



**UNODC**

United Nations Office on Drugs and Crime

# Synthetic Drugs in East and Southeast Asia

Latest developments and challenges

2023



## Acknowledgements

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## Foreword

East and Southeast Asia's drug market has been marked by a decade of growth in the production and trafficking of synthetic drugs, particularly methamphetamine – a trend that continues. The region has also experienced an expansion in the production and trafficking of ketamine, and the number of new synthetic drugs appearing is increasing. The situation has been underpinned by the ready availability and creative use of chemicals.

There are different perspectives and dynamics to be taken into account when analysing a drug market, and in East and Southeast a certain reality becomes obvious the longer it is looked at; the control of territory by major organized crime groups and their partners, and the autonomy and freedoms they enjoy as a result, has allowed them to massively increase and diversify supply for the purposes of market expansion and domination. In other words, the most powerful regional trafficking networks are able to operate with a high degree of certainty they can and will not be stopped, and they are able to dictate the terms and conditions of the market as a result.

Despite a leveling of methamphetamine seizures to pre-pandemic levels, due largely to a significant decrease in Yunnan China, a drop in Thailand, and to a lesser extent a dip in Malaysia, other indicators – arrests, street availability, purity, record low wholesale and street prices, and treatment admissions – indicate the supply has remained very high or unchanged. Notably, while seizures in Myanmar increased markedly in 2022, they dropped off in Shan where production and trafficking are centred – a situation intelligence analysts attribute to a range of capacity and access limitations amid an intensifying conflict and breakdown in security. At the same time, the percentage of methamphetamine tablets produced by small armed groups and militias in Shan increased again in 2022, with forensic information and intelligence showing growth from a tiny 3 per cent in 2020 to 13 per cent in 2021, and then jumping to 26 per cent in 2022 – an unprecedented change in the supply with significant and possibly long-term consequences for the country and its neighbours.

The changes in trafficking patterns within Myanmar also had regional implications in the past year, particularly in the Mekong sub-region. Traffickers working along Thai borders in the Golden Triangle rerouted significant crystal methamphetamine

supply through central Myanmar over the later part of 2022 to avoid Chinese and Thai interdiction efforts, increasing maritime shipments out of the Irrawaddy Delta, and Mon, Tanintharyi and Rakhine states. The resulting changes in seizure patterns in Yunnan China, Thailand, and Malaysia happened while supply within central Myanmar itself significantly expanded and traffickers quietly started moving product to the coastlines – supply quite literally sailed by, on the Andaman Sea.

As noted in last year's report, northwest Lao PDR and the upper Mekong continued to be used extensively by traffickers, with the situation continuing through 2022. Large tablet methamphetamine seizures were made throughout the year, and several large crystal methamphetamine shipments were intercepted in Bokeo during operations starting the beginning of 2023. With interception capacity in Lao PDR low, intelligence officials have come to the conclusion that supply is transiting the country with little resistance.

While most synthetic drug production has been consolidated into the Golden Triangle and Shan in Myanmar in recent years, there is also indication of some diversification of production and "hedging" by organized crime. Cambodia has emerged as a key transit and to some extent production point for the regional drug trade. The discovery of a series of industrial-scale clandestine ketamine laboratories, processing warehouses, and storage facilities across the country has set-off alarm bells in the region and with international partners.

The information presented in this report, covering to the end of 2022 and where available early 2023, summarizes the synthetic drug situation in East and Southeast Asia the past year so that the region can reflect on policies and improve strategies to address different aspects of production, trafficking and use. We hope that it helps further a discussion on synthetic drugs that has been underway in various fora, and kickstarts a debate that is needed about the wider regional and human impact that results from the autonomy and sense of security traffickers enjoy in the Golden Triangle. Ultimately, we trust that will be useful for setting priorities.



Jeremy Douglas  
UNODC Regional Representative



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## Abbreviations

AFP	Australian Federal Police
ARQ	Annual report questionnaire
ATS	Amphetamine-type stimulants
BNN	National Narcotics Board (Indonesia)
CNB	Central Narcotics Bureau (Singapore)
DAINAP	Drug Abuse Information Network for Asia and the Pacific
DDB	Dangerous Drugs Board (Philippines)
DNC	Department of Narcotics Control (Bangladesh)
DRI	Directorate of Revenue Intelligence (India)
EWA	UNODC Early Warning Advisory on New Psychoactive Substances
HSA	Health Sciences Authority (Singapore)
KCS	Korean Customs Service
KIMIA	Department of Chemistry (Malaysia)
LCDC	Lao National Commission for Drug Control and Supervision
MHLW	Ministry of Health, Labour and Welfare (Japan)
NACD	National Authority for Combating Drugs (Cambodia)
NADA	National Anti-Drugs Agency (Malaysia)
NCB	Narcotics Control Bureau (Brunei Darussalam)
NCB	Narcotics Control Bureau (India)
NCID	Narcotics Crime Investigation Department (Malaysia)
NCNP	National Center of Neurology and Psychiatry (Japan)
NDIB	National Drug Intelligence Bureau (New Zealand)
NDSB	Narcotics Division, Security Bureau (Hong Kong, China)
NNCC	National Narcotics Control Commission (China)
NPA	National Police Agency (Japan)
NPS	New Psychoactive Substances
ONCB	Office of the Narcotics Control Board (Thailand)
PDEA	Philippine Drug Enforcement Agency
RMP	Royal Malaysia Police
SMCC	Safe Mekong Coordination Center
SODC	Standing Office on Drugs and Crime (Viet Nam)
SPO	Supreme Prosecutors' Office (Republic of Korea)
UNODC	United Nations Office on Drugs and Crime





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# Regional Trends: East and Southeast Asia





# REGIONAL TRENDS: EAST AND SOUTHEAST ASIA

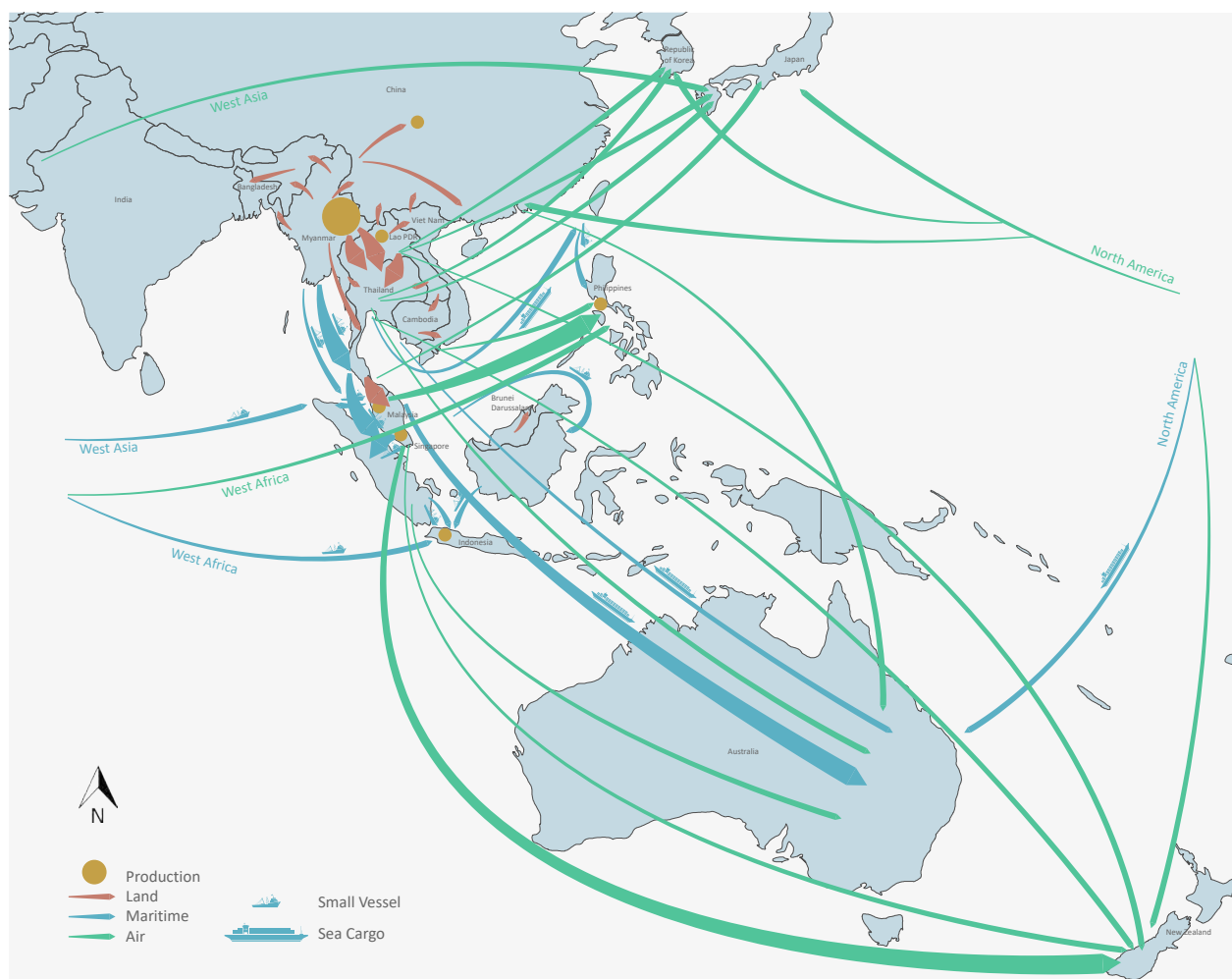
## Overview of the methamphetamine market

The methamphetamine market in East and Southeast Asia continued to evolve in 2022, with no sign of a letup in the supply of the drug from Shan state, Myanmar, and the emergence of new trafficking routes. The continued ‘spillover’ of methamphetamine produced in Myanmar impacts countries across not only East and Southeast

Asia, but also Oceania, increasingly South Asia, particularly Bangladesh and, more recently, Northeast India.

Organized crime groups have maintained a supply-driven market expansion strategy, pushing volumes and lowering the cost of the drug. This has been, in part, possible due to their ability to source chemicals, while increasingly using non-controlled substances for the production of methamphetamine and its precursors.

Map 1. Methamphetamine trafficking routes in East and Southeast Asia, South Asia, and Oceania



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations. Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP) and UNODC elaboration based on data, information, and intelligence from drug authorities in East and Southeast Asia and Oceania.

## Shan, Myanmar, remains the epicentre of methamphetamine production in East and Southeast Asia

The favourable conditions in Shan drive this situation, notably as law enforcement authorities have limited access to large areas within the state. Asian organized crime groups have partnered with non-state armed groups in Shan, particularly those within the Special Regions (SRs), over the last decade.

A small number of methamphetamine laboratories have been detected in drug producing regions under the regime's control. However, there is a sizable discrepancy between Myanmar's seized methamphetamine laboratories and the total supply of methamphetamine, with the only laboratories seized by Myanmar authorities between 2022 and early 2023 being smaller tableting operations in South Shan, near the Thai border, which does not reflect the reality of the market. For instance, in March 2022, a methamphetamine tableting site in Mong Hsat township (see photo below) was identified, with authorities seizing various drugs, chemicals, powders and equipment, including 80 'WY' tableting molds, 340,000 methamphetamine tablets, 100 kg of bulking agent, and small amounts of crystalline (herein referred to as 'crystal') methamphetamine. Another methamphetamine tableting facility was seized in Tachileik in November 2022, with more than 2.7 million tablets, 253 kg of methamphetamine powder, tableting machinery, and various chemicals.<sup>1</sup>



Methamphetamine tableting site in Mong Hsat, Shan, Myanmar, March 2022.

Source: Safe Mekong Coordination Center (SMCC).

<sup>1</sup> Myanmar, "Country briefing", December 2022, verified with other sources.

## Growing importance of methamphetamine tableting operations in Lao PDR

In addition to Lao People's Democratic Republic (Lao PDR) becoming an increasingly important transshipment route for drugs trafficked out of Myanmar, there have also been methamphetamine tableting operations detected in the country in recent years, demonstrating the geographical connectivity and related networks between Shan and northern Lao PDR for illicit drug production.

Over the last two years, Lao PDR has detected several methamphetamine tableting sites. In July 2021, for instance, Lao authorities seized seven suspected sites in Udomxai,<sup>2</sup> arresting seven suspects and seizing various drugs, chemicals and laboratory equipment. The seizures included nearly 1.5 million methamphetamine tablets, 846.5 kg of red-coloured ready-made methamphetamine tablet powder, several tablet rods and 17 kg of plastic bags for packaging.<sup>3</sup> A suspect who was arrested informed law enforcement authorities that he was working for a drug network and had been producing methamphetamine tablets since February 2021. In a related operation the previous month, police in Udomxai also seized methamphetamine tableting equipment from several production sites and arrested seven more suspects. Additionally, in May of 2021, police in Udomxai seized 1.1 million methamphetamine tablets and 1,200 kg of bulking agent in Xay district.

## Evolving tablet and crystal methamphetamine packaging

Thai seizure data and intelligence confirms a growing variety of brands of methamphetamine tablets produced in the past two years. This trend together with reports from other Mekong intelligence officials shows that a larger number of actors are involved in tablet production. The most commonly detected branding on the drug packaging found in Thailand has been '999', followed by 'Y1'. In 2022, Thai forensic experts analysed the packaging and determined that '999' accounted for 59.2 per cent of the tablets seized, 'Y1' for 14.2 per cent, and packaging with other logos for 26.3 per cent.<sup>4</sup>

<sup>2</sup> Udomxai, located in the center of northern Lao PDR, sits at the junction of all the major roadways that link the border regions with Myanmar and China to the rest of the country. Most of the goods, both licit and illicit, that are transported to and from the Mekong ports of Sop Lwe, Xiang Kok, Ban Mom and Huay Xai must pass through Udomxai.

<sup>3</sup> SMCC database.

<sup>4</sup> Analysis of the packaging is conducted on major cases (seizures of more than 10,000 methamphetamine tablets) and for 2022 encompassed a total of approximately 302.7 million tablets.

**Table 1. Proportion of different branding on methamphetamine tablet packaging analysed in Thailand, 2020-2022**

Brand logo	Photo	2020	2021	2022
'999'		76.2%	73.5%	59.2%
'Y1'		20.0%	13.2%	14.2%
'1' or '2'		0.5%	0.1%	0.0%
Other branding		2.8%	13.0%	26.3%
No logo	-	0.5%	0.3%	0.4%

Note: There are several variances for '999' and 'Y1', but the two included photos are the most representative of the two brands. The photo for other branding is a single example among many types.

Source: Official communication with ONCB of Thailand, April 2023.



New teabag packages found in East and Southeast Asia in 2022 and 2023.

Sources: Narcotics Crime Investigation Department (NCID) of Malaysia and SMCC.

Similarly, authorities across the Mekong and in neighbouring regions detected several varieties of Chinese teabag packages in 2022 that were used to conceal crystal methamphetamine and ketamine produced in Shan state, Myanmar, and Cambodia. The most commonly found teabag package in 2022 was 'Guanyinwang', followed by 'Qing Shan', 'Pinwei' (also known as 'Alphabet'), and 'Daguanyin'. Unlike methamphetamine tablet brands, there has been no noticeable change observed in the pattern of dominant teabag packages found in the region. However, there were some new design

variations of teabag packages containing crystal methamphetamine found in 2022 and the first five months of 2023.

### Small-scale methamphetamine production in China, Indonesia, Malaysia, and the Philippines

The production of methamphetamine has also taken place in other countries in East and Southeast Asia. Though many drug trafficking groups in the region have been primarily sourcing consignments from Myanmar, some groups have continued to produce methamphetamine and other synthetic drugs, including ketamine and ecstasy.

Indonesia, Malaysia, and the Philippines have for years been key transit countries for methamphetamine trafficking from and through the Mekong region, and to some extent outside of the region. They also have a long history of large-scale methamphetamine production. However, in recent years, levels of illicit drug production have exhibited a declining trend, with the majority



sourced from Shan, Myanmar. For instance, Philippine authorities reported that 99 per cent of the methamphetamine seized in 2022 was packaged in teabags, almost exclusively used by drug production networks operating in the Golden Triangle.<sup>5</sup>

In 2022, authorities in the Philippines seized only one methamphetamine laboratory. The scale was relatively insignificant, with only 22 kg of crystal methamphetamine seized without any key precursor chemicals, indicating that it was possibly used for converting liquid methamphetamine into crystal form.<sup>6</sup>

In Malaysia, the number of methamphetamine laboratories identified has significantly decreased over the last five years. In 2018, Malaysian authorities seized 10 small-scale laboratories, which then significantly reduced to three in 2021 and two in 2022; the two laboratories were located in Perak and Negeri Sembilan.<sup>7</sup> Between 2021 and 2022, only 30 kg of ephedrine was seized in Malaysia with no known pre-precursors or designer precursors.<sup>8</sup>

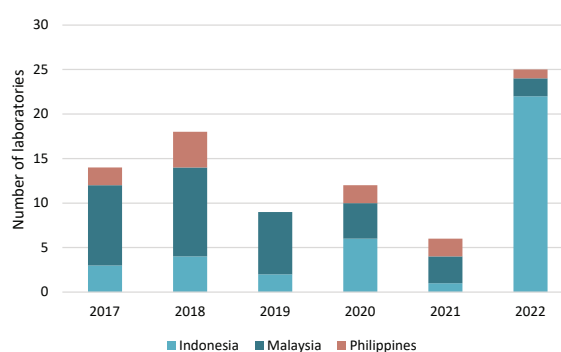


Methamphetamine laboratory in Ayala, Alabang Muntinlup City, the Philippines, November 2022.

Source: Philippine Drug Enforcement Agency (PDEA).

In contrast, Indonesian authorities seized 22 crystal methamphetamine laboratories in 2022, compared with only one in 2021 and 18 in the previous five years combined (2016-2020). Although authorities reported the dismantling of an unusually large number of methamphetamine production sites in 2022, all of them were smaller-scale kitchen-sized laboratories with no known major precursor chemicals found on site.<sup>9</sup>

**Figure 1. Number of methamphetamine laboratories seized in Indonesia, Malaysia, and the Philippines, 2017-2022**



Source: Official communications with BNN of Indonesia, NADA of Malaysia, and DDB of the Philippines, March-April 2023.

In China, methamphetamine production has declined in recent years, as organized crime groups have migrated their operations to Myanmar. Most of the methamphetamine seized in China is reported to originate from Shan, with domestically produced methamphetamine accounting for roughly 20 per cent of the total supply in China.<sup>10</sup> In 2022, Chinese authorities seized 72 illicit drug production laboratories, most of which were for heroin, with six for methamphetamine and three for ketamine.<sup>11</sup>

### Methamphetamine seizures in East and Southeast Asia decreased slightly in 2022 yet remain at high levels

After having reported record methamphetamine seizures virtually every year over the last decade, data for 2022 suggests that the regional seizure total has decreased, amounting to 151 tons seized in East and Southeast Asia in 2022. This

5 Dangerous Drugs Board (DDB) and Philippine Drug Enforcement Agency (PDEA), "Country briefing", December 2022.

6 PDEA, official notice, November 2022 (accessed at: <https://www.facebook.com/PhilippineDrugEnforcementAgency/posts/pfbid02Ndrf248ZPFSMKaQXnoBt42M7wMqwVAMby9SuD3XpVBiiBo8BrDp2qsCCM6UH9bj5l>).

7 National Anti-Drug Agency (NADA), Royal Malaysia Police (RMP) and Department of Chemistry (KIMIA) of Malaysia, "Country briefing", December 2022.

8 Official communication with NADA, April 2023.

9 Official communication with the National Narcotics Board (BNN) of Indonesia, April 2023.

10 National Narcotics Control Commission (NNCC) of China, "Country briefing", December 2022.

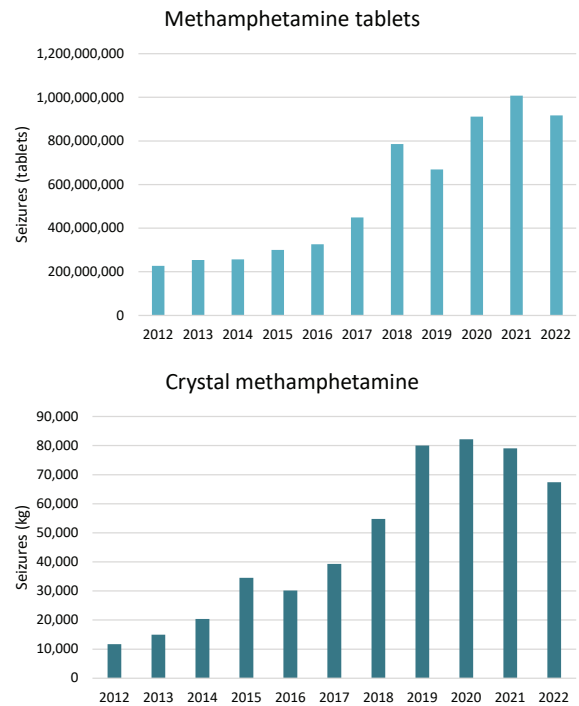
11 Official communication with NNCC of China, March 2023.



development was largely driven by a decrease in seizures in Thailand after trafficking patterns shifted and routes redirected along northern Thailand’s borders. In 2022, Thailand seized 58.4 tons of methamphetamine, 17 tons less than in 2021. China reported 9.2 tons, the lowest amount of methamphetamine seized in the country since 2009. However, it is important to note that several countries in the region, including Cambodia, Myanmar, and the Philippines, reported significant increases in 2022 compared to the preceding year.

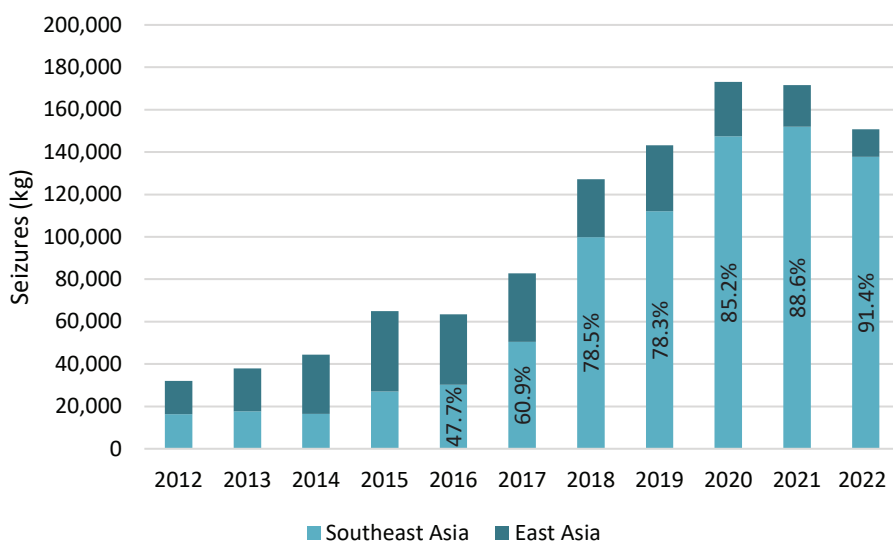
In recent years, the vast majority of methamphetamine seizures in East and Southeast Asia have been made by countries in Southeast Asia, particularly those situated in the lower Mekong. In 2022, Southeast Asian countries collectively seized 137.8 tons, accounting for 91.4 per cent of the total. More specifically, three lower Mekong countries – Lao PDR, Myanmar, and Thailand – alone seized 112.5 tons in 2022, accounting for three quarters of the total methamphetamine seizures in East and Southeast Asia. The challenge faced by the three countries is severe considering the combined population of 133 million is only 5.8 per cent of the total population of East and Southeast Asia of 2.3 billion.<sup>12</sup> At the same time, the data clearly confirm the consolidation of methamphetamine production in the Golden Triangle.

**Figure 3. Seizures of tablet and crystal methamphetamine in East and Southeast Asia, 2012-2022**



Note: Data for 2020 has been revised based on updated data from drug agencies in the region. Data include all forms of methamphetamine. Data for Japan for 2022 only include seizures made by Japan Customs. Sources: DAINAP; UNODC, responses to the annual report questionnaire (ARQ); official communications with drug agencies in the region, March-May 2023.

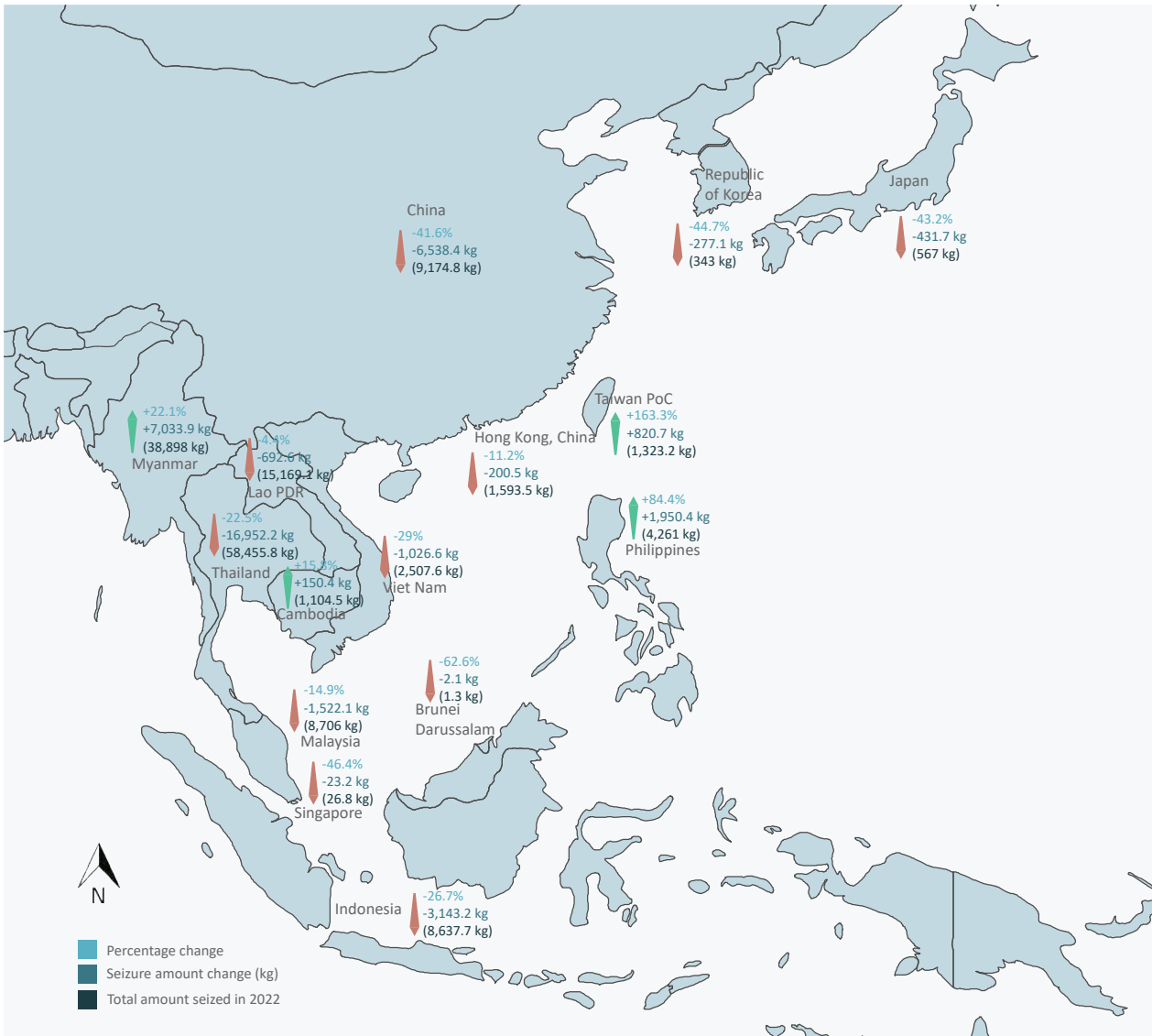
**Figure 2. Seizures of methamphetamine in East and Southeast Asia, by region, 2012-2022**



Note: Data for 2020 has been revised based on updated data from drug agencies in the region. Data include all forms of methamphetamine. Data for Japan for 2022 only include seizures made by Japan Customs. Sources: DAINAP; UNODC, responses to the annual report questionnaire (ARQ); official communications with drug agencies in the region, March-May 2023.

12 Population data from the World Bank.

**Map 2. Change in methamphetamine seizure amounts in East and Southeast Asia, by percentage and weight, 2021-2022**



Note: The change in seizure amount weight is from 2021 to 2022. Data include all forms of methamphetamine. Data for Japan for 2022 only include seizures made by Japan Customs. Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

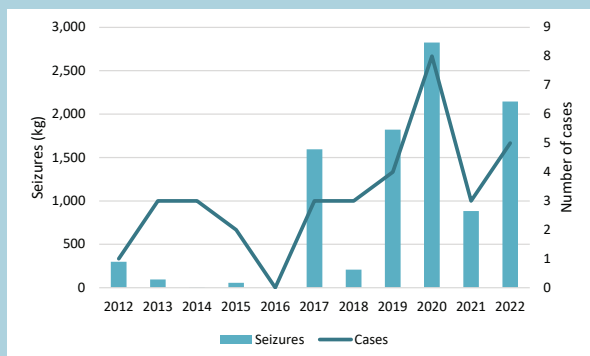
Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

### Reconnecting methamphetamine supply to neighbouring regions

Analysis of methamphetamine seizures in East and Southeast Asia should be complemented with other seizure data reported from some countries outside of the region, such as Australia and New Zealand in Oceania, and Bangladesh and India in South Asia. This is because their methamphetamine markets have been largely and/or increasingly sourced from the drugs produced in and trafficked from the region.

Since 2019, there has been an increase in quantities of teabag methamphetamine – a tell-tale sign of methamphetamine originating from Southeast Asia – seized in Australia (see figure 4). Although the amount seized and number of cases in 2021 dropped compared to the year prior, they rebounded in 2022, reaching the second highest figures on record. At the same time, 70 per cent of methamphetamine in the Australian market is sourced from Myanmar<sup>13</sup> and the Australian Federal Police (AFP) have reported (between 2012 and 2022) a total of 9.9 tons of teabag methamphetamine seized in the country.<sup>14</sup>

**Figure 4. Seizures of methamphetamine concealed in teabags made by AFP, 2012-2022**



Source: AFP, “AFP seizes 9.9 tonnes of ‘tea packet’ methamphetamine since 2012”, December 2022.



613 kg of crystal methamphetamine seized in Auckland, New Zealand, March 2022.

Source: New Zealand Police.

New Zealand also reported several seizures of methamphetamine originating from Southeast Asia. For instance, in March 2022, New Zealand authorities made the largest ever interception of methamphetamine in the country of 613 kg at Auckland Airport. The drug was packaged in teabags and six people, including some with links to the Comanchero Motorcycle Gang, were arrested.<sup>15</sup>

Methamphetamine seizure data from Bangladesh also indicates that the supply of the drug is associated with Shan, Myanmar. In 2022, Bangladesh authorities seized 45.8 million methamphetamine tablets. Since 2021, organized crime groups have started targeting Bangladesh for the trafficking of crystal methamphetamine, and in 2022, 113 kg was seized by authorities.<sup>16</sup> The same trend has been observed in India, with its authorities in the northeastern provinces reporting numerous seizures of both tablet and crystal methamphetamine trafficked across the border with Myanmar (see page 20).

13 Australian Federal Police (AFP) Commissioner and Deputy Commissioner testifying at an Australia Senate Legal and Constitutional Affairs Legislation Committee, November 2022.

14 AFP, “AFP seizes 9.9 tonnes of ‘tea packet’ methamphetamine since 2012”, December 2022 (accessed at <https://www.afp.gov.au/news-media/media-releases/afp-seizes-99-tonnes-%E2%80%98tea-packet%E2%80%99-methamphetamine-2012>).

15 New Zealand Police, “Operation Weirton: Police and Customs make New Zealand’s largest seizure of methamphetamine at the border”, March 2022 (accessed at: <https://www.police.govt.nz/news/release/operation-weirton-police-and-customs-make-new-zealand’s-largest-seizure-methamphetamine?ref=/news&search=METHAMPHETAMINE%20&cmin=2022-03-01&cmax=2022-04-01>).

16 Department of Narcotics Control (DNC) of Bangladesh.

## Notable changes in trafficking of crystal methamphetamine inside Myanmar

In 2022, there were major shifts in trafficking routes of crystal methamphetamine observed across East and Southeast Asia, especially in Myanmar. Myanmar authorities seized 23.4 tons of crystal methamphetamine in 2022, an increase of 10 tons. While national seizures of crystal methamphetamine significantly increased, seizures of the drug in Shan decreased from 7.4 tons to 5.3 tons. As a result, in 2022 Shan ranked third, after Mandalay and Mon state, for quantities of crystal methamphetamine seized in Myanmar.<sup>17</sup>

Seizures of crystal methamphetamine in Mandalay increased significantly in 2022, amounting to 7.7 tons, up from 1.3 tons in 2021. Mandalay is an important transit location for trafficking through the southern regions of Myanmar, including Mon and Kayin states, through shipping ports in Yangon, and through the western regions of Myanmar, including Rakhine, into India and Bangladesh.

Mon and Kayin states, both of which are located in southern Myanmar, reported significant increases in seizures of crystal methamphetamine in 2022. Seizures of the drug in 2022 in Mon amounted to 5.9 tons, in Kayin to 2.2 tons, and in Tanintharyi to 1 ton. In comparison, combined seizures of crystal methamphetamine in Mon, Kayin, and Tanintharyi in 2021 totaled 5 tons, or 4.1 tons less than the amount seized in 2022. It is also important to note that seizures of the drug in Rakhine increased from less than 1 kg in 2021 to 1 ton in 2022.

The changes observed may indicate that drug traffickers in Myanmar have tried to diversify outbound trafficking channels for crystal methamphetamine from the country. For years, authorities in the Mekong have prioritized their law enforcement efforts in and around Shan and the Golden Triangle. This has prompted organized crime groups to more actively develop and use alternative channels of trafficking to transport large quantities of crystal methamphetamine from Shan to Mekong countries and different destinations in East and Southeast Asia, South Asia, and Oceania.

In contrast, there was no notable change observed in trafficking of methamphetamine tablets within

Myanmar in 2022. In both 2021 and 2022, the largest quantities of methamphetamine tablets were seized in Shan, followed by Mandalay and Yangon. The contrast between the trafficking patterns of the two methamphetamine types is due to the different destinations for the drugs and smuggling strategies used by organized crime groups. For methamphetamine tablets, producers and traffickers need to consolidate into large shipments for markets in the Mekong in proximity to Shan where the drug is produced. As Shan shares borders with China, Lao PDR, and Thailand – the three largest methamphetamine tablet markets – there is little need for organized crime to transport the drug through other regions of Myanmar to reach intended destinations.

## Increased crystal methamphetamine trafficking through southern Myanmar

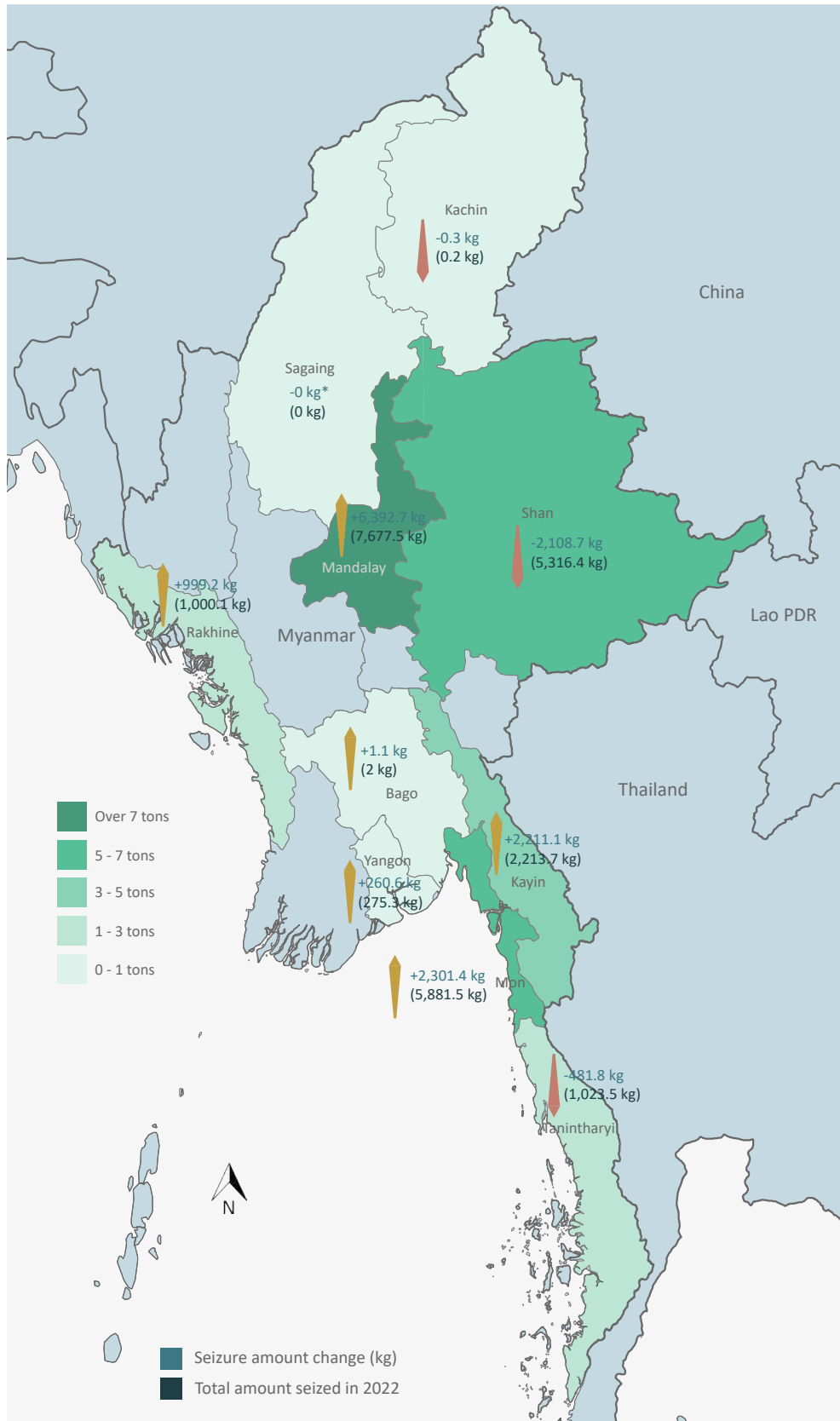
As highlighted in the above section, in 2022 organized crime groups in Myanmar increasingly targeted the southern areas of Myanmar for the transportation of large quantities of crystal methamphetamine. Trafficking routes connecting south and central Shan down to western Thailand were first reported in 2019, and there have been several attempts to traffic single shipments of more than one ton of crystal methamphetamine. At the same time, as in the SRs and other border areas of Shan, the areas in Myanmar opposite Tak and Kanchanaburi in western Thailand host several groups and their affiliated companies, which have been linked to drug trafficking and other illicit activities. However, seizure data from Thailand suggests that this route through western Thailand may have been deprioritized with shipments of crystal methamphetamine instead being routed through maritime channels.

In 2022, overall methamphetamine seizures in Thailand were lower than in the previous year. This was primarily driven by a significant drop in seizures of crystal methamphetamine, from 22.1 tons in 2021 to 9.7 tons in 2022, while seizures of methamphetamine tablets remained relatively stable. The 9.7 tons of crystal methamphetamine seized in Thailand in 2022 is the lowest total reported since 2017.<sup>18</sup> In addition, despite the clear sign of increased quantities of crystal methamphetamine transported from Shan to

<sup>17</sup> DAINAP.

