismantled laboratories indicate a large market for ketamine in the region. Ketamine seizure information also indicates extensive inter-regional and intra-regional trafficking, with

¹⁷⁶ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Belgium and Canada, 2009-2012.

¹⁷⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China) and Japan, 2008-2012.

¹⁷⁸ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Brunei Darussalam; Hong Kong (China) and Thailand, 2009-2013.

¹⁷⁹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Brunei Darussalam; Hong Kong (China), India, Indonesia, Myanmar and Thailand, 2009-2013.

¹⁸⁰ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for the Republic of Korea.

Table 2: Kratom seizures (kg) of selected countries, 2008-2013

Country	2008	2009	2010	2011	2012	2013
Malaysia	1,441.8*	2,813.6*	24,994.0	3,067*	5,237.7*	9,101.5*
Myanmar	308.5	597.5*	375	969.5*	330.2*	219*
Thailand**	●	29,917.8*	44,206.2*	32,913.6*	28,978.4*	45,513.2*
Republic of Korea	●	●	●	●	●	0.3

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ); *Drug Abuse Information Network for Asia and the Pacific (DAINAP); ** Combined seizures of kratom leaves and kratom liquid.

ketamine from the East and South-East Asian region being mostly trafficked to Western Europe and North America.

A growing market for plant-based substances

Traditionally, kratom (*Mitragyna speciosa*) has been used in Malaysia and Thailand as a substitute for opium, and in traditional medicine, due to its “morphine-like” effects. Khat (*Catha edulis*) is a plant-based NPS, which has only recently emerged in East and South-East Asia and Oceania. Khat contains the amphetamine-type stimulant, cathinone, and has been traditionally used in East Africa and parts of the Middle East. Over the last 6 years, khat use has emerged in several other regions including Europe and North America.

Thailand continues to report the largest amounts of kratom seizures in the region, and there are reports of extensive illicit kratom cultivation and use particularly in the southern parts of the country. In 2013, kratom seizures in Thailand increased by 57 per cent to 45.5 tons from the previous year, and in Malaysia kratom seizures had risen by more than 74 per cent from the previous year to 9.1 tons in 2013. Malaysia continues to report illicit kratom cultivation in the country. Myanmar also annually reported significant amounts of kratom seizures¹⁸¹, and law enforcement authorities in Myanmar have eradicated illicit kratom cultivation sites in the Tanintharyi Division in 2013 and 2014.¹⁸² Kratom seizures have also been reported in New Zealand, Indonesia and the Republic of Korea.¹⁸³

In Thailand, treatment admissions for kratom use increased significantly in 2012 to about 11,600 admissions, signifying a four-fold increase from 2011, and

remained at a relatively high level in 2013 at almost 10,000 admissions.¹⁸⁴ However, treatment admissions for kratom use only accounted for 3.2 per cent of all drug use treatment admissions in the country in 2013.¹⁸⁵ Malaysia and Myanmar reported that kratom was one of the most commonly used NPS over the past years.¹⁸⁶

Khat has more recently emerged in some countries in East and South-East Asia and Oceania, including Australia, China, Hong Kong (China), Indonesia, Japan, Malaysia, New Zealand, Thailand and Viet Nam. Between 2008 and 2013, the largest amounts of annual khat seizures were reported by China and Hong Kong (China). Since 2008, when khat seizures were first reported by New Zealand, khat seizures continue to be reported annually. Indonesia was the first country to report of khat cultivation in the region in 2013, when the Indonesian National Narcotics Board (BNN) discovered a 7 hectare khat plantation in Cisarua of Bogor in West Java.¹⁸⁷

A complex picture of intra- and inter-regional khat trafficking has emerged in recent years. Khat has been perceived to have been trafficked within the region e.g. shipments transiting China and Australia towards New Zealand,¹⁸⁸ as well as being perceived to have been trafficked from East and South-East Asia and Oceania to other regions worldwide. The Vietnamese authorities reported to have seized 5.8 kg of khat in 2012, that was perceived to have been destined for the United States¹⁸⁹. In that same year, the United States reported that a

¹⁸¹ Central Committee for Drug Abuse Control (CCDAC), “Myanmar country report”, presented at the Global SMART Programme Regional meeting, Yangon, Myanmar, 20-21 August 2014.