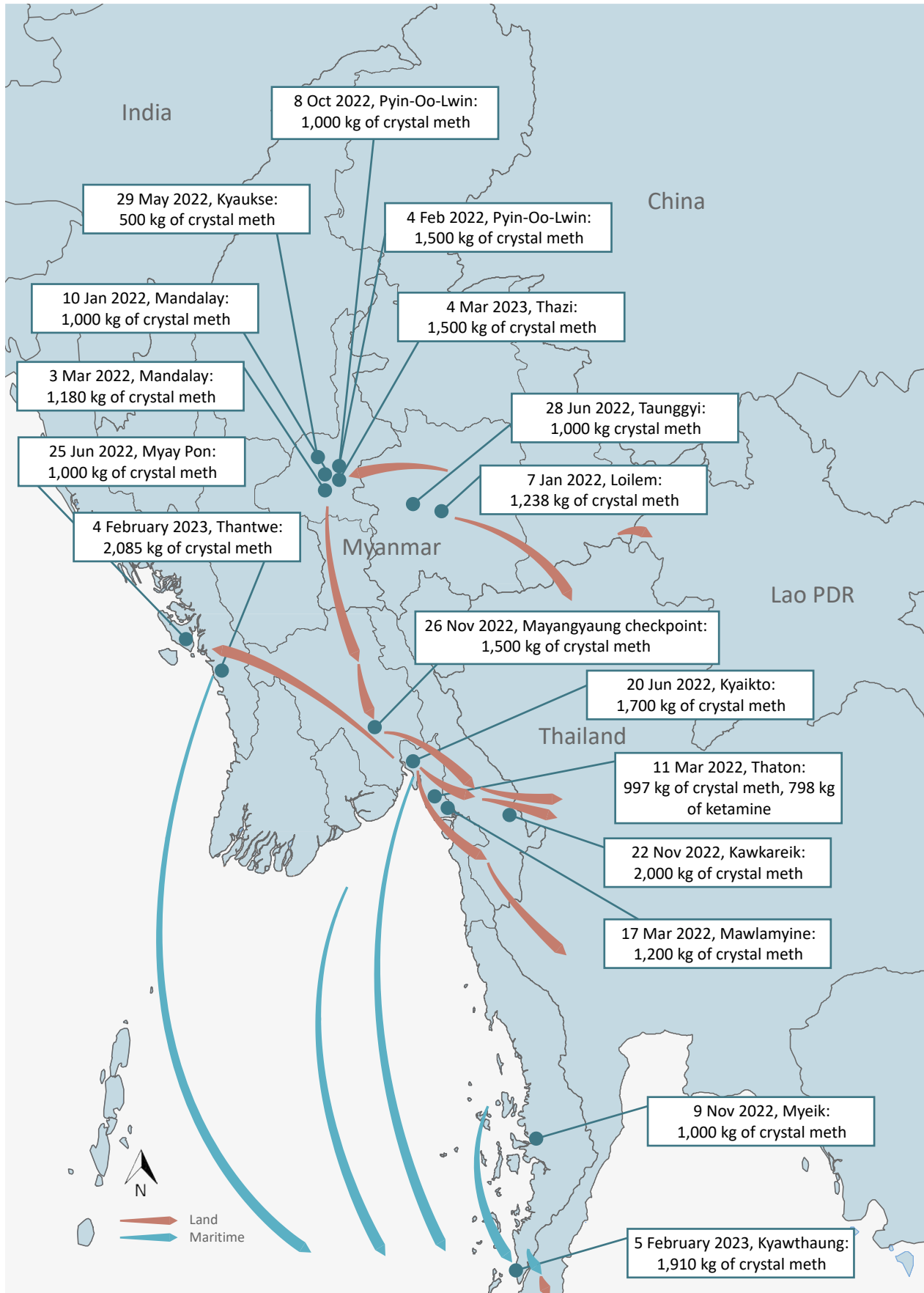
<sup>18</sup> Ibid.

**Map 3. Top states and regions for seizures and change in seizure amounts of crystal methamphetamine in Myanmar, by weight, 2022**



Note: The change in seizure amount weight is from 2021 to 2022. \* Less than 1 kg of crystal methamphetamine was seized in Sagaing in 2021 and no seizures were made in 2022. Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations. Source: DAINAP.

**Map 4. Select major overland and maritime methamphetamine seizures and trafficking routes within and from Myanmar, 2022-2023 (May)**



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on data and information verified from different sources. Some major seizures made are not on the map as operations remain ongoing.



southern Myanmar (Mon, Kayin, and Tanintharyi) in 2022, provinces across these areas in Thailand, such as Kanchanaburi and Tak, did not rank in the top 10 provinces for seizures of the drug in 2022.<sup>19</sup> Thai authorities also reported that the portion of crystal methamphetamine seized at the northern border with Myanmar and northeastern border with Lao PDR accounted for 70 per cent of all crystal methamphetamine seized in the country in 2022.<sup>20</sup> At the same time, despite the decrease in seizures of crystal methamphetamine, the average wholesale price for the drug in Thailand once again dropped to a new low of US\$ 4,410 per kg in 2022, while some Thai law enforcement officials informed UNODC that the price could be as low as US\$ 1,000 per kg in border areas of Myanmar.<sup>21</sup>

The decreases in crystal methamphetamine seized together with the record low price in Thailand are an indication of rerouting in the country and saturated Thai market. However, as noted above, the supply of crystal methamphetamine in Myanmar remained high in 2022, and organized crime groups continued to attempt to traffic large shipments of crystal methamphetamine from Shan into Thailand through various routes, in particular those traversing the southern regions of Myanmar. It is also worth noting that the wholesale price of crystal methamphetamine in Thailand is not greatly influenced by local demand as the country is a major transit for the drug to other countries in East and Southeast Asia and Oceania.

As outlined above, there were no substantial quantities of crystal methamphetamine seized in any of the provinces of Thailand adjacent to southern Myanmar in 2022, which may indicate that several undetected large-scale shipments of the drug were trafficked through maritime routes. Instead of directly crossing the land border between southern Myanmar and western Thailand, organized crime groups may have more frequently used the maritime domain to avoid law enforcement efforts along the land border.

Throughout 2022 and early 2023, Myanmar authorities made a number of large maritime

seizures of one ton or more. On 4 February 2023, police in Thantwe township, Rakhine state, seized 2,085 kg of crystal methamphetamine as it was being transported to the local port, where it was to be loaded onto vessels destined for Malaysia.<sup>22</sup> The following day, Myanmar maritime authorities searched a vessel in waters off of Kyawthaung township in Tanintharyi region and seized 1,910 kg of crystal methamphetamine and arrested five suspects who said they had been recruited to carry the drugs from Ann township in Rakhine state to deliver to Malaysia.<sup>23</sup>

In 2022, other large maritime seizures in Myanmar of one ton or more of crystal methamphetamine include: one ton seized on 25 June at Myay Pon township in Rakhine state; one ton in Taunggyi on 28 June; one ton in Pyin-Oo-Lwin township on 8 October; and one ton in Myeik township in the Tanintharyi region on 9 November. Myanmar authorities also seized smaller but still significant quantities of drugs destined for maritime trafficking including 997 kg of crystal methamphetamine and 798 kg of ketamine at a checkpoint in Thaton township in Mon state on 11 March, and 251 kg of crystal methamphetamine at a checkpoint in Pyin-Oo-Lwin township that was destined for Malaysia on 3 May.<sup>24</sup>

### Lao PDR continues as an important transit route for the regional methamphetamine trade

Trafficking groups continue to target Bokeo province in Lao PDR as a major storage and transit location and the province remains the primary entry point for the trafficking of precursor chemicals and drugs into and from illicit drug production laboratories in Shan. The transit route through Bokeo continues to gain in importance, with trafficking through Lao PDR increasingly tied to markets in Southeast Asia, Australia, Japan, the Republic of Korea, and New Zealand. For instance, Korean authorities reported that Lao PDR was the top embarkation point for methamphetamine seized in the country, both in the number of cases and quantities of the drug seized, in 2022.<sup>25</sup>

19 Official communication with ONCB of Thailand, April 2023; The top 10 provinces for crystal methamphetamine seizures in Thailand in 2022 were Bangkok, Lampang, Songkhla, Chiang Mai, Nakhon Phanom, Nakhon Si Thammarat, Surat Thani, Nong Khai, Bueng Kan, and Chiang Rai.

20 ONCB of Thailand, "Country briefing", December 2022.

21 UNODC threat assessment mission to Ranong, Thailand, February 2023.

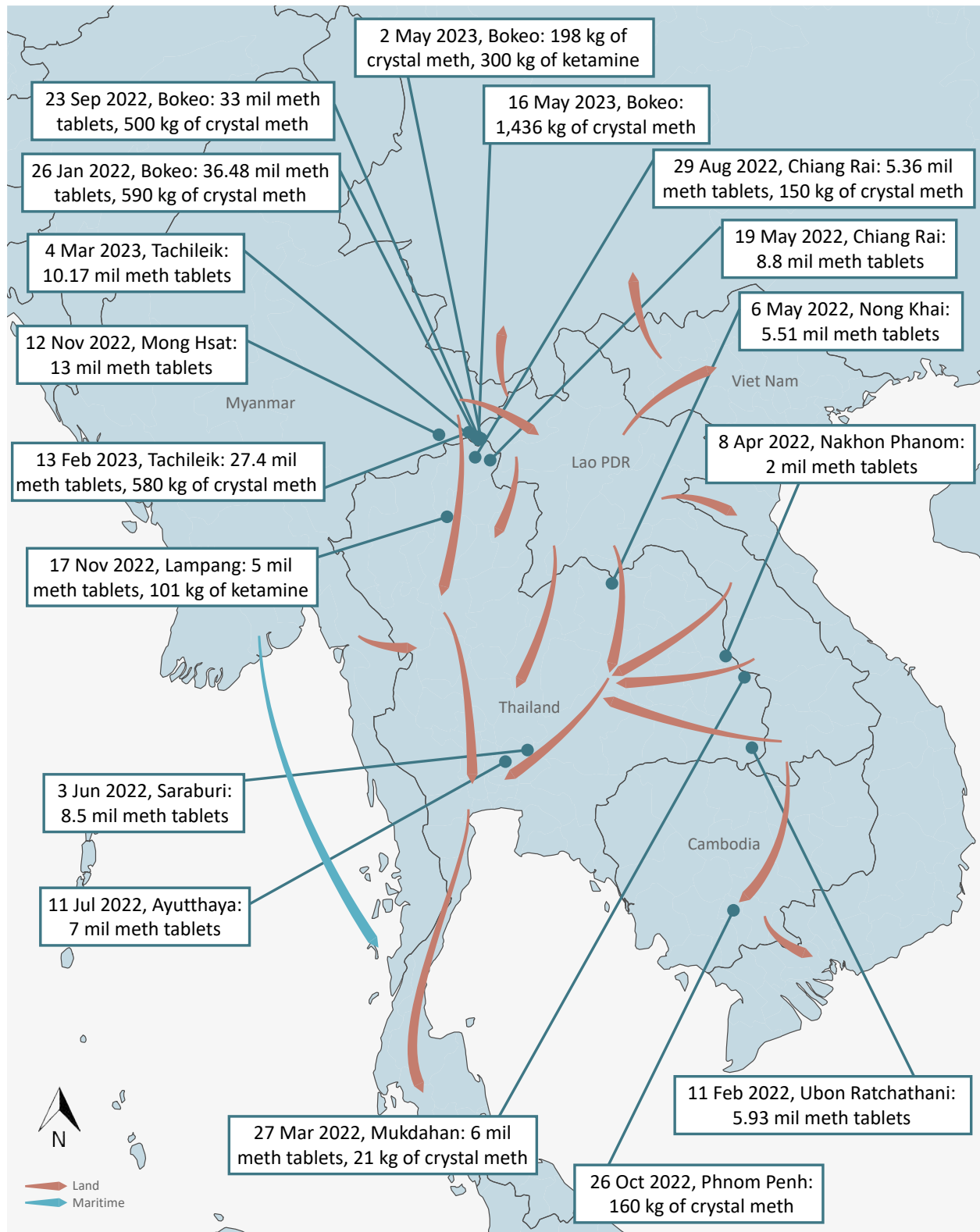
22 DAINAP.

23 Ibid.

24 Myanmar, "Country briefing", December 2022.

25 Official communication with the Supreme Prosecutors' Office (SPO) of the Republic of Korea, March 2023.

**Map 5. Select major methamphetamine seizures and trafficking routes in the lower Mekong subregion outside Myanmar, 2022-2023 (May)**



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on data and information verified from different sources. Some major seizures made are not on the map as operations remain ongoing.



Methamphetamine and other drugs produced in the laboratories in Shan usually enter Lao PDR by crossing the Mekong river at one of the ports, in particular those under the control or influence of major non-state armed groups. These groups include the United Wa State Army (UWSA), the Myanmar National Democratic Alliance Army (MNDAA), the National Democratic Alliance Army (NDAA), and their allies who work in partnership with transnational organized crime syndicates. According to Lao authorities, between 2021 and 2022, around 80 per cent of all methamphetamine tablet and crystal methamphetamine seizures in the country were made in Bokeo province.<sup>26</sup>

Recent drug seizures in Bokeo include 590 kg of crystal methamphetamine and 36,480,000 tablets of methamphetamine in January 2022. Lao authorities also seized 500 kg of crystal methamphetamine, together with 33,000,000 methamphetamine tablets, in September 2022. Other major seizures in Bokeo throughout 2022 include 11,920,000 and 12,000,000 methamphetamine tablets respectively in March and April 2022.<sup>27</sup>



Seizure of methamphetamine in Bokeo, January 2022.

Source: Lao National Commission for Drug Control and Supervision (LCDC).

Furthermore, methamphetamine is also trafficked from Myanmar and through Bokeo in a southward direction through Lao PDR, overland through Luangnamtha and Udomxai provinces to Vientiane and neighbouring provinces in Thailand's northeastern region. This is mostly by crossing the Mekong river clandestinely at unofficial border crossings. Methamphetamine is also trafficked southward through Lao PDR into Viet Nam.

26 Lao National Commission for Drug Control and Supervision (LCDC) of Lao PDR, "Country briefing", December 2022.

27 Ibid.

### Trafficking from Myanmar to China has decreased significantly

The trafficking of methamphetamine and other drugs from Shan, Myanmar, into China has slowed in recent years, largely because of intensified border control measures instituted along the border with Myanmar by the Government of China, as well as targeted law enforcement operations in Yunnan province of China. This has forced traffickers in Myanmar to transport drugs through Lao PDR instead. China's National Narcotics Control Commission (NNCC) reported that the decrease in availability has caused the prices of methamphetamine and ketamine to rise.<sup>28</sup>

In 2022, Chinese authorities seized approximately 3.9 tons of crystal methamphetamine and 52 million methamphetamine tablets, a significant decrease from the amounts seized in 2021 of 8.2 tons and 67 million tablets. Of the 3.9 tons of crystal methamphetamine seized in China in 2022, 3.1 tons were seized in Yunnan province alone, showing that the Golden Triangle remains the main source of the drug that is available in China.

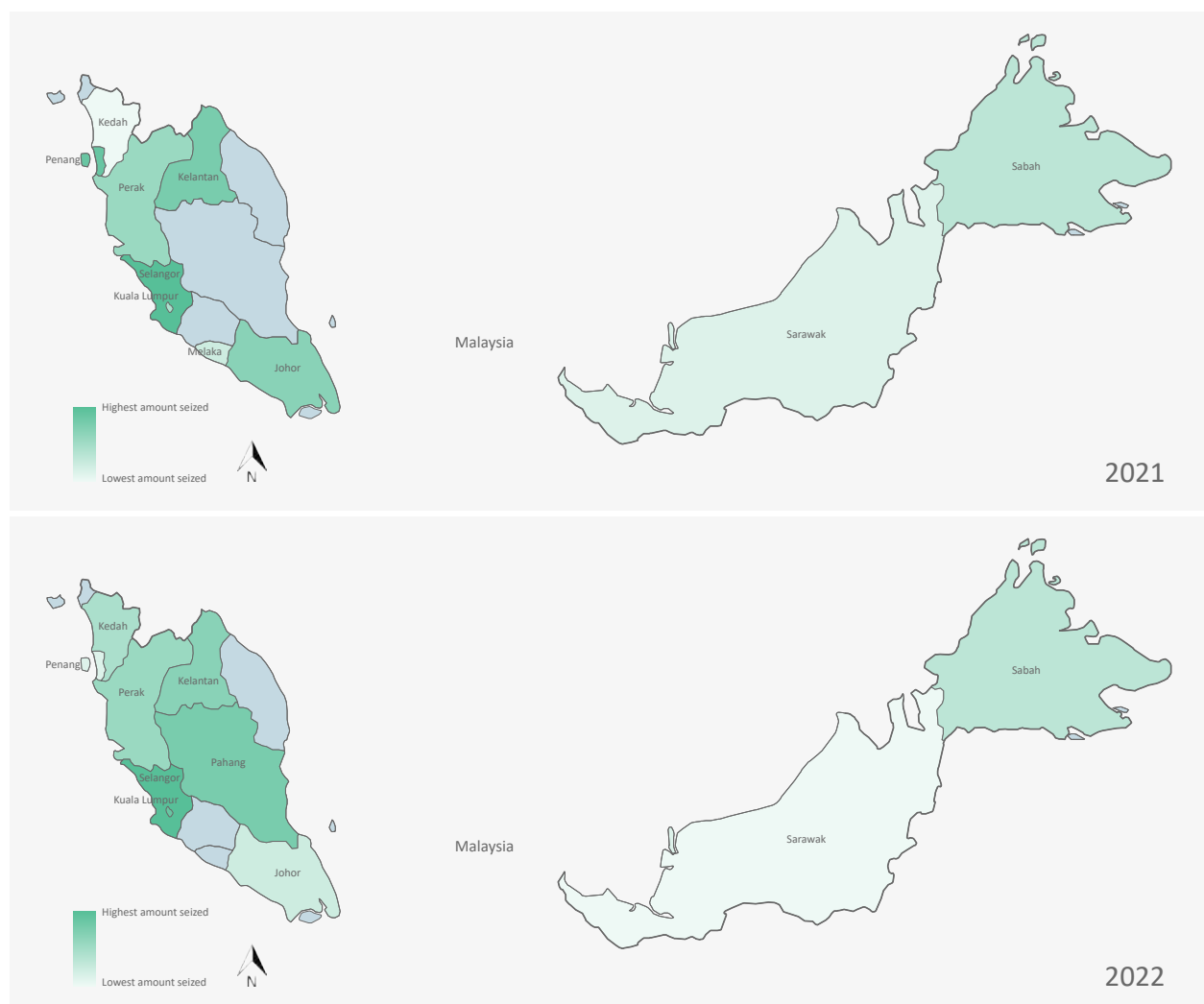
### High level of crystal methamphetamine supply in Malaysia from Myanmar

Data on seizures, use, and price indicate that the level of crystal methamphetamine supply remained very high in Malaysia in 2022. Malaysian authorities seized 8.3 tons of the drug, marking a slight decrease compared to 2021 (9.7 tons) but still the second largest on record. In recent years, Malaysian drug trafficking groups have been successfully arranging large shipments of crystal methamphetamine sourced from the Golden Triangle into and out of the country. This has been possible due to Malaysian drug syndicates' links with organized crime groups based in Myanmar, as well as in Australia, China, Japan, Lao PDR, New Zealand, Taiwan Province of China, and Thailand.

Both in 2021 and 2022, Selangor authorities seized the most crystal methamphetamine among the provinces of Malaysia. Located on the west coast of Peninsular Malaysia, encircling the capital Kuala Lumpur, Selangor serves as a hub for crystal methamphetamine distribution to different cities in Malaysia, including its capital and Penang. Main

28 NNCC of China, "Country briefing", December 2022.

**Map 6. Top states and federal territories for crystal methamphetamine seizures in Malaysia, by weight, 2021-2022**



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.  
Source: National Anti-Drug Agency (NADA) of Malaysia.

entry points for crystal methamphetamine into Malaysia include Pahang, Kelantan, Perak, and Perlis.

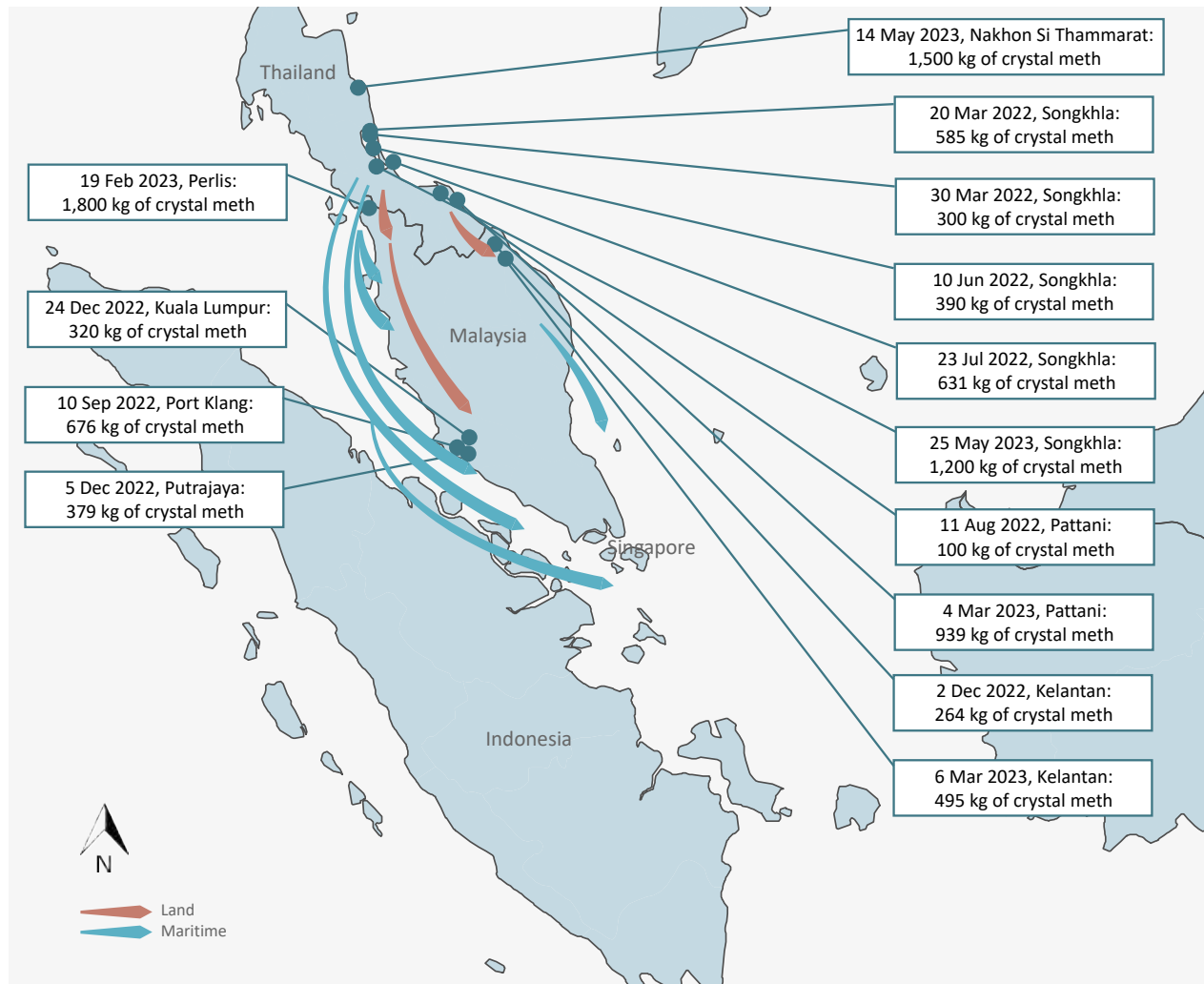
Recent cases include 1.8 tons of the drug seized in Perlis, located across from Satun, Thailand, in February 2023. Malaysian authorities also seized 451 kg of the drug in Selangor in February 2023. According to NCID, the drug was trafficked from Thailand by boat through Kelantan, located across Narathiwat province of Thailand.<sup>29</sup> The Golok river that borders Kelantan and Narathiwat has been heavily exploited by organized crime groups to transport large quantities of crystal methamphetamine, as evidenced by many cases reported in 2022 and early 2023.

### Maritime trafficking in Indonesia and the Philippines

Shipside smuggling has become an increasingly common method for the transportation of large quantities of crystal methamphetamine into the Philippines, where a large vessel, or mothership, passes drug consignments to smaller vessels (i.e. fishing boats or speedboats) for transportation to shore, either by handing the drugs over directly or by dumping them overboard for pick-up. Once ashore, drugs are usually transported by private vehicle to stash houses or warehouses while awaiting orders for inland trafficking and distribution. Organized crime groups may favour this method because it is perceived as being more cost-efficient and secure

<sup>29</sup> Bilateral meeting between UNODC and NCID, February 2023.

**Map 7. Select major crystal methamphetamine trafficking cases in Peninsular Malaysia and transiting through southern Thailand, 2022-2023 (May)**



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on data and information verified from different sources. Some major seizures made are not on the map as operations remain ongoing.

than seaport smuggling through container ports and airport smuggling.<sup>30</sup> During the COVID-19 pandemic, shipside smuggling was the dominant mode of trafficking used by traffickers to bring crystal methamphetamine into the Philippines, and law enforcement authorities reported no large-scale seizures at international container ports during that period.<sup>31</sup>

In Indonesia, an estimated 80 per cent of all drugs smuggled into the country are smuggled along maritime routes, primarily consisting of teabag methamphetamine originating from the Golden Triangle. Methamphetamine is shipped through waters off the Malaysian coast, sometimes passing

through privately owned seaports in Penang, Klang or Johor, for instance, to Aceh and Riau islands in Sumatra and to Borneo, and then for further trafficking by land to the interior of Indonesia. In addition, methamphetamine is also trafficked by sea to Indonesia from countries in West Asia, often concealed in box packages with various codes and logos.<sup>32</sup> Traffickers use several methods to smuggle drugs through Indonesian waters, including the use of a mother vessel to either throw consignments overboard into the water, which are attached to a buoy and equipped with GPS tracking devices, or to transfer cargoes directly onto fishing boats operated by local syndicates who bring the drugs ashore.<sup>33</sup> Significant maritime seizures of methamphetamine made by authorities in 2022 include 176.3 kg in Riau

30 DDB and PDEA of the Philippines, "Country briefing", December 2022.

31 Ibid.

32 BNN of Indonesia, "Country briefing", December 2022.

33 Ibid.

## Map 8. Maritime trafficking routes into and through Indonesia



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on data and information from the Indonesian National Narcotics Agency (BNN).

on 8 January, 189 kg in north Aceh on 24 February, and nearly 1.2 tons, which was transported on a vessel from West Asia and then transferred to an Indonesian fishing boat and seized, in West Java on 16 March.<sup>34</sup>

### Methamphetamine trafficking by air cargo, air couriers, and in postal services to Japan and the Republic of Korea

In Japan, the majority of all drug seizures were made in the postal stream, followed by air passengers and in air cargo.<sup>35</sup> Japanese customs identified an increase in smuggling of methamphetamine into Japan by air passengers in the second half of 2022, in part due to the reopening of borders after the pandemic.<sup>36</sup> In 2022, Asia was the main source region for methamphetamine both in terms of quantity and the number of seizures.<sup>37</sup> However, Japanese authorities also detected methamphetamine trafficked by air couriers and by post from several countries outside of the region, including Canada, the Islamic Republic of Iran, Germany, South Africa, the United Kingdom, Mexico, Türkiye, and the United States.<sup>38</sup>

A large majority of methamphetamine seized in the Republic of Korea in 2021 and 2022 were smuggled through parcel posts and express freights primarily from Lao PDR, Thailand, and the United States.<sup>39</sup> In addition, methamphetamine smuggled by air couriers continued to be a law enforcement challenge with most cases originating from Thailand (60.8 per cent) and the rest from Malaysia (6.8 per cent), Cambodia (5.6 per cent), Lao PDR, and Viet Nam (4.5 per cent each) in 2021.<sup>40</sup> The frequency of air-based supply to markets in Japan and the Republic of Korea is commensurate with the comparatively smaller size of the user markets in the two countries. The high-frequency, low-volume seizures that are common in the Japanese and Korean markets also suggest a high level of online sourcing.

### Integration of the methamphetamine market of South Asia into Southeast Asia

India continues to gain importance in the region's illicit drug supply chains, notably as a source of chemicals and pharmaceutical products containing ephedrine or pseudoephedrine used

34 Ibid.

35 Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

36 Ibid.

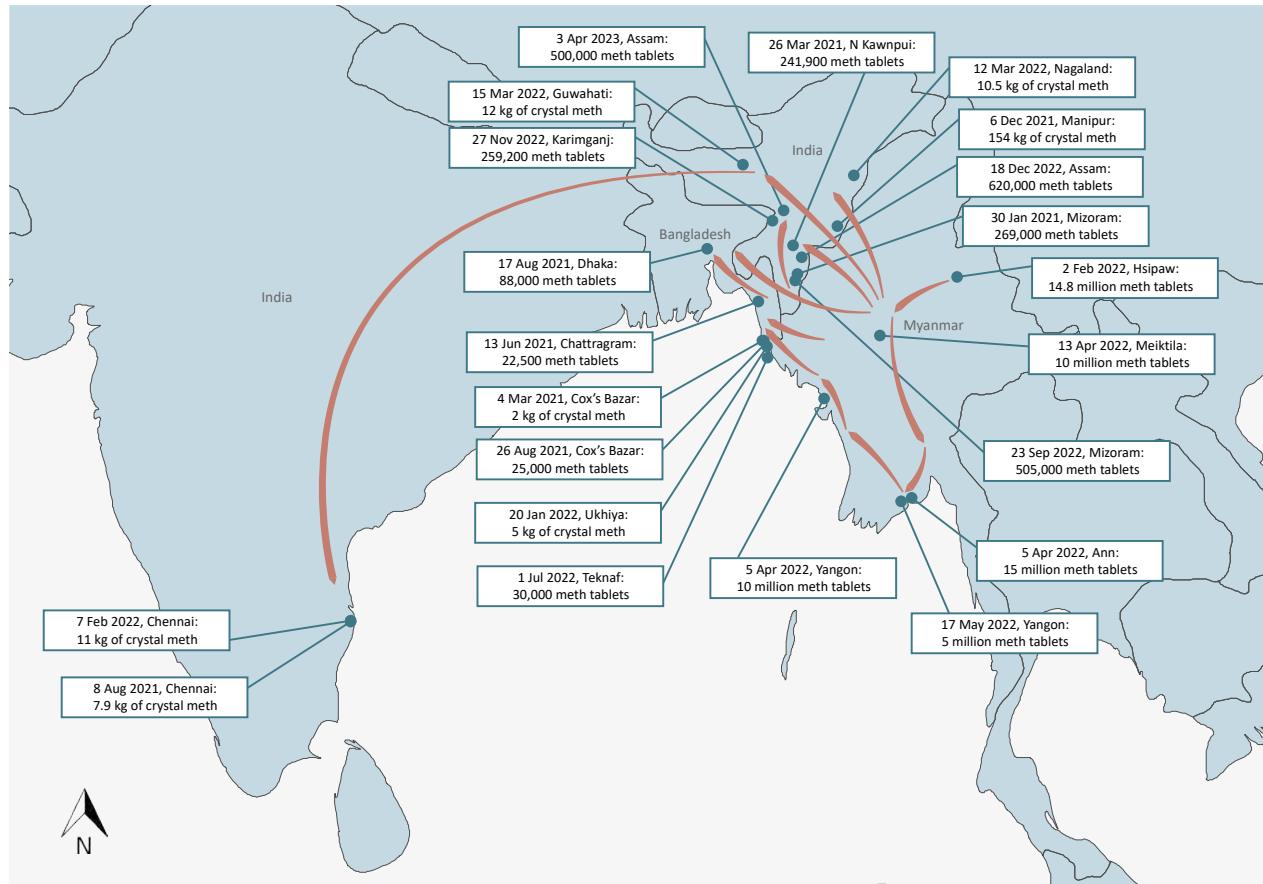
37 Ibid.

38 Ibid.

39 Korean Customs Service (KCS) of the Republic of Korea, Drug smuggling and enforcement trends 2022, February 2023.

40 KCS of the Republic of Korea, Report of Joint Anti-Drug Operation Between Thailand and Korea, presented at Heads of National Drug Law Enforcement Agencies Asia and the Pacific (HONLAP), October 2022.

**Map 9. Select seizures of methamphetamine from Myanmar to Bangladesh and northeastern states of India, 2021-2022**



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on data and information from the Department of Narcotics Control (DNC) of Bangladesh, the Narcotics Control Bureau (NCB) of India, and other authorities based in northeastern India provinces.

to produce methamphetamine in Myanmar. India is also a growing transit and destination market for methamphetamine and other synthetic drugs. The 1,600 km-long border that separates Myanmar and India has been increasingly exploited by transnational drug trafficking networks, and seizure data from both countries clearly demonstrate the growing importance of westward methamphetamine trafficking flows from Shan. Indian authorities have acknowledged that trafficking of methamphetamine from Myanmar to India through its northeastern border states has become one of the major developments observed in the illicit drug market, and numerous methamphetamine trafficking cases have been reported from Assam, Nagaland, Manipur and Mizoram.<sup>41</sup>

In addition to numerous methamphetamine tablet seizures, Indian authorities made several seizures of crystal methamphetamine from December 2021 to March 2022 that had been trafficked overland from Myanmar, including 154 kg of the drug concealed in teabags by a Myanmar national, as well as 10.5 kg in Nagaland and 12 kg in Guwahati.<sup>42</sup> Overall methamphetamine seizures reported by the Directorate of Revenue Intelligence (DRI) of India increased substantially in 2021-2022, amounting to 884.7 kg compared to 64.4 kg in 2020-2021 and 143 kg in 2019-2020.<sup>43</sup>

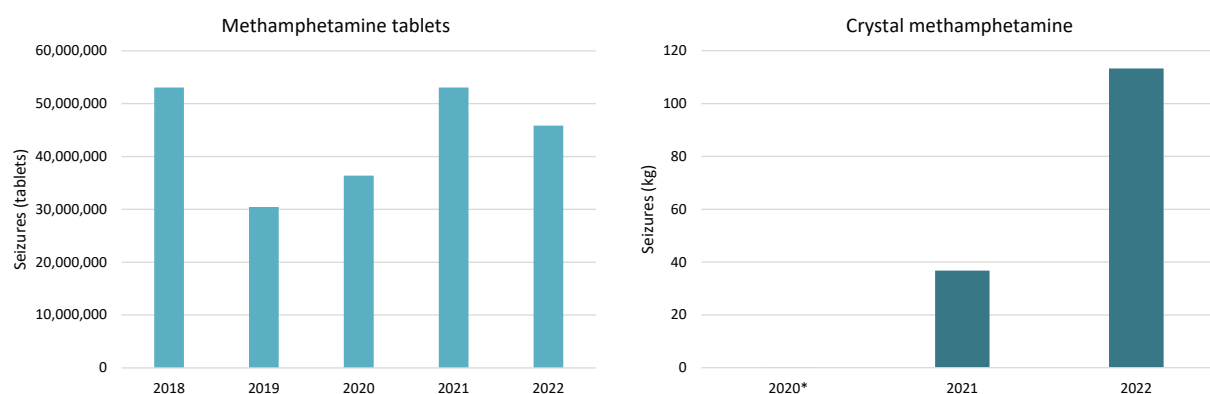
Bangladesh continues to be an important market for methamphetamine from Myanmar. In 2022,

41 Narcotics Control Bureau (NCB), Ministry of Home Affairs of India, Annual Report 2021, 2022.

42 The Assam Rifles, official notice, December 2021 (accessed at [https://twitter.com/official\\_dgar/status/1468149150420066305](https://twitter.com/official_dgar/status/1468149150420066305)); Nagaland Police, official notice, March 2022 (accessed at <https://www.facebook.com/346980418805829/posts/1687963614707496/>); Guwahati Police, official notice, March 2022 (accessed at <https://twitter.com/GuwahatiPol/status/1503965202231955458>).

43 DRI of India, Annual Report 2021-2022.



**Figure 5. Seizures of methamphetamine in Bangladesh, 2018-2022 for tablets and 2020-2022 for crystal**

Note: \* 65 g of crystal methamphetamine was seized in 2020.

Source: DNC of Bangladesh.

Myanmar authorities made several seizures of large quantities of methamphetamine tablets (five million or more) that were destined to Bangladesh, most of which had been trafficked from Shan to western Myanmar through Yangon. Map 9 shows major cases reported along the route in 2022.

Authorities in Bangladesh seized approximately 45.9 million methamphetamine tablets in 2022, the second highest total reported since 2018.<sup>44</sup> The crystal methamphetamine market has only recently been introduced to Bangladesh. However, the quantities seized has increased from 65 grams in 2020 and 36.8 kg in 2021 to 113.3 kg in 2022, the highest total ever reported by the country.<sup>45</sup> This is an indication of potentially rapid growth of the crystal methamphetamine market in Bangladesh.

At the same time, Rakhine state in western Myanmar has become an important transit route. Local organizations report that the spillover of methamphetamine has had the effect of increasing drug use and opportunities for corruption and crime to flourish. This pattern of transit routes developing into robust user markets has been observed repeatedly in other parts of East and Southeast Asia. A local media outlet reported that the significant increase in the availability of methamphetamine tablets in Rakhine has resulted in a 50 per cent decrease in the retail price of the drug, which makes it more affordable and stimulates demand.<sup>46</sup>

44 DNC of Bangladesh, South Asia and Southeast Asia Trilateral Meeting, March 2023.

45 Ibid.

46 Narinjara, "Rakhine youths' methamphetamine use on the rise during Military Council rule", 28 March 2023 (accessed at: <https://www.bnionline.net/en/news/rakhine-youths-methamphetamine-use-rise-during-military-council-rule>).

### Revitalization of trafficking flows of pharmaceutical products containing pseudoephedrine in the form of tablets from India to Myanmar

There has been a noticeable increase in seizures of chemicals and pharmaceutical products in Myanmar originating from India, some of which were trafficked along overland cross-border routes. Notably, after not having been seen for a few years, cases involving the trafficking of pharmaceutical products containing pseudoephedrine in the form of tablets from India into methamphetamine laboratories in Myanmar reemerged in 2022, with seizures made along routes connecting to the India border.

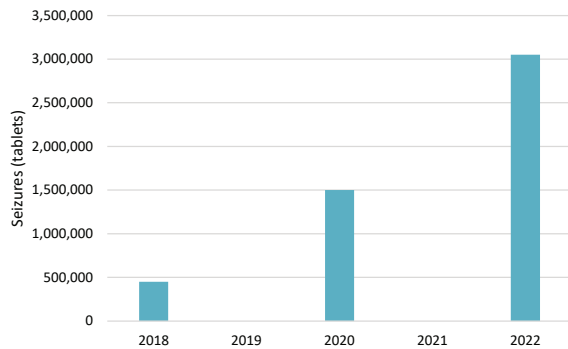
Between 2019 and 2021, Myanmar authorities made only one seizure of 1.5 million pseudoephedrine tablets. However, in 2022, Myanmar authorities reported two seizures of pseudoephedrine tablets originating in India, amounting to a combined total of 3.05 million tablets, including 1.75 million tablets seized in Mandalay on 20 June, and 1.3 million pseudoephedrine tablets and 360 kg of ethyl ether seized in Sagaing on 30 August. In both cases, the tablets were smuggled into the country along the Tamu-Moreh border crossing in India and transited Kalay in Sagaing region, Myanmar.<sup>47</sup> In addition, a series of chemical seizures via maritime routes have been reported from Myanmar, with indications that the shipments initially entered the country at Yangon through legal trade channels and were then diverted and seized in Shan.<sup>48</sup> It is possible that organized crime groups in Myanmar are facing increased difficulties in sourcing chemicals from

47 Myanmar, "Country briefing", December 2022.

48 SMCC database.

China. This development may have been driven, in part, by intensified border control measures along the China-Myanmar border.

**Figure 6. Seizures of tablets containing pseudoephedrine in Myanmar, 2018-2022**



Sources: DAINAP.

## Trafficking of methamphetamine by organized crime groups from outside of the region

### Mexican drug cartels

Mexican drug cartels have close links with Asian organized crime networks, primarily to obtain precursor chemicals for the production of drugs. However, over the past few years they have also attempted to expand their presence in the drug trade within some countries in the region. Although there are some indications that Mexican syndicates are trying to penetrate new markets and expand into others in the Asia and Pacific region, the long-established dominance of Asian networks will present a significant obstacle.

In the Philippines, drug trafficking activities involving Mexican nationals was first detected about a decade ago. In 2021, Malaysian authorities seized a consignment of 389 kg of liquid methamphetamine that originated from Guatemala and was destined to the Philippines, believed to have been organized by a Mexican trafficking group. As mentioned previously, in November 2022, authorities in the Philippines seized a methamphetamine laboratory in Ayala Alabang in Muntinlupa, Metro Manila that was believed to be associated with Mexican cartels.<sup>49</sup> Authorities believe the laboratory was likely a drying facility or used to conduct the final stage of the production process, given the types of chemicals found at the facility (hydrochloric

49 PDEA of the Philippines, Annual Intelligence Assessment Report 2022.

acid and acetone). Three nationals of Canada, France and the Philippines were arrested. A follow-up investigation revealed a possible connection between the arrestees and Mexican cartels, as the former accessed a storage site used for storing crystal methamphetamine trafficked from North America to Australia, using the Philippines as a transit point.<sup>50</sup>

The use of Hong Kong, China, as a transit location by Mexican cartels was evident in 2022 and early 2023, when Hong Kong Customs made numerous seizures of methamphetamine and cocaine in connection with Mexican drug trafficking groups. In March 2022, customs authorities detected an air cargo consignment declared as containing transformers that arrived from Mexico at Hong Kong International Airport, found to contain 447 kg of liquid methamphetamine. A further seizure a week later at a logistics warehouse in Sheung Shui found about 253 kg of methamphetamine concealed in 10 pieces of industrial-use rubber.<sup>51</sup> In addition, in October 2022, Hong Kong Customs seized a record 1.8 tons of liquid methamphetamine from a maritime consignment at the Kwai Chung Customhouse Cargo Examination Compound that originated from Mexico and was destined for Australia.<sup>52</sup> This was the largest ever methamphetamine seizure detected by Hong Kong law enforcement in terms of volume and value.<sup>53</sup>

### African drug trafficking groups

West African drug trafficking groups have been active in several countries in East and Southeast Asia for decades, particularly involved in the smuggling of drugs by using air passenger couriers (or 'drug mules') and air cargo. Drug trafficking activity related to West African networks all but disappeared during the COVID-19 pandemic but seems to have resumed after the lifting of travel bans.