¹⁸² Central Committee for Drug Abuse Control (CCDAC), “Myanmar country report”, presented at the Global SMART Programme Regional meeting, Yangon, Myanmar, 20-21 August 2014.

¹⁸³ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov).

¹⁸⁴ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

¹⁸⁵ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

¹⁸⁶ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

¹⁸⁷ “Comparison Analysis of Red and Green Khat Leaves (Fresh, Dried and After Two Months Frozen)”, Drugs Testing Laboratory National Narcotics Board Republic of Indonesia, April 2013.

¹⁸⁸ United Nations Office on Drugs and Crime (UNODC), Individual Drug Seizures (IDS) for New Zealand, 2010-2013.

¹⁸⁹ General Department of Vietnam Customs (GDVC), ‘Drug Trafficking in Viet Nam’, presented at the World Customs Organization Regional Intelligence Liaison Office for Asia and the Pacific Regional Seminar for Information Exchange to Fight against Drug Trafficking, Seoul, 16-18 April 2013.

Table 3: Khat seizures (kg) of selected countries/territories, 2008-2013

Country	2008	2009	2010	2011	2012	2013
Australia	•	89.7	•	•	•	•
China	5271.1	•	•	•	•	•
New Zealand	145.9*	136.9	84.7*	74.4*	52.0*	58.7*
Thailand	•	•	•	•	•	130.0**
Hong Kong (China)	•	•	•	•	1,096.8	313.7

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire (ARQ); * UNODC Individual Drug Seizures; ** Drug Abuse Information Network for Asia and the Pacific (DAINAP)

large share of khat seizures were perceived to have been trafficked via China and Hong Kong (China).¹⁹⁰ There have also been reports of khat accessing markets in East and South-East Asia and Oceania from Africa and South Asia. According to law enforcement authorities in Hong Kong (China), khat seized in 2013 was perceived to have been trafficked from Ethiopia and India and intended for onward trafficking to China.¹⁹¹ Some khat seizures reported in New Zealand were also perceived to have originated from North America and Western Europe.¹⁹²

An emerging market for synthetic cannabinoids and synthetic cathinones

Over the last few years, an increasing number and availability of synthetic cannabinoids and synthetic cathinones, has been reported in East and South-East Asia and Oceania, in countries such as Australia, China, Hong Kong (China), Indonesia, Japan, Malaysia and New Zealand.

A large number of synthetic cannabinoids has emerged in Singapore (17 substances), Japan (16 substances), Australia (14 substances) and New Zealand (13 substances) by November 2014.¹⁹³ The Republic of Korea reported that synthetic cannabinoid trafficking to the country has substantially increased during the last few years, with seizures annually reported since 2009 and a total of 1.8 kg of synthetic cannabinoids seized in 2013. Other countries such as Australia, New Zealand and Singapore have also reported of synthetic cannabinoid seizures cases these last few years. Data on NPS use remains scarce in many countries of

the region. The New Zealand Arrestee Drug Use Monitoring 2013 Report found that among detainees who had tried a drug for the first time, 9 per cent had used synthetic cannabinoids for the first time in 2012, which increased to 46 per cent in 2013, while 7 per cent of detainees had used synthetic cannabinoids prior to their arrest in 2013.¹⁹⁴ Although the findings of this survey account for a sub-population and are not representative for the general population, these figures might provide an indication of the growing importance of synthetic cannabinoids in recent years.

With regard to synthetic cathinones, the largest number of substances of this group was reported by Australia (23 substances) followed by New Zealand (13 substances), Singapore (10 substances) and Indonesia (8 substances).¹⁹⁵ In 2013, New Zealand Customs seized a number of NPS imported in powder form, presumably intended to be pressed into tablets.¹⁹⁶ New Zealand and Australian law enforcement authorities identified mephedrone as the seventh and eighth most used drug, respectively in 2013.¹⁹⁷ According to Australian law enforcement authorities, synthetic cathinones in 2012-2013 accounted for the majority of analysed border seizures by number,¹⁹⁸ most of which were detected in air cargo parcels and the international mail stream. In the Republic of Korea, MDPV was observed to be the most frequently detected substance of the synthetic cathinone group, accounting for a 29 per cent share in 2012.¹⁹⁹ Other

¹⁹⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for the United States, 2008-2012.

¹⁹¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hong Kong (China), 2013.