50 Ibid.

51 Hong Kong Customs, "Hong Kong Customs makes record seizure of methamphetamine", press release, 10 April 2022 (accessed at: [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_34.html?p=23&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_34.html?p=23&y=&m=)).

52 AFP, "AFP international partnerships lead to record 1.800-tonne liquid meth haul in HK", press release, 30 October 2022 (accessed at <https://www.afp.gov.au/news-media/media-releases/afp-international-partnerships-lead-record-1800-tonne-liquid-meth-haul-hk>).

53 Hong Kong Customs, "Hong Kong Customs detects largest-ever methamphetamine case in Hong Kong history with market value reaching \$1.1 billion", press release, 29 October 2022 (accessed at: [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3538.html?p=10&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3538.html?p=10&y=&m=)).

In 2022, authorities in the Philippines reported four drug mule cases, after having reported no such cases since 2019. Three of the cases involved Nigerian nationals as facilitators and recruiters of couriers who were smuggling methamphetamine originating from South Africa and Nigeria.<sup>54,55</sup> In March 2023, the Philippine Bureau of Customs seized nearly 60 kg of crystal methamphetamine trafficked from Guinea.<sup>56</sup>

Customs authorities in Hong Kong, China, also made several arrests of air passenger couriers attempting to smuggle comparatively small quantities (up to a few kilograms) from Africa in 2022 and 2023. Some of the locations of origin of the methamphetamine smuggled to Hong Kong, China, during this time period include Uganda, Madagascar, Zambia, and South Africa. Concealment methods included false compartments in luggage, inside handicrafts, soaked into clothing in liquid form, and inside the body.<sup>57</sup>

South Africa is also a point of origin for methamphetamine trafficking into several countries in the region, primarily of smaller quantities smuggled by air passengers and through postal channels. In 2022, Indonesia, Japan, the Philippines, the Republic of Korea, and Hong Kong, China, reported seizing methamphetamine from air couriers and parcel post packages originating from South Africa. In June 2022, Korean authorities at Incheon Airport seized 10 kg of crystal methamphetamine that had been shipped from South Africa,<sup>58</sup> and Indonesian authorities, acting on information provided by law enforcement officials in Singapore, seized 14.8 kg of methamphetamine concealed in tractor spare parts that had been shipped in an express delivery consignment from South Africa.<sup>59</sup>

54 DDB and PDEA of the Philippines, "Country briefing", December 2022.

55 Bureau of Customs of the Philippines, "BOC-NAIA intercepts Shabu worth P400.724-M", March 2023 (accessed at <https://www.facebook.com/BureauOfCustomsPH/posts/pfbid04A57PEcwAY4dNomxR8X4dDurqmeUou82R3JajLPotQGbmFqmovBQc8NLY1EcVMKnl>).

56 Ibid.

57 Hong Kong Customs, various press releases, 2022 and 2023. For example, see: [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3513.html?p=12&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3513.html?p=12&y=&m=); [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3683.html?p=1&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3683.html?p=1&y=&m=); [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3678.html?p=2&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3678.html?p=2&y=&m=); [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3672.html?p=2&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3672.html?p=2&y=&m=); [https://www.customs.gov.hk/en/customs-announcement/press-release/index\\_id\\_3661.html?p=3&y=&m=](https://www.customs.gov.hk/en/customs-announcement/press-release/index_id_3661.html?p=3&y=&m=).

58 SPO of the Republic of Korea, March 2023.

59 BNN of Indonesia, "Country briefing", December 2022.

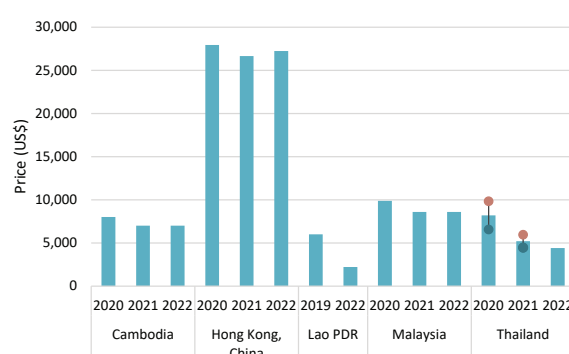
## West Asian trafficking groups

Organized crime groups based in West Asia, primarily the Islamic Republic of Iran, have been involved in the trafficking of crystal methamphetamine into the region, predominantly targeting Indonesia. Indonesian authorities reported that there were two trafficking cases of crystal methamphetamine, which originated from the Islamic Republic of Iran in 2021, amounting to 1,425 kg. Indonesian authorities also seized crystal methamphetamine trafficked from the Islamic Republic of Iran in 2022, including a seizure of 169 kg in the waters off of Aceh.<sup>60</sup>

## Notable decreases in wholesale prices of crystal methamphetamine in the Mekong

The typical wholesale price for crystal methamphetamine in East and Southeast Asia has been decreasing in recent years. In particular, Lao PDR and Thailand reported record low wholesale prices for the drug in 2022. It is important to note that the typical wholesale prices around the border provinces of Lao PDR and Thailand are even lower than the average prices at the national level. As mentioned earlier, the price could be as low as US\$ 1,000 per kg in the border provinces of Thailand. Both Cambodia and Malaysia reported record low wholesale prices for the drug in 2021 and prices remained stable in 2022.

**Figure 7. Wholesale price of crystal methamphetamine in select countries and territories, 2020-2022 (US\$)**



Note: The data are for latest years available. The high-low bars represent the upper and lower limits of the price range for those countries which reported such range in addition to the typical price; data in the table are not adjusted with purities. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format.

Source: Official communications with drug agencies in the region, March-May 2023.

60 Ibid.

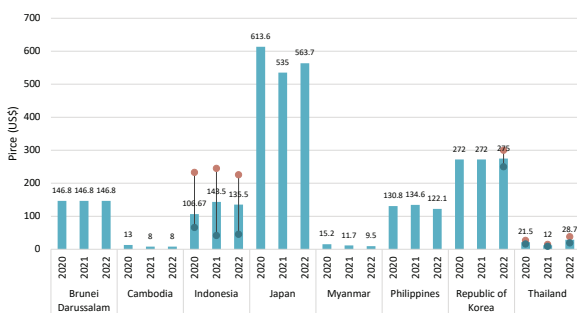


## Retail prices of crystal methamphetamine vary significantly in East and Southeast Asia

In 2022, no notable change was observed in the average retail price of crystal methamphetamine in East and Southeast Asia, except for the increase reported from Thailand (US\$ 9-15 in 2021 and US\$ 19-38 in 2022).<sup>61</sup> Cambodia reported the lowest retail price for crystal methamphetamine in the region in 2022, at US\$ 8 per gram, followed by US\$ 10 in Myanmar, indicating large amounts of adulterants present in crystal methamphetamine available in Cambodia. In fact, the average purity of crystal methamphetamine in Cambodia was the lowest among countries in the region, as reported to UNODC (see figure 10).

As observed in figure 8, the typical prices for crystal methamphetamine among countries in the region differ significantly. Countries in East Asia, including Japan and the Republic of Korea, and archipelagic countries in Southeast Asia reported much higher retail prices of crystal methamphetamine compared to countries in the Mekong. The per gram retail price of crystal methamphetamine in Indonesia has remained relatively stable over the past few years and ranged between US\$ 45-225 in 2022.<sup>62</sup>

**Figure 8. Retail price of crystal methamphetamine in select countries in East and Southeast Asia, 2020-2022 (US\$)**



Note: The data are for latest years available. The high-low bars represent the upper and lower limits of the price range for those countries which reported such range in addition to the typical price; data in the table are not adjusted with purities. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format.

Source: Official communications with drug agencies in the region, March-May 2023.

61 The increase in retail price despite decrease in wholesale price of crystal methamphetamine in Thailand may indicate effective law enforcement responses at the retail level.

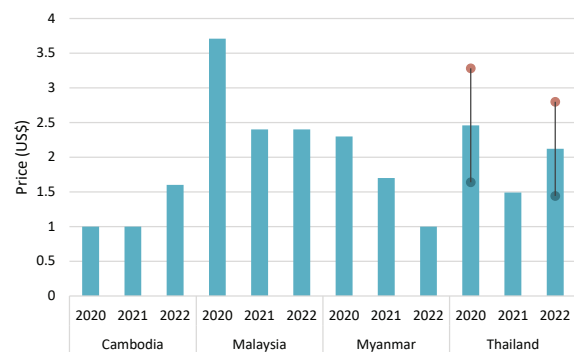
62 DAINAP.

In the Republic of Korea, the average price for one gram of crystal methamphetamine in 2022 ranged between US\$ 250-300, which is relatively stable in relation to the average price in the previous two years (US\$ 272), but considerably lower than in previous years. This may, in part, be due to the increased availability of the drug in the country.<sup>63</sup>

## Retail prices of methamphetamine tablets remain extremely low

The strong decrease in the retail price of methamphetamine tablets over the past two years in Myanmar likely reflects an expansion of supply, as has been observed in most other parts of the region, as well as fluctuations in the exchange rate. In 2022, the typical price for one methamphetamine tablet decreased by more than half (US\$ 1 in 2022 and US\$ 2.3 in 2020).<sup>64</sup> Meanwhile, the per tablet retail price in Cambodia continued to be less than US\$ 2, and the price in Thailand, despite an increase compared to the price reported in the previous year, also remained low at around US\$ 2.

**Figure 9. Retail price of methamphetamine tablets in select countries in Southeast Asia, 2020-2022 (US\$)**



Note: The high-low bars represent the upper and lower limits of the price range for those countries which reported such range in addition to the typical price. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format. Source: Official communications with drug agencies in the region, March-May 2023.

The wholesale price for methamphetamine tablets is only available in Thailand. In 2022, the average wholesale price for methamphetamine tablets (per 2,000 tablets) was US\$ 350, which is nearly one-third of the price reported in 2020 (US\$ 820-984).<sup>65</sup>

63 SPO of the Republic of Korea, "Country briefing", December 2022.

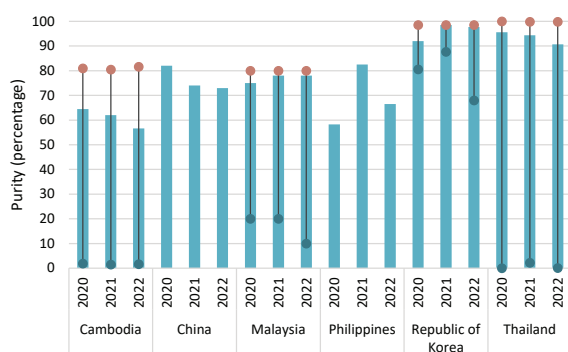
64 DAINAP.

65 Ibid.

## Slight decreases in the average purities of crystal, but stable trends in tablet methamphetamine

The average purity of crystal methamphetamine samples analysed in East and Southeast Asia declined slightly among six of the eight countries that reported purity data to UNODC in 2022, namely in Cambodia, China, the Philippines, the Republic of Korea, Singapore, and Thailand. A slight increase in the average purity of crystal methamphetamine was observed in Indonesia while Malaysia reported a stable trend.

**Figure 10. Purity of crystal methamphetamine analysed in select countries in East and Southeast Asia, 2020-2022**



Note: Purity data for China, the Republic of Korea, and Thailand refer to the weight/weight (w/w) percentage, expressed as the hydrochloride salt of these substances. For Cambodia, Malaysia, and the Philippines, it refers to the weight/weight (w/w) percentage, expressed as the base form of these substances. The high-low bars represent the upper and lower limits of the purity range reported in addition to the average purity.

Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

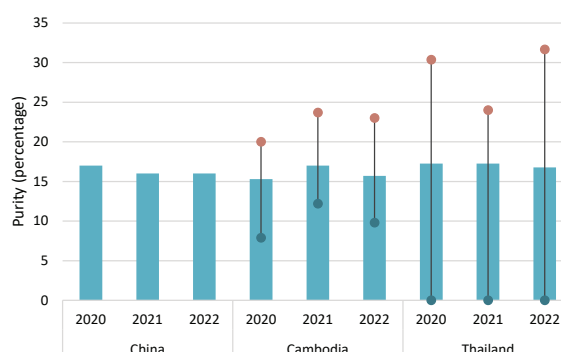
The average purity of crystal methamphetamine samples analysed in Thailand decreased slightly in each of the past two years, from 95.6 per cent methamphetamine hydrochloride in 2020 to 94.3 per cent in 2021 and 90.7 per cent in 2022. Cambodia also reported a decrease in the average purity of crystal methamphetamine samples analysed in 2022, which was 56.6 per cent, compared with 62 per cent in 2021.<sup>66</sup>

In Malaysia, the average purity of crystal methamphetamine samples analysed remained stable in 2022 compared with the previous year, and the average purity of Chinese teabag methamphetamine ranged between about 75-80 per cent in base form.<sup>67</sup> The purity of Chinese

teabag methamphetamine samples analysed in the Philippines ranged from about 75-90 per cent, although samples tested from the street retail level were found to have lower average purity. In 2022, the average purity of crystal methamphetamine samples analysed in the Philippines was found to be 66.5 per cent methamphetamine hydrochloride, which is much lower than the average purity in the previous year (82.6 per cent).<sup>68</sup>

In Indonesia, however, the average purity of crystal methamphetamine was shown to have increased slightly compared with the previous year, from 90 per cent in 2021 to 93.6 per cent in 2022 in hydrochloride form. The average purity of methamphetamine tablets analysed in Cambodia, China, and Thailand in 2022 was stable, at around 17 per cent over the last three years.<sup>69</sup>

**Figure 11. Purity of methamphetamine tablets analysed in China, Cambodia, and Thailand, 2020-2022**



Note: Purity data for China and Thailand refer to the weight/weight (w/w) percentage, expressed as the hydrochloride salt of these substances. For Cambodia, it refers to the weight/weight (w/w) percentage, expressed as the base form of these substances. The high-low bars represent the upper and lower limits of the purity range reported in addition to the average purity.

Sources: DAINAP; official communications with NNCC of China, NACD of Cambodia, and ONCB of Thailand, March-April 2023.

## Increased use of P-2-P based manufacturing methods

Available forensic data<sup>70</sup> show increased use of P-2-P based manufacturing methods in East and Southeast Asia. For instance, in Thailand, P-2-P accounted for a larger proportion of the main precursor identified than ephedrine and pseudoephedrine in 2022 for the first time, not

66 DAINAP.

67 NADA, RMP, and KIMIA of Malaysia, "Country briefing", December 2022.

68 Official communication with DDB and PDEA of the Philippines, March 2023.

69 DAINAP.

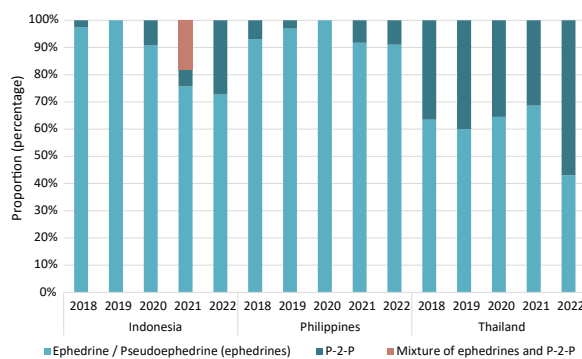
70 Information is available on the starting material of methamphetamine in the region, based on the impurities identified in samples analysed. However, data on the chirality is limited.

including crystal methamphetamine samples where the main precursors used in the synthesis could not be identified. For methamphetamine tablets, ephedrine and pseudoephedrine remained the main precursors used in about two-thirds of samples analysed in 2022. However, the portion of methamphetamine tablet samples produced using P-2-P methods increased from 14.1 per cent in 2021 to 34 per cent in 2022.<sup>71</sup>

In 2022, ephedrine or pseudoephedrine continued to be the precursor found in a majority of samples analysed in the Philippines, although P-2-P continued to be found as the precursor in a small number of samples.<sup>72</sup> Adulterants and cutting agents found in methamphetamine samples analysed in the Philippines in 2022 include *N*-Isopropylbenzylamine, dimethyl sulfone and aluminum sulfate.<sup>73</sup>

Forensic analysis in Indonesia found that ephedrine was the main precursor in the majority of crystal methamphetamine samples analysed in 2022. Of the 11 methamphetamine samples profiled, eight were synthesized from ephedrine by the Nagai/Moscow route (four samples) and Emde route (four samples). One sample, which was smuggled into Indonesia from West Asia via maritime routes, was found to have been synthesized from natural ephedrine extracted from the Ephedra plant, via the Nagai/Moscow route. The other three samples were synthesized from P-2-P by the Leuckart route.<sup>74</sup>

**Figure 12. Proportion of crystal methamphetamine samples analysed in Indonesia, the Philippines, and Thailand, by main precursor, 2018-2022**



Sources: DAINAP; official communications with BNN of Indonesia, PDEA of the Philippines, and ONCB of Thailand, March-April 2023.

71 Official communication with ONCB of Thailand, April 2023.

72 Official communication with DDB and PDEA of the Philippines, March 2023.

73 DDB and PDEA of the Philippines, "Country briefing", December 2022.

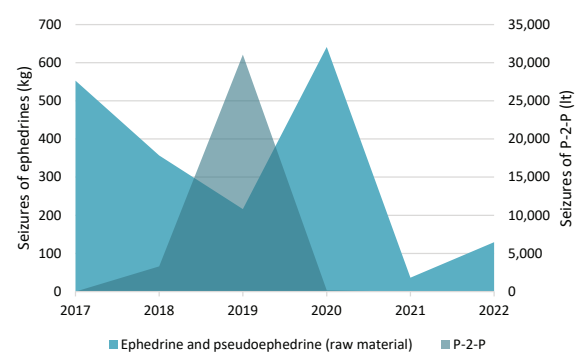
74 BNN of Indonesia, "Country briefing", December 2022.

## Continued low seizures of key precursor chemicals

Both controlled and non-controlled chemicals continue to be diverted and trafficked into Myanmar, with neighbouring China, India, and to a lesser extent, Thailand and Viet Nam remaining the most important source countries for chemicals by a wide margin. At the same time, organized crime is increasingly turning to creative solutions to leverage diversified types of chemicals and production methods to circumvent existing regulatory and law enforcement efforts. This has been demonstrated by increasing detection of pre-precursors and other non-controlled chemicals in clandestine production and reported seizures. As in most other countries in Southeast Asia, information related to the chemical profiles of seized drugs remains scarce in Myanmar and the forensic capacity to identify and analyse precursors is minimal.

In 2022, the total amount of controlled precursor chemicals for methamphetamine seized in Myanmar and other countries in Southeast Asia remained significantly limited. Only 129.4 kg of ephedrine was seized in 2022 and there have been no seizures of P-2-P over the last two years. However, as mentioned earlier in the report, three million pharmaceutical tablets containing pseudoephedrine originating from India were seized in Myanmar, which is the highest total since 2017 when 3,901,000 tablets were seized.<sup>75</sup> No seizures of MAPA, APAA, or APAAN have been made in the region in recent years.

**Figure 13. Seizure amounts of ephedrine and pseudoephedrine (raw material), and P-2-P, in Southeast Asia, 2017-2022**



Source: DAINAP.

75 DAINAP.

**Table 2. Seizures of selected chemicals in Myanmar, 2021-2022**

No	Chemical (unit)	2021	2022
<b>Internationally controlled substances</b>			
1	Acetone (lt)	3,000	6,460
2	Hydrochloric acid (lt)	20	9,200
3	Sulphuric acid (lt)	18,340	22,550
4	Toluene (lt)	50,400	41,910
<b>Non-controlled substances</b>			
5	Acetic acid (lt)	0	20,000
6	Caffeine (kg)	9,355	9,036
7	Dimethyl sulphate acid (lt)	13,700	0
8	Ethanol (lt)	0	18,600
9	Ethyl acetate (lt)	42,960	3,120
10	Phenol crystals (kg)	0	9,000
11	Pseudoephedrine (tablets)*	0	3,050,000
12	Sodium acetate (kg)	4,000	12,425
13	Sodium cyanide (kg)	48,620	15,400
14	Sodium ethoxide (kg)	4,600	14,000
15	Theophylline (kg)	0	14,500

Note: \* Preparation forms of pseudoephedrine are not listed as controlled substances under the 1988 UN Drug Convention.

Source: DAINAP.

### Increased use of non-controlled chemicals

One of the most serious challenges in precursor control in East and Southeast Asia is the increased use of non-controlled chemicals for the production of methamphetamine and ineffective responses thereto by authorities in the region. More evidence is required but available information demonstrates that organized crime groups have been increasingly resorting to non-controlled chemicals.

In 2022, Myanmar authorities seized both controlled and non-controlled chemicals, but all controlled chemicals seized in the country were predominantly solvents, such as hydrochloric acid, sulphuric acid and toluene (see the Myanmar country chapter). Table 2 shows types of chemicals seized in Myanmar between 2021 and 2022.

Similar to the forensic analysis of seized crystal methamphetamine samples, seizures of non-controlled chemicals also point towards an increased use of P-2-P-based methamphetamine production methods. In the past few years, there have been limited seizures of non-controlled chemicals that can be used for ephedrines-based methods, with the latest major case being the seizure of 72 tons of propionyl chloride in Lao PDR in

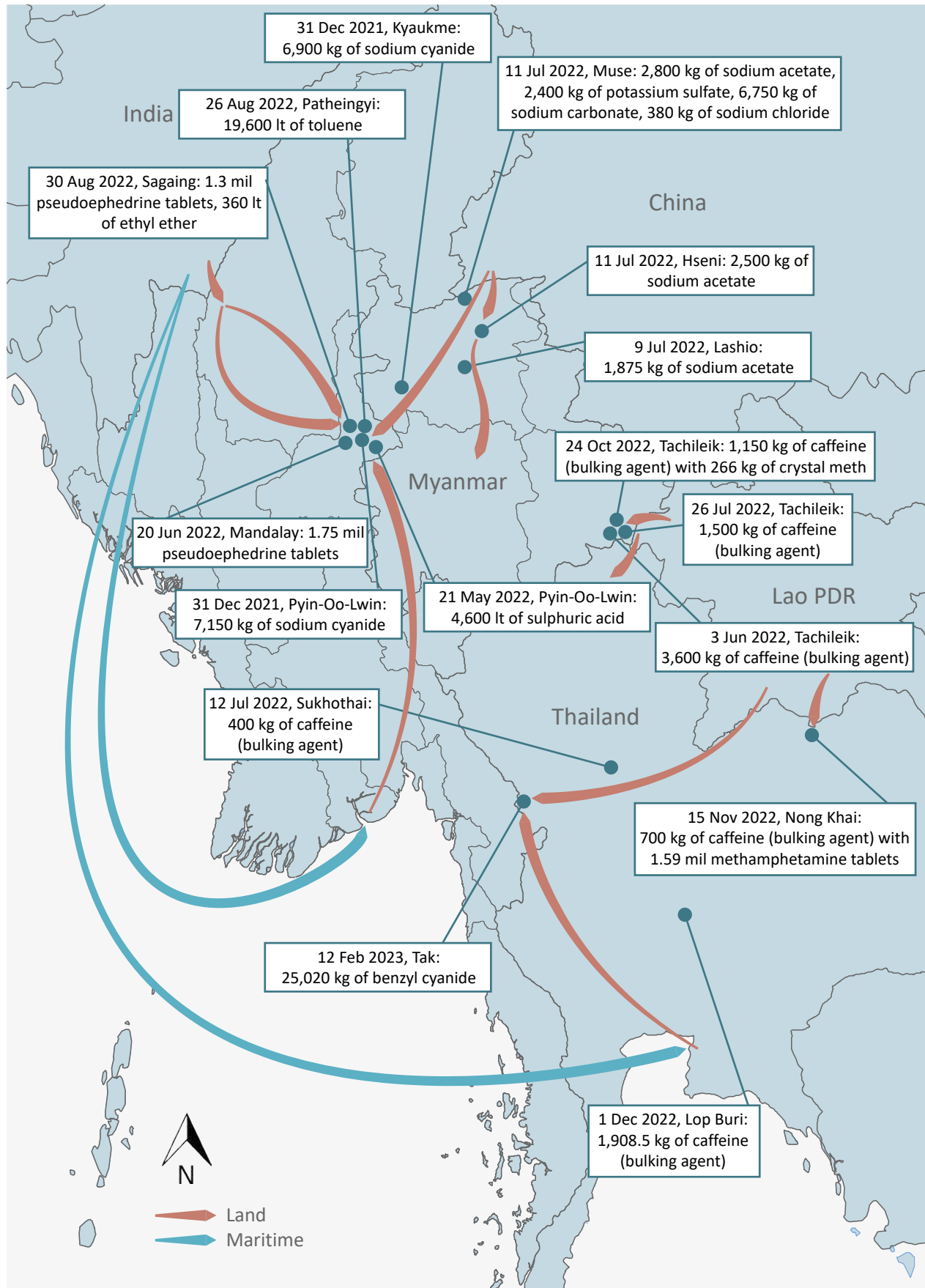
July 2020. In the meantime, benzyl cyanide, which can be used in the synthesis of P-2-P, has continued being seized in the region. Myanmar authorities have already made seizures of benzyl cyanide in 2023, together with scheduled chemicals, such as toluene, sulphuric acid, and acetone. In February 2023, 25 tons of benzyl cyanide was seized in western Thailand across the border from Myanmar and originating from India.<sup>76</sup>

### Trafficking of chemicals within the Mekong region and India continues to fuel the production of methamphetamine in Myanmar

As highlighted in previous years' reports, ineffective responses to the diversion and trafficking of chemicals by national authorities in the region serve as one of the main drivers for the continuous growth in the supply of methamphetamine as well as other synthetic drugs from Myanmar. Despite increased efforts by relevant authorities in precursor control, organized crime groups operating in the region have not met difficulties in sourcing chemicals, which can be evidenced by the increased availability of methamphetamine and other synthetic drugs in the region.

<sup>76</sup> Official communication with ONCB of Thailand, February 2023.

**Map 10. Precursor chemical trafficking routes into Myanmar and locations of select seizures of chemicals, 2021-2023 (May)**



Note: Caffeine is a common bulking agent used in methamphetamine tablet production in the Golden Triangle. Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

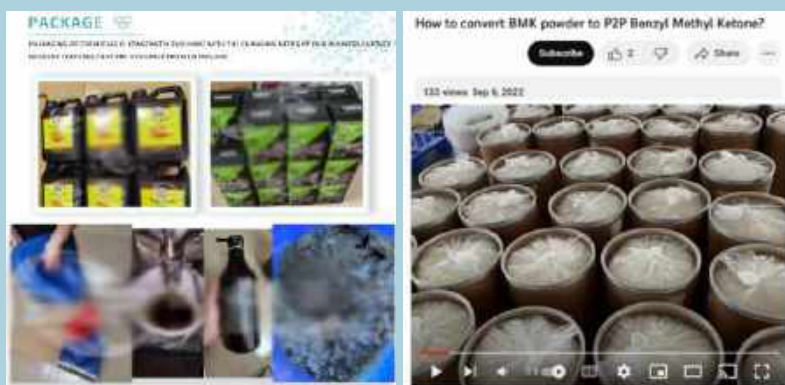
Source: UNODC elaboration based on data and information verified from different sources. Some major seizures made are not on the map as operations remain ongoing.



### Use of online sales platforms and social media for trade in precursors and non-controlled chemicals

Organized crime groups have increasingly turned to creative chemistry and the use of non-controlled chemicals sourced from within Asia's chemical industries via a growing number of online marketplaces. Some vendors have been observed catering to customers in parts of the world where illicit drug production is most prevalent, including Myanmar, offering sophisticated freight-forwarding schemes, concealment methods, and mislabeling as part of 'custom packaging services'. This illicit or near illicit trade has effectively removed the need for transnational criminal groups operating globally to source traditional precursors that have been placed under international control. Beyond the evolution of substances being used for production, enhanced enforcement efforts in some countries have resulted in the targeting of vulnerabilities in others which increasingly serve as breakdown points that allow for diversion, transshipment and trafficking.

Transnational organized crime rely on the internet for sourcing precursor chemicals, with interactions between buyers and sellers occurring on a variety of platforms ranging from e-commerce websites, online marketplaces, social media, and, to a lesser extent, dark web forums and marketplaces. Examination of online vendors, most of which produce chemicals from facilities located in China and India, across major online platforms indicates extensive use of chemical nomenclature in virtually all suspicious advertisements. Rather than risk detection by openly using the actual name of a controlled substance, online vendors often use chemical nomenclature associated with the Chemical Abstract Services (CAS) and International Union of Pure and Applied Chemistry (IUPAC) as identifiers, as well as intentional misspelling of substance names. More specifically, CAS numbers or IUPAC names are used in lieu of more recognizable terms to advertise controlled substances on the clear web. Beyond circumventing local law enforcement efforts, this technique helps vendors to avoid unwanted scrutiny and circumvent web filters that search for and censor advertisements using the names of more well-known substances.



Examples of vendors advertising concealment tactics and chemical conversion methods.

Source: UNODC examination of online vendors.

Examined online vendors have also been observed advertising internationally scheduled substances across local online platforms in various languages, particularly targeting countries where illicit drug production is prevalent. Vendors typically operate corporate websites and storefronts on major online marketplaces and use social media including Facebook, Instagram, TikTok, YouTube, Telegram, Wickr, WeChat, and Pinterest, as well as local classifieds to help build a network

of clients and direct traffic to their business. Many of these companies have been observed marketing designer precursors, pre-precursors and new psychoactive substances (NPS) as 'research chemicals' using known identifiers for internationally scheduled substances to signal effective substitution methods to their buyers and circumvention of law enforcement and regulatory controls. Some also offer instructions and tutorials on chemical conversion and synthetic drug synthesis using these substances, while others can be found advertising the sale of both internationally scheduled and non-controlled precursors alongside synthetic drugs including fentanyl and new psychoactive substances that are scheduled in recipient jurisdictions. It is also apparent that several companies examined may be connected to one another and are operating as part of a broader network targeting customers seeking to source chemicals for use in illicit drug production online. Taken together, this behavior provides a clearer indication of illicit activity.

Efforts to disrupt chemical flows into Myanmar's drug-producing areas also continue to be impeded by slow and bureaucratic inter-agency coordination, inadequate resources and personnel, and limited cross border cooperation. These challenges are further compounded by major gaps in precursor regulatory frameworks and enforcement in several countries throughout the region, enabling transnational organized crime groups operating in Myanmar to divert, traffic, and produce massive quantities of chemicals for illicit drug production.

Myanmar border authorities have long had difficulty enforcing its borders and disrupting the flow of chemicals originating from neighbouring China and India, which remain the two primary sources of chemicals. Thailand remains a primary transit country for chemicals, but a growing number of cases indicate that neighbouring Lao PDR is becoming an increasingly important transshipment route for chemicals that are reportedly destined for illicit drug production in Myanmar, with chemicals entering the country through Viet Nam, Thailand, and China. Moreover, the Lao Government also faces similar regulatory and capacity challenges in monitoring chemical flows through the country.

The border crossing from Ruili in Yunnan, China to Muse in Myanmar continues to be a major transit location for the trafficking of precursor chemicals originating from China into production sites in North Shan. It is also the primary transit route for the trafficking of drugs produced in Shan into Yunnan province and then further inland in China. Meanwhile, Lao PDR's borders have become a major vulnerability in the regional drug trafficking infrastructure, most notably its long riverine border that runs from the ports on the Mekong in the Golden Triangle down to northeastern Thailand, and its several overland border crossings into Viet Nam. Where past seizures of chemicals in Thailand most commonly occurred in the northern part of the country, Lao PDR's rise as a transshipment route has led to chemicals being routed through the northeastern border, with chemicals also seized in the western border areas with Myanmar.

In addition to the trafficking of chemicals into Myanmar from China, Lao PDR, and Thailand, a high number of chemical seizures in recent years have reportedly originated from Yangon. In 2022, seizures of chemicals originating from or transiting through Yangon include: a seizure of a shipment of 1,500 lt of acetone along with other substances

in Thasi in April; 4,600 lt of sulphuric acid in Pyin-Oo-Lwin in May; 19,600 lt of toluene in Patheingyi in August; and 4,300 lt of sulphuric acid in Myogi in October.<sup>77</sup> Though information is limited, these cases could signal that organized crime is making a growing effort to traffic in or divert licitly sourced chemicals that enter Myanmar through the port of Yangon, possibly from India, in response to enhanced law enforcement efforts at the Myanmar-China border.

### Methamphetamine users continue to account for the largest proportion of drug users

Drug demand indicators<sup>78</sup> show that methamphetamine continues to be the most used drug in East and Southeast Asia and that use has increased over the past decade. Most countries reported increasing proportions of users brought into formal contact with authorities for the use of methamphetamine or increasing treatment admissions for methamphetamine use. Overall, all reporting countries in the region identified methamphetamine as the primary drug of concern.<sup>79</sup> Of the eight countries that reported drug use trend data to UNODC,<sup>80</sup> six noted that the use of crystal methamphetamine increased in 2022; only Singapore and Thailand reported a decreased use of crystal methamphetamine (and Japan reported a decrease in use in 2021, the latest year for which data are available).<sup>81</sup>

In several countries in the region, the large majority of drug users admitted to drug treatment facilities in 2022<sup>82</sup> were methamphetamine users, including in Cambodia (97 per cent), Brunei Darussalam (95 per cent), Philippines (92 per cent), Thailand (86 per cent), Indonesia (73 per cent), Malaysia (63 per cent),<sup>83</sup> and Singapore (52 per cent).<sup>84</sup> However, some notable changes were observed in Singapore, Thailand and Viet Nam where the proportions of

77 Myanmar, "Country briefing", December 2022.

78 Drug demand data can be difficult to accurately discern. Though a wide variety of indicators are available, such as the number of registered drug users, household surveys, treatment admissions and wastewater analysis, not all of them are available in all countries in the region and they have certain limitations. Therefore, governments consider a combination of indicators when determining drug use trends.

79 DAINAP.

80 Brunei Darussalam, Cambodia, Malaysia, Myanmar, Philippines, Republic of Korea, Singapore, and Thailand.

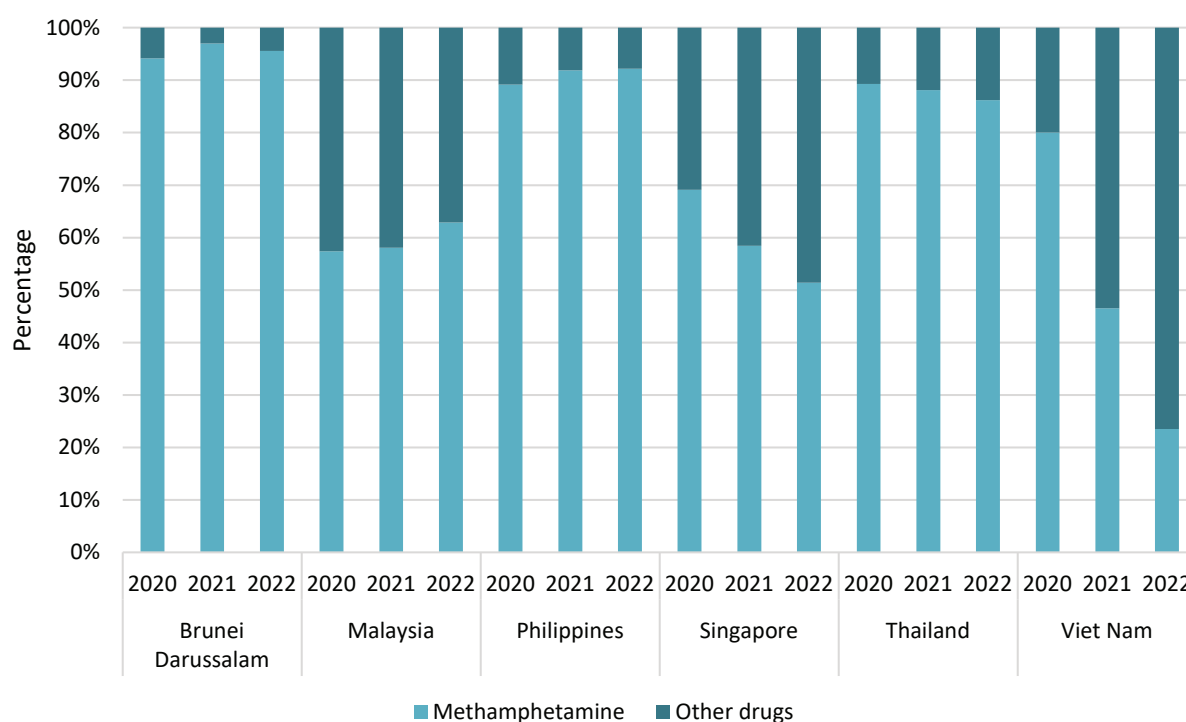
81 DAINAP.

82 Or latest available year.

83 Includes amphetamine users.

84 DAINAP.

**Figure 14. Proportion of methamphetamine users among all drug users as identified through various demand indicators in select countries in Southeast Asia, 2020-2022**



Note: Data for Brunei Darussalam and Singapore are based on the number of drug users brought into formal contact with authorities; the data for Malaysia, the Philippines, and Thailand are based on treatment; and the data for Viet Nam are based on registered drug users.  
Source: DAINAP.

identified methamphetamine users decreased every year between 2020 and 2022.

In Viet Nam, opiates users (mostly heroin and some opium) accounted for 36 per cent of all persons in drug treatment facilities in 2022 and an almost equal share in the previous years. Meanwhile, the portion of methamphetamine users of all persons in drug treatment facilities decreased from about 46 per cent in 2021 to 26 per cent in 2022. However, methamphetamine users accounted for about 75 per cent of persons newly admitted to drug treatment in 2022, while opiates users accounted for 23 per cent.<sup>85</sup>

In Singapore, the portion of methamphetamine users of all drug users brought into formal contact with authorities has decreased over the past few years while the portion of heroin users has increased. In 2022, of the 2,812 identified drug users, just more than half (1,445 persons, or 51 per cent) were methamphetamine users, compared with 58 per cent in 2021 and 69 per cent in 2020. Heroin users accounted for 35.5 per cent of all drug users identified in 2022, 29 per cent in 2021,

and 17 per cent in 2020. In addition, a portion of drug users in Singapore are poly-drug users, which accounted for 17 per cent of all drug users in 2021 and 21 per cent in 2022.<sup>86</sup>

### Most drug users in East and Southeast Asia are young adults of working age, though some countries have older drug using populations

In most countries in East and Southeast Asia, the majority of drug users are between the ages of 18 and 40. For instance, in Myanmar, more than 57 per cent of the persons in drug treatment facilities in 2022 were aged 20-39 years, about one-fourth (24 per cent) were aged 40-49 years, and 17 per cent were aged 50 years and older.<sup>87</sup> In Cambodia, where nearly all persons in treatment are crystal methamphetamine users, about 90 per cent of all persons admitted to drug treatment in 2022 were between the ages of 18 and 35.<sup>88</sup> In Malaysia, most

85 Official communication with the Standing Office on Drugs and Crime (SODC) of Viet Nam, April 2023.

87 DAINAP.

88 National Authority for Combating Drugs (NACD) of Cambodia, "Country briefing", December 2022.



drug users are aged 19-39 years (63.1 per cent), and 35.7 per cent are aged 40 years and above.<sup>89</sup> China and the Philippines, in contrast, have an older drug using population compared with other countries in the region. In China, some 60.6 per cent of all drug users are aged 35 or older and approximately 39 per cent of drug users are between the ages of 18 and 35. Methamphetamine and ketamine users account for about 57 per cent of all drug users in China and 80 per cent of new drug users.<sup>90</sup> In the Philippines, of the 3,558 persons admitted to drug treatment facilities for methamphetamine use in 2022, one-third were aged 40 or older, while users aged 35-39 years accounted for about 18 per cent of the total.<sup>91</sup>

In contrast, Thailand has a high portion of drug users aged 12-24 years. This cohort accounted for 0.9 million persons, or 23.9 per cent of those who had ever used drugs, 0.58 million persons or 29.7 per cent of those who used drugs in the past year, and 0.37 million or 28.2 per cent of those who had used drugs in the past 30 days.<sup>92</sup>

### Women account for a small percentage of drug users admitted to drug treatment facilities in East and Southeast Asia

The large majority of people admitted to drug treatment facilities in the region are men. Female users accounted for about 7 per cent of all methamphetamine users and 7 per cent of all drug users in Indonesia in 2021 (the latest year for which data are available).<sup>93</sup> In the Philippines, women accounted for roughly 9-13 per cent of all persons admitted to drug treatment during the period 2016-2021. In Singapore, women accounted for approximately 21 per cent of persons admitted to drug treatment centres for methamphetamine use in 2022, and around 14 per cent of persons admitted to treatment centres for all drugs during the year.<sup>94</sup> In Brunei Darussalam, only a small number of persons are admitted to drug treatment centres (113 persons in 2022), and women have accounted for roughly 12-15 per cent of all persons admitted to drug treatment for methamphetamine

use in each of the past few years.<sup>95</sup> In Malaysia, women accounted for only 4 per cent of all persons admitted to drug treatment facilities and 5.5 per cent of new admissions in 2022; women also accounted for a similar percentage of crystal methamphetamine users and methamphetamine tablet users. The portion of women ecstasy users in Malaysia among all ecstasy users in treatment was roughly 16 per cent of new treatment admissions and 13.7 per cent of all admissions in 2022.<sup>96</sup> In addition, of the 846 persons who reported the use of methamphetamine in Hong Kong, China in 2022, 30 per cent were women. Women accounted for an even higher portion of ketamine users (43 per cent) in Hong Kong, China as well as a significant portion of cocaine users (26 per cent), but only accounted for 13 per cent of heroin users.<sup>97</sup>

### Poly-drug use remains problematic in several countries in East and Southeast Asia

Most countries in the region have reported some poly-drug use, with drug users often using their drug of choice in combination with other drugs or substances. Recent research in Thailand found that 44.4 per cent of all drug users are poly-drug users. The maximum number of drugs used in combination in Thailand was six drugs, including primarily methamphetamine and anti-depression drugs, but also ketamine, MDMA, and heroin.<sup>98</sup> As previously mentioned, Singapore reported that poly-drug users accounted for 17 per cent of all drug users in 2021 and 21 per cent in 2022.<sup>99</sup> In Viet Nam, 58.4 per cent of drug users are poly-drug users, with most poly-drug users using a combination of crystal methamphetamine and ketamine as well as of heroin and cannabis.<sup>100</sup> Poly-drug use in the Philippines has been of concern for years, and drug authorities reported numerous cases in the last couple of years of persons using methamphetamine in combination with MDMA, various benzodiazepines and pharmaceutical drugs, and other substances.<sup>101</sup>

89 Official communication with NADA of Malaysia, April 2023.

90 NNCC of China, "Country briefing", December 2022.

91 Official communication with DDB of the Philippines, March 2023.

92 ONCB of Thailand, "Country briefing", December 2022.

93 BNN of Indonesia, "Country briefing", December 2022.

94 Official communication with the CNB of Singapore, March 2023.

95 Official communication with the Narcotics Control Bureau (NCB) of Brunei Darussalam, March 2023.

96 Official communication with NADA of Malaysia, April 2023.

97 Official communication with NNCC of China, April 2023.

98 ONCB of Thailand, "Country briefing", December 2022.

99 CNB of Singapore, "Drug Situation Report 2021" and "Drug Situation Report 2022" (accessed at: <https://www.cnb.gov.sg/docs/default-source/drug-situation-report-documents/cnb-annual-statistics-2021-final.pdf>; <https://www.cnb.gov.sg/docs/default-source/drug-situation-report-documents/cnb-annual-statistics-2022.pdf>).

100 SODC of Viet Nam, "Country briefing", December 2022.

101 PDEA and DDB of the Philippines, "Country briefing", December 2022.

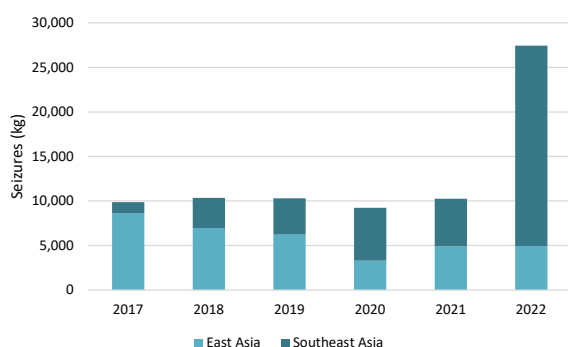
## Overview of the ketamine market

The illicit production of ketamine has, in recent years, been consolidated into the lower Mekong. Organized crime groups have heavily targeted Cambodia while substantial quantities of the drug have also been produced and trafficked from Shan state, Myanmar. Organized crime groups have adopted a supply-driven market expansion modality similar to the approach taken to expand the methamphetamine market in the region that started in 2015.

### Seizures of ketamine in East and Southeast Asia hit a record high

While ketamine<sup>102</sup> has been controlled in the region because of its historical use, it is not an internationally controlled substance. In 2022, the amount of ketamine seized in the region totaled 27.4 tons, marking a 167 per cent increase compared to 2021. The next highest annual total was in 2015 when 23 tons of ketamine were seized, 19.6 tons of which were seized in China alone. However, of the 27.4 tons of ketamine seized in the region in 2022, 82 per cent (22.5 tons) was seized in Southeast Asia and the remainder seized in East Asia, primarily China, including Hong Kong, China. The 22.5 tons of ketamine seized in Southeast Asia in 2022 is higher than the amounts seized in the previous six years combined. This was primarily driven by seizures in Cambodia, which alone accounted for 60 per cent of Southeast Asia's total amount of seizures.

**Figure 15. Seizure amounts of ketamine in East and Southeast Asia, 2017-2022**

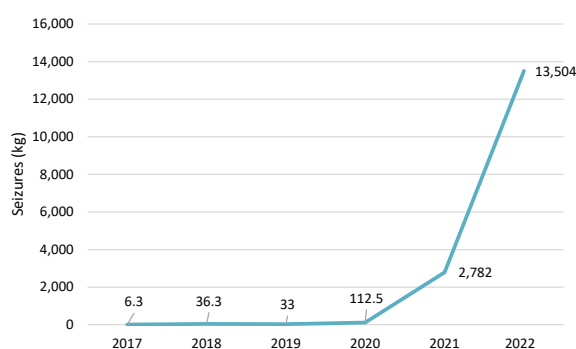


Sources: DAINAP; UNODC, responses to the ARQ; official communications with drug agencies in the region, March-May 2023.

<sup>102</sup> Ketamine is a dissociative anesthetic used medically for induction and maintenance of anesthesia, and is listed as an essential medicine by the World Health Organization (WHO).

Cambodia seized 13.5 tons of ketamine in 2022, compared with only about 2.8 tons in 2021 and 112.5 kg in 2020. The large majority of ketamine seizures in the last two years were made at ketamine laboratories. The ketamine seized while being trafficked out of Cambodia amounted to approximately 1,581 kg in 2022 and 465 kg in the previous year.<sup>103</sup> The largest ketamine seizure in Cambodia in 2022 was 1.1 tons of the drug in December in Sihanoukville along with the arrest of several Chinese and Vietnamese nationals in relation to the case.<sup>104</sup>

**Figure 16. Ketamine seizures in Cambodia, 2017-2022**



Source: DAINAP.

Cambodian authorities also made several seizures of ketamine concealed in tea packages originating from Myanmar and transiting through Lao PDR, including 871.2 kg and 100 kg of the drug seized in August. However, the destination of the two ketamine seizures was not reported.<sup>105</sup>

### Industrial-scale illicit ketamine production

Innovative and mobile criminal networks involved in the production and trafficking of ketamine have diversified their business model and supply channels by expanding production beyond the Golden Triangle area of Myanmar. In particular, Cambodia has gained importance as both a key transshipment and production point for the regional and inter-regional synthetic drug trade. There were several major synthetic drug seizures and the identification of 16 highly sophisticated industrial-scale ketamine laboratories and chemical storage facilities across the country starting late 2020, with 13 found in 2022 alone.

<sup>103</sup> NACD of Cambodia, "Country briefing", December 2022.

<sup>104</sup> Ibid.

<sup>105</sup> Ibid.

At these locations, Cambodian authorities have seized enormous quantities of chemicals used for both drug and potentially precursor production. Notably, in 2020, authorities seized only 5 tons of chemicals, but in 2022, approximately 518 tons of various chemicals were seized, a few of which were internationally controlled substances. Analysis of the substances seized indicates that there is not only the production of ketamine, but also precursors and associated pre-precursors.

On 4 July 2022, Cambodian authorities seized 13.2 tons of chemicals and a large number of gas cylinders and metal reactor vessels from a suspected ketamine precursor laboratory in Svay Reang province, around 10 km away from the Viet Nam border. Cambodian authorities arrested 11 suspects from China and Taiwan Province of China who informed authorities that the laboratory was used for the production of a ketamine precursor, 1-hydroxycyclopentyl-(o-chlorophenyl)-ketone N-methylamine hydrochloride, commonly referred to as hydroxylimine.<sup>106</sup> However, given that no chemicals required for synthesizing hydroxylimine were identified on site (with the exception of bromine), Cambodian authorities suspect it more likely was used to produce ketamine base, which would then be transported to a laboratory in Sihanoukville for the conversion of base into its hydrochloric or final form. A few days later, Cambodian authorities seized an additional 108.9 tons of chemicals and laboratory equipment from a storage site located around 150 km from the laboratory. A total of approximately 1,828 kg of ketamine was seized from the two locations.<sup>107</sup>

Other sites detected by Cambodian authorities also indicate the illicit production of ketamine pre-precursors. In January 2022, Cambodian authorities identified a ketamine laboratory in Kampong Speu province and found, among other substances, 200 kg of tetrahydrofuran (THF). THF is known for its usage in synthesizing o-Chlorophenyl cyclopentyl ketone, a precursor for hydroxylimine. Materials found at other locations, such as benzonitrile, magnesium chips, and hydrobromic acid, together with THF seized at one of the laboratories in Kampong Speu and bromine seized at the laboratory in Svay Reang



Ketamine laboratory seized in Svay Reang province, Cambodia, July 2022.

Source: UNODC on-site inspection and inventory.

and elsewhere in Cambodia, strongly suggest that the production of hydroxylimine has taken place in the country. Cambodian authorities believe that a single large organized crime syndicate is responsible for setting up the industrial-scale laboratories and chemical storage sites, and their primary markets for ketamine include China, Taiwan Province of China, and Australia.

At least 12 different countries and provinces were identified as origins or transit locations of chemicals and equipment found in the laboratories in Cambodia. These include Bangladesh, China, France, India, Indonesia, Israel, Poland, the Republic of Korea, Singapore, Taiwan Province of China, Thailand, and Viet Nam.<sup>108</sup> For instance, Cambodian authorities seized hydrochloric acid produced in France, which was found packaged in several boxes with labels in Vietnamese language, as well as hydrochloric acid from India and from Poland, mono-ethylene glycol from Indonesia, and toluene from the Republic of Korea. Singapore also appears to have been used as a transit point, as one label indicates that the chemicals were shipped from Singapore to Viet Nam, which was identified as a preferred transit point. It is important to note that all these chemicals, except mono-ethylene glycol, are listed in Table II of the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, which calls for signatories to establish and maintain a system to monitor international trade. It appears that most of

<sup>106</sup> Hydroxylimine is not an official term but used for convenience in this document. This is a colloquial term for the intermediate in ketamine synthesis. The full chemical name is 1-hydroxycyclopentyl-(o-chlorophenyl)-ketone-N-methylamine.

<sup>107</sup> NACD of Cambodia, "Country visit", December 2022.

<sup>108</sup> Observed by UNODC during an assessment visit to seized laboratories and chemical storage facilities in July 2022.

the chemicals imported to Viet Nam and destined for illicit drug production in Cambodia were likely imported to Viet Nam legally from source countries, and then diverted at the national level for subsequent trafficking to Cambodia. In addition, it could also point to the presence of organized crime groups operating in Viet Nam that are specialized in sourcing chemicals for diversion and trafficking. At the same time, while potential source countries for chemicals were diverse, almost all equipment found at the five sites was produced in China, with the exception of air purification filters from Italy and some other locally sourced equipment.<sup>109</sup>

### Production of ketamine in Myanmar and Malaysia and inbound ketamine trafficking

Ketamine illicitly produced in the Golden Triangle region of Myanmar has been seized in increasing quantities in several countries in East and Southeast Asia, typically concealed in Chinese teabags that are the hallmark of groups producing in Shan. The amount of ketamine seized in Myanmar increased more than three-fold in 2022 to 2,329 kg compared with 762 kg seized in the previous year.<sup>110</sup> On 11 March 2022, Myanmar authorities seized 798 kg of ketamine, which accounts for more than one third of the total amount of ketamine seized during the year, along with 997 kg of crystal methamphetamine that was destined for maritime trafficking through the Straits of Malacca.<sup>111</sup>

Law enforcement authorities in Lao PDR and Thailand also made several seizures of massive amounts of ketamine originating from Myanmar in 2022. In August, Lao authorities seized 1,870 kg of ketamine, together with 259 kg of crystal methamphetamine, in Luang Prabang.<sup>112</sup> Throughout the year, Thai authorities also made several seizures of ketamine originating from Myanmar and trafficked into the country across its northern border and northeastern border through Lao PDR, including 180 kg at Nakhon Phanom in March, 360 kg at Kamphaeng Phet in April, and 160 kg at Chiang Rai in July.<sup>113</sup>

The illicit production of ketamine in Malaysia also remains a concern. Malaysian authorities seized five ketamine laboratories in 2022 and four in the

previous year. Of the five laboratories dismantled in 2022, three were located near Kuala Lumpur and one in Selangor, all near the west coast on the Straits of Malacca along major maritime transit routes for ketamine and methamphetamine trafficking from Myanmar.<sup>114</sup> However, according to Malaysian authorities, India and Pakistan have been the main sources of ketamine found in the country over the last two years.<sup>115</sup> Seizures of ketamine in Malaysia increased in 2022, with 2.9 tons of ketamine seized compared to 474.6 kg in the prior year. Smaller amounts of ketamine are seized in parcel post and express delivery packages destined for Australia.<sup>116</sup>

Transnational organized crime groups also continue to target Hong Kong, China, for the trafficking of ketamine using air cargo consignments and parcel post. The ketamine market in Hong Kong, China, is connected to other regions and not only with Southeast Asia. Most of the ketamine seized in 2022 was sourced from Pakistan or from Europe, including the Netherlands, Spain, Italy, and the United Kingdom.<sup>117</sup>

### Growing importance of the ketamine market in countries traditionally not known for non-medical use of the drug

Expert perception on the use of ketamine suggests an increase in the use of the drug in 2022 in Brunei Darussalam, Cambodia, and Singapore and a decrease in its use in Thailand and Hong Kong, China.<sup>118</sup> In addition, there is growing evidence that the non-medical use of ketamine in Japan and the Republic of Korea may be increasing. However, it is to be noted that studies are limited and use patterns are not well understood.

Quantities of ketamine seized in the Republic of Korea have significantly increased in recent years, indicating an expansion of the illicit ketamine market, although its scale is smaller than that of methamphetamine. In 2022, authorities seized 23.3 kg of ketamine, which is much larger than the combined amount of the drug seized between 2017 and 2021, totaling 7.2 kg.<sup>119</sup> Major embarkation points for ketamine seized at the border in 2022

109 UNODC, "Synthetic drug production and storage facility inventory, analysis and assessment: Cambodia", 2022.

110 DAINAP.

111 Myanmar, "Country briefing", December 2022.

112 ONCB of Thailand, "Country briefing", December 2022.

113 Ibid.

114 NADA, RMP, and KIMIA of Malaysia, "Country briefing", December 2022.

115 Official communication with NADA of Malaysia, April 2023.

116 NADA, RMP, and KIMIA of Malaysia, "Country briefing", December 2022.

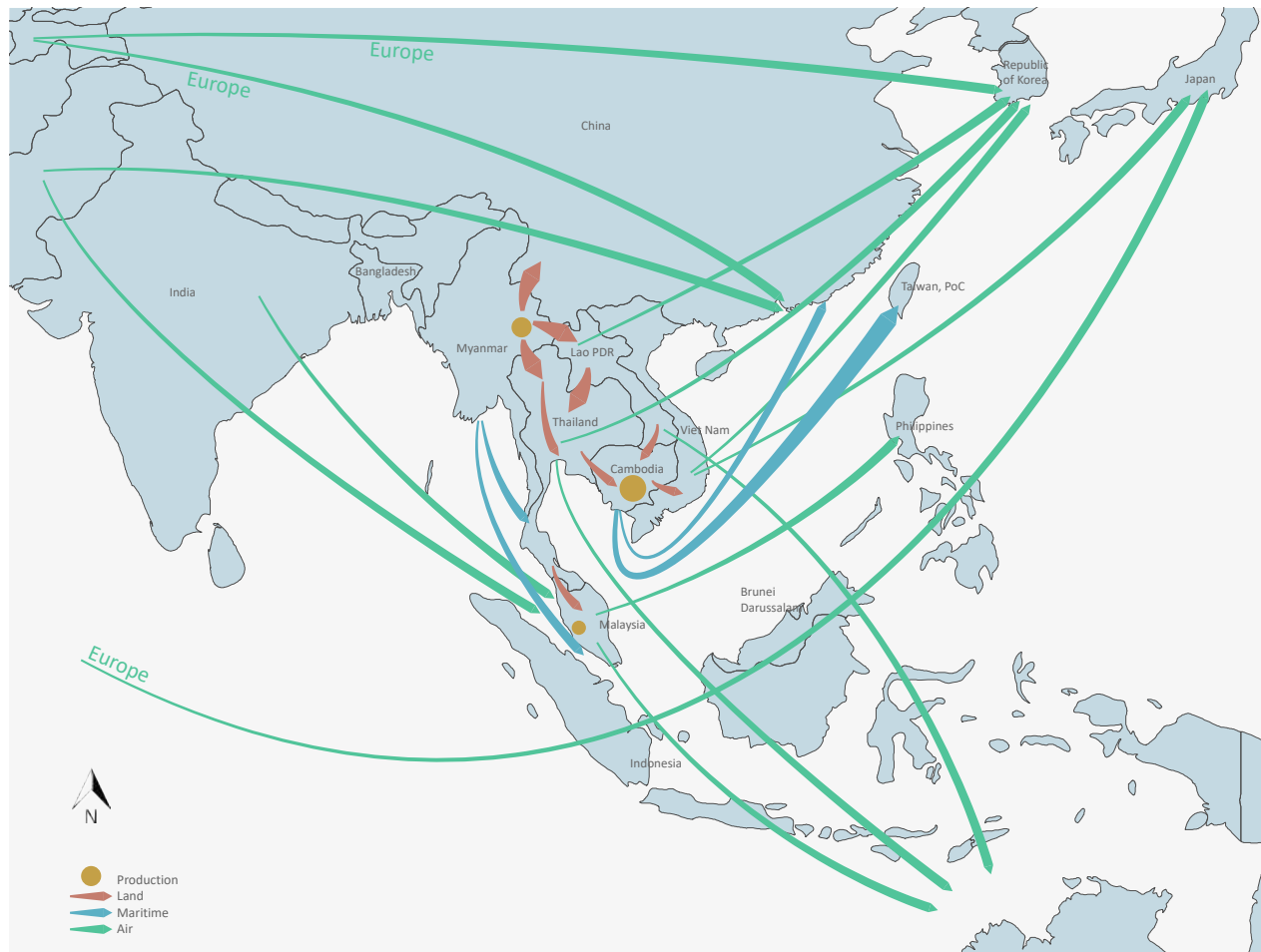
117 Official communication with NNCC of China, April 2023.

118 DAINAP.

119 Official communication with SPO of the Republic of Korea, April 2023.



Map 11. Ketamine trafficking routes in East and Southeast Asia



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.

Sources: DAINAP and UNODC elaboration based on data, information, and intelligence from drug authorities in East and Southeast Asia and Oceania.

include not only countries from Southeast Asia, such as Thailand and Viet Nam, but also the United States, France, Germany, and the Netherlands.<sup>120</sup> A similar trend has also been observed in Japan where several ketamine trafficking cases are connected to countries in the region, but countries in Europe have also been reported throughout 2022.<sup>121</sup>

Similar to methamphetamine, the ketamine market in East and Southeast Asia has also impacted neighbouring synthetic drug markets. In New Zealand, where ketamine has not been popular relative to other substances, the quantity of ketamine seized at the border has increased in each of the past five years. Provisional data show that authorities seized 40.6 kg of ketamine at the border in 2022, the highest total reported from the

country. New Zealand Customs reported a large spike in ketamine seizures in August and September 2022, and indicated the supply push may have originated from the Golden Triangle. Seizure totals are expected to remain high in 2023, as authorities seized 13.1 kg and 4.5 lt of ketamine at the border in January alone. These trends together with similar trends in Australia suggest a likely increase in both the availability and non-medical use of ketamine in New Zealand.<sup>122</sup>

On the other hand, in Hong Kong, China, the number of people reported who use ketamine has decreased in recent years. In 2022, about 9.2 per cent of all people who reported using drugs in 2022 in Hong Kong, China, were ketamine users. This figure has been relatively consistent during the past six years, but is far lower than in 2014 and 2015 when 22.4 per cent and 20.9 per cent, respectively, of reported people who use drugs were ketamine

120 Official communications with SPO and KCS of the Republic of Korea, April 2023.

121 For instance, see the following webpage of Japan Customs, "Announcement of Cases Caught by Customs (Reiwa 4): Japan Customs", accessible at: <https://www.customs.go.jp/kyotsu/hodo/jikenhodo/2022jiken/jiken2022.htm#01>.

122 National Drug Intelligence Bureau, New Zealand (NDIB), "Illicit Drug Assessment", for September 2022 and November 2022.

users. In 2022, approximately 12.8 of all newly reported people who use drugs used ketamine.<sup>123</sup>

### Emergence of a wide variety of ketamine analogues due to the shortage of ketamine supply in China

In China, users of methamphetamine and ketamine accounted for about 57 per cent of all drug users and 80 per cent of new users in 2022. However, law enforcement and border closures related to COVID-19 has led to a tightening of supply and higher prices for both drugs in China. This has resulted in an increase in the use of NPS, including ketamine analogues such as fluoroketamine and f-ketamine. In addition, after the introduction of f-ketamine in China in 2021, a variety of substances were detected, including MDCK, Br-ketamine, Tiletamine, *N*-acetyl-F-ketamine, 2-(ethylamino)-2-phenylcyclohexanone, 2-(ethylamino)-2-(*m*-tolyl)cyclohexanone, which are mainly abused as substitutes for ketamine and f-ketamine.<sup>124</sup>

Ketamine analogues were also detected in New Zealand in 2022, including 2-fluorodeschloroketamine and fluorexetamine, both of which were found in presumed ketamine samples. Authorities expect that as the domestic market for ketamine grows, detections of analogues of the substance will increase. Reporting suggests that ketamine use has increased among university students in New Zealand.<sup>125</sup>

Thailand has also detected ketamine analogues as well as ketamine mixtures containing various other synthetic substances. Of the 252 reported drug-related deaths in Thailand in 2021, 13 cases involved ketamine in combination with various synthetic opioid medications and benzodiazepines such as tramadol, pethidine, and diazepam, as well as dehydronorketamine<sup>126</sup> and mixtures of other substances designed to produce effects similar to the ketamine concoctions.<sup>127</sup> In a worrying development, forensic analysis conducted in September 2022 found fentanyl in three samples containing ketamine in combination with cocaine,

123 Official communication with NNCC of China, April 2023.

124 NNCC of China, "Country briefing", December 2022.

125 NDIB of New Zealand, "Illicit Drug Assessment", November 2022.

126 Dehydronorketamine (DHNK), or 5,6-dehydronorketamine, is a minor metabolite of ketamine which is formed by dehydrogenation of its metabolite norketamine.

127 ONCB of Thailand, "Country briefing", December 2022.

as well as in a small number of samples of crystal methamphetamine, ecstasy and cocaine.<sup>128</sup>

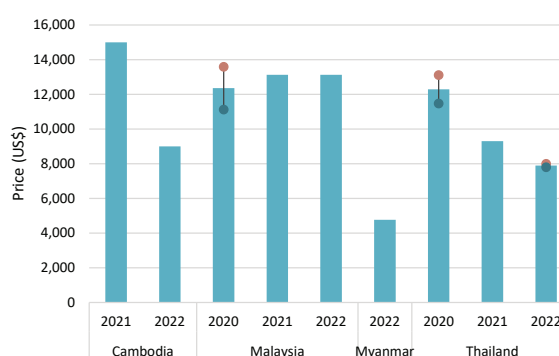
### The average purity of ketamine samples analysed in Southeast Asia remains high while prices fluctuate

An indication of the surge in availability of ketamine in Cambodia is that the average purity of ketamine samples analysed more than doubled, from 25.9 per cent in 2021 to 58.2 per cent in 2022. At the same time, the wholesale price for one kilogram of ketamine in Cambodia decreased by 40 per cent, from US\$ 15,000 in 2021 to US\$ 9,000 in 2022.<sup>129</sup>

In Thailand, the average purity of ketamine samples analyzed was 95.5 per cent, which is slightly higher than the average purity in 2021 at 93.7 per cent, but slightly lower than that in 2020 at 97 per cent.<sup>130</sup> Over the last two years, the wholesale price for one kilogram of ketamine powder in Thailand decreased from US\$ 9,300 in 2021 to US\$ 7,800-8,000 in 2022, while the retail price per gram increased, from US\$ 9-15 in 2021 to US\$ 22-28 in 2022.<sup>131</sup>

In Malaysia, both the price and average purity of ketamine samples analysed have remained stable over the past few years, at around US\$ 13,000 and 80 per cent respectively.<sup>132</sup>

**Figure 17. Wholesale price of ketamine in Cambodia, Malaysia, Myanmar, and Thailand, 2020-2022 (US\$)**



Note: The high-low bars represent the upper and lower limits of the content range for those countries which reported such range in addition to the typical content. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format.

Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

128 Ibid.

129 NACD of Cambodia, "Country briefing", December 2022.

130 DAINAP.

131 Ibid.

132 Ibid.

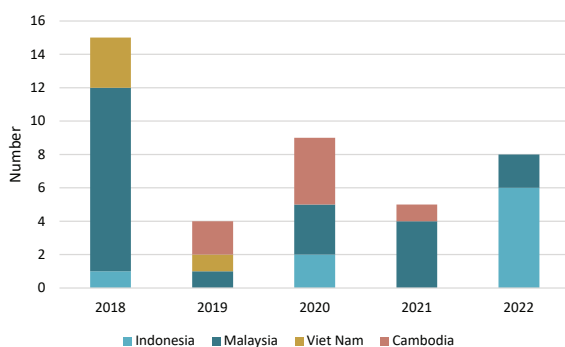
## Overview of the ecstasy market

The ecstasy<sup>133</sup> market in East and Southeast Asia remains small in comparison to the methamphetamine market. Europe remains the main source for ecstasy flows into the region. However, ecstasy laboratories continue to be found in a small number of countries, including Cambodia, Indonesia, and Malaysia.

### Continuing production of ecstasy in Southeast Asia

During the past few years, Cambodian authorities have detected some large ecstasy processing and tableting operations, with Australia and Taiwan Province of China as the intended destinations, though no ecstasy laboratories were identified in Cambodia in 2022. Malaysia has declined in importance for ecstasy production with only two laboratories seized in 2022 compared to four in the previous year. Meanwhile, Indonesia seized six ecstasy laboratories in 2022, all kitchen-sized, representing more laboratories seized than in the previous six years combined. Forensic analysis of ecstasy in Indonesia determined that safrole was the main precursor used in the synthesis of pink ecstasy tablets by reductive amination yielding 3,4-MDP-2-P as the precursor.<sup>134</sup> Ecstasy production has also taken place in Viet Nam in previous years, but has not been reported since 2019.

**Figure 18. Number of ecstasy laboratories seized in Southeast Asia, 2017-2022**



Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

133 Ecstasy tablets sold in East and Southeast Asia may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

134 BNN of Indonesia, "Country briefing", December 2022.

Although there is ongoing production of ecstasy in the region, the majority of the drug is still sourced from Europe, with countries in the region, including Malaysia, the Philippines, and Thailand indicating countries such as the Netherlands, Germany, France, and Belgium as originating points for smuggling the drug through postal channels.<sup>135</sup>

### A rebound in seizures of ecstasy in East and Southeast Asia

The quantity of ecstasy tablets seized in the region has fluctuated over the past several years. Data for 2022 show a rebound in the amount of ecstasy seized in both East Asia and Southeast Asia, from the equivalent of 3.7 million tablets in 2021 to more than 6.7 million tablets in 2022. Of the 2022 total, 68 per cent (4.3 million tablets) was seized in Southeast Asia. A total of just more than 2 million ecstasy tablets were seized in East Asia in 2022, which is a large increase from the amounts seized in the previous four years.

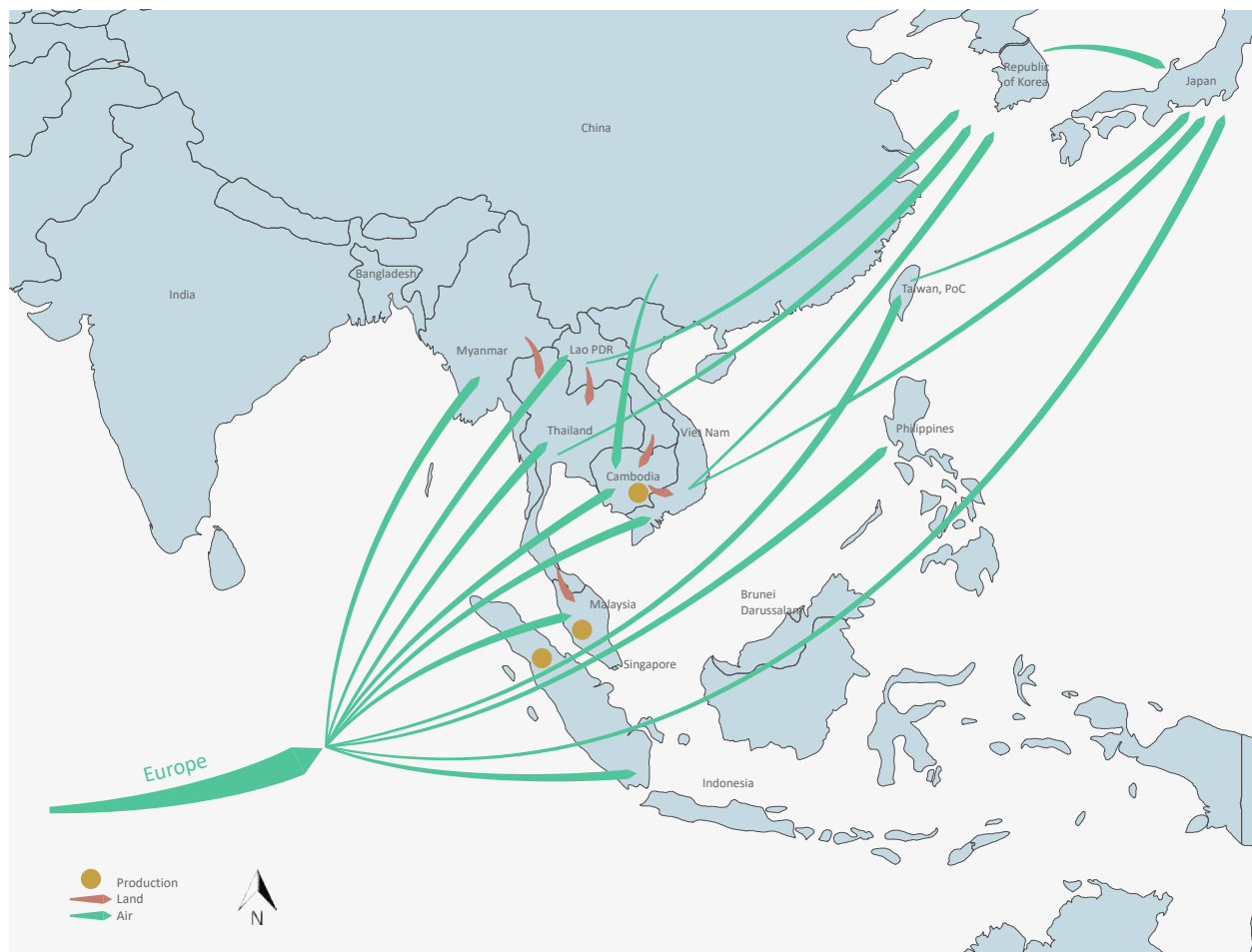
Ecstasy seizures in Southeast Asia are primarily driven by Malaysia and Indonesia. In 2022, seizures of ecstasy tablets and powder in Malaysia increased slightly after decreasing sharply in 2021. In Indonesia, seizures rebounded following the strong decline in seizures in 2021, to 1.4 million tablets in 2022 compared with 860,783 tablets seized in the previous year. Together, Malaysia and Indonesia accounted for 57 per cent of all seizures made in Southeast Asia.<sup>136</sup>

The largest increase was reported from Myanmar, where seizures of ecstasy reached the second highest amount on record for the country, amounting to 675,000 tablets in 2022. However, given the limited information on its use in the country, it is unclear whether there is a local market for the drug. Seizures in Cambodia, expressed in tablet equivalent, increased again in 2022, reaching the second highest amount ever seized in the country, or 661,800 tablets, since 2 million tablets were seized in 2020. Seizures of ecstasy in the Philippines decreased by more than half in 2022, to 30,213 tablets. In Thailand, ecstasy seizures decreased slightly in 2022 for the first time since 2016, to approximately 458,000 tablets, which is 23 per cent less than the amount seized in 2021, but is still the second highest amount ever seized on record.

135 Official communications with NADA of Malaysia and BNN of Indonesia, April 2023.

136 DAINAP.

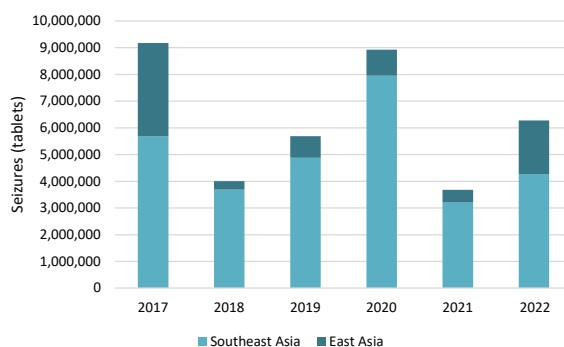
Map 12. Ecstasy trafficking routes in East and Southeast Asia



Note: Boundaries, names, and designations used do not imply official endorsement or acceptance by the United Nations.  
Sources: DAINAP and UNODC elaboration based on data, information, and intelligence from drug authorities in East and Southeast Asia and Oceania.

In 2022, increases in ecstasy seizures were observed across countries in East Asia. China reported a large spike in ecstasy seizures, amounting to nearly 1.4 million tablets in 2022, which is a nearly fivefold increase from the quantity seized in the previous year. In Hong Kong, China, the number of ecstasy tablets seized declined in 2022; however, when combined with the amount of powder seized, a record amount of the drug was seized – the equivalent of 424,665 tablets. Seizure totals for ecstasy in Japan have been significantly higher since 2019 compared with the previous several years.<sup>137</sup> The amount of ecstasy seized in the Republic of Korea increased significantly in 2022, reaching a record amount for the country of 140,600 tablets. This is compared to nearly 40,000 tablets seized in both 2021 and 2020, and approximately 10,500 tablets or less in previous years.<sup>138</sup>

Figure 19. Seizures of ecstasy tablets in East and Southeast Asia, 2017-2022



Note: Figures reported other than the number of tablets were converted into estimated tablet equivalents at 300 mg per tablet.  
Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

137 Ibid.

138 Official communication with SPO of the Republic of Korea, March 2023.



## The use of ecstasy in East and Southeast Asia remains limited

In 2022, six countries in the region provided their expert perception on ecstasy use, with Singapore being the only country reporting increasing use, while Cambodia, Malaysia, Thailand, and Japan reported decreasing use and Brunei Darussalam reported stable use. The number of people who were admitted to treatment for ecstasy use remains low. Brunei Darussalam, Malaysia, the Philippines and Thailand all reported that less than one per cent of drug treatment admissions were related to ecstasy use, while in Singapore, the figure was less than two per cent.<sup>139</sup> In Hong Kong, China, ecstasy users accounted for only one per cent of reported drug users.<sup>140</sup> In Japan, the number of people who have used ecstasy once in their lifetime is lower than that of most other drugs; however, it is notable that women accounted for approximately 45 per cent of persons who used ecstasy once in their lifetime, which is a substantially higher portion than it is for heroin, cocaine, and NPS, and slightly higher than for methamphetamine.<sup>141</sup>

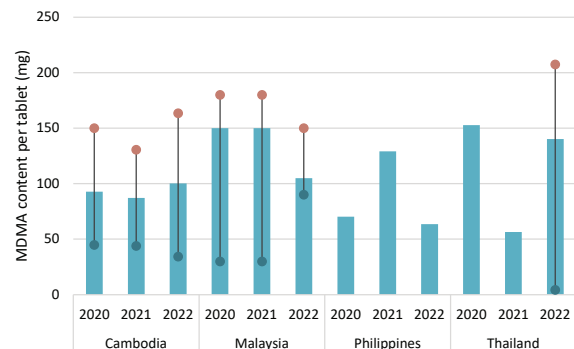
## Content of MDMA in ecstasy tablets remains high<sup>142</sup>

Though the average MDMA content in ecstasy tablets varies among countries in the region, the proportion of MDMA per ecstasy tablet remained high or stable in 2022 in most countries, with significant fluctuations observed in the Philippines.

In Cambodia, the average purity of ecstasy increased from 29.1 per cent in 2021 to 33.4 per cent in 2022.<sup>143</sup> Purity has stabilised at high levels in Viet Nam, with an average MDMA content of about 35-40 per cent in tablet form and 75 per cent in crystal form.<sup>144</sup> In Thailand, the average purity of

ecstasy tablets profiled in 2022 was found to be 46.8 per cent, which is considerably higher than the average purity in 2021 (18.8 per cent), when a quarter of analysed samples were found to contain a mixture of substances other than MDMA. In Malaysia, the average purity of ecstasy decreased to 35 per cent in base form per 300 mg tablet in 2022 compared with 50 per cent in 2021.<sup>145</sup> Forensic analysis of ecstasy tablets seized in Malaysia showed that some tablets contained ketamine, methamphetamine, and benzodiazepines as well as various substances, including eutylone, 4F-MDMB-BINACA, 1-(4-Fluorophenyl)piperazine (4-FPP), N-Benzylpiperazine (BZP), and 1-(3-Trifluoromethylphenyl)piperazine (TFMPP).<sup>146</sup> The average purity of ecstasy in the Philippines has fluctuated during the past three years, and was found to be 21.2 per cent in 2022, compared with 43 per cent in 2021 and 23.4 per cent in 2020.<sup>147</sup>

**Figure 20. Changes in MDMA content in ecstasy tablets analysed in Cambodia, Malaysia, the Philippines, and Thailand, 2020-2022**



Note: The MDMA content is an approximation based on an estimated average tablet weight of 300 mg per tablet. The high-low bars represent the upper and lower limits of the content range for those countries which reported such range in addition to the typical content. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format.

Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

## Retail prices for ecstasy tablets

The typical retail price of ecstasy tablets increased during the past few years in Indonesia, the Republic of Korea, and Hong Kong, China, while it has decreased in Malaysia, Myanmar, the Philippines and Thailand.

139 DAINAP.

140 Narcotics Division, Security Bureau (NDSB), Hong Kong, China, "Newly/previously reported drug abusers by age group by common type of drugs abused (T3)" (accessed at [https://www.nd.gov.hk/en/crda\\_main\\_charts\\_and\\_tables.html](https://www.nd.gov.hk/en/crda_main_charts_and_tables.html)).

141 National Center of Neurology and Psychiatry (NCNP) of Japan, "2021 Nationwide General Population Survey on Drug Use in Japan", March 2022 (available at: <https://www.ncnp.go.jp/nimh/yakubutsu/report/index.html>).

142 The figures in this subsection should be interpreted with caution as ecstasy tablets are of different weights, and average weights may change from year to year. Nevertheless, the figures can still provide insight to changes to ecstasy found in the region.

143 DAINAP.

144 Ibid.

145 Ibid.

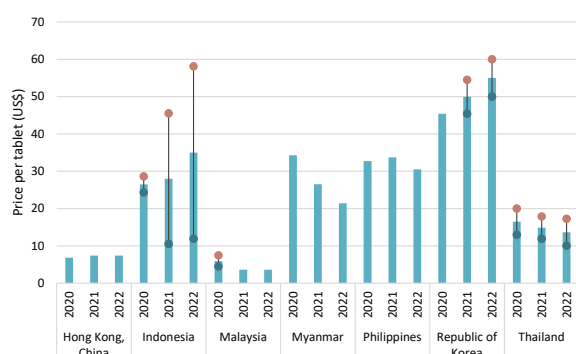
146 NADA, RMP, and KIMIA of Malaysia, "Country briefing", December 2022.