¹⁹² United Nations Office on Drugs and Crime (UNODC), Individual Drug Seizures for New Zealand, 2010-2013.

¹⁹³ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on NPS, 2014 (Nov).

¹⁹⁴ SHORE and Whariki Research Centre and Massey University, *New Zealand Arrestee Drug Use Monitoring 2013 Report*, May 2014.

¹⁹⁵ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on NPS, 2014 (Nov).

¹⁹⁶ National Drug Intelligence Bureau (NDIB), 'Illicit Drug Assessment 2012', Wellington, 2013.

¹⁹⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand and Australia, 2013.

¹⁹⁸ Australian Crime Commission (ACC), *Illicit Drug Data Report 2012-13*, Canberra, April 2014.

¹⁹⁹ Korea Customs Service, "Designer drug situation and activities of customs laboratories in Korea", presented at the Group of European Customs Laboratories workshop on designer drugs, Berlin, 27-28 September 2012.

detected synthetic cathinones include mephedrone and flephedrone. More recently, synthetic cathinones have emerged on the illicit drug market in Indonesia (such as methylone)²⁰⁰, Thailand (such as dimethylone and ethylone)²⁰¹ and Viet Nam (such as mephedrone).²⁰²

There are some reports of synthetic cannabinoids and synthetic cathinones as well as other NPS identified in East and South-East Asia and Oceania being manufactured within the region. In 2013, China reported to have dismantled a clandestine laboratory that was primarily synthesizing 4-MEC and methylone as well as JWH-018.²⁰³ According to Chinese law enforcement authorities, most NPS manufactured in the country were not intended for the domestic market but for trafficking to other countries, mainly by express mail and through international courier services. In 2012, Belarus²⁰⁴ and in 2013, Australia, the United States and the European Union were among the perceived destinations for NPS manufactured in China. According to the United States Drug Enforcement Administration (DEA), a 1,500 kg seizure report of synthetic cannabinoids and synthetic cathinones in June 2013, manufactured in India and China was perceived to have been intended for the United States and Australian drug market.²⁰⁵ Trafficking of NPS from China and India was reported by several European countries, including Bulgaria²⁰⁶, Hungary, Latvia, Malta and Poland between 2010 to 2013.²⁰⁷ Other European countries, such as Italy, reported synthetic cannabinoid seizures that were perceived to have been trafficked from New Zealand in 2011.²⁰⁸

Although most NPS seized in Japan were trafficked into the country as blended (ready-for-use) products, some smaller quantities of NPS were blended domestically.²⁰⁹

²⁰⁰ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

²⁰¹ United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on NPS, 2014 (Nov).

²⁰² Standing Office on Drugs and Crime (SODC), Ministry of Public Security, "Viet Nam country report", presented at the Global SMART Programme regional meeting, Yangon, Myanmar 20-21 August 2014.

²⁰³ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for China.

²⁰⁴ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for China and United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Belarus, 2012.

²⁰⁵ Australia Crime Commission (ACC), *2012-13 Illicit Drug Data Report*, 2014.

²⁰⁶ Seizures from China included the synthetic cannabinoids AM-2201, AB-Pinaca and UR-144.

²⁰⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Hungary, Latvia, Malta and Poland, 2010-2013.

²⁰⁸ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Italy, 2011.

²⁰⁹ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for Japan.

In November 2013, Japan Police charged a company that had been manufacturing and selling NPS, arrested 5 people in connection with this case and seized more than 100 kg of the synthetic cathinone *alpha*-PVP²¹⁰. The precursor chemicals used to manufacture the NPS were believed to have been imported from overseas.²¹¹ In 2013, there have been reports by the Republic of Korea, of synthetic cannabinoids that were perceived to have been trafficked from Japan into the country.²¹²

There have also been reports of synthetic cannabinoids perceived to have been trafficked from North America and Western Europe to East and South-East Asia.²¹³ The Republic of Korea reported that shipments containing JWH-018, JWH-210, AM-2201 in 2013 were perceived to have been trafficked from the United States, the United Kingdom, Netherlands and Spain.²¹⁴ In 2013, 1.4 kg of synthetic cannabinoids seized in the Republic of Korea, were perceived to have been trafficked from the United States.