147 DAINAP.

In Indonesia, the price of ecstasy has increased each year since 2019, reaching approximately US\$ 35 per tablet in 2022.<sup>148</sup> In the Republic of Korea, prices have increased slightly in the past three years and amounted to US\$ 50-60 per tablet in 2022, which is considerably lower than prices in previous years (US\$ 95.4 in 2019 and US\$ 72.6 in 2018).<sup>149</sup> Similarly, in Hong Kong, China, the retail price remained stable in 2022 and 2021 at around US\$ 7.4, which is slightly higher than the price in 2020 (US\$ 6.84) but lower than the price in 2019 (US\$ 9.54).<sup>150</sup>

In Malaysia, the average retail price for one ecstasy tablet remained unchanged in 2022 from the previous year, at US\$ 3.6, but is about half of the price in 2018 and 2019 (US\$ 7.2), and even lower than in 2017 (US\$ 12). In Myanmar, retail prices for ecstasy have declined considerably since 2020 from around US\$ 34.3 to US\$ 26.5 in 2021 and US\$ 21.4 in 2022. The typical retail price for one ecstasy tablet in Thailand has remained relatively stable during the past few years, ranging between approximately US\$ 10-20. In the Philippines, the price per tablet dropped to the lowest price since 2016 at US\$ 30.5 per tablet. Prices in Brunei Darussalam have remained stable over the past few years, at US\$ 30 per tablet.<sup>151</sup>

**Figure 21. Typical retail prices of ecstasy tablets in Hong Kong, China, Indonesia, Malaysia, Myanmar, the Philippines, the Republic of Korea, and Thailand, 2020-2022 (US\$)**



Note: The high-low bars represent the upper and lower limits of the price range for those countries which reported such range in addition to the typical price; data in the table are not adjusted with purities. For the purpose of this figure, a mid-point of upper and lower limit was used when data were reported in a range format.

Sources: DAINAP; official communications with drug agencies in the region, March-May 2023.

148 DAINAP.

149 Official communication with SPO of the Republic of Korea, March 2023.

150 Official communication with NNCC of China, April 2023.

151 Ibid.

## The emergence of “happy water” in Thailand and similar drug combinations in other countries

During the past few years, organized crime groups have combined various illicit substances and marketed them as new products to drug users. One such mixture is “happy water”, which has previously been identified and subsequently banned in China, and has recently been found in Thailand, as well as in Indonesia, Malaysia, the Philippines, and Singapore. “Happy water” is presented as a powder of various colours and scents, which vary by geographical area, and is sometimes disguised in packaging of known licit products.

In Thailand, “happy water” is illegally sold online through social media and at entertainment venues, where the drug is commonly used. Mixtures were found to contain various combinations of MDMA, methamphetamine, ketamine, caffeine, and diazepam. Tachileik in Shan state, Myanmar, appears to be a primary source of “happy water” available in Thailand.<sup>152</sup> In 2022, Myanmar authorities made some seizures of the drug in the Tachileik area and identified two suspected “happy water” production operations. In August, law enforcement authorities seized 24 kg of ketamine, 250 kg of caffeine, 500 kg of vanillin, 150 litres of promethazine, small amounts of ecstasy powder and finished “happy water”. Myanmar authorities also seized 113.4 kg of “happy water” along with 35,000 Erimin 5 tablets, 616,000 ecstasy tablets, and tableting equipment in November.<sup>153</sup> In October 2022, Thai authorities arrested two Singaporeans in Bangkok and seized 50 sachets of “happy water” together with 200 kg of crystal methamphetamine, 200,000 methamphetamine tablets, and 500 sachets of ketamine powder of unspecified quantity. The drugs entered Thailand from Lao PDR and were delivered to the hotel by a private transport company.<sup>154</sup>

Drug mixtures sold as “happy water” also continue to be found in other countries in the region. In Malaysia, “happy water” mixtures are typically packaged in coffee packages and contain some amounts of MDMA (5-10 per cent), ketamine (1-2 per cent), methamphetamine (3-5 per cent)

152 Official communication with ONCB of Thailand, April 2023.

153 Myanmar, “Country briefing”, December 2022.

154 ONCB of Thailand, “Country briefing”, December 2022.

Table 3. Content of “happy water” seized in countries in Southeast Asia

Country	Images	Forensic profile
Indonesia		MDMA and ketamine
Malaysia		MDMA (5-10%), ketamine (1-2%), methamphetamine (3-5%), and caffeine
Thailand		MDMA (2.9-33.5%), ketamine (0.3-61.5%), and nimetazepam (0.2-0.7%)
Thailand		MDMA (11.8%) and nimetazepam (0.5%)
Thailand		MDMA (0.7-16%) and ketamine (0.4-65.1%)

Sources: Country briefings by NADA, RMP, KIMIA of Malaysia and ONCB of Thailand, December 2022; official communications with BNN of Indonesia and ONCB of Thailand, April 2023.

as well as caffeine.<sup>155</sup> “Happy water” available in Indonesia is also sold in powdered drink packages and found to contain MDMA and ketamine.<sup>156</sup> A wider range of substances have been identified in “happy water” mixtures available in Singapore, which are also presented as a granular, powder substance and packaged in drink sachets. They have been found to include methamphetamine, ketamine, MDMA, caffeine, 4-FPP,  $\alpha$ -D2PV, and *N,N*-dimethylpentylone. In addition, ecstasy tablets analysed in Singapore were found to contain mixtures of a variety of substances similar to “happy water” including caffeine, ketamine, amphetamine, 4-CMC, and other NPS.<sup>157</sup>

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155 NADA, RMP, and KIMIA of Malaysia, “Country briefing”, December 2022.

156 BNN of Indonesia “Country briefing”, December 2022.

157 CNB of Singapore, “Country briefing”, December 2022.

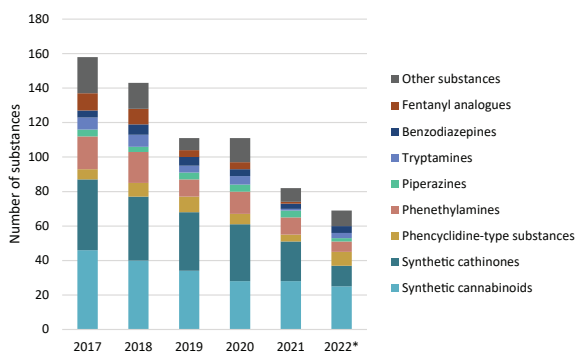
## Overview of the new psychoactive substances (NPS) and other synthetic drug markets

Aside from methamphetamine and ecstasy, the prevalence of other synthetic drugs, particularly NPS<sup>158</sup>, continues to pose significant risks of harm for drug users in East and Southeast Asia. The number of individual NPS identified annually has been on a downward trend in recent years, in part due to the implementation of legal controls and measures. However, new substances continue to emerge.

### General trends in the emergence of NPS in East and Southeast Asia

Preliminary data up to December 2022 shows that a total of 526 individual NPS have been identified in East and Southeast Asia thus far. Synthetic cannabinoids (165) account for the largest proportion, followed by synthetic cathinones (115) and phenethylamines (75).<sup>159</sup> In 2022, 69 individual substances were identified with most substances being synthetic cannabinoids (25), synthetic cathinones (12), and phencyclidine-type substances (8).

**Figure 22. NPS reported annually to UNODC in East and Southeast Asia, by substance group, 2017-2022**



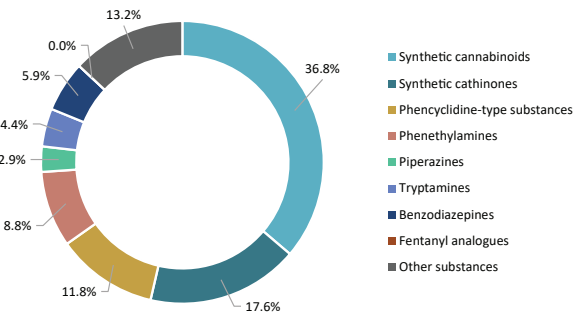
Note: \* Data are preliminary.

Sources: UNODC Early Warning Advisory (EWA) on NPS; official communications with drug agencies in the region, March-May 2023.

158 For the purpose of this report, NPS that have been placed under international control since 2014 continue to be included under the term NPS to enable time series analysis. A list of all scheduling decisions can be found at: [https://www.unodc.org/unodc/en/commissions/CND/Mandate\\_Functions/Mandate-and-Functions\\_Scheduling.html](https://www.unodc.org/unodc/en/commissions/CND/Mandate_Functions/Mandate-and-Functions_Scheduling.html).

159 UNODC Early Warning Advisory (EWA) on NPS; official communications with drug agencies in the region, March-May 2023.

**Figure 23. Proportion of NPS in East and Southeast Asia, by substance group, up to December 2022**



Note: Data are preliminary.

Sources: UNODC EWA on NPS; official communications with drug agencies in the region, March-May 2023.

Although the number of individual NPS identified annually has been decreasing in recent years, new substances continue to emerge across a range of substance groups. Following the class scheduling of synthetic cannabinoids through a general structural backbone in China in July 2021,<sup>160</sup> substances designed to circumvent these controls emerged, including a new “OXIZID” class of synthetic cannabinoids. This trend has continued into 2022, with five new synthetic cannabinoids identified in the region, such as BZO-4en-POXIZID. Of the eight phencyclidine-type substances identified in 2022, five were detected in the region for the first time, predominantly in China.

### Synthetic cannabinoids dominate regional NPS market, but other substance groups remain prevalent

Despite the implementation of legal controls on synthetic cannabinoids in China to deter their prevalence, the substance group continues to dominate the NPS market in East and Southeast Asia. In terms of the number of occurrences in drug samples analysed, synthetic cannabinoids accounted for 618 of the 907 (68 per cent) of the NPS detected in China in 2022, with ADB-BUTINACA (255) and MDMB-4en-PINACA (229) being the most commonly identified NPS.<sup>161</sup> In Indonesia, 333 of 411 (81 per cent) samples were synthetic cannabinoids, while synthetic cannabinoids were the only NPS substance group identified in Viet Nam. MDMB-4en-PINACA was also the most commonly identified NPS in Indonesia.<sup>162</sup>

160 Ministry of Public Security of China, May 2021 (accessed at: <https://app.mps.gov.cn/gdnps/pc/content.jsp?id=7881703>).

161 Official communication with NNCC of China, March 2023.

162 Official communications with BNN of Indonesia and SODC of Viet Nam, April 2023.



**Table 4. Newly identified NPS and other emerging synthetic substances in East and Southeast Asia, 2022**

Substance type	Substance name	Countries identified
Synthetic cannabinoids	BZO-4en-POXIZID	China, Indonesia, Singapore
	CH-PIATA	Singapore
	CUMYL-CB-MEGACLONE	Singapore
	MDMB-5Br-INACA	Indonesia
Phenacyclidine-type substances	2-Bromodeschloroketamine	Singapore
	3-methyl Rolicyclidine (3-Me-PCPy)	China
	3-methyleticlidone (Deoxymethoxetamine)	China
	Fluorexetamine (2-FXE)	China
	2-MDCK	China
Phenethylamines	4-(2-Aminopropyl)benzofuran (4-APB)	China
	N-Pyrrolidinyl-3,4-DMA	China
Designer benzodiazepines	Bromazepam	Singapore
Other substances	Butonitazene	Singapore
	Delta-8-THC acetate	Singapore
	Troparil	China

Note: Data are preliminary.

Sources: UNODC EWA on NPS; official communications with drug agencies in the region, March-May 2023.

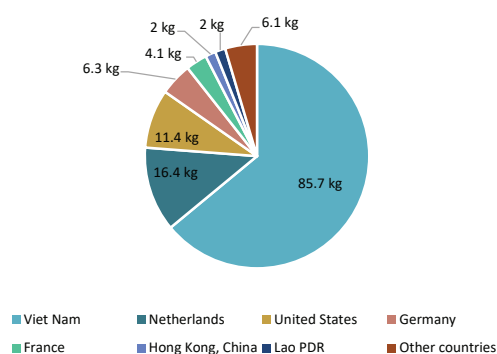
Meanwhile in Singapore, while in recent years synthetic cannabinoids accounted for the largest proportion of the NPS identified in the country by number of occurrences in seized drug samples, in 2022, piperazines were the most frequently occurring group, followed by synthetic cathinones, then synthetic cannabinoids. This was largely due to a high number of samples containing 1-(4-Fluorophenyl)piperazine (4-FPP) and 1-Benzyl-4-methylpiperazine (MBZP), with 94 and 40 samples out of 533, respectively. 4-FPP was also identified in Indonesia in 2022 and was the third most frequently detected NPS in the country.<sup>163</sup>

### Increased role of Viet Nam in trafficking of synthetic cannabinoids to Japan and the Republic of Korea

Seizures of synthetic cannabinoids in the Republic of Korea showed a strong increase in 2022. In 2022, the Korean Customs Service (KCS) seized approximately 112.9 kg of synthetic cannabinoids, which is nearly a fivefold increase from the amount seized in the previous year (21.1 kg). Viet Nam was the primary embarkation point in 2022 and 2021, accounting for approximately 64 per cent of the total in both years. The other primary embarkation points for synthetic cannabinoids seized in the Republic of Korea in 2022 were the Netherlands (14.5 per cent), the United States (6.9 per cent),

Germany (4.8 per cent), and France (3.5 per cent). In 2021, they were Viet Nam (63.5 per cent), the United States (17 per cent), Canada (4.7 per cent), Germany (4 per cent), and Singapore (less than one per cent).<sup>164</sup> It is also noteworthy that KCS reported synthetic cannabinoids seizures amounting to more than 1 kg (and totaling 5.7 kg) from four Southeast Asian countries in 2022 – Lao PDR, Singapore, Thailand, and Malaysia – after having seized less than 229 grams in the previous year, from Singapore and the Philippines.<sup>165</sup>

**Figure 24. Embarkation points for products containing synthetic cannabinoids seized by the Korean Customs Service, 2021-2022**



Note: Other countries include, Singapore, Thailand, Malaysia, Canada, Poland, the United Kingdom, the Philippines, and Spain.

Source: Official communication with KCS of the Republic of Korea, May 2023.

<sup>164</sup> Official communication with KCS, May 2023.

<sup>165</sup> Ibid.

<sup>163</sup> Official communication with CNB of Singapore, March 2023.

In addition, customs agencies in Japan also made numerous seizures of synthetic cannabinoids and ketamine in the postal stream trafficked from Viet Nam in 2020-2022, as well as seizures of ketamine, MDMA and other NPS originating from Europe. During May-October 2021, customs authorities in Kobe, Japan made at least 11 seizures of small amounts of various NPS in international mail packages originating from Viet Nam and China, including MDMB-4en-PINACA and ADB-BUTINACA or their salts concealed in tobacco products, all bearing the same packaging.<sup>166</sup> Japanese customs authorities also seized ketamine (less than 100 grams) in several packages originating from Viet Nam during 2020-2022.

It is unclear whether Viet Nam was the origin for all synthetic cannabinoids trafficked from the country to Japan and the Republic of Korea. However, it is important to note that in September 2022 Viet Nam authorities seized a laboratory producing synthetic cannabinoid products, and seized 40.1 kg of herbs, 11 kg of powder, 250 e-cigarette pods, and 40 lt of liquid, all of which contained ADB-BUTINACA. Viet Nam authorities also seized 547.2 kg of dried leaves intended to be used for producing synthetic cannabinoid products at the site.<sup>167</sup> This case together with the data reported from Japan and the Republic of Korea indicate the growing importance of Viet Nam as a potential source and trafficking point for synthetic cannabinoids in the region.



Seized synthetic cannabinoid products in Hanoi, Viet Nam, September 2022.

Source: SODC of Viet Nam.

166 Japan Customs, “[Kobe Customs] Accusation of Designated Drug Smuggling”, press release, March 2022.

167 SODC of Viet Nam, “Country briefing”, December 2022.

## Non-medical use of benzodiazepine substances

The non-medical use of prescription benzodiazepines, including diazepam and nimetazepam, has long been an important feature of the illicit drug market in East and Southeast Asia. This is reflected in the emergence of NPS that produce sedative or hypnotic effects, particularly benzodiazepine-type NPS, also known as designer benzodiazepines. Typically, most benzodiazepines and benzodiazepine-type substances have been found in Malaysia, Indonesia, and Singapore, where the use of nimetazepam is more common.

Criminals may have also started to produce Erimin 5<sup>168</sup> in Shan, Myanmar. For instance, in November 2022, Myanmar authorities made a seizure at a residence in Tachileik of various drugs and tableting equipment that included 35,000 Erimin 5 tablets together with ecstasy and “happy water” (see ecstasy chapter).<sup>169</sup> The seizure of Erimin 5 in Myanmar is unusual, as the majority of seizures of the substance have tended to take place in maritime countries and few seizures have been reported in the Mekong region.

Some of the Erimin 5 tablets seized in the region over the last two years have been found to contain benzodiazepine-type substances other than nimetazepam, including etizolam,<sup>170</sup> flualprazolam,<sup>171</sup> and flubromazolam.<sup>172</sup>

168 Erimin 5 is a proprietary product of Sumitomo corporation, and its licit production was discontinued in 2015. The product contains nimetazepam, which is controlled in Schedule IV of the Convention on Psychotropic Substances of 1971.

169 SMCC database.

170 Etizolam was placed under international control at the 63rd session of the Commission on Narcotic Drugs.

171 Flualprazolam was placed under international control at the 63rd session of the Commission on Narcotic Drugs.

172 NADA, RMP, and KIMIA of Malaysia, “Country briefing”, December 2022.





## National Trends





## Summary of major trends and emerging concerns

### Methamphetamine

- Crystal methamphetamine remains the main drug of concern in Brunei Darussalam, accounting for the largest proportion of drug-related offences and drug treatment admissions (figure 1 and table 2). The perceived use of crystal methamphetamine in the country also increased in 2022 (table 1).
- This is despite a decline in the amount of crystal methamphetamine seized in 2022, which dropped to less than half of the amount seized in 2021. Though 1.3 kg is a small amount compared to the previous three years, it is still a sizable amount for the country (table 3).

### Ecstasy<sup>1</sup>

- Seizures of ecstasy continued to decline in 2022, with only 0.3 g, or the equivalent of one ecstasy tablet, seized (table 3).

### New Psychoactive Substances (NPS) and other synthetic drugs

- Ketamine and kratom<sup>2</sup> were once again seized in Brunei after no seizures of either drug had been reported in 2021 (table 3). Ketamine in Brunei Darussalam is found in tablet form, with no reported seizures of powdered ketamine thus far in the country.<sup>3</sup>

### Other drugs

- For the first time since 2011, no seizures of Erimin 5 were reported in the country (table 3).<sup>4</sup>

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

2 Kratom is the colloquial name of the plant *Mitragyna speciosa*. It contains pharmacologically active alkaloids, especially mitragynine and 7-hydroxymitragynine, which have opioid and stimulant properties.

3 Official communication with the Narcotics Control Bureau (NCB), March 2023.

4 Erimin 5 is a proprietary product of Sumitomo corporation, and its licit production has been discontinued since 2015. The proprietary product contains nimetazepam, a benzodiazepine, which is controlled in Schedule IV of the Convention on Psychotropic Substances of 1971. It is probable that current Erimin 5 seizures are manufactured illicitly and may or may not contain nimetazepam as well as a range of other substances.

## Key facts and figures

### Drug demand indicators

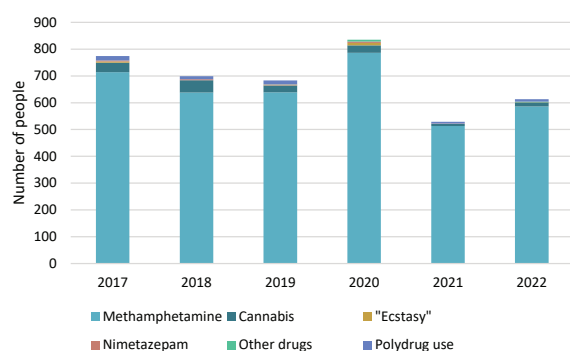
**Table 1. Trend in use of selected drugs in Brunei Darussalam, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↑	↑	↑	↑	↓	↑
Ecstasy	↑	↓	↑	↑	●	↔
Cannabis herb	↓	↓	↑	↑	↓	↑
Inhalants	●	↔	↔	●	↑	●
Ketamine	↑	↓	●	↑	●	↑
Nimetazepam	↔	↓	↑	●	↑	●

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Narcotics Control Bureau (NCB); ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

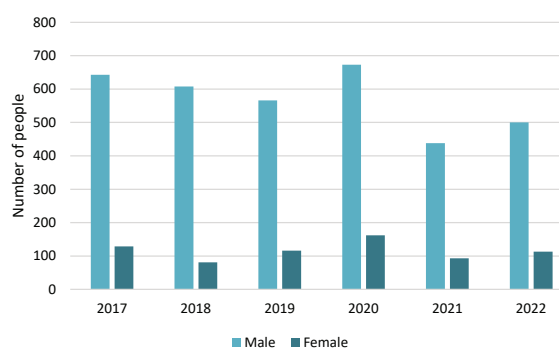
Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaires (ARQ) Brunei Darussalam for 2021 and previous years; official communication with NCB, March 2023.

**Figure 1. Number of people brought into formal contact with authorities for drug-related offences in Brunei Darussalam, by drug type, 2017-2022**



Sources: DAINAP; NCB, "Country briefing", December 2022; official communication with NCB, March 2023.

**Figure 2. Number of people brought into formal contact with authorities for drug-related offences in Brunei Darussalam, by gender, 2017-2022**



Sources: DAINAP; NCB, "Country briefing", December 2022; official communication with NCB, March 2023.

**Table 2. Number of people who use drugs receiving treatment in Brunei Darussalam, by gender and selected drug types, 2020-2022**

Drug type	2020			2021			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Methamphetamine	105	16	121	102	17	119	99	14	113
Cannabis	6	0	6	1	0	1	5	0	5
Ecstasy	1	0	1	0	1	1	1	0	1
Inhalants	0	0	0	0	0	0	0	0	0
Polydrug use	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>112</b>	<b>16</b>	<b>128</b>	<b>103</b>	<b>18</b>	<b>121</b>	<b>105</b>	<b>14</b>	<b>119</b>

Sources: DAINAP; NCB, "Country briefing", December 2022; official communication with NCB, March 2023.

## Drug supply indicators

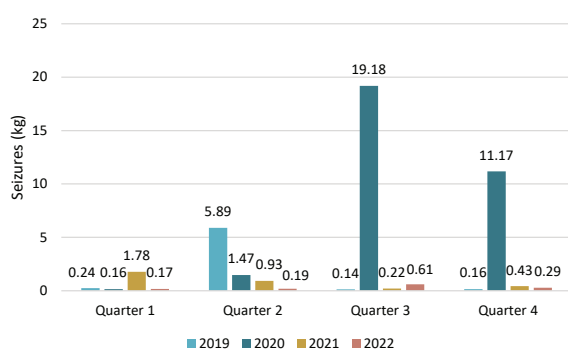
**Table 3. Seizures of selected drugs in Brunei Darussalam, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	0.8	0.8	6.4	32	3.4	1.3
Ecstasy	tablet / g	31 / 1.6 g	0	42 tablets	100 tablets	0.5 g	0.3 g
Cannabis herb	kg	1.1	0.4	6.5	1.3	0.1	1.2
Heroin	kg	•	•	•	•	•	•
Ketamine	tablet / g	50 / 54.5 g	21 g	1.6 g	229.9 g	•	61.56 g
Nimetazepam	tablet / g	453 / 11.8 g	275 tablets	503 / 0.3 g	108 / 0.3 g	0.20 g	•
Kratom (liquid)	lt	0	0	0.9	0.9	•	7.1
Khat	kg	0	0	80	80	•	•

Note: • = Not reported.

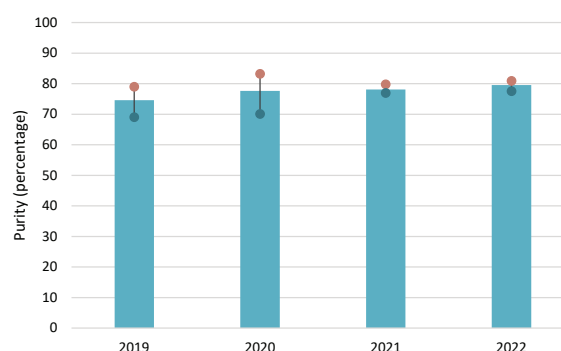
Sources: DAINAP; UNODC ARQ Brunei Darussalam for 2021 and previous years; NCB, "Country briefing", December 2022; official communication with NCB, March 2023.

**Figure 3. Seizure amounts of crystal methamphetamine in Brunei Darussalam, by quarter, 2019-2022**



Sources: DAINAP; official communication with NCB, March 2023.

**Figure 4. Typical purity of crystal methamphetamine in Brunei Darussalam, 2019-2022 (percentage)**



Note: Data in this graph refer to the weight/weight (w/w) % expressed as the base form of these substances.

Source: Official communication with NCB, March 2023.

**Table 4. Retail prices of selected drugs in Brunei Darussalam, 2020-2022 (BND (US\$))**

Drug type	Unit	2020	2021	2022
Crystal methamphetamine	per g	195 (146.8)	195 (146.8)	195 (146.8)
Ecstasy	per tablet	30-50 (22.6-37.7)	30 (22.6)	30 (22.6)
Cannabis herb	per g	15 (11.3)	15 (11.3)	15 (11.3)
Ketamine	per g	50 (37.7)	50 (37.7)	50 (37.7)
Benzodiazepines (Erimin 5)	per tablet	10 (7.5)	10 (7.5)	10 (7.5)

Note: NCB has reported the same prices of the drugs in the table in BND for 2017, 2018, and 2019; The conversion ratio used is US\$1 = 1.328 BND (as of April 2023).

Source: Official communication with NCB, March 2023.







# CAMBODIA

## Summary of major trends and emerging concerns

### Methamphetamine

- For the first time, seizures of crystal methamphetamine reached over one ton, showing the continued expansion of the market in Cambodia (table 3). At the same time, use of crystal methamphetamine as perceived by government experts rose for the sixth straight year in a row, with the drug accounting for over 99 per cent of treatment admissions (tables 1 and 2).
- The increase in the amount of methamphetamine tablets seized also shows that the country continues to be impacted by the high volume of methamphetamine tablets being circulated in and around the Mekong subregion (table 3).
- The purity and price for both crystal methamphetamine and methamphetamine tablets remained stable in 2022 (table 4, and figures 4 and 5).

### Ecstasy<sup>1</sup>

- There were no drug treatment admissions for ecstasy in 2022 (figure 2). However, the amount of ecstasy seized, expressed in tablet equivalent, once again increased reaching the second highest amount ever seized in the country, behind the record 2 million tablets seized in 2020 (table 3).<sup>2</sup>

### New Psychoactive Substances (NPS) and other synthetic drugs

- A record amount of ketamine (13.5 tons) was seized in 2022, accounting for nearly half of the amount seized across East and Southeast Asia (table 3). This is largely due to organized crime targeting Cambodia for industrial-scale production of ketamine and its precursors, with five ketamine laboratories seized in 2022, along with eight warehouses containing a total of 471 tons of controlled and non-controlled chemicals that can be used in the production of ketamine and other synthetic drugs.<sup>3</sup> Use of ketamine as perceived by government experts increased again in 2022, though drug treatment admissions for ketamine use remain low, with only 3 ketamine users admitted (tables 1 and 2).

### Other drugs

- The amount of heroin seized declined considerably in 2022 – a trend that has been observed in almost all countries in the region (table 3).
- Seizures of Erimin 5<sup>4</sup> continue to rise in the country with over double the amount seized in 2022 compared to 2021 (table 3).

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

2 Official communication with the National Authority for Combating Drugs (NACD), March 2023.

3 NACD, "Country briefing", December 2022.

4 Erimin 5 is a proprietary product of Sumitomo corporation, and its licit production has been discontinued since 2015. The proprietary product contains nimetazepam, a benzodiazepine, which is controlled in Schedule IV of the Convention on Psychotropic Substances of 1971. It is probable that current Erimin 5 seizures are manufactured illicitly and may or may not contain nimetazepam as well as a range of other substances.

## Key facts and figures

### Drug demand indicators

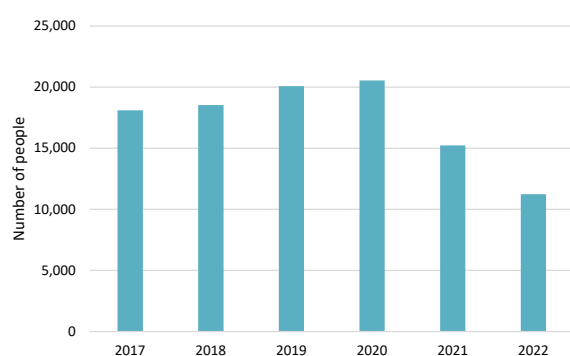
**Table 1. Trend in use of selected drugs in Cambodia, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	↓	↓	↑	↓	↑	↑
Crystal methamphetamine	↑	↑	↑	↑	↑	↑
Ecstasy	↓	↑	↑	↓	↑	↓
Cannabis herb	↓	↓	↓	↑	↓	↓
Cocaine	↓	●	↓	↓	↑	↓
Heroin	↓	↓	↑	↑	↓	↓
Ketamine	↑	●	↑	↑	↑	↑

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the National Authority for Combating Drugs (NACD); ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

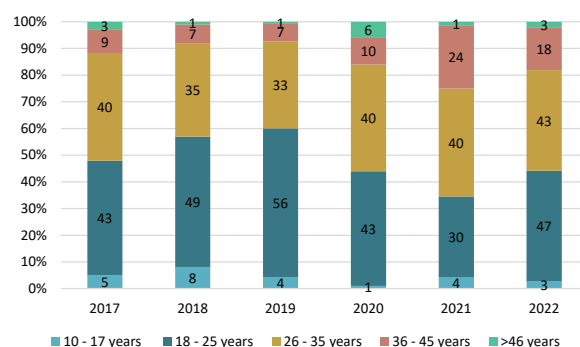
Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with NACD, March 2023.

**Figure 1. Number of people who use drugs brought into formal contact with authorities in Cambodia, 2017-2022**



Sources: DAINAP; NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

**Figure 2. Drug treatment centre admissions in Cambodia, by age group, 2017-2022**



Note: Data in the table only covers drug users admitted to temporary treatment centres.

Sources: DAINAP; NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

**Table 2. Drug treatment centre admissions in Cambodia, by drug type, 2020-2022**

Drug type	2020	2021	2022
Crystal methamphetamine	4,230	2,953	4,781
Methamphetamine tablet	231	34	1
Ecstasy	55	0	0
Heroin	41	37	0
Ketamine	36	0	3
Cannabis herb	31	9	1
Other drugs	26	16	22
<b>Total</b>	<b>4,650</b>	<b>3,049</b>	<b>4,808</b>

Note: Data in the table only cover only drug users admitted to temporary treatment centres.

Sources: DAINAP; NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

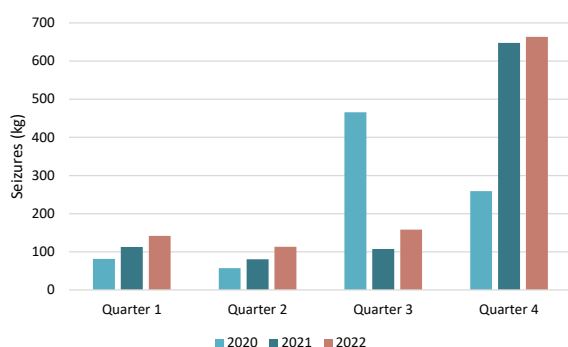
## Drug supply indicators

**Table 3. Seizures of selected drugs in Cambodia, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablets <sup>a</sup>	tablets	371,556	77,000	483,444	43,222	63,130	308,222
Crystal methamphetamine	kg	80.1	306.6	384.9	863.5	948	1,076.8
Ecstasy <sup>b</sup>	tablets	83,533	599,200	382,733	2,245,200	534,706	661,800
Cannabis herb	kg	116.3	74.0	102.9	292.2	135.1	●
Cocaine	kg	12.8	5.4	0.6	0.5	2	0.5
Heroin	kg	22.5	1.3	0.5	298.7	275.6	70.8
Ketamine	kg	6.3	36.3	33	112.5	2,782.8	13,504.5
Nimetazepam	kg	●	●	●	9.4	11.7	29.5

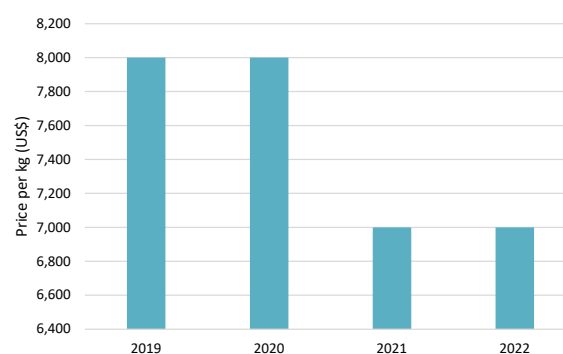
Note: <sup>a</sup>These figures include quantities reported as grams, all of which were converted into estimated tablet equivalent at 90 mg per tablet; <sup>b</sup>These figures include quantities reported as grams, all of which were converted into estimated tablet equivalent of 300 mg per tablet; ● = Not reported. Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Cambodia for 2021 and previous years; NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

**Figure 3. Seizure amounts of crystal methamphetamine in Cambodia, by quarter, 2020-2022**



Sources: DAINAP; official communication with NACD, March 2023.

**Figure 4. Wholesale prices of crystal methamphetamine in Cambodia, 2019-2022 (US\$)**



Sources: NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

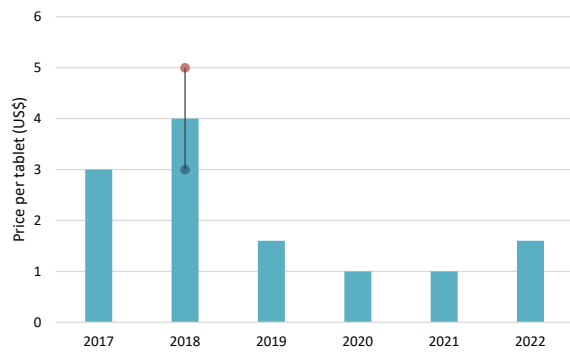
**Table 4. Typical purity of selected drugs in Cambodia, 2021-2022 (percentage)**

	2021				2022			
	Number of samples analysed	Minimum	Average	Maximum	Number of samples analysed	Minimum	Average	Maximum
Crystal methamphetamine	4,580	1.5%	62%	80.5%	3,250	1.6%	56.6%	81.6%
Methamphetamine tablets	140	12.2%	17%	23.7%	122	9.8%	15.7%	23%
Ecstasy tablets (MDMA)	174	14.6%	29.1%	43.5%	54	11.4%	33.4%	54.5%
Ketamine (powder)	171	5%	25.9%	68%	30	1.3%	58.2%	65.6%

Note: Data in this table refer to the weight/weight (w/w) % expressed as the base form of these substances.

Sources: DAINAP; NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

**Figure 5. Retail prices of methamphetamine tablets in Cambodia, 2017-2022 (US\$)**



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

Sources: NACD, "Country briefing", December 2022; official communication with NACD, March 2023.

## Summary of major trends and emerging concerns

### Methamphetamine

- Available data on drug use and supply indicate the continued contraction of the methamphetamine market in China. Seizure amounts of all forms of methamphetamine declined in 2022, with the amount of crystal methamphetamine dropping by over half to 3.9 tons (table 1).
- Though the number of registered synthetic drug users declined in 2022, users of methamphetamine accounted for the highest proportion of registered drug users (figure 3).
- The number of illicit drug production laboratories detected in China has been on a downward trend since 2015 (figure 6). Of the 72 laboratories seized in 2022, only six were for methamphetamine.<sup>1</sup>
- The purity of crystal methamphetamine and methamphetamine tablets has remained stable (table 2).

### Ecstasy<sup>2</sup>

- The amount of ecstasy seized in 2022 increased by nearly fivefold compared with the amount seized in 2021 (table 1).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The amount of ketamine seized in China increased for the first time since 2015. Although it is still lower than the amount seized in 2020, it is nearly triple the amount seized in 2021 (table 1). Ketamine users account for three per cent of current registered drug users (figure 3).
- Following the national control of synthetic cannabinoids under a generic definition in July 2021, the amount of synthetic cannabinoids seized declined to 19.2 kg (table 1). However, synthetic cannabinoids remain the most frequently identified group of NPS in China, and another new synthetic cannabinoid in the “OXIZID” class of synthetic cannabinoids (BZO-4en-POXIZID), which is not covered under the generic definition, emerged in 2022 (figure 7 and table 3).
- A range of new NPS emerged in 2022. Aside from the aforementioned synthetic cannabinoid, four phenacyclidine-type substances, four phenethylamines, and three other substances were newly identified in 2022 (table 3).

### Other drugs

- The number of registered users of opiates and seizures of heroin declined in 2022, with the amount of heroin seized once again reaching a record low (figure 2 and table 1).

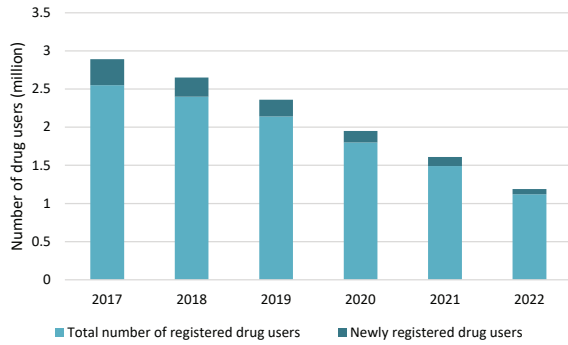
1 Official communication with the National Narcotics Control Commission (NNCC), March 2023. Disaggregated data for previous years is not available.

2 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

## Key facts and figures

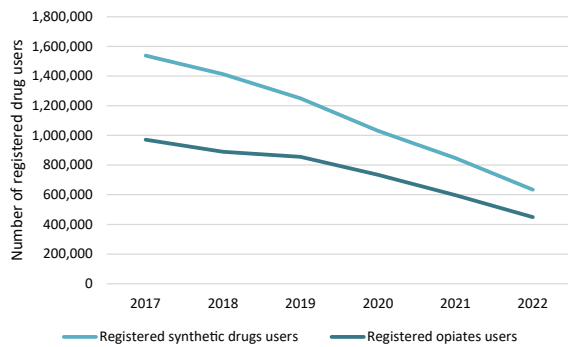
### Drug demand indicators

**Figure 1. Number of current registered drug users in China, 2017-2022**



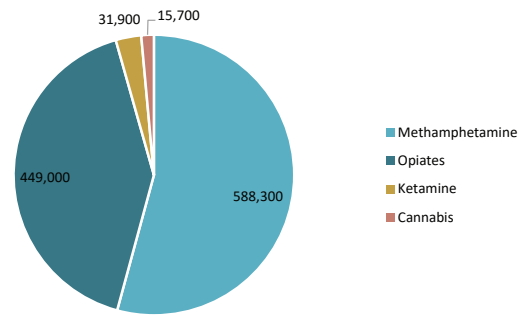
Note: The number of current registered drug users is the number of registered drug users, excluding those who have passed away, are out of the country, or have not relapsed for 3 years.  
Source: Official communication with the National Narcotics Control Commission (NNCC), March 2023.

**Figure 2. Number of current people who were registered for using synthetic drugs and opiates in China, 2017-2022**



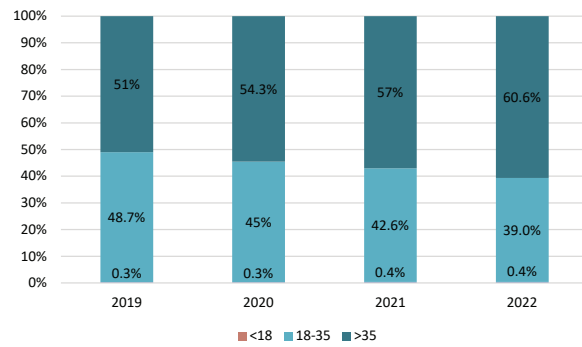
Note: The number of current registered drug users is the number of registered drug users, excluding those who have passed away, are out of the country, or have not relapsed for 3 years.  
Source: Official communication with NNCC, March 2023.

**Figure 3. Proportion of current registered drug users in China, by drug type, 2022**



Note: The number of current registered drug users is the number of registered drug users, excluding those who have passed away, are out of the country, or have not relapsed for 3 years.  
Source: Official communication with NNCC, March 2023.

**Figure 4. Proportion of current registered drug users in China, by age group, 2019-2022**



Note: The number of current registered drug users is the number of registered drug users, excluding those who have passed away, are out of the country, or have not relapsed for 3 years.  
Source: Official communication with NNCC, March 2023.