NPS sold as such and under the name of controlled drugs

With many NPS sharing similar effects and profiles of substances under international control, they may be used to substitute or complement other drugs. According to the Australian Crime Commission, over the last years, a number of NPS have been used as substitutes for ATS. In a study conducted among frequent users of "ecstasy" and other stimulants in Australia in 2014, 36 per cent had also recently used an NPS (excluding synthetic cannabinoids).²¹⁵

In recent years, countries in East and South-East Asia and Oceania have reported NPS that had been sold as "ecstasy". In these cases, a large share of the tablets sold as "ecstasy" contained substances other than MDMA, such as ketamine, piperazines, synthetic cannabinoids, synthetic cathinones and phenethylamines. In East and South-East Asia these substances have been found

²¹⁰ *alpha*-Pyrrolidinopentiophenone (*alpha*-PVP) is a synthetic cathinone not under international control.

²¹¹ A presentation by the International Safety and Security Cooperation Division, Ministry of Foreign Affairs, August 2014.

²¹² United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for the Republic of Korea, 2013.

²¹³ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for the Republic of Korea, 2013.

²¹⁴ United Nations Office on Drugs and Crime (UNODC), NPS questionnaire 2014 for the Republic of Korea, 2013.

²¹⁵ University of New South Wales, National Drug and Alcohol Research Centre, "Australian drug trends 2014: Findings from the Ecstasy and Related Drugs Reporting System" Drug Trends Conference hand-out, 2014.

Map 8: Countries reporting the emergence of synthetic cannabinoids and synthetic cathinones, 2009-2014 (Nov)



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Source(s): United Nations Office on Drugs and Crime (UNODC), Early Warning Advisory on new psychoactive substances, 2014 (Nov)

in “ecstasy” tablets or in preparation form in Australia, Brunei Darussalam, China, Hong Kong (China), Indonesia, Japan, Macau (China), Malaysia, New Zealand, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam.²¹⁶

In New Zealand, blotter paper seizures, which are a typical form of presentation for LSD, a hallucinogen under international control, increased from 1,290 units in 2012 to almost 19,000 dose units in 2013. According to New Zealand law enforcement authorities, many of the largest quantities of blotter paper units seized in 2012 and 2013 were identified or suspected to contain NPS belonging to the NBOMe-series such as 25B-NBOMe, 25C-NBOMe and 25I-NBOMe rather than LSD, and the trafficking of NBOMe-series substances was reported to have increased in 2012.²¹⁷ The majority of such blotter paper seizures were perceived to have originated from the Netherlands and Germany. Some other countries in the region have also found that seized blotter papers contained NBOMe-series substances instead of LSD.²¹⁸

²¹⁶ For more information, see chapter titled “A growing presence of ecstasy” of this report.

²¹⁷ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for New Zealand, 2012-2013.

²¹⁸ United Nations Office on Drugs and Crime (UNODC), International Collaborative Programme, Official communication with laboratories, 2013.

Recently, ketamine was also found in tablets sold as methamphetamine in the region. Some countries had already reported mixtures of ketamine and methamphetamine in 2009 and 2010.²¹⁹ In Indonesia, seizures of tablets sold as methamphetamine in 2012 were reportedly found to contain methamphetamine as well as ketamine and other NPS.²²⁰ In that same year, ketamine and other NPS in addition to methamphetamine were found in tablets sold as methamphetamine in Australia.²²¹ In 2010, national law enforcement authorities in some countries in East and South-East Asia seized tablets containing a combination of ketamine, BZP and TFMPP, as well as tablets containing 2C-B, which is a substance under international control, mixed with BZP and TFMPP.²²² Some tablets analysed in 2014 contained a combination of TFMPP and methamphetamine, and of methylone and methamphetamine.²²³

The available data indicates that NPS in the region are both sold as such for users who intentionally use them, but also marketed under the names of other drugs, with or without the purported active substance being present, which can involve increased health risks for users.

Which legislative measures have countries adopted to counter NPS?

In recent years, several countries in the region, including Australia, Brunei Darussalam, China, Indonesia, Japan, New Zealand, the Republic of Korea, Singapore and Thailand, have adopted national legislative controls related to NPS.²²⁴

Most of the countries in the region implemented an individual listing system as a legislative control of NPS, meaning that each substance is listed individually by their chemical name in the respective schedules/lists of national drug laws. The emergence of BZP in New Zealand in the late 1990s, for example,

²¹⁹ United Nations Office on Drugs and Crime (UNODC), International Collaborative Programme, Official communication with laboratories, 2009-2010.