## Drug supply indicators

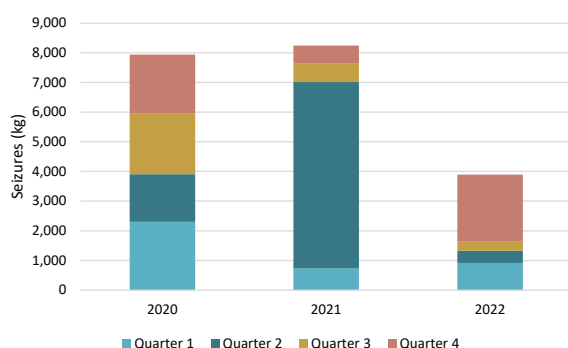
**Table 1. Seizures of selected drugs in China, 2017-2022\***

Drug type	Unit	2017	2019	2020	2021	2022
Crystal methamphetamine	kg	30,766.4 kg	12,155.32	7,935.5	8,239.7	3,896.3
Methamphetamine tablets <sup>a</sup>	tablets		129,464,300	132,360,700	67,254,459	51,875,676
Methamphetamine powder	kg		235.8	364.5	808.9	384.3
Methamphetamine liquid	lt		1,174	437.8	611.7	225.4
Ecstasy <sup>b</sup>	tablets	3,481,233	240,667	490,667	292,667	1,364,667
Ketamine	kg	7,292.6	1,761.8	1,406.8	456.6	1,299.6
Cannabis herb	kg	4,927	621.7**	406.1	344.9	499.8
Cannabis resin	kg	7.9	2,559.7	3	0.4	0
Cocaine	kg	311.7	155.1	582.2	690.5	176.6
Heroin	kg	9,519.9	6,136.4	3,771.5	1,805.6	1,306.6
Opium	kg	3,909.3	2,908.4	2,770.8	2,031.5	1,559.1
Synthetic cannabinoids	kg	•	6	11.7**	179.2	19.2

Note: \* Data for 2018 is undergoing verification and is not included in the table; data for 2021 and 2022 are from official communication with NNCC, while data for previous years are from the UNODC ARQ China unless otherwise stated; \*\* Data from official communication with NNCC, March 2023; <sup>a</sup> Figures not reported as number of tablets converted into estimated tablet equivalent at 100 mg per tablet. <sup>b</sup> Figures not reported as number of tablets converted into estimated tablet equivalent at 300 mg per tablet; • = Not reported.

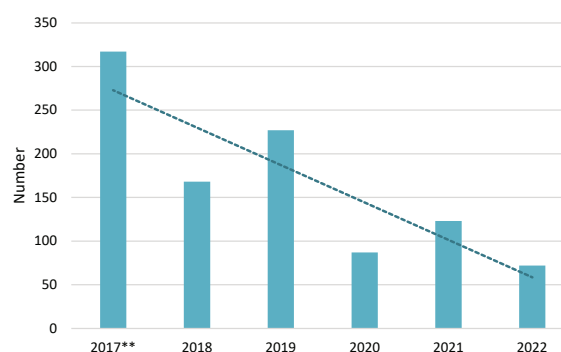
Sources: UNODC Annual Report Questionnaire (ARQ) China for 2021 and previous years; official communication with NNCC, March 2023.

**Figure 5. Seizure amounts of crystal methamphetamine in China, by quarter, 2020-2022**



Source: Official communication with NNCC, March 2023.

**Figure 6. Number of illicit drug production laboratories seized in China, 2017-2022\***



Note: \* Data for 2021 and 2022 are from official communication with NNCC, while data for previous years are from the UNODC ARQ China unless otherwise stated; \*\* Data from official communication with NNCC, March 2023.

Sources: UNODC ARQ China for 2021 and previous years; official communication with NNCC, March 2023.

**Table 2. Typical retail purities of methamphetamine and ketamine in China, 2017-2022 (percentage)\***

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	87	90	72	82	74	73
Methamphetamine tablet	16	17**	17**	17	16	16
Ketamine**	74	74	72	69	65	67

Note: Data in this table refers to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances; \* Data for 2020, 2021, and 2022 are from official communication with NNCC, while data for previous years are from the UNODC ARQ China unless otherwise stated; \*\* Data from official communication with NNCC, March 2023.

Sources: UNODC ARQ China for 2019 and previous years; official communication with NNCC, March 2023.

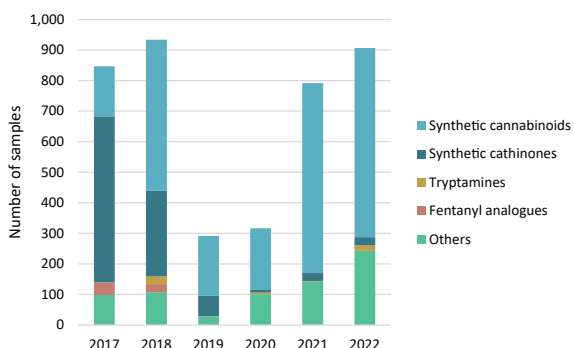


**Table 3. Newly identified NPS and other emerging synthetic substances in China, 2021-2022**

Substance Type	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>• ADB-FUBIATA</li> <li>• 5F-BZO-POXIZID (5F-MDA-19)</li> <li>• BZO-POXIZID</li> </ul>	<ul style="list-style-type: none"> <li>• BZO-4en-POXIZID</li> </ul>
Synthetic cathinones	<ul style="list-style-type: none"> <li>• <i>N</i>-butylbutylone</li> <li>• <i>N</i>-propylbutylone</li> <li>• <i>N</i>-cyclohexylmethylone</li> </ul>	-
Phencyclidine-type substances	-	<ul style="list-style-type: none"> <li>• 3-methyl Rolicyclidine (3-Me-PCPy)</li> <li>• 3-methyletyclidone (Deoxymethoxetamine)</li> <li>• Fluorexetamine (2-FXE)</li> <li>• 2-MDCK</li> </ul>
Phenethylamines	-	<ul style="list-style-type: none"> <li>• 2-fluoroethamphetamine (2-FEA)</li> <li>• 4-(2-Aminopropyl)benzofuran (4-APB)</li> <li>• Escaline</li> <li>• <i>N</i>-Pyrrolidinyl-3,4-DMA</li> </ul>
Phenidates	-	<ul style="list-style-type: none"> <li>• 4-fluoromethylphenidate (4F-MPH)</li> </ul>
Others	-	<ul style="list-style-type: none"> <li>• 4-amino-3-phenyl-butyric acid (Phenibut)</li> <li>• Troparil</li> <li>• 1cP-LSD</li> </ul>

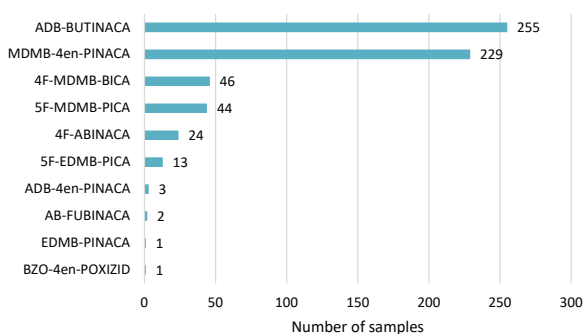
Source: Official communication with NNCC, March 2023.

**Figure 7. Frequency of NPS identified in samples analysed by the NPS Monitoring Programme of China, by substance group, 2017-2022**



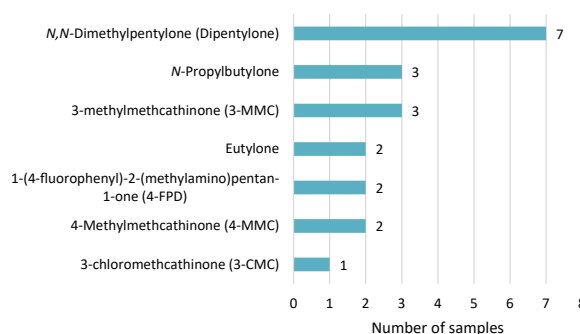
Source: Official communication with NNCC, March 2023.

**Figure 8. Top 10 synthetic cannabinoids identified by the NPS Monitoring Programme of China, 2022**



Source: Official communication with NNCC, March 2023.

**Figure 9. Top 7 synthetic cathinones identified by the NPS Monitoring Programme of China, 2022**



Note: These are all the synthetic cathinones identified by the NPS Monitoring Programme of China in 2022.

Source: Official communication with NNCC, March 2023.

## Hong Kong (Special Administrative Region of China)

### Summary of major trends and emerging concerns

#### Methamphetamine

- The number of methamphetamine users brought into formal contact with authorities declined for the sixth consecutive year (figure 1).
- Seizure amounts of crystal methamphetamine declined slightly in 2022 but remain at the high level that has been observed since the onset of the COVID-19 pandemic (table 1). In terms of volume, most of the crystal methamphetamine seized in Hong Kong, China, is from mainland China, followed by Mexico. In terms of frequency, most cases originate from Thailand.<sup>3</sup>
- The wholesale price of methamphetamine once again increased from the previous year, while the retail price remained at a similar level to previous years (table 2).

#### Ecstasy<sup>4</sup>

- Although the number of ecstasy tablets seized declined in 2022, when combined with the amount of powder seized, a record amount of ecstasy was seized in the country – the equivalent of 424,665 tablets (table 1). However, ecstasy users account for only one per cent of reported drug users.<sup>5</sup>

#### New Psychoactive Substances (NPS) and other synthetic drugs

- Though the amount of ketamine seized dropped in 2022, it remains a significant amount compared to previous years (table 1). The number of reported persons for non-medical use of ketamine similarly declined in 2022 (figure 1).

#### Other drugs

- The number of heroin users has been on a downward trend since 2014. However, it remains the most commonly reported substance of use (figure 1). While seizures of the drug declined in 2022, it is still the third-highest amount of the drug seized in the country (table 1).
- Although the amount of cocaine seized in Hong Kong, China, dropped slightly in 2022, for the first time, the number of cocaine users surpassed the number of methamphetamine users, behind only heroin users (table 1 and figure 1). The price of cocaine also dropped to a record low of USD\$ 114.52 per gram, indicating a possible developing local market for cocaine (table 2).

3 Official communication with NNCC, April 2023.

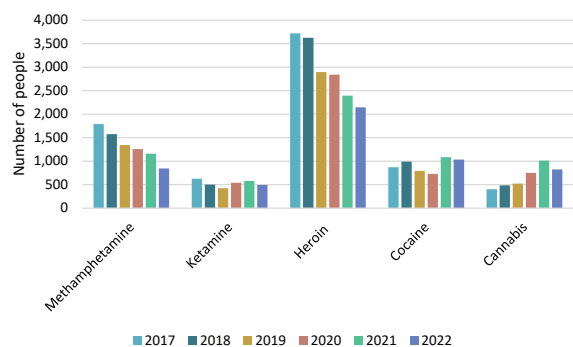
4 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

5 Narcotics Division, Security Bureau (NDSB), Hong Kong, China, “Newly/previously reported drug abusers by age group by common type of drugs abused (T3)” (accessed at [https://www.nd.gov.hk/en/crda\\_main\\_charts\\_and\\_tables.html](https://www.nd.gov.hk/en/crda_main_charts_and_tables.html)).

## Key facts and figures

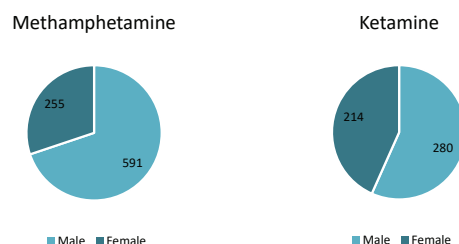
### Drug demand indicators

**Figure 1. Number of people who use methamphetamine, ketamine, heroin, cocaine, and cannabis brought into formal contact with authorities in Hong Kong, China, 2017-2022**



Source: Official communication with NNCC, April 2023.

**Figure 2. Number of people who use methamphetamine and ketamine brought into formal contact with authorities in Hong Kong, China, by gender, 2022**



Source: Official communication with NNCC, April 2023.

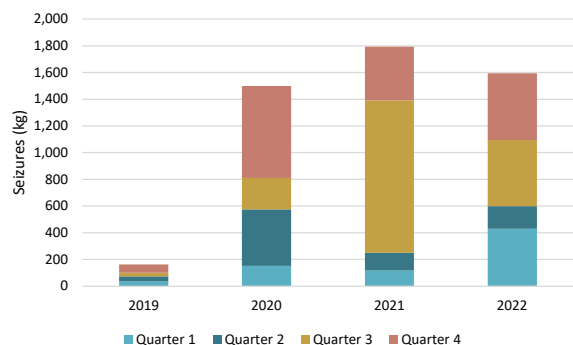
### Drug supply indicators

**Table 1. Seizures of selected drugs in Hong Kong, China, 2017-2022\***

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	144	164.1	143.4	1,498.6	1,794	1,593.5
Ecstasy <sup>a</sup>	tablets / kg	11,694 / 2.9 kg	19,789 / 25.5 kg	77,602 / 72.4 kg	332,094 / 97.8 kg	62,955	9,332 / 124.6 kg
Ketamine	kg	94.5	153.1	260.9	472.86	3,296	716
Cannabis	kg	1,377.6	354.5	467.3	1,141.2	1,985	2,584.6
Cocaine	kg	454	827.5	1,556.4	1,272.2	2,869	2,196.9
Heroin	kg	29.5	43.9	46.8	367.8	554	307.6

Note: \* Data for 2022 are from official communication with NNCC, while data for previous years are from the UNODC ARQ Hong Kong, China; <sup>a</sup> Figures reported other than the number of tablets converted into estimated tablet equivalent at 300 mg per tablet. Sources: UNODC ARQ Hong Kong, China for 2021 and previous years; official communication with NNCC, April 2023.

**Figure 3. Seizure amounts of crystal methamphetamine in Hong Kong, China, by quarter, 2019-2022**



Source: Official communication with NNCC, April 2023.

**Table 2. Wholesale and retail prices of selected drugs in Hong Kong, China, 2017-2022 (US\$)\***

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	per kg	12,240.05	22,402.37**	18,845.18	23,199.00	26,641.00	27,245.22
Crystal methamphetamine	per g	45.96	70.29**	76.42	65.90	80.47	73.12
Ecstasy	per tablet	10.27	10.08	9.54**	5.70	7.40	7.39
Heroin	per g	97.56	107.58	116.36	125.70	165.00	118.09
Ketamine	per g	49.04	65.64**	79.04	58.10	77.02	70.32
Cocaine	per g	121.44	171.14**	150.23	144.60	150.72	114.52

Note: \* Data for 2021 and 2022 are from official communication with NNCC, while data for previous years are from the UNODC ARQ Hong Kong, China unless otherwise stated; \*\* Data from official communication with NNCC, April 2023.

Sources: UNODC ARQ Hong Kong, China for 2020 and previous years; official communication with NNCC, April 2023.



## Summary of major trends and emerging concerns

### Methamphetamine

- Although seizures of crystal methamphetamine in Indonesia declined in 2022, the amount seized is the third highest amount on record for the country, showing that methamphetamine supply in the country remains at the high levels observed since 2017 (table 2).
- Methamphetamine in Indonesia is primarily sourced from outside the country. Although a large number of methamphetamine laboratories were detected in 2022, they were all kitchen-sized with limited production capacity (table 3).<sup>1</sup>
- The purity of crystal methamphetamine samples seized in Indonesia remains high, while price has stabilised in recent years (tables 4 and 5).
- Analysis of crystal methamphetamine samples seized in 2022 indicate that ephedrine-based synthesis methods, such as the Emde and Nagai method, remain the most common synthesis methods. However, an increasing proportion of samples were indicated to be synthesized using the Leuckart method, which uses P-2-P as the starting material (figure 4).<sup>2</sup>

### Ecstasy<sup>3</sup>

- Seizures of ecstasy in 2022 have rebounded following the sharp decline in seizures in 2021 (table 3). Six kitchen-sized ecstasy laboratories were seized in 2022 (table 3).

### New Psychoactive Substances (NPS) and other synthetic drugs

- Since 2017, synthetic cannabinoids have dominated the NPS market in Indonesia, accounting for the largest proportion of substances identified in the country, as well as newly identified substances (figure 5 and table 6).
- Piperazines have recently made a reappearance after no detections of any substances in this substance group since 2013. Five samples were found with piperazines in 2021, while 42 samples were found in 2022 (figure 5). Of the 42 samples, 41 contained 1-(4-Fluorophenyl)piperazine (4-FPP).<sup>4</sup>

### Other drugs

- Seizures of cannabis herb in Indonesia have increased for the past three years, and the country accounts for the largest amount of cannabis herb seized in East and Southeast Asia (table 2).

1 Official communication with the National Narcotics Board (BNN), April 2023.

2 This data should be interpreted with caution as the number of samples analysed is only a small amount in terms of overall seizures of the drug.

3 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

4 Official communication with BNN, April 2023.

## Key facts and figures

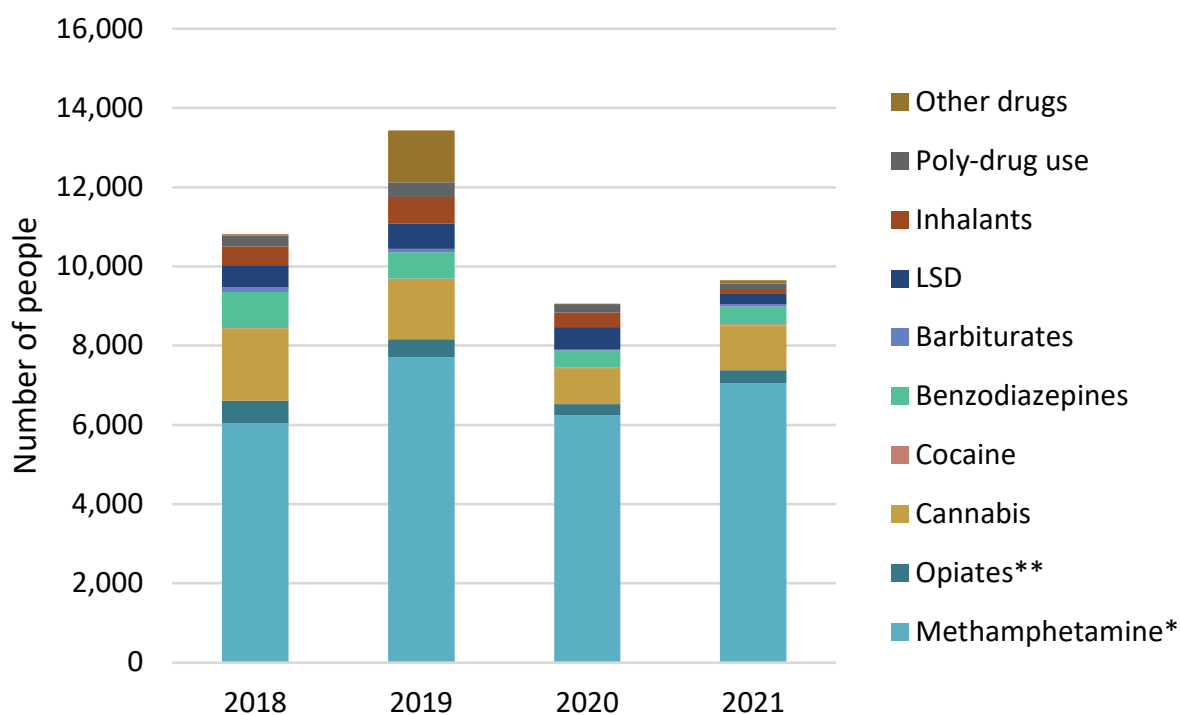
### Drug demand indicators

**Table 1. Trend in use of selected drugs in Indonesia, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↔	↔	↔	↔	↔	●
Ecstasy	↑	↔	↔	↔	↔	●
Barbiturates	↑	↑	↔	↓	↔	●
Benzodiazepines	↔	↑	↔	↓	↔	●
Cannabis herb	↔	↔	↔	↑	↔	●
Cannabis resin	●	●	●	●	●	●
Cocaine	↔	↓	↔	↓	↑	●
Heroin	↑	↑	↓	↓	↑	●
LSD	↔	↑	●	↑	↔	●
Ketamine	●	●	●	●	●	●

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the National Narcotics Board (BNN), Indonesia; ↑ = Increasing, ↓ = Decreasing, ↔ = Stable, ● = Not reported.  
Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with BNN, April 2023.

**Figure 1. Drug treatment admissions in Indonesia, by drug type, 2018-2021**



Note: \*Includes a few ecstasy related admissions; \*\* Includes heroin, morphine and methadone.  
Source: Official communication with BNN, April 2022.



## Drug supply indicators

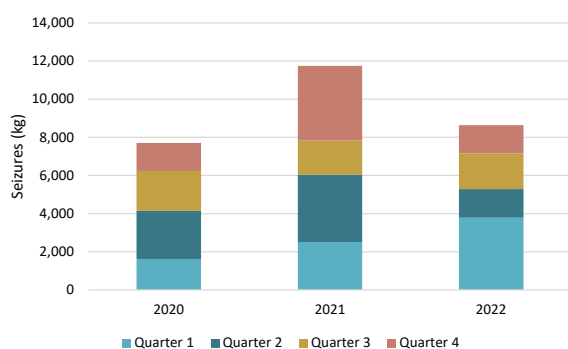
**Table 2. Seizures of selected drugs in Indonesia, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	7,544.8	8,231.3	17,928.3	7,905.7	11,743.5	8,637.7
Methamphetamine powder	kg	●	4	●	●	●	●
Amphetamine	kg	0 <sup>a</sup>	65.4	●	●	●	●
Ecstasy	tablets	3,102,679	1,594,084	1,537,806	1,543,336	860,783	1,394,287
Ecstasy powder	kg	21.1	2.3	142.7	14.4	11.7	●
Barbiturates	tablets	264,107	138,516	722,572	65,774	88,900	221,775
Benzodiazepines	tablets	64,962	10,703	12,125	574,421	488,859	144,175
Cannabis herb	kg	151,670.9	41,266.8	63,212.2	53,573	72,721.8	80,492.6
Cannabis plants	plants	205,708	1,047,915	350,868	16,539	130,000	●
Cocaine	kg	0.1	8.4	8.4	0.5	1.4	131
Heroin	kg	0.5	1.4	23.9	44	28.1	0.3
Prescription opioid (tramadol)	tablets	●	7,477	3,476	5,998	●	●
Ketamine	kg	1.8	22.2	11	8.2	●	6.3
Synthetic cannabinoids	kg	45.2	5.4	25.1	492.4	337.7	40.1
PCC (paracetamol, carisoprodol, and caffeine)	tablet	●	1,652,864	1,652,864	400,000	●	●

Note: <sup>a</sup> Less than 0.05 kg of the substance was seized; ● = Not reported.

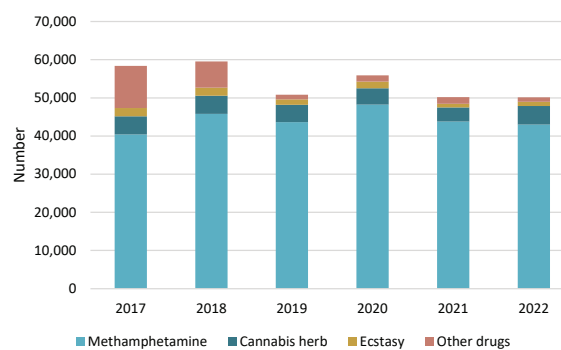
Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Indonesia for 2021 and previous years; BNN, "Country briefing", December 2022; official communication with BNN, April 2023.

**Figure 2. Seizure amounts of crystal methamphetamine in Indonesia, by quarter, 2020-2022**



Sources: DAINAP; official communication with BNN, April 2023.

**Figure 3. Number of drug-related arrests in Indonesia, by drug type, 2017-2022**



Sources: DAINAP; BNN, "Country briefing", December 2022; official communication with BNN, April 2023.

**Table 3. Number of illicit drug production laboratories seized in Indonesia, by drug type, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Methamphetamine	3	4	2	6	1	22
Ecstasy	1	1	0	2	0	6
Synthetic cannabinoids	0	0	0	2	0	1
Synthetic cathinones	0	0	1	0	0	0
PCC	0	0	1	0	0	1

Sources: DAINAP; BNN, "Country briefing", December 2022; official communication with BNN, April 2023.

**Table 4. Typical retail price of selected drugs in Indonesia, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	per g	153-185	124-185	85.7-114.3	106.67 (66-233)	42-245	45.2 - 225.8
Ecstasy	per tablet	18-31	18-28	24.3-28.6	26 (12-50)	10.5-45.5	11.9 - 58.1
Amphetamine	per g	30	30	•	•	•	•
Ketamine	per g	77	•	50-71.4	•	•	•
Cannabis herb	per kg	185-191	185	•	•	•	•
LSD	per blot	•	•	10.7-21.4	•	•	•
Synthetic cannabinoids	per bag (5 g)	•	•	28.6-35.7	•	•	•
Heroin	per g	111-115	185	214.3	116.7	•	•
Cocaine	per g	74	74-241	179	183.3	•	•

Note: • = Not reported.

Sources: DAINAP; BNN, "Country briefing", December 2022; official communication with BNN, April 2023.

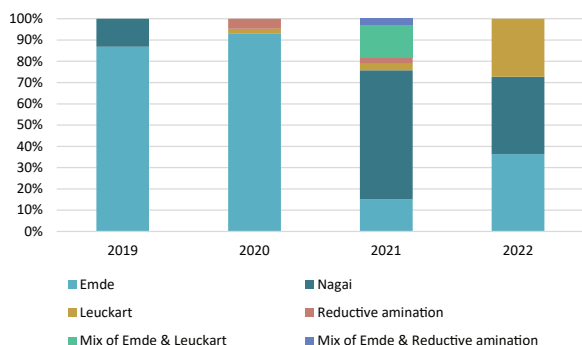
**Table 5. Typical purity of crystal methamphetamine in Indonesia, 2017-2022 (percentage)**

Year	Number of samples analysed	Hydrochloride form	Base form
2017	8	67.05 (61.66-97.55)	53.87
2018	38	91.92 (75.33-95.48)	73.85
2019	38	96.35 (90.01-99.88)	77.41
2020	127	96.65 (88.80-99.31)	77.65
2021	33	89.96 (61.72-96.93)	72.29
2022	11	93.57 (89.35-98.86)	75.15 (71.78-79.43)

Note: Values in parentheses are the purity range (minimum-maximum) of the substance.

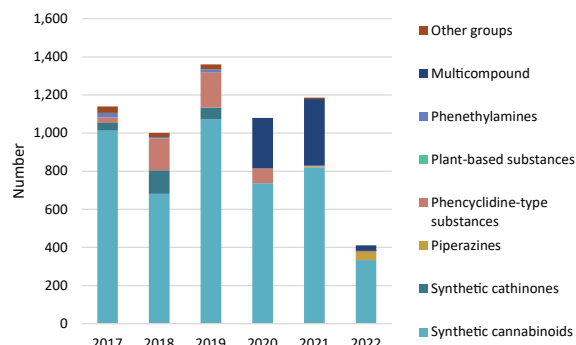
Sources: DAINAP; BNN, "Country briefing", December 2022; official communication with BNN, April 2023.

**Figure 4. Proportion of synthesis routes of crystal methamphetamine samples analysed in Indonesia, 2019-2022**



Source: Official communication with BNN, April 2023.

**Figure 5. Number of NPS samples identified and analysed in Indonesia, by substance group, 2017-2022**



Source: Official communication with BNN, April 2023.

**Table 6. Newly identified NPS and other emerging synthetic substances in Indonesia, 2021-2022**

Substance group	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>MDMB-BUTINACA</li> <li>ADB-BUTINACA</li> <li>BZO-POXIZID</li> </ul>	<ul style="list-style-type: none"> <li>ADB-FUBIATA</li> <li>BZO-4en-POXIZID</li> <li>MDMB-5Br-INACA</li> </ul>
Piperazines	<ul style="list-style-type: none"> <li>1-Benzyl-4-methylpiperazine</li> </ul>	-

Source: Official communication with BNN, April 2023.





## Summary of major trends and emerging concerns

### Methamphetamine

- Preliminary data for seizures of crystal methamphetamine indicate a decrease in 2022 compared to the previous year, reaching the lowest level since 2015 (table 2). As of 2021, methamphetamine-related offences continue to account for the largest proportion of drug-related arrests in Japan (figure 3).
- Drug use indicators, such as government expert perception, show that use of methamphetamine has declined in recent years (table 1).
- Following the relaxation of COVID-19 restrictions in 2022, the number of cases and seizure amounts of methamphetamine trafficked by air passengers during the year increased from 35 cases and 5 kg in 2021 to 101 cases and 43 kg. Use of air cargo and international mail continued to rise in 2022, especially for international mail, with cases using this mode of trafficking nearly quadrupling in 2022 (figures 6 and 7).
- In terms of number of cases, Asia remains the most common embarkation point for methamphetamine to Japan, accounting for 34 per cent of all cases. In terms of weight, though Asia still accounted for the largest proportion of seizures, the amount of methamphetamine shipped from Asia dropped by over 70 per cent in 2022 to 137 kg compared to 588 kg in the previous year, while shipments from other regions, especially North America and the Middle East, increased. United Arab Emirates was the most important source by weight, accounting for 16 per cent of the total amount seized by Japan Customs in 2022 (figures 4 and 5).<sup>1</sup>
- The typical retail price of crystal methamphetamine in Japan remains the highest in East and Southeast Asia (table 3).

### Ecstasy<sup>2</sup>

- Preliminary data indicate that seizures of ecstasy decreased for the first time since 2017 but remain at a similar level to the year prior (table 2).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The number of people arrested for NPS-related offences in 2021 was similar to the previous year (figure 3). Meanwhile, expert perception on the use of NPS showed increases in both 2019 and 2021, indicating the continued prevalence of NPS in the country (table 1). Though a range of NPS are found in Japan, synthetic cannabinoids are of particular concern, accounting for 6 of the 13 newly classified “designated substances” in 2022 (figure 8).<sup>3</sup>

### Other drugs

- Preliminary data on the total amount of cannabis, including herb and resin, in 2022 indicate a possible increase from 2021 (table 2). The number of cannabis-related drug arrests has increased each year since 2013 (figure 3).

1 Japan Customs, “Summary of Japan Customs’ Enforcement in 2022”, February 2023.

2 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

3 National Police Agency (NPA) and Ministry of Health, Labour and Welfare (MHLW), “Country briefing”, December 2022.

## Key facts and figures

### Drug demand indicators

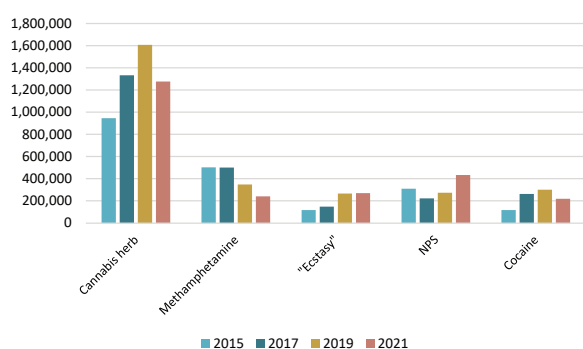
**Table 1. Trend in use of selected drugs in Japan, 2009-2021**

Drug type	2009	2011	2013	2015	2017	2019	2021
Crystal methamphetamine	↓	↑	↑	↔	↔	↓	↓
Ecstasy	↔	↓	↑	↓	↑	↑	↔
Cannabis	↑	↓	↓	↓	↑	↑	↓
NPS	●	●	●	↓	↓	↑	↑

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Ministry of Health, Labour and Welfare (MHLW); ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

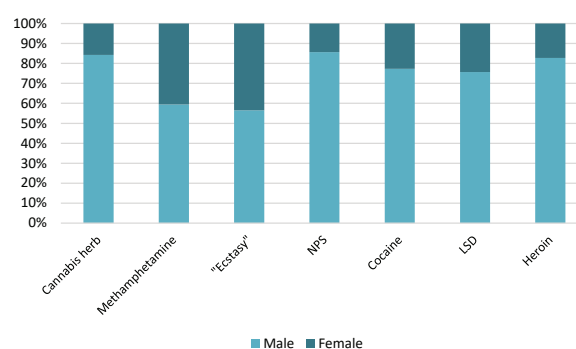
Source: UNODC Annual Report Questionnaire (ARQ) Japan for 2019 and previous years; official communication with MHLW, April 2023.

**Figure 1. Estimated number of people who have used drugs once in their lifetime in Japan, 2015, 2017, 2019, and 2021**



Source: National Center of Neurology and Psychiatry (NCNP), "2021 Nationwide General Population Survey on Drug Use in Japan", March 2022 (available at: <https://www.ncnp.go.jp/nimh/yakubutsu/report/index.html>).

**Figure 2. Proportion of estimated number of people who have used drugs once in their lifetime in Japan, by gender, 2021**



Source: National Center of Neurology and Psychiatry (NCNP), "2021 Nationwide General Population Survey on Drug Use in Japan", March 2022 (available at: <https://www.ncnp.go.jp/nimh/yakubutsu/report/index.html>).

### Drug supply indicators

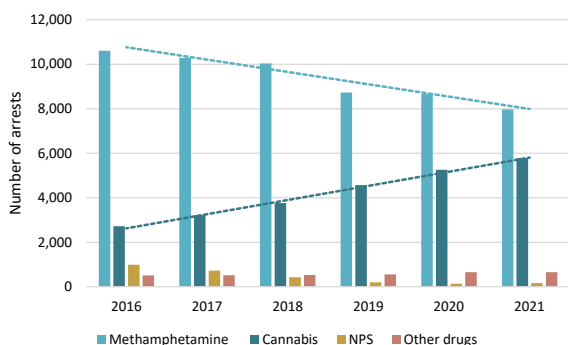
**Table 2. Seizures of selected drugs in Japan, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022*
Crystal methamphetamine	kg	1,136.6	1,206.7	2,649.7	824.4	998.7	567
Ecstasy	tablets	3,244	12,307	73,915	106,308	80,623	78,000
Cannabis herb	kg	270.5	337.3	430.1	299.1	376.9	315
Cannabis resin	kg	21.9	3.1	14.8	3.6	2.9	117
Cocaine	kg	11.6	157.4	639.9	821.7	15.1	48
Heroin	kg	70.3	0	16.7	14.8	0	0
Opium	kg	0	0	0	0	5.8	0

Note: \* Data are preliminary and only include the amounts as reported by Japan Customs; ● = Not reported.

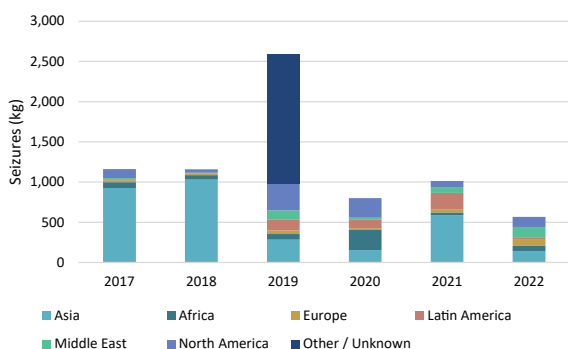
Sources: UNODC ARQ Japan for 2021 and previous years; National Police Agency (NPA) and MHLW, "Country briefing", December 2022; Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

**Figure 3. Number of drug-related arrests in Japan, by drug type, 2016-2021**



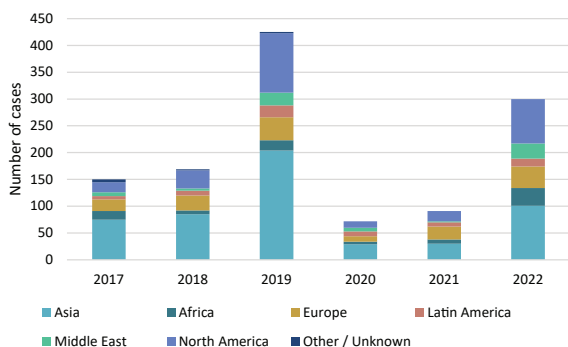
Source: Official communication with MHLW, April 2023.

**Figure 4. Proportion of embarkation points of methamphetamine trafficking to Japan, by seizure amount, as reported by Japan Customs, 2017-2022**



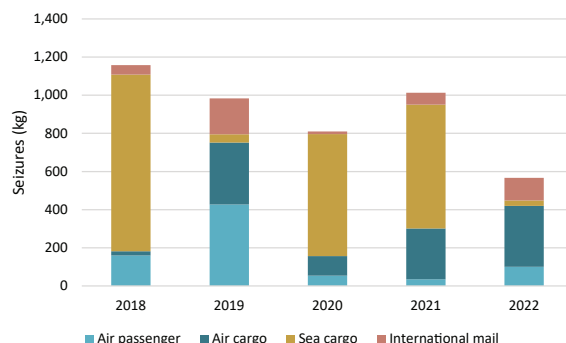
Source: Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

**Figure 5. Proportion of embarkation points of methamphetamine trafficking to Japan, by number of cases, as reported by Japan Customs, 2017-2022**



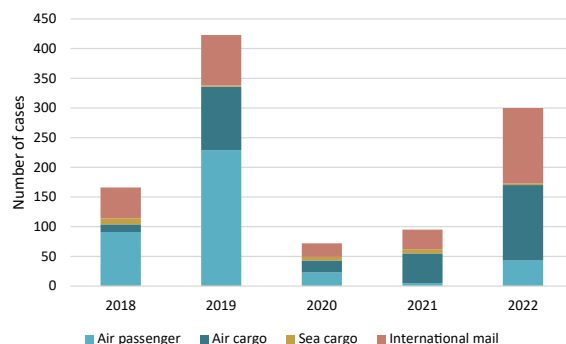
Source: Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

**Figure 6. Seizures of methamphetamine in Japan, by mode of trafficking and seizure amount (kg), as reported by Japan Customs, 2018-2022**



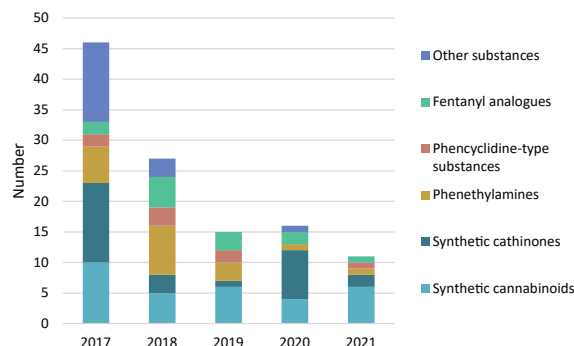
Source: Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

**Figure 7. Seizures of methamphetamine in Japan, by mode of trafficking and number of cases, as reported by Japan Customs, 2018-2022**



Source: Japan Customs, "Summary of Japan Customs' Enforcement in 2022", February 2023.

**Figure 8. NPS reported annually to UNODC in Japan, by substance group, 2017-2021**



Source: UNODC Early Warning Advisory (EWA) on NPS.



**Table 3. Retail prices of selected drugs in Japan, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	per g	560	562	562	613.56	535	563.7
Ecstasy	per tablet	36	37	37.5	38.35	•	•
Cannabis herb	per g	55	47	47	57.52	•	•
Heroin	per g	270	281.4	281.4	287.60	•	•
Cocaine	per g	•	187.6	187.6	191.74	•	•

Note: • = Not reported.

Source: Official communication with MHLW, April 2023.



# LAO PEOPLE'S DEMOCRATIC REPUBLIC

## Summary of major trends and emerging concerns

### Methamphetamine

- Seizures of crystal methamphetamine continued to decline in 2022. However, methamphetamine tablet seizures increased to another record amount, largely due to the ongoing use of Lao PDR as a transit for methamphetamine produced in Myanmar to neighbouring countries (table 2 and figure 5).
- Methamphetamine constitutes the largest proportion of treatment admissions and drug-related offences (figure 2).<sup>1</sup> Expert perception on the use of methamphetamine indicates that the use of crystal methamphetamine declined while the use of methamphetamine tablets continued to increase (table 1).
- Due to its location, Lao PDR is also an important transit for precursors and non-controlled chemicals, which can be used to produce illicit drugs. Lao PDR has continued to seize high volumes of unspecified chemicals and powders suspected to be destined for illicit drug production sites (table 2).

### Ecstasy<sup>2</sup>

- No seizures of ecstasy have been reported in Lao PDR (table 2).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The amount of ketamine seized in Lao PDR increased exponentially in 2022, nearly reaching two tons, after seizures of the drug were first reported in 2021 (table 2). This is the fourth highest amount of ketamine seized in Southeast Asia, behind only Cambodia, Malaysia, and Myanmar.

### Other drugs

- A record amount of opium was seized in 2022 (table 2). For the first time since 2017, government experts reported an increase in perceived use of opium (table 1).

1 Lao National Commission for Drug Control and Supervision (LCDC), "Country briefing", December 2022.

2 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

## Key facts and figures

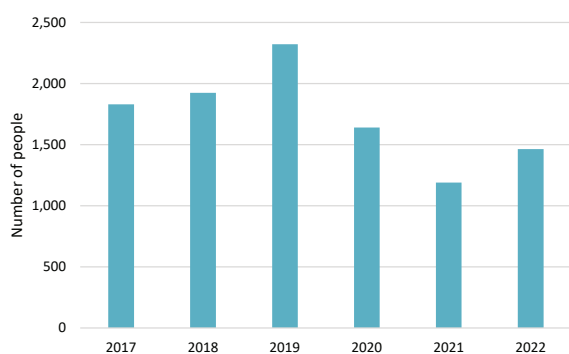
### Drug demand indicators

**Table 1. Trend in use of selected drugs in Lao PDR, 2017-2022**

Drug used in the past year	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	↑	↑	↓	↑	↑	↑
Crystal methamphetamine	↓	↑	↑	↑	↓	↓
Cannabis herb	↑	↓	↑	↑	↑	↑
Opium	↑	↓	↓	↓	↓	↑
Heroin	↓	↑	↓	↑	↓	↓

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Lao National Commission for Drugs Control and Supervision (LCDC); ↑ = Increasing, ↓ = Decreasing, ↔ = Stable, ● = Not reported. Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with LCDC, May 2023.