²²⁰ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Indonesia, 2012.

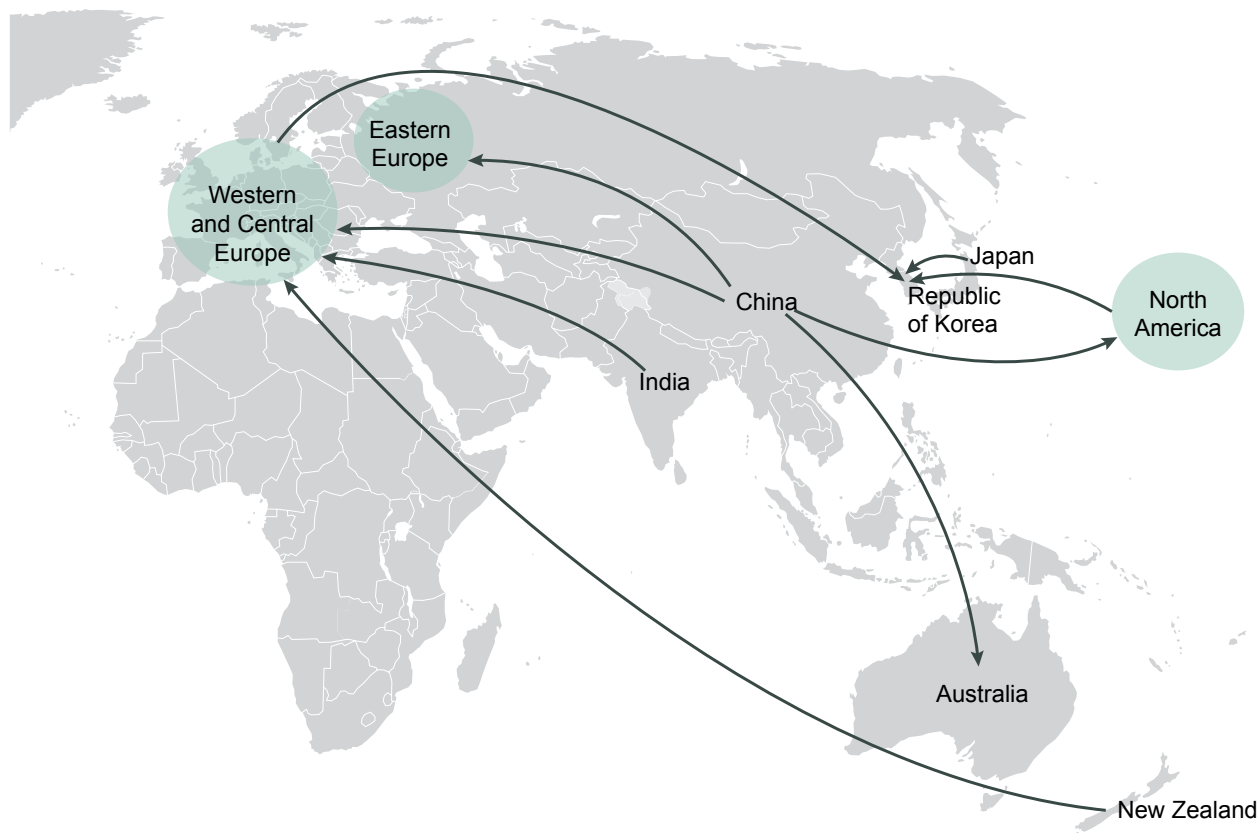
²²¹ United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire for Australia, 2012.

²²² United Nations Office on Drugs and Crime (UNODC), International Collaborative Programme, Official communication with laboratories, 2010.

²²³ United Nations Office on Drugs and Crime (UNODC), International Collaborative Programme, Official communication with laboratories, 2014.

²²⁴ This list is not exhaustive and meant as an illustration of recent developments only.

Map 9: Synthetic cathinone and synthetic cannabinoid flows as perceived by recipient countries and countries of origin, to and within East and South-East Asia and Oceania, 2010-2014*



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

* Not actual trafficking routes.

Source(s): United Nations Office on Drugs and Crime (UNODC), Annual Report Questionnaire 2010-2013, UNODC NPS questionnaire 2014

Note: The origins of the flow arrows do not necessarily indicate the source/manufacture of NPS. These arrows represent the flows as perceived by recipient countries and countries of origin²²⁵. The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

triggered the inclusion of BZP and other NPS in the Misuse of Drugs Act in 2008. In 2010, Singapore added mephedrone, BZP and TFMPP to the Misuse of Drugs Act, prohibiting trafficking, manufacture, import, export, possession or consumption. In recent years, the Government of China, Indonesia, Japan and Thailand have also taken measures aimed at restricting availability by imposing legislative controls over NPS. In China,²²⁶ mephedrone was listed as a controlled substance in September 2010, followed by several JWH-compounds, khat, 2C-I, 2C-H, AM-694, AM-

2201, and MDPV in 2013. To account for the rapid emergence of NPS, some countries have introduced complementary legislative instruments. This includes temporary bans, during which the legislative process can be completed and/or a thorough assessment of the risks of an NPS can be conducted before any decision on permanent control is taken. Such temporary bans have been introduced in New Zealand for a number of synthetic cannabinoids²²⁷ and in the Republic of Korea for MDPV in 2011 as well as in Singapore in

²²⁵ China reported trafficking of NPS from China to other countries.

²²⁶ Ketamine in preparation form was controlled as a second category substance under the Psychoactive Substance list in 2003. It was moved into the first category in 2005.

²²⁷ Several JWH-compounds in August 2011; JWH-019, JWH-200 and AM-1220 in October 2011; AM-2233 in December 2011; DMAA AM-1248, AM-2232 and UR-144 in March 2012; CB-13, MAM-2201, AKB48 and XLR11 in July 2012; NNE1 in November 2012; STS-135 and JWH-018 adamantylcarboxamide (also known as 2NE1 or APICA in November 2012; EAM-2201 in December 2012, etc. In 2013 other synthetic cannabinoids were also placed under temporary control.

2013 for JWH-compounds, AM-compounds and CP-compounds.²²⁸

The emergence of new analogues of NPS observed since 2011 prompted the Japanese Government to introduce generic legislation. Japanese generic scheduling defines substances by defining positions and types of substitutes to their basic structure.

So far, NPS specific legislation has only been implemented in New Zealand with the introduction of the Psychoactive Substances Act 2013 (July 2013), which regulated the sale, import and manufacture of NPS. Initially, some products were granted interim approvals and some manufacturers, importers, wholesalers and retailers were granted interim licenses for NPS. In early 2014, the Psychoactive Substances Amendment Act 2014 was passed, which removed all interim approvals and licenses from the New Zealand market, prohibited the consideration of animal testing when assessing products, and introduced a moratorium on processing any product approval applications or licensing applications until regulations came into force.²²⁹ In November 2014, regulations providing for product approval applications and licensing applications for importing, research and manufacturing to be processed, came into force. At the time of writing this report, no NPS have been granted a license in accordance with this Act.

Countries in East and South-East Asia and Oceania have also used amendments to regulatory instruments such as the Customs Act and Consumer Regulation (in Australia) and the Medicine legislation (in Japan). These instruments differ from the individual listing system, in that their primary intention is not drug control, although they may also list substances individually. In Australia, a number of NPS, such as mephedrone, BZP (in 2010) and a number of CP-compounds (in 2013) have been placed under import control since 2010 by amending the Customs (Prohibited Imports) Regulations of 1956. In Japan, a new category of “designated substances” was introduced in the Pharmaceutical Affairs Law in 2007 which foresees a three-step process of identification for non-approved or unauthorized pharmaceuticals, which has led to the classification of many NPS as designated substances. As

of September 2014, 1,584 substances were potentially controlled under the Japanese Pharmaceutical Affairs Law.

All in all, available information on national legislative responses with regards to NPS demonstrates that different measures and combinations of approaches are being used to respond to the emergence of a growing number of NPS in the region whilst taking the country specific situation into account.

²²⁸ In May 2014, a number of NPS under temporary control were reclassified as Class A drugs.

²²⁹ Ministry of Health New Zealand (2014), Background to the Act and the regime; Psychoactive Substance Regulatory Authority (Accessed online at <http://psychoactives.health.govt.nz/psychoactive-substances-act-2013/background-act-and-regime#timeline>).

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