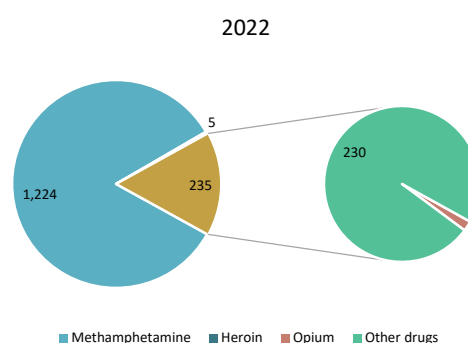
**Figure 1. Number of drug users admitted for treatment in Lao PDR, 2017-2022**



Note: The data here only represents drug users admitted to the Somsanga Treatment and Rehabilitation Centre, and it should be interpreted with caution to understand the drug use situation in the country.

Sources: LCDC, "Country briefing", December 2022; official communication with LCDC, May 2023.

**Figure 2. Drug treatment centre admissions in Lao PDR, by drug type, 2022**



Note: The data here only represents drug users admitted to the Somsanga Treatment and Rehabilitation Centre, and it should be interpreted with caution to understand the drug use situation in the country.

Sources: LCDC, "Country briefing", December 2022; official communication with LCDC, May 2023.

### Drug supply indicators

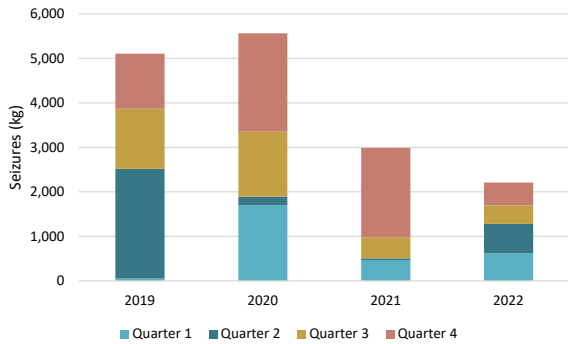
**Table 2. Seizures of selected drugs and chemicals in Lao PDR, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	tablets	10,019,643	21,036,045	17,703,036	18,602,900	143,007,700	143,991,200
Crystal methamphetamine	kg	124.4	1,841.4	5,106.9	5,564.4	2,991	2,209.9
Cannabis herb	kg	4,810.0	450.9	2,577.4	5,167.6	5,846.7	12,014.3
Cocaine	kg	0	8.3	3.5	0	●	3
Heroin	kg	149.5	281.2	174.0	537.2	467.8	175.8
Opium	kg	142.9	103.7	89.4	60.3	18.8	251.1
Ketamine	kg	●	●	●	●	4.1	1,930.4
Precursors and unspecified chemicals	kg	189.2	5,016.3	13,141.9	125,418	19,480.3	11,577

Note: ● = Not reported.

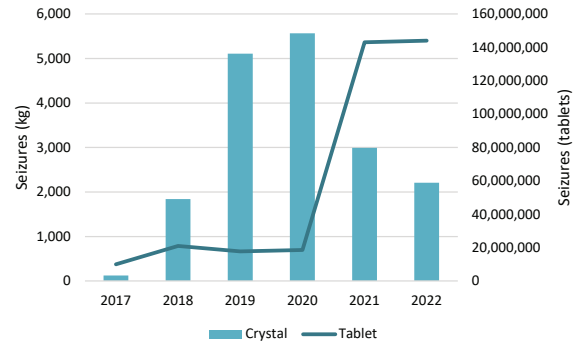
Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Lao PDR for 2021 and previous years; LCDC, "Country briefing", December 2022; official communication with LCDC, May 2023.

**Figure 3. Seizure amounts of crystal methamphetamine in Lao PDR, by quarter, 2019-2022**



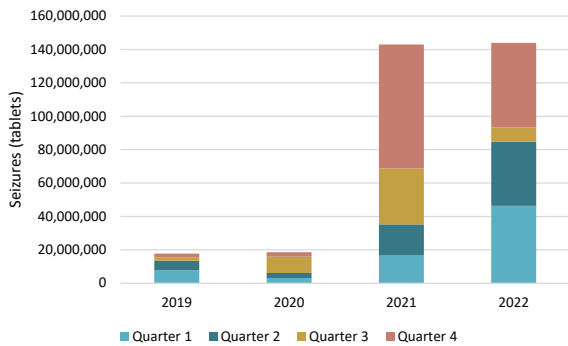
Sources: DAINAP; official communication with LCDC, May 2023.

**Figure 5. Seizure amounts of crystal methamphetamine and methamphetamine tablets in Lao PDR, 2017-2022**



Sources: DAINAP; official communication with LCDC, May 2023.

**Figure 4. Seizure amounts of methamphetamine tablets in Lao PDR, by quarter, 2019-2022**



Sources: DAINAP; official communication with LCDC, May 2023.



## Summary of major trends and emerging concerns

### Methamphetamine

- Though the amount of crystal methamphetamine seized declined slightly in 2022, it remains at a high level. Meanwhile, the amount of methamphetamine tablets seized increased, indicating possible growth of the market for methamphetamine tablets in the country (table 4).
- The continued importance of the methamphetamine market in the country is also reflected in the number of methamphetamine users brought into formal contact with authorities in 2022 as users of both crystal and tablet methamphetamine increased, with tablet users increasing by 61 per cent from 2021 (table 2).
- The number of methamphetamine laboratories detected in the country has declined since 2018. Only two small laboratories were identified in 2022 (figure 3).
- Prices for wholesale crystal methamphetamine and retail methamphetamine tablets, as well as their purity, remained stable in 2022 (tables 5 and 6).

### Ecstasy<sup>1</sup>

- Seizures of ecstasy tablets and powder increased slightly in 2022 after a drop in 2021 (table 4). The number of people brought into formal contact with authorities and drug treatment admissions for ecstasy use remains low, both accounting for less than one per cent of the total number (tables 2 and 3).

### New Psychoactive Substances (NPS) and other emerging synthetic substances

- Over 2.8 tons of ketamine was seized in 2022, nearly reaching the record amount seized in 2020 (table 4). Since 2019, the number of illicit ketamine laboratories identified in the country has increased year by year, indicating continued domestic production of the drug (figure 3). Information on the use of ketamine is limited (tables 1, 2, and 3).
- Seizures of kratom<sup>2</sup> leaves declined for the first time since 2017, dropping 70 per cent from the amount seized in 2021 (table 4).
- In 2022, aside from kratom, synthetic cannabinoids and designer benzodiazepines were the only NPS identified in the country. No new NPS were identified (tables 7 and 8).

### Other drugs

- The amount of heroin seized in 2022 dropped sharply, reaching the lowest level seized annually in the country since 2014 (table 4). Although drug treatment admissions for heroin and the number of opiates users (heroin and morphine) brought into formal contact with authorities continues to account for the second-largest proportion of users, following methamphetamine, government experts perceive an overall decline in use (tables 1, 2, and 3).

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

2 Kratom is the colloquial name of the plant *Mitragyna speciosa*. It contains pharmacologically active alkaloids, especially mitragynine and 7-hydroxymitragynine, which have opioid and stimulant properties.

## Key facts and figures

### Drug demand indicators

**Table 1. Trend in use of selected drugs in Malaysia, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↑	↑	↑	↓	↓	↑
Methamphetamine tablets	↑	↑	↑	↑	↓	↑
Ecstasy	↑	↑	↓	↑	↓	↓
Amphetamine	↓	↑	●	↓	↓	↓
Benzodiazepines	↑	↑	●	↓	↑	●
Cannabis herb	↓	↑	↑	↓	↓	↑
Heroin	↓	↓	↓	↓	↓	↓
Ketamine	↓	↓	↓	↓	↓	●
Cocaine	●	●	↑	●	●	●
Kratom	↓	↑	↑	●	●	●

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the National Anti-Drug Agency (NADA); ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with NADA, April 2023.

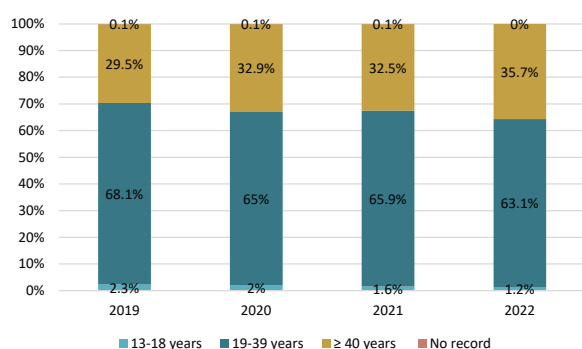
**Table 2. Number of people who use drugs brought into formal contact with authorities in Malaysia, by drug type, 2018-2022**

Drug type	2018	2019	2020	2021	2022
Crystalline methamphetamine	66,202	64,866	62,652	61,767	70,570
Opiates*	41,337	43,578	39,601	39,100	37,742
Methamphetamine tablets	5,555	7,580	10,951	9,708	15,649
Cannabis	4,327	4,497	3,396	3,179	3,858
Amphetamine and ecstasy	12,682	19,238	10,107	8,341	7,391
Other drugs**	610	1,826	1,061	697	1,153
Psychotropic group***	75	614	557	347	813

Note: \* Refers to heroin and morphine; \*\* Mainly composed of kratom, inhalants and others; \*\*\* Includes benzodiazepines, psychotropic pills and Erimin 5. The number of people differs from figures reported in previous years' reports as the new data set now includes data from several agencies and non-governmental organisations, as reported by NADA.

Source: Official communication with NADA, April 2023.

**Figure 1. Proportion of drug and substance users in Malaysia, by age group, 2019-2022**



Source: Official communication with NADA, April 2023.



**Table 3. Drug treatment admissions in Malaysia, by drug type and gender, 2022**

Drug type	New admissions			All admissions		
	Male	Female	Total	Male	Female	Total
Crystal methamphetamine	26,212	1,688	27,900	41,494	2,273	43,767
Methamphetamine tablets	3,876	196	4,072	6,626	283	6,909
Ecstasy	68	13	81	126	20	146
Amphetamine	3,471	276	3,747	4,819	327	5,146
Heroin	7,434	248	7,682	29,665	670	30,335
Opium	0	0	0	0	0	0
Cannabis	1,430	39	1,469	2,105	43	2,148
Psychotropic pills*	44	2	46	242	11	253
Others**	260	29	289	448	39	487
Total	42,795	2,491	45,286	85,525	3,666	89,191

Note: \*Includes benzodiazepines, psychotropic pills and Erimin 5; \*\* Others include kratom, inhalants, cocaine, and others.

Source: Official communication with NADA, April 2023.

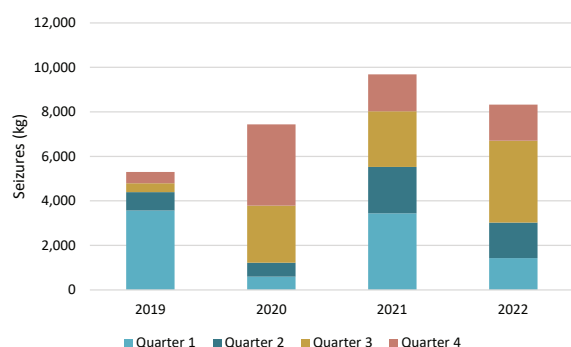
## Drug supply indicators

**Table 4. Seizures of selected drugs in Malaysia, 2017-2022**

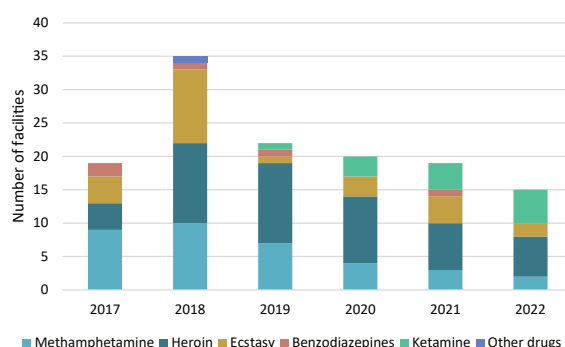
Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	1,553.3	6,851.8	5,302.4	7,557.2	9,682.1	8,329.9
Liquid methamphetamine	lt / kg	460 lt	296.9 lt	308.4 kg	5,960 kg	188.5 kg	11.5 kg
Methamphetamine tablets <sup>a</sup>	tablets / kg	847,334	2,512,444	2,208,889	2,300,222	4,118,667	4,046,222
Ecstasy <sup>b</sup>	tablets	329,594	146,758	706.9 kg	1,096 kg	293.1 kg	312.6 kg
Ecstasy powder	kg	430.6	337.4				
Ketamine	kg	506.4	217.1	1,261	3,004.2	474.6	2,860
Heroin	kg	1,441.4	731.5	709.9	930.3	2,166.5	580.4
Benzodiazepines	tablets / kg	2,756,552 tablets	912.4 kg	683.2 kg	925.4 kg	●	0
Cannabis herb	kg	2,696.3	1,894.8	649.6	5,426.8	3,728.3	6,292.3
Cocaine	kg	23	12.1	15,247.1	11.3	5.8	457
Codeine	lt	10,216.3	37,263.9	13,312.6	4,187.8	6,451.9	2,710.5
Kratom leaf	kg	81,028.6	87,564.8	161,233.6	296,120.8	368,040.4	106,801.4
Kratom liquid	lt	89,060.1	233,525.9	101,516.7	75,545.1	76,212.8	58,132.2
Opium (raw and prepared)	kg	0.1	0.2	0.4	●	0.1	1.4
Psychotropics	tablets / kg	39,979 tablets	13,944 tablets	2.61 kg	2 kg	3.3 kg	9.49 kg

Note: <sup>a</sup> Figures reported other than the number of tablets converted into estimated pill equivalent at 90 mg per tablet; <sup>b</sup> Figures reported other than the number of tablets converted into estimated tablet equivalent at 300 mg per tablet; ● = Not reported.

Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Malaysia for 2021 and previous years; NADA, Royal Malaysia Police (RMP) and Department of Chemistry (KIMIA), "Country briefing", December 2022; official communication with NADA, April 2023.

**Figure 2. Seizure amounts of crystal methamphetamine in Malaysia, by quarter, 2019-2022**


Sources: DAINAP; official communication with NADA, April 2023.

**Figure 3. Number of illicit drug production laboratories seized in Malaysia, by drug type, 2017-2022**


Sources: DAINAP; NADA, RMP and KIMIA, "Country briefing", December 2022; official communication with NADA, April 2023.

**Table 5. Wholesale and retail prices of selected drugs in Malaysia, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablet	per tablet	3.6	4.8	2.4-3.6	3.71	2.40	2.40
Crystal methamphetamine	per kg	16,800	12,000	12,000	9,889	8,595	8,595
Ecstasy	per tablet	12	7.2	7.2	4.45-7.42	3.60	3.60
Heroin (No.3)	per kg	5,880	2,667	3,240	2,747	3,199	3,199
Ketamine	per kg	10,800	12,720	14,400	11,125-13,597	13,132	13,132
Cannabis	per kg	586	576	480-600	445-618	596	596

Sources: DAINAP; NADA, RMP and KIMIA, "Country briefing", December 2022; official communication with NADA, April 2023.

**Table 6. Typical purity of selected drugs in Malaysia, 2018-2022 (percentage)**

Drug type	2018	2019	2020	2021	2022
Crystal methamphetamine	75 (40 – 80)	75 (20 – 80)	75 (20 – 80)	78 (20 – 80)	78 (10 – 80)
Methamphetamine tablets	•	•	•	16 (16 – 18)	16 (16 – 18)
Ecstasy	15 - 40	50 (10 – 60)	50 (10 – 60)	50 (10 – 60)	35 (30 – 50)
Heroin (No.3)	3 (1 – 5)	4 (3 – 5)	3 (3 – 5)	2 (2 – 4)	2 (2 – 80)
Ketamine	75 (70 – 85)	80 (50 – 85)	80 (50 – 85)	80 (50 – 85)	80 (75 – 85)

Note: Data in this graph refer to the weight/weight (w/w) % expressed as the base form of these substances; • = Not reported.

Sources: DAINAP; NADA, RMP and KIMIA, "Country briefing", December 2022; official communication with NADA, April 2023.

**Table 7. Types of NPS and other emerging synthetic substances identified in Malaysia, 2021-2022**

Substance group	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>4F-MDMB-BINACA</li> <li>MDMB-4en-PINACA</li> <li>ADB-BUTINACA</li> </ul>	<ul style="list-style-type: none"> <li>4F-MDMB-BINACA</li> <li>MDMB-4en-PINACA</li> <li>ADB-BUTINACA</li> </ul>
Synthetic cathinones	<ul style="list-style-type: none"> <li>beta-keto-<i>N</i>-methylbenzodioxolylpentanamine (Pentylone)</li> <li>Eutylone</li> </ul>	-
Piperazines	<ul style="list-style-type: none"> <li>1-(3-Trifluoromethylphenyl) piperazine (TFMPP)</li> </ul>	-
Plant-based substances	<ul style="list-style-type: none"> <li>Kratom</li> </ul>	<ul style="list-style-type: none"> <li>Kratom</li> </ul>
Designer benzodiazepines	<ul style="list-style-type: none"> <li>Etizolam</li> <li>Flubromazolam</li> <li>Flualprazolam</li> </ul>	<ul style="list-style-type: none"> <li>Etizolam</li> <li>Flubromazolam</li> <li>Flualprazolam</li> </ul>

Source: Official communication with NADA, April 2023.

**Table 8. Newly identified NPS and other emerging synthetic substances in Malaysia, 2021-2022**

Substance group	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>ADB-BUTINACA</li> </ul>	No new NPS identified
Synthetic cathinones	<ul style="list-style-type: none"> <li>beta-keto-<i>N</i>-methylbenzodioxolylpentanamine (Pentylone)</li> <li>Eutylone</li> </ul>	
Designer benzodiazepines	<ul style="list-style-type: none"> <li>Flualprazolam</li> </ul>	

Source: Official communication with NADA, April 2023.



## Summary of major trends and emerging concerns

### Methamphetamine

- After a drop in the amount of methamphetamine seized in 2021 following the military takeover in Myanmar, a record amount of over 23 tons of crystal methamphetamine was seized in 2022. Although the number of methamphetamine tablets seized declined, the overall amount of methamphetamine seized in the country was still 7 tons higher than in the previous year (table 2).
- Use of methamphetamine for both tablet and crystal form, as perceived by government experts, increased in 2022, following a decline in 2021, indicating that the drop may have been temporary (table 1).
- The amount of ephedrine and pseudoephedrine seized, particularly in relation to the amount of methamphetamine supply in the region, remains limited. Though over three million pseudoephedrine tablets were seized in 2022, only 1 kg of ephedrine was seized. Internationally non-controlled chemicals, which can be used in the production of methamphetamine and synthesis of ephedrines, continue to be seized in the country (table 3).
- The retail price of crystal methamphetamine and methamphetamine tablets further decreased in 2022 (table 4).

### Ecstasy<sup>1</sup>

- Seizures of ecstasy increased in 2022, reaching the second highest amount on record for Myanmar. However, significantly limited information on ecstasy use means it is unclear whether there is a local market in the country (table 2).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The amount of ketamine seized more than tripled in 2022 and reached over two tons for the second time, after the record amount seized in 2018 (table 2).
- Seizures of kratom<sup>2</sup> declined for the first time since 2017 (table 2).

### Other drugs

- The area under illicit opium poppy cultivation in Myanmar increased again in 2022 to an estimated 40,100 hectares – a 33 per cent increase from 2021. Increasingly sophisticated farming practices have contributed to the average opium yield rising to a record 19.8 kg per hectare.<sup>3</sup> Despite this increase, the amount of heroin seized declined in 2022 (table 2).

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

2 Kratom is the colloquial name of the plant *Mitragyna speciosa*. It contains pharmacologically active alkaloids, especially mitragynine and 7-hydroxymitragynine, which have opioid and stimulant properties.

3 UNODC, "Myanmar Opium Survey 2022: Cultivation, Production, and Implications", January 2023.

## Key facts and figures

### Drug demand indicators

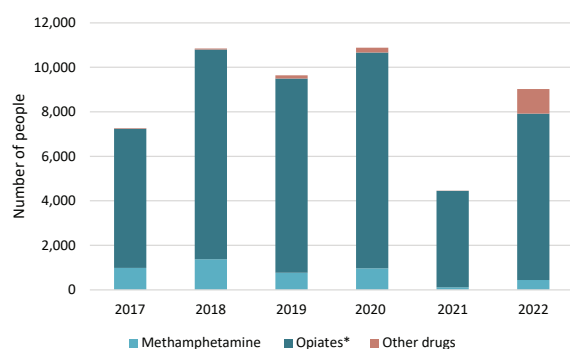
**Table 1. Trend in use of selected drugs in Myanmar, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Heroin	↑	↑	↑	↔	↓	↔
Opium	↔	↔	↔	↓	↓	↓
Methamphetamine tablets	↑	↑	↑	↑	↓	↑
Crystal methamphetamine	●	↑	●	↑	↓	↑
Cannabis	↑	↔	↔	↔	↓	↔

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

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

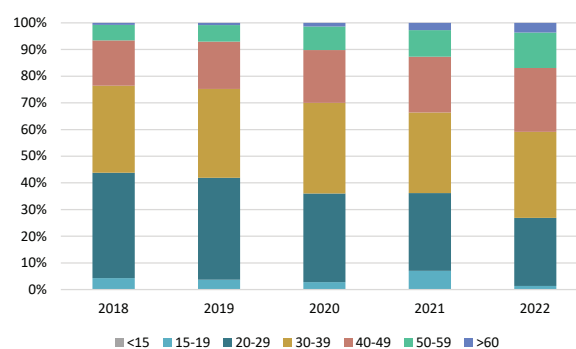
**Figure 1. Number of people admitted to drug treatment centres in Myanmar, by drug type, 2017-2022**



Note: \* Includes opium and heroin.

Source: DAINAP.

**Figure 2. Proportion of people admitted to drug treatment centres in Myanmar, by age group, 2018-2022**



Source: DAINAP.

### Drug supply indicators

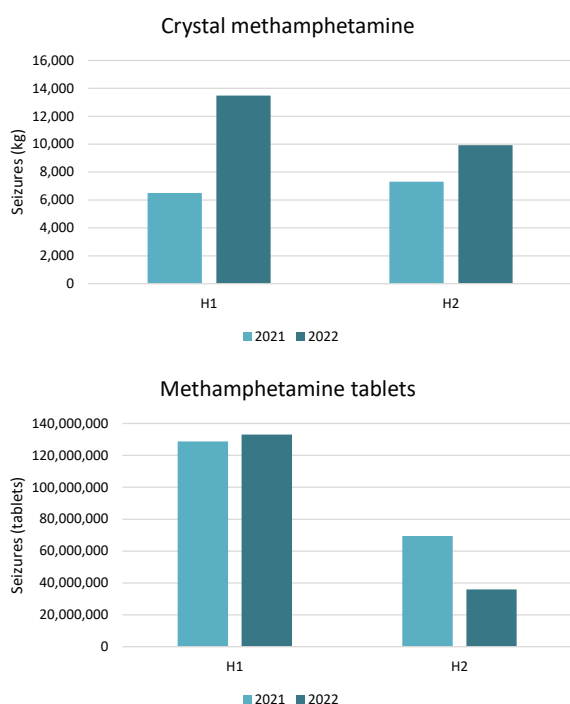
**Table 2. Seizures of selected drugs in Myanmar, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	tablets	74,001,667	106,702,365	108,719,071	328,410,692	198,188,715	169,070,909
Crystal methamphetamine	kg	1,107.5	2,827.5	9,426.2	17,363.9	13,815.8	23,401.9
Methamphetamine powder <sup>a</sup>	kg	106.9	45.2	679.5	2,145.2	111.3	279.6
Ecstasy	tablets	645,882	2,686	27,995	2,437	146,414	674,542
Heroin <sup>b</sup>	kg	570.6	1,099.1	690.2	1,853.4	2,526.1	1,345.5
Opium	kg	1,256.2	2,829.0	1,552.7	3,882.9	2,632	1,209.8
Cannabis <sup>c</sup>	kg	99.4	142.4	364.8	737.6	503.7	929.4
Kratom	kg	652.1	1,833.9	2,542.6	2,632.7	3,088.2	1,608.7
Ketamine <sup>d</sup>	kg	75.1	2,360.2	1,096	888.5	762	2,328.6

Note: <sup>a</sup> Methamphetamine for processing into methamphetamine tablets; <sup>b</sup> Reported as heroin No.4; <sup>c</sup> Combined herb and resin; <sup>d</sup> Figures reported in It were converted into kg with the ratio 1 lt = 1 kg.

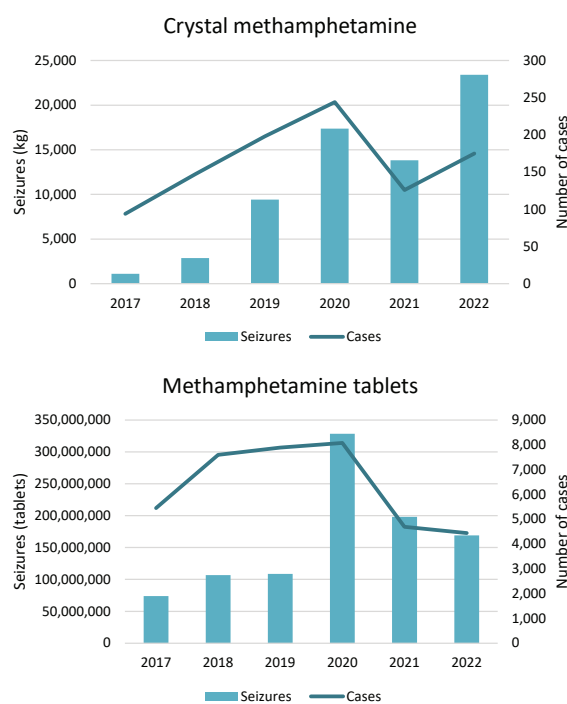
Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Myanmar for 2021 and previous years.

**Figure 3. Seizure amounts of methamphetamine in Myanmar, by half year, 2021-2022**



Source: DAINAP.

**Figure 4. Number of cases and seizures for methamphetamine in Myanmar, 2017-2022**



Source: DAINAP.

**Table 3. Seizures of selected precursors and chemicals in Myanmar, 2017-2022**

Chemical / substance	Unit	2017	2018	2019	2020	2021	2022
Ephedrine	kg	0	139.7	402	630	•	1
Pseudoephedrine <sup>a</sup>	tablets	3,901,000	450,000	0	1,500,000	•	3,050,000
Phenylacetic acid	lt	950	4,000	0	•	•	•
P-2-P	lt	0	3,298	30,001	160	•	•
Acetic anhydride	lt	1,318.3	40	4,140.1	12,240	•	•
Safrole	lt	0	0	1,440	•	•	•
Thionyl chloride	lt	0	16	11,600	•	•	•
Methyl ethyl ketone	lt	•	7,860	9,600	•	•	•
Sodium cyanide	kg	19,000	23,550	4,640	107,870	48,620	14,050
Benzyl cyanide	lt	•	•	22,160	17,272.5	•	•
Tartaric acid	lt	•	•	•	2,855	•	•
Caffeine (bulking agent)	kg	5,885	20,759.5	19,226	11,371.9	9,355	7,682
Toluene	lt	•	4,602	16,680	18,080	50,400	41,910
Ethyl acetate	lt	•	•	59,000	53,319	42,960	3,120
Ammonium nitrate	kg	•	•	500	103,585	74,434	567,201
Sodium ethoxide	kg	•	•	•	15,400	•	14,000
Methyl phenylacetate	lt	•	•	•	5,085	•	•

Note: <sup>a</sup> The amount of pseudoephedrine in tablets varies; • = Not reported.

Source: DAINAP.



**Table 4. Typical retail prices of selected drugs in Myanmar, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablet	per tablet	2.0	2.0	2.1	2.3	1.7	1
Crystal methamphetamine	per g	20-24	14-18	14.28	15.2	11.7	9.5
Ecstasy	per tablet	31	30	32.1	34.3	26.5	21.4
Cannabis herb	per kg	207	200	214	228.8	176.5	142.8

Source: DAINAP.

## Summary of major trends and emerging concerns

### Methamphetamine

- Crystal methamphetamine remains the main drug of concern in the Philippines, constituting the majority of drug-related arrests and treatment admissions (figures 1 and 3).
- Following the decline in drug treatment admissions for methamphetamine in 2020 as a result of COVID-19-related restrictions, the number of admissions has increased almost reaching pre-pandemic numbers (figure 1).
- A record amount of crystal methamphetamine was seized in the Philippines in 2022, reaching over 4 tons for the first time (table 2).
- The crystal methamphetamine seized in the Philippines predominantly originates from the Golden Triangle, as indicated by the trademark teabag packaging. However, the country has also received small quantities of methamphetamine shipments from countries outside the region, including South Africa and Mexico.<sup>1</sup>

### Ecstasy<sup>2</sup>

- Seizures of ecstasy dropped to less than half of the amount seized in 2021 (table 2). Ecstasy use remains limited, with drug treatment admissions for ecstasy accounting for only 0.5 per cent of total admissions.<sup>3</sup>

### New Psychoactive Substances (NPS) and other emerging synthetic substances

- Two synthetic cathinones were identified in the Philippines in 2022, both of which were identified in the country for the first time (table 5).

### Other drugs

- The amount of benzodiazepines seized decreased in 2022 (table 2). Benzodiazepine use, as indicated by expert perception, as well as drug treatment admissions, also showed a decline (table 1).<sup>4</sup>

1 Official communication with the Dangerous Drugs Board (DDB), March 2023.

2 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

3 Official communication with DDB, March 2023.

4 Ibid.

## Key facts and figures

### Drug demand indicators

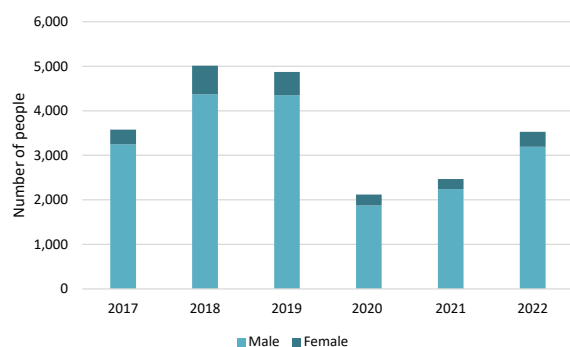
**Table 1. Trend in use of selected drugs in the Philippines, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↓	↑	↓	↓	↑	↑
Benzodiazepines	↓	↑	↓	↑	↑	↓
Cannabis herb	↓	↑	↑	↓	↑	↑
Inhalants	↓	↑	↓	↓	↑	↑

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Dangerous Drugs Board (DDB); ↑ = Increasing, ↓ = Decreasing, ↔ = Stable, ● = Not reported.

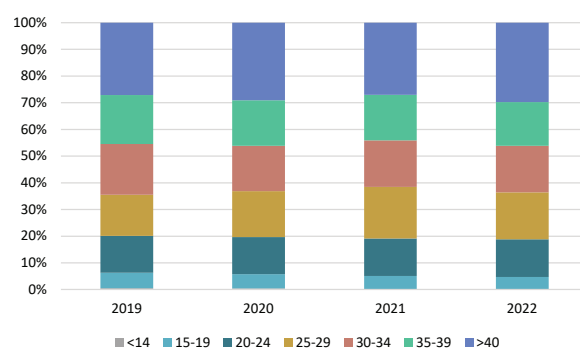
Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with DDB, March 2023.

**Figure 1. Number of methamphetamine-related treatment admissions in the Philippines, by gender, 2017-2022**



Sources: DAINAP; official communication with DDB, March 2023.

**Figure 2. Number of treatment admissions in the Philippines, by age group, 2019-2022**



Sources: DAINAP; official communication with DDB, March 2023.

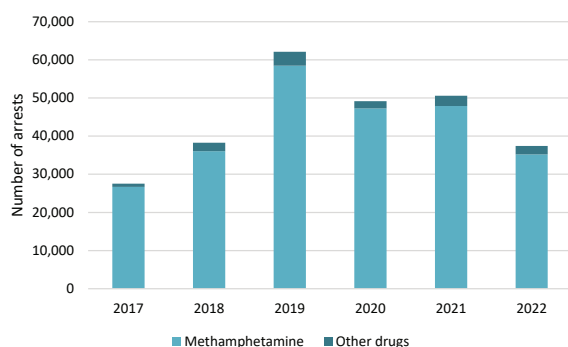
### Drug supply indicators

**Table 2. Seizures of selected drugs and precursor chemicals in the Philippines, 2017-2022**

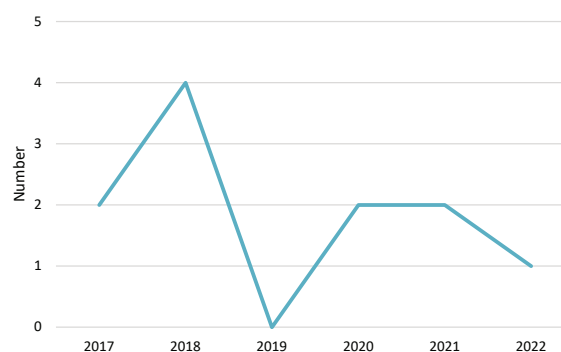
Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	1,053.9	785.8	2,071.1	2,196	2,302.7	4,260.9
Liquid methamphetamine	lt	50.2	110.8	203.2	0.7	7.9	0
Ecstasy	tablets	591	16,713	13,108	42,794	74,786	30,213
Benzodiazepines	tablets	83	876	236	●	8,453	275
Cannabis herb	kg	431.7	257.8	900.4	1,474.4	6,286.7	3,922.6
Heroin	kg	0	0	0	●	0	0
Cocaine	kg	9.9	94.6	347	1.4	1.2	13.5
Ketamine	kg	•	0.0 <sup>a</sup>	0.2	●	0.8	1.3
GHB	lt	0 <sup>a</sup>	•	0 <sup>a</sup>	•	0	●
GBL	lt	0.9	0.7	2.3	3.5	0.5	●
Pseudoephedrine	kg	209.5	0	●	10.8	0	0
Ephedrine	kg	0.2	0.5	0.1	0.01	6.3	0.6

Note: ● = Not reported; <sup>a</sup> Reported as less than 10 grams seized.

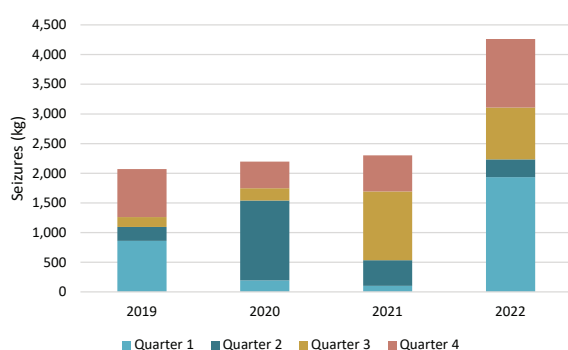
Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Philippines for 2021 and previous years; DDB and Philippine Drug Enforcement Agency (PDEA), "Country briefing", December 2022; official communication with DDB, March 2023.

**Figure 3. Number of drug-related arrests in the Philippines, by drug type, 2017-2022**

Sources: DAINAP; DDB and PDEA, "Country briefing", December 2022; official communication with DDB, March 2023.

**Figure 5. Number of methamphetamine laboratories seized in the Philippines, 2017-2022**

Sources: DAINAP; official communication with DDB, March 2023.

**Figure 4. Seizure amounts of crystal methamphetamine in the Philippines, by quarter, 2019-2022**

Sources: DAINAP; official communication with DDB, March 2023.

**Table 3. Retail prices of selected drugs in the Philippines, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	per g	163.7	130.1	136	130.8	134.6	122.1
Ecstasy	per tablet	37.7	32.5	34	32.7	33.7	30.5
Cocaine	per g	99.3	101.4	106	106	99	95.2
Cannabis herb	per g	3.2	2.3	2.4	2.3	2.4	2.2

Note: ● = Not reported.

Sources: DAINAP; official communication with DDB, March 2023.

**Table 4. Typical purity of selected drugs in the Philippines, 2017-2022 (percentage)**

	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	87.7	72.5	67.99	58.29	82.56	66.48
MDMA (Ecstasy)	31.4	45.5	25.56	23.42	43.03	21.19

Note: Data in this table refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances.

Sources: DAINAP; DDB and PDEA, "Country briefing", December 2022; official communication with DDB, March 2023.

**Table 5. Types of NPS and other emerging synthetic substances identified in the Philippines, 2021-2022**

Substance name	2021	2022*
Synthetic cathinones	-	<ul style="list-style-type: none"> <li>• 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one (MMMP)</li> <li>• 4-chloromethcathinone (4-CMC)</li> </ul>
Phenethylamines	<ul style="list-style-type: none"> <li>• 4-Fluoromethamphetamine</li> <li>• Phenacetin</li> </ul>	-
Others	<ul style="list-style-type: none"> <li>• Gamma-Butyrolactone (GBL)</li> </ul>	-

Note: \* Both substances were newly identified in the Philippines in 2022.

Sources: Official communication with DDB and PDEA, March 2023; UNODC Early Warning Advisory on NPS.



Republic of  
Korea

# REPUBLIC OF KOREA

## Summary of major trends and emerging concerns

### Methamphetamine

- The number of people who use psychotropic substances<sup>1</sup> brought into formal contact with authorities has risen annually since 2018 (figure 1). Use of crystal methamphetamine, in particular, has been perceived by government experts to have increased for the past four years (table 1).
- Though the amount of crystal methamphetamine seized in 2022 declined, it remains high for the country, at the third largest amount recorded. Meanwhile, seizures of methamphetamine tablets increased by more than threefold and reached over one million tablets for the first time, indicating a possible growing market for this form of methamphetamine (table 2).
- Lao PDR emerged as a country of importance for crystal methamphetamine trafficking into the Republic of Korea, in terms of both volume and frequency.<sup>2</sup> In 2022, 21 shipments of crystal methamphetamine were trafficked from Lao PDR, compared to only four in 2021. The United States and Thailand continue to be key countries of departures for methamphetamine shipments to the Republic of Korea (figure 5).
- The price of crystal methamphetamine remained stable with the average purity remaining at high levels (tables 4 and 5).

### Ecstasy<sup>3</sup>

- The amount of ecstasy seized in the Republic of Korea increased significantly in 2022, reaching a record amount for the country (table 2). The majority of the tablets originated from Europe, including from Germany, Poland, and the Netherlands, though some shipments also arrived from within the region, including from Viet Nam.<sup>4</sup>

### New Psychoactive Substances (NPS) and other synthetic drugs

- A record amount of ketamine was seized in the Republic of Korea in 2022, though information on its use is limited (table 2).
- The amount of synthetic cannabinoids seized once again reached a new high in 2022, nearly triple the amount seized in the year previous (table 2).

### Other drugs

- Government experts perceive the use of cannabis to have declined in 2022 (table 1). Seizures of the drug also dropped slightly (table 2).
- There are growing indications of non-medical use of fentanyl in the country, in particular among its youth population.<sup>5</sup>

1 The Government of the Republic of Korea categorises synthetic drugs, such as methamphetamine, ecstasy, LSD and NPS as psychotropic substances.

2 Official communication with the Supreme Prosecutors' Office (SPO), March 2023.

3 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

4 Official communication with SPO, March 2023

5 According to the Ministry of Food and Drug Safety, between 2018 and 2021, the number of fentanyl prescriptions issued in the Republic of Korea increased by 67 per cent from approximately 890,000 to 1,490,000 prescriptions.

## Key facts and figures

### Drug demand indicators

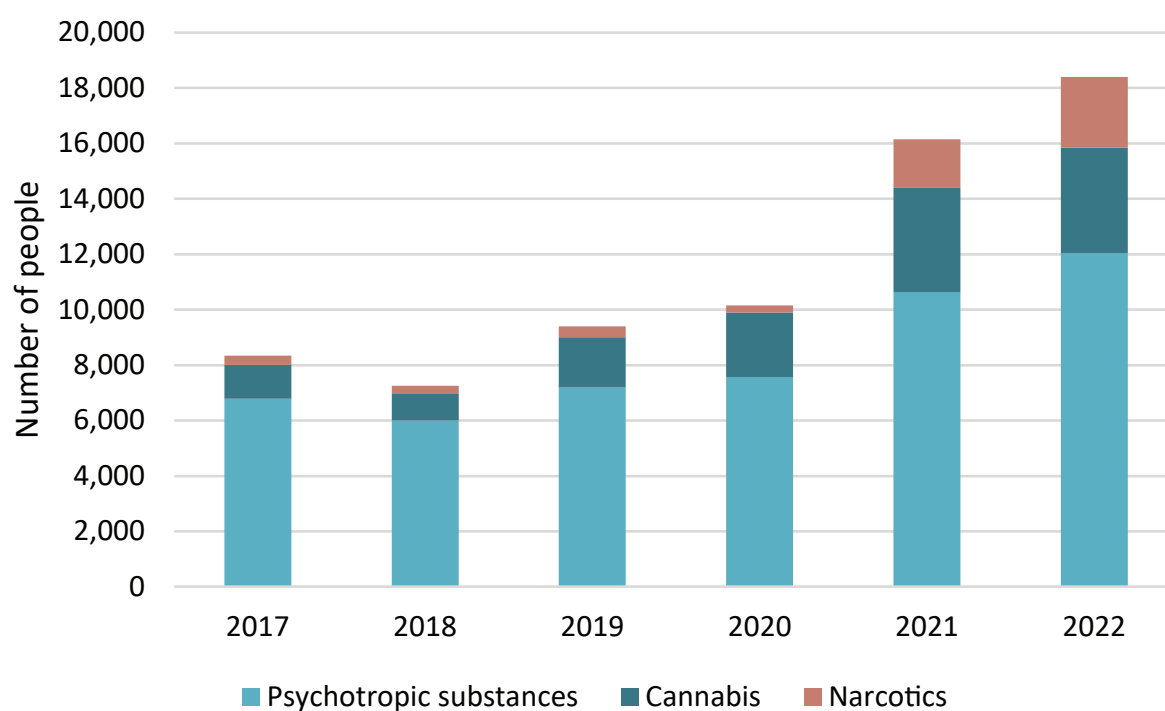
**Table 1. Trend in use of selected drugs in the Republic of Korea, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↓	↓	↑	↑	↑	↑
Cannabis herb	↑	↓	↑	↑	↑	↓
Other narcotics	↑	↓	↑	↑	↑	↑

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Supreme Prosecutors' Office (SPO); other narcotics include heroin, cocaine, and opium; ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

Source: Official communication with SPO, March 2023.

**Figure 1. Number of people who use drugs who are brought into formal contact with authorities in the Republic of Korea, by drug type, 2017-2022**



Note: The Government of the Republic of Korea categorises synthetic drugs, such as methamphetamine, ecstasy, LSD and NPS as psychotropic substances. Narcotics include heroin, cocaine, and opium.

Source: Official communication with SPO, March 2023.



## Drug supply indicators

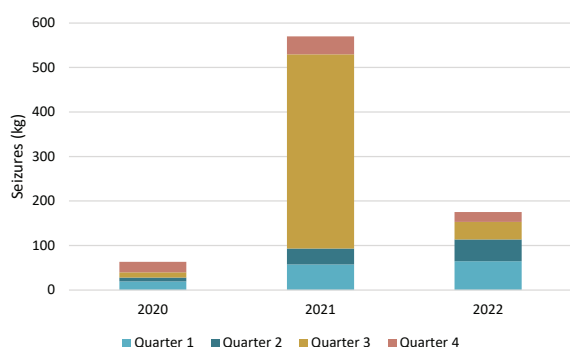
**Table 2. Seizures of selected drugs in the Republic of Korea, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	kg	30.5	188	87.3	63.6	569.9	175.4
Methamphetamine tablets <sup>a</sup>	tablets	28,700	94,869	193,034	253,167	557,075	1,862,247
Ecstasy <sup>b</sup>	tablets	1,647	9,393	10,464	39,714	39,645	140,600
Cannabis herb	kg	40.1	89.1	81.9	37.3	91.2	79.3
Cannabis resin	kg	1.27	0.08	2.7	3.1	0.1	1.4
Cannabis seed	kg	1.2	1.2	0.4	5.9	0.9	1.6
Synthetic cannabinoids	kg	0.2	0.5	1.7	3.2	18.8	55.7
Ketamine	g	352	1,007	598	1,272	3,987	23,345
Cocaine	kg	0.13	88.3	106.9	48	435.7	0.3
Heroin	g	3.7	2	0	8.8	1,213	35.8
Raw opium	g	537	190	43.5	187.3	8.3	0
Khat	kg	0	132.5	0	0	0	0

Note: <sup>a</sup> Figures reported other than the number of tablets converted into estimated tablet equivalents at 90 mg per tablet; <sup>b</sup> Figures reported other than the number of tablets converted into estimated tablet equivalents at 300 mg per tablet.

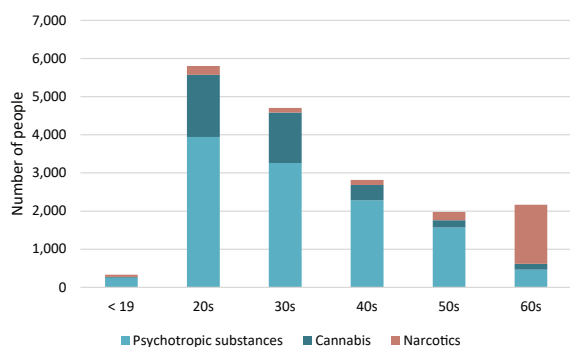
Sources: UNODC Annual Report Questionnaire (ARQ) Republic of Korea for 2021 and previous years; SPO, "Country briefing", December 2022; official communication with SPO, March 2023.

**Figure 2. Seizure amounts of crystal methamphetamine in the Republic of Korea, by quarter, 2020-2022**



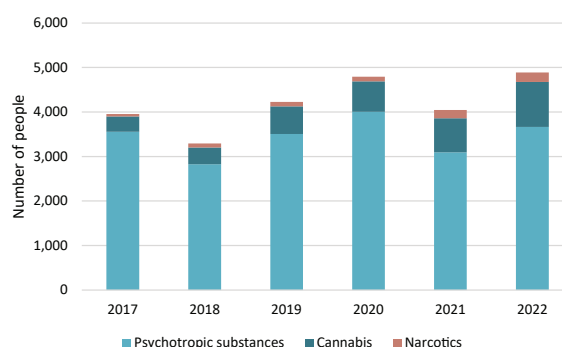
Source: Official communication with SPO, March 2023.

**Figure 3. Number of drug offenders in the Republic of Korea, by age group, 2022**



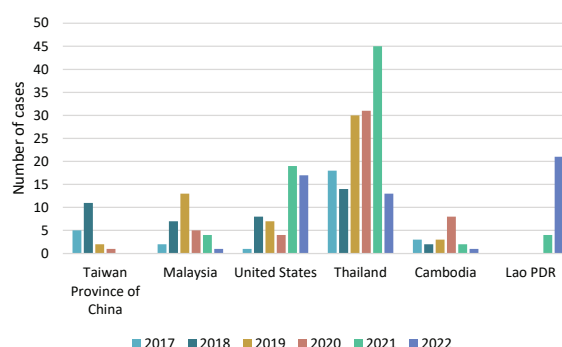
Note: The Government of the Republic of Korea categorises synthetic drugs, such as methamphetamine, ecstasy, LSD and NPS as psychotropic substances. Narcotics include heroin, cocaine, and opium. Source: Official communication with SPO, March 2023.

**Figure 4. Number of people who are brought into formal contact with authorities for supplying drugs in the Republic of Korea, by drug type, 2017-2022**



Note: The Government of the Republic of Korea categorises synthetic drugs, such as methamphetamine, ecstasy, LSD and NPS as psychotropic substances. Narcotics include heroin, cocaine, and opium. Source: Official communication with SPO, March 2023.

**Figure 5. Origins of crystal methamphetamine shipments seized in the Republic of Korea, by number of cases, 2017-2022**



Source: Official communication with SPO, March 2023.

**Table 3. Number of methamphetamine laboratories and amounts seized in the Republic of Korea, 2017-2022**

Year	Number	Methamphetamine (g)	Intermediate products (g)
2017	3	513	0
2018	2	0	660
2019	2	1,320	2,280
2020	1	1.8	0
2021	1	900	0
2022	0	0	0

Source: Official communication with SPO, March 2023.

**Table 4. Typical purity of crystal methamphetamine in the Republic of Korea, 2017-2022**

Year	No. of samples analysed	Minimum	Maximum	Average
2017	11	90.5	98.5	95.0
2018	62	89.9	98.5	96.4
2019	79	34.7	98.5	91.6
2020	53	80.6	98.5	92
2021	89	87.7	98.5	98.5
2022	55	68.0	98.5	97.7

Note: Data in this table refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances.

Sources: SPO, "Country briefing", December 2022; official communication with SPO, March 2023.

**Table 5. Retail prices of selected drugs in the Republic of Korea, 2017-2022 (US\$)**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	per g	370	397.2	399	272	272	250 - 300
Methamphetamine tablet	per tablet	53	57	62	60	45.4-63.6	50 - 70
Ecstasy	per tablet	72.6 (27.2-118.1)	72.6 (27.2-118.1)	95.4 (27.2-163.6)	45.4	45.4-54.5	50 - 60
Cannabis herb	per g	50.9 (1.8-100)	86.3 (36.3-136.3)	103.1 (24.5-181.8)	113.6 (90.9-136.3)	90.9-109.1	100 - 120
Heroin	per g	118	118	118	118	118.2	130
Cocaine	per g	•	363.6	295.4 (227.2-363.6)	340.8 (318.1-363.6)	318.2-363.6	350 - 400
Ketamine	per g	•	•	318	317.9 (272.2-363.6)	227.2-254.5	250 - 280
LSD	per sheet	19.4	27.8 (19.4-36.3)	28.7 (19.4-38.1)	90.9	90.9	100

Note: • = Not reported. Values in parentheses are the price range (minimum-maximum) of the substances.

Source: Official communication with SPO, March 2023.



## Summary of major trends and emerging concerns

### Methamphetamine

- Use of methamphetamine, as perceived by government experts, declined for the third year in a row (table 1). Though the number of drug treatment admissions for methamphetamine increased slightly in 2022, it accounted for a smaller proportion of total drug admissions than the year prior, dropping from 57 per cent to 52 per cent of admissions (table 2). Despite these decreases, methamphetamine use still accounts for the majority of admissions, as well as the number of people who use drugs brought into formal contact with authorities, and it remains the main drug of concern in Singapore (figure 1).
- The amount of crystal methamphetamine seized nearly halved in 2022 compared to the previous year. Though there was an increase in methamphetamine tablets seized, the overall weight of methamphetamine seized in Singapore declined for the first time since 2018 (table 4).

### Ecstasy<sup>1</sup>

- Although the number of ecstasy tablets seized declined, the overall weight, including non-tablet form of the drug, increased in 2022 (table 4). Perceived use of the drug also increased (table 1).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The number of NPS users dropped sharply in 2022 to only 14 users total, with the number of new users exceeding the number of repeat users (figure 2).
- In terms of frequency, piperazines were the most frequently occurring group of NPS identified in seizure incidents in 2022, namely 1-(4-Fluorophenyl)piperazine (4-FPP) and 1-Benzyl-4-methylpiperazine (MBZP), which together accounted for 134 of the 533 samples analysed in the country (figure 4). However, in terms of individual NPS, synthetic cannabinoids were more diverse with 13 different synthetic cannabinoids detected in 2022.<sup>2</sup>

### Other drugs

- Seizures of heroin declined in 2022 (table 4). However, heroin use appears to be increasing, as indicated by expert perception, as well as the rising number of drug treatment admissions for heroin, which reached the highest level reported since data collection by UNODC (table 2).
- The amount of cannabis seized has been increasing significantly in the past two years, with a record amount of the drug seized in 2022 (table 4). In both 2021 and 2022, the majority of people who use cannabis brought into formal contact with authorities were new users, indicating a possible growing market for the drug in the country (figure 1).

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

2 Official communication with the Central Narcotics Bureau (CNB), March 2023.

## Key facts and figures

### Drug demand indicators

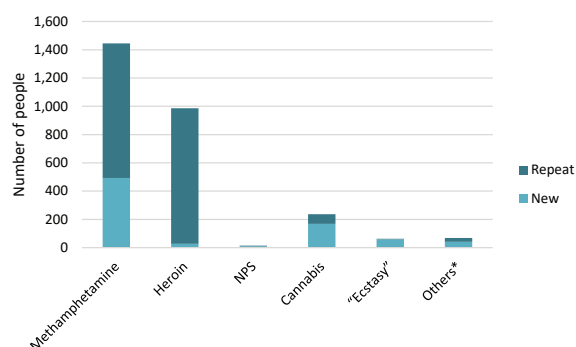
**Table 1. Trend in use of selected drugs in Singapore, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Methamphetamine	↑	↑	↑	↓	↓	↓
Ecstasy	↑	↔	↑	↓	↑	↑
Cannabis herb	↓	↑	↓	↓	↑	↑
Heroin	↓	↓	↓	↓	↑	↑
Ketamine	↓	↑	↑	↔	↔	↑
Nimetazepam	↓	●	●	●	●	●
Cocaine	↓	↑	↑	↓	↓	↑
Synthetic cannabinoids	●	↑	↑	↓	↓	↓

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Central Narcotics Bureau (CNB); ↑ = Increase, ↓ = Decrease, ↔ = Stable, ● = Not reported.

Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaire (ARQ) Singapore for 2021 and previous years; official communication with CNB, March 2023.

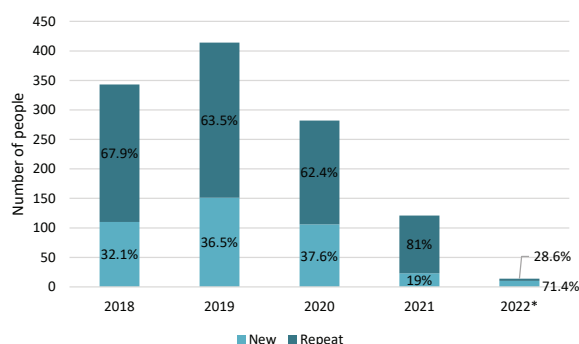
**Figure 1. People who use drugs brought into formal contact with authorities in Singapore, by drug type, 2022**



Note: Data are provisional. \* Others include ketamine, GHB, LSD, dihydrocodeine, methadone, methylphenidate and tapentadol.

Sources: CNB and Health Sciences Authority (HSA), "Country briefing", December 2022; official communication with CNB, March 2023.

**Figure 2. Trends in people who use NPS brought into formal contact with authorities in Singapore, 2018-2022**



Note: \* Data for 2022 are provisional.

Sources: CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

**Table 2. Drug treatment admissions in Singapore, by drug type, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022*
Methamphetamine	870	949	1,250	1,571	1,111	1,119
Amphetamine	0	●	●	●	●	●
Ecstasy	8	8	19	26	26	43
Buprenorphine	0	●	●	●	●	●
Cannabis	71	77	69	67	98	156
Heroin	141	91	473	327	558	787
Ketamine	4	1	8	4	12	13
Benzodiazepines	2	●	●	●	●	●
NPS	●	●	●	64	46	10
Other drugs <sup>a</sup>	●	131	261	185	95	21
<b>Total**</b>	<b>1,152</b>	<b>1,257</b>	<b>2,080</b>	<b>2,244</b>	<b>1,946</b>	<b>2,149</b>

Note: \* Data for 2022 are provisional; \*\* Figures include other unspecified drugs; ● = Not reported.

Sources: DAINAP; CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

**Table 3. Number of people who use drugs admitted to treatment centres in Singapore, by gender and drug type, 2022**

Drug type	Male	Female	Total
Methamphetamine	886	233	1,119
Ecstasy	38	5	43
Cannabis	137	19	156
Heroin	741	46	787
Ketamine	9	4	13
Unclassified / other drugs	25	6	31
<b>Total</b>	<b>1,836</b>	<b>313</b>	<b>2,149</b>

Note: Data are provisional.

Source: Official communication with CNB, March 2023.

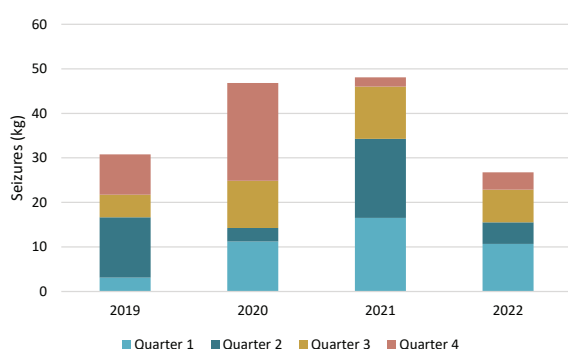
## Drug supply indicators

**Table 4. Seizures of selected drugs in Singapore, 2017-2022**

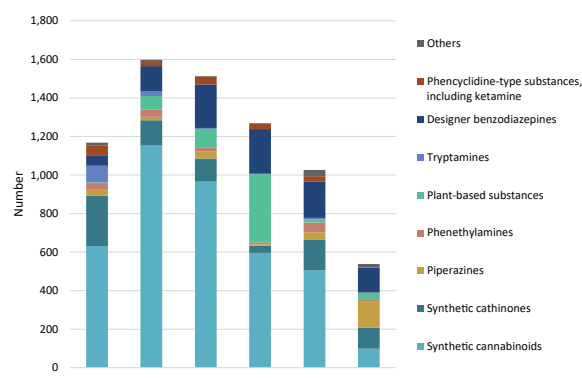
Drug type	Unit	2017	2018	2019	2020	2021	2022*
Crystal methamphetamine	kg	22.2	19.3	30.8	46.8	50	26.8
Methamphetamine tablets	tablets	827	5,236	691	70	29	421
Ecstasy	tablets / g	4,743.5 / 11.4 g	4,127 / 5.5 g	5,742 / 469.5 g	23,141 / 92.1 g	9,313 / 252.3 g	8,305 / 1,032.6 g
Cannabis herb	kg	44.1	61.8	27.8	43.1	107.1	133.3
Heroin <sup>a</sup>	kg	36.9	58	38.1	72.7	95.4	67.2
Ketamine	tablets / kg	1.0	1.1	3	4	747 / 3.5 kg	587 / 4.2 kg
Benzodiazepines	tablets	19,580	7,873	8,204	42,706	13,292	10,903
Cocaine	g	66.4	2,746.8	60.4	21.2	1	380.5
LSD <sup>b</sup>	stamp	180	166	17	122	844	842
Synthetic cathinones	tablets / g	219 / 1.6 g	257 / 8.6 g	329 / 1.4 g	5 / 30.9 g	2,775 / 448.1 g	19 / 1.1 g
Synthetic cannabinoids	tablets / g	1 / 2,506.8 g	72 / 8,162 g	9,240.8 g	87 / 5,097.5 g	0 / 6,212 g	0 / 123.2 g

Note: \* Data for 2022 are provisional; <sup>a</sup> Refers to Heroin No. 3; <sup>b</sup> Some of these stamps contain NBOMe and other NPS.

Sources: DAINAP; UNODC ARQ Singapore for 2021 and previous years; CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

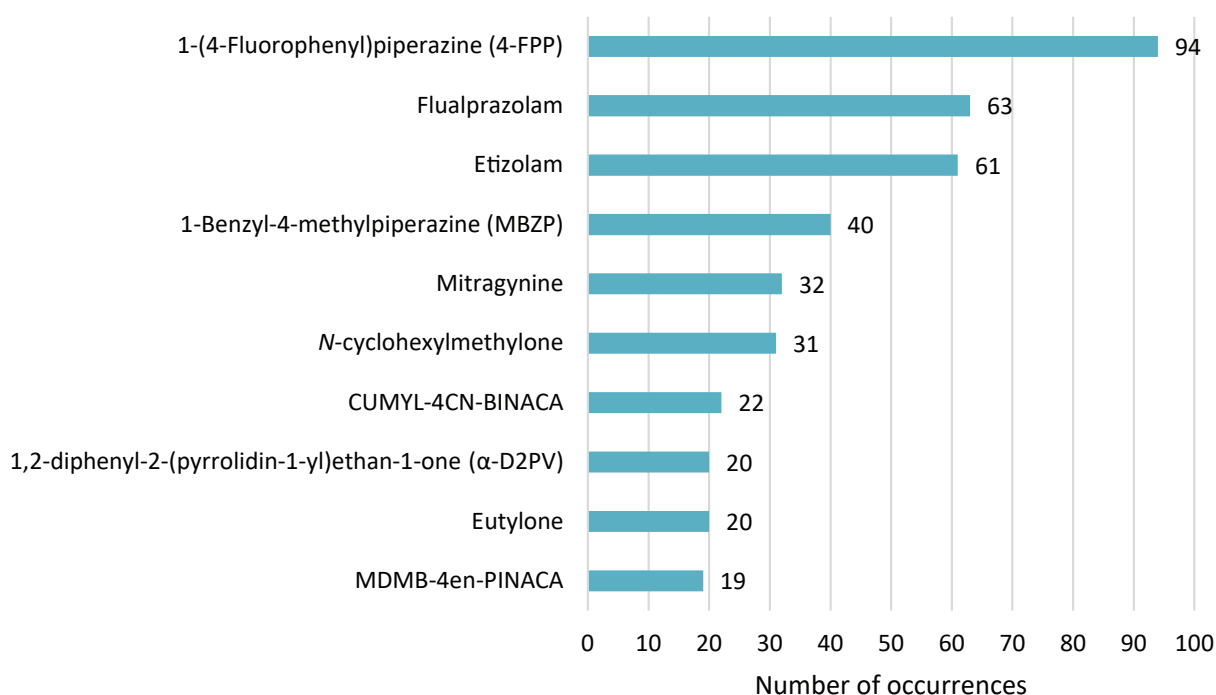
**Figure 3. Seizure amounts of crystal methamphetamine in Singapore, by quarter, 2019-2022**

Sources: DAINAP; official communication with CNB, March 2023.

**Figure 4. Number of NPS and other emerging synthetic substances occurrences in seizures in Singapore, by substance group, 2017-2022**

Sources: CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

**Figure 5. Top 10 NPS and other emerging synthetic substances identified in drug samples in Singapore, by number of occurrences, 2022**



Note: The numbers of occurrences do not equate with the number of exhibits because some exhibits may contain more than one NPS.  
Sources: CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

**Table 5. Newly identified NPS and other emerging synthetic substances in Singapore, 2021-2022**

Substance type	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>XLR-11 <i>N</i>-(4-pentenyl)</li> <li>BZO-HEXOXIZID (MDA-19)</li> <li>BZO-POXIZID</li> <li>ADB-FUBIATA</li> <li>BZO-CHMOXIZID</li> <li><i>N</i>-(1-Amino-3,3-dimethyl-1-oxobutan-2-yl)-5-bromo-1H-indazole-3-carboxamide (ADB-5Br-INACA)</li> </ul>	<ul style="list-style-type: none"> <li>5F-BZO-POXIZID</li> <li>CH-PIATA</li> <li>CUMYL-CB-MEGACLONE</li> </ul>
Synthetic cathinones	<ul style="list-style-type: none"> <li>1,2-diphenyl-2-(pyrrolidin-1-yl)ethan-1-one (α-D2PV)</li> <li><i>N</i>-Butylhexedrone</li> </ul>	<ul style="list-style-type: none"> <li><i>N</i>-cyclohexylmethylone</li> <li><i>N,N</i>-Dimethylpentylone</li> </ul>
Phencyclidine-type substances, including ketamine	-	<ul style="list-style-type: none"> <li>2-Bromodeschloroketamine</li> </ul>
Tryptamines	<ul style="list-style-type: none"> <li>1-Cp-Isd</li> </ul>	-
Designer benzodiazepines	<ul style="list-style-type: none"> <li>Flualprazolam</li> </ul>	<ul style="list-style-type: none"> <li>Bromazepam</li> </ul>
Others	-	<ul style="list-style-type: none"> <li>Butonitazene</li> <li>Delta-8-THC acetate</li> </ul>

Sources: CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.

**Table 6. Benzodiazepines and substances detected in Erimin 5 tablets in Singapore, 2018-2022**

Substance name	2018	2019	2020	2021	2022
Nimetazepam	✓	✓	✓	✓	✓
Nitrazepam	✓	✓	✓	✓	✓
Diazepam	✓	✓	●	●	●
Phenazepam	✓	✓	●	✓	●
Etizolam	✓	✓	✓	✓	✓
Alprazolam	●	✓	●	●	●
Flurazepam	●	✓	●	●	●
Clozapine	✓	✓	✓	✓	✓
Carbamazepine	●	✓	✓	✓	✓
Flubromazolam	●	●	✓	✓	✓
Flualprazolam	●	●	●	✓	✓

Note: ✓ = Detected; ● = Not detected, ■ = Newly reported.

Sources: CNB and HSA, "Country briefing", December 2022; official communication with CNB, March 2023.







# THAILAND

## Summary of major trends and emerging concerns

### Methamphetamine

- Seizures of crystal methamphetamine declined sharply in 2022, not reaching 10 tons for the first time in four years. The amount of methamphetamine tablets seized in the country also declined, but to a lesser extent, with the amount seized being the second largest behind last year's record (table 3). Seizures of methamphetamine tablets in Thailand account for 58 per cent of the total amount seized throughout East and Southeast Asia.
- Drug use, as perceived by government experts, declined across the board in 2022, including for both crystal methamphetamine and methamphetamine tablets (table 1). Treatment admissions for the use of methamphetamine also declined in 2022 (table 2).
- Despite the decrease in seizures of crystal methamphetamine, wholesale prices once again dropped to a new low in 2022. However, retail price of the drug increased (table 6).
- Notwithstanding crystal methamphetamine samples where the main precursors used in the synthesis could not be identified, for the first time P-2-P accounted for a larger proportion of the main precursor identified than ephedrine and pseudoephedrine (figure 4). In February 2023, Thai authorities seized 25 tons of benzyl cyanide<sup>1</sup> destined for Myanmar.<sup>2</sup> Ephedrine and pseudoephedrine remain the main precursors for methamphetamine tablets analysed in the country (figure 5).

### Ecstasy<sup>3</sup>

- Drug treatment admissions for the use of ecstasy remain low and government experts perceived a decrease in ecstasy use in 2022 (table 1). Seizures of the drug declined slightly for the first time since 2016 (table 3).

### New Psychoactive Substances (NPS) and other synthetic drugs

- The amount of ketamine seized reached the second highest level recorded for the country in 2022 (table 3). Though the perceived use of ketamine decreased in 2022, an increasing number of ketamine users have been admitted for drug treatment (tables 1 and 2). The drop in wholesale price of ketamine indicates growing availability in the local market (table 6).

### Other drugs

- The amount of heroin seized in Thailand declined to less than a third of the amount seized in 2021 (table 3).
- Seizures of cocaine increased slightly in 2022 and it is the only drug where government experts perceived an increase in use compared to the previous year (tables 1 and 3).

1 Benzyl cyanide is not an internationally-controlled chemical, but can be used in the synthesis of P-2-P.

2 Office of the Narcotics Control Board (ONCB), "Country briefing", December 2022.

3 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

## Key facts and figures

### Drug demand indicators

**Table 1. Trend in use of selected drugs in Thailand, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Crystal methamphetamine	↑	↑	↓	↔	↓	↓
Methamphetamine tablets	↔	↓	↓	↓	↓	↓
Ecstasy	↑	↓	↓	↓	↓	↓
Ketamine	↑	↑	↓	↓	↓	↓
Cannabis herb	↑	↓	↓	↓	↓	↓
Heroin	↑	↑	↓	↑	↔	↓
Kratom <sup>a</sup>	↑	↓	↓	↓	↓	↓
Cocaine	●	↓	↔	↔	↓	↑

Note: The trend is based on a change from the preceding year, or the latest available year, as shown in the table; Based on expert perception provided by the Office of the Narcotics Control Board (ONCB); ↑ = Increasing, ↓ = Decreasing, ↔ = Stable, ● = Not reported.

Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); official communication with ONCB, April 2023.

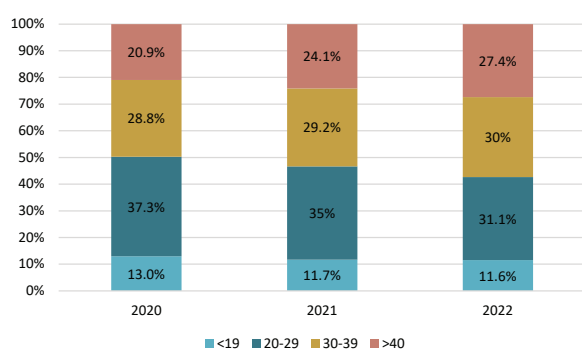
**Table 2. Drug treatment admissions in Thailand, by drug type, 2017-2022**

Drug type	2017	2018	2019	2020	2021	2022
Methamphetamine	172,847	202,201	185,526	155,676	135,795	90,910
Ecstasy	524	560	413	299	138	171
Cannabis	14,616	12,976	15,676	9,272	6,451	4,344
Heroin	3,383	3,819	3,660	4,890	5,543	5,456
Opium	3,841	3,481	3,167	8	3,341	2,550
Ketamine	381	704	1,093	711	511	918
Cocaine	25	22	12	15	7	16
Inhalants	1,456	1,288	1,055	698	515	91
Kratom <sup>a</sup>	6,828	5,384	4,495	2,737	1,795	976
<b>Total</b>	<b>205,147</b>	<b>230,435</b>	<b>215,097</b>	<b>174,306</b>	<b>154,096</b>	<b>105,432</b>

Note: <sup>a</sup> Includes users of kratom in leaf and liquid form; ● = Not reported.

Sources: DAINAP; official communication with ONCB, April 2023.

**Figure 1. Proportion of drug treatment admissions in Thailand, by age group, 2020-2022**



Sources: ONCB, "Country briefing", December 2022; official communication with ONCB, April 2023.

## Drug supply indicators

**Table 3. Seizures of selected drugs in Thailand, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	tablets	240,051,853	515,146,570	395,000,000	412,620,744	592,013,942	541,429,075
Crystal methamphetamine	kg	8,113.9	18,441.4	17,642.9	25,072.6	22,126.7	9,727.1
Ecstasy <sup>a</sup>	tablets	80,433	203,407	221,300	398,333	594,029	457,766
Cannabis herb	kg	13,395.9	39,997	26,815.2	41,611.6	69,711.9	●
Cocaine	kg	54.7	49.7	41.8	36.6	36.1	50.2
Heroin	kg	599.4	1,085.4	722.7	1,873.5	3,370	849.5
Ketamine	kg	617.4	720.2	1,175.4	1,926.3	1,031.9	1,867.5
Kratom leaves	kg	97,993.0	50,422.7	85,707.7	81,965.4	●	●
Kratom liquid	lt	40,280.1	25,961.3	28,525.0	35,307.8	●	64.4

Note: <sup>a</sup> Ecstasy tablet seizures converted into estimated kg equivalents at 1 tablet = 300 mg; ● = Not reported;

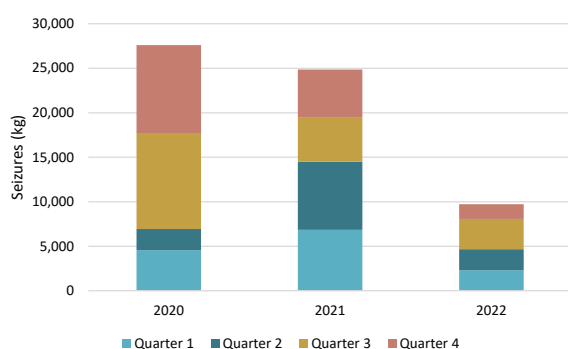
Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Thailand for 2021 and previous years; official communication with ONCB, April 2023.

**Table 4. Seizures of selected precursor chemicals and substances used as adulterants in illicit drugs in Thailand, 2017-2022**

Chemical / substance	Unit	2017	2018	2019	2020	2021	2022
Pseudoephedrine	kg	0	0	0	0	0	128.8
Hydrochloric acid	kg	0	0	15,950	0	0	0
Sodium cyanide	kg	4,000	77,000	99,750	0	0	0
Ammonium hydroxide	lt	0	90	0	0	0	0
Carbon	kg	0	160	0	0	0	0

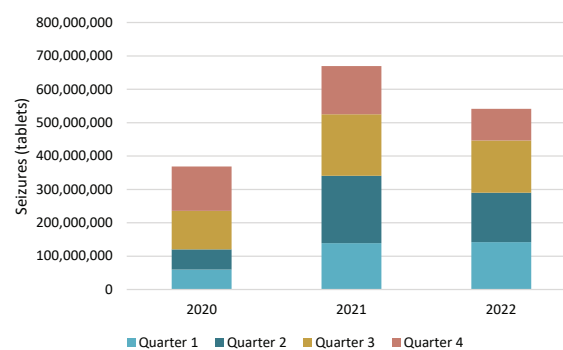
Sources: DAINAP; official communication with ONCB, April 2023.

**Figure 2. Seizure amounts of crystal methamphetamine in Thailand, by quarter, 2020-2022**



Sources: DAINAP; official communication with ONCB, April 2023.

**Figure 3. Seizure amounts of methamphetamine tablets in Thailand, by quarter, 2020-2022**



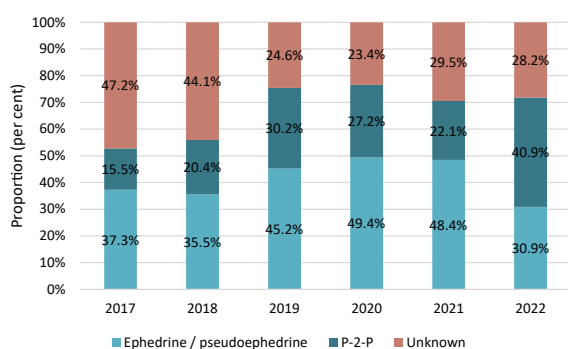
Sources: DAINAP; official communication with ONCB, April 2023.

**Table 5. Typical purity of selected drugs in Thailand, 2020-2022**

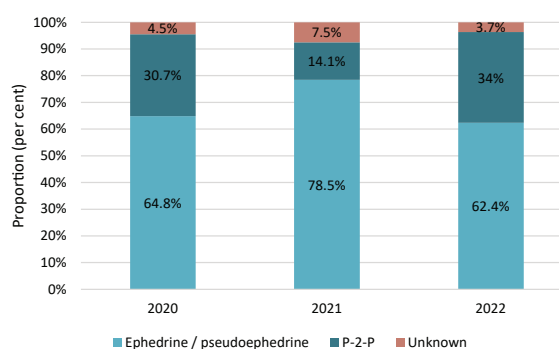
Drug type	2020	2021	2022
Crystal methamphetamine	95.62 (0.01-99.98)	93.54 (2.23-99.84)	90.71 (0.08-99.88)
Methamphetamine tablets	17.26 (0.01-30.35)	17.02 (0.02-23.99)	16.78 (0.02-31.65)
Ecstasy	50.93 (0.39-74.60)	18.80 (0.02-79.71)	46.75 (1.41-69.13)
Heroin (No. 3)	88.19 (41.83-96.63)	84.53 (39.46-95.31)	86.24 (58.92-96.77)
Cocaine	88.51 (31.38-96.77)	85.50 (0.33-98.47)	74.13 (40.36-99.18)
Ketamine	96.94 (0.01-99.98)	90.94 (0.09-99.11)	95.54 (0.02-99.66)

Note: Data in this table refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances. Values in parentheses are the purity range (minimum-maximum) of the substances.

Sources: DAINAP; ONCB, "Country briefing", December 2022; official communication with ONCB, April 2023.

**Figure 4. Proportion of crystal methamphetamine samples analysed in Thailand, by main precursor, 2017-2022**

Sources: DAINAP; ONCB, "Country briefing", December 2022; official communication with ONCB, April 2023.

**Figure 5. Proportion of methamphetamine tablet samples analysed in Thailand, by main precursor, 2020-2022**

Sources: DAINAP; ONCB, "Country briefing", December 2022; official communication with ONCB, April 2023.

**Table 6. Wholesale and retail prices of selected drugs in Thailand, 2020-2022 (US\$)**

Drug type	2020	2021	2022
Methamphetamine tablet (per 2,000 tablets)	820 - 984	298 - 446	350
Methamphetamine tablet (per tablet)	1.64 - 3.28	1.49	1.44 - 2.80
Crystal methamphetamine (per kg)	6,557 - 9,836	4,464 - 5,952	4,410
Crystal methamphetamine (per g)	16 - 27	9 - 15	19 - 38
Ecstasy (per tablet)	13 - 20	12 - 18	10 - 17
Heroin (per 700 g)	13,115 - 16,393	7,440 - 11,900	11,400
Heroin (per g)	82 - 98	30 - 60	41 - 51
Cannabis herb (per kg)	180 - 328	164 - 298	●
Cannabis (per unit*)	2.62 - 3.28	2.38 - 2.98	3 - 3.5
Ketamine (per kg)	11,476 - 13,115	●	7,800 - 8,000
Ketamine powder (per g)	13 - 33	24 - 30	14 - 23

Note: \* Approximately 5 g; ● = Not reported.

Sources: DAINAP; ONCB, "Country briefing", December 2022; official communication with ONCB, April 2023.



# VIET NAM

## Summary of major trends and emerging concerns

### Methamphetamine

- Although seizures of crystal methamphetamine declined in 2022, the amount of methamphetamine tablets seized reached a record amount for the third consecutive year (table 1).
- The number of registered users of amphetamine-type stimulants (ATS) decreased in 2022 to the lowest level since 2018 (figure 1). However, ATS-use accounts for an increasing amount of drug treatment admissions, indicating that methamphetamine remains a drug of concern in the country (figure 2).
- The purity of methamphetamine in both crystal and tablet forms remained stable (table 2).

### Ecstasy<sup>1</sup>

- Seizure amount data is not available for ecstasy tablets, but forensic information on ecstasy tablets analysed in the country is available and shows that the MDMA content in ecstasy tablets has stabilised at around 35-40 per cent in recent years (table 2).

### New Psychoactive Substances (NPS) and other synthetic drugs

- Though no seizures of ketamine were reported in 2022, other available information, including drug treatment admissions, indicates the presence of an illicit ketamine market in Viet Nam (table 2).<sup>2</sup> It is reportedly one of the most commonly used drugs in the country alongside methamphetamine and heroin.<sup>3</sup>
- Synthetic cannabinoids dominate the NPS market in Viet Nam, with most of the NPS identified in the past two years being of that substance group (table 3).

### Other drugs

- Seizures of cannabis herb and heroin declined in 2022 (table 1).

1 Ecstasy tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

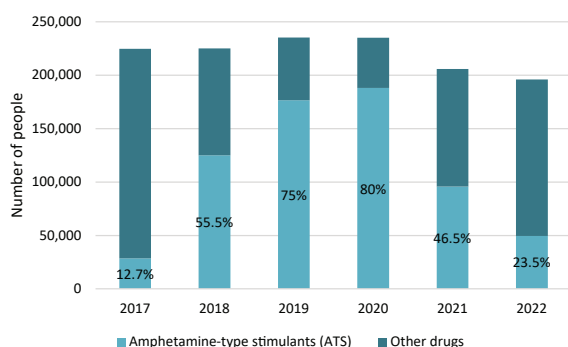
2 Official communication with the Standing Office on Drugs and Crime (SODC), April 2023.

3 SODC, "Country briefing", December 2022.

## Key facts and figures

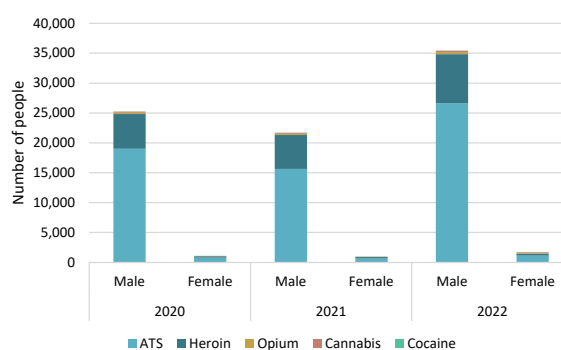
### Drug demand indicators

**Figure 1. Number of registered drug users in Viet Nam, 2017-2022**



Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); Standing Office on Drugs and Crime (SODC), “Country briefing”, December 2022; official communication with SODC, April 2023.

**Figure 2. Number of new people who use drugs receiving treatment in Viet Nam, by gender and drug type, 2020-2022**



Source: Official communication with SODC, April 2023.

### Drug supply indicators

**Table 1. Seizures of selected drugs in Viet Nam, 2017-2022**

Drug type	Unit	2017	2018	2019	2020	2021	2022
Methamphetamine tablets	tablets	979,487	1,363,495	987,913	2,436,507	2,557,966	3,998,040
Crystal methamphetamine	kg	856.9	1,929	5,500.6	3,950	3,304	2,147.8
Cannabis herb	kg	111 kg of 'fresh' and 376.4 kg of 'dried'	254.4 kg of 'dried'	586	274.8	1,756	467.3
Cocaine	kg	2.4	137	120.5	●	●	●
Heroin	kg	906.7	1,584.4	1,494.3	841	764	743.7
Ketamine	kg	17.6	6.2	507.5	●	304	●
Opium	kg	167.1	196.7	600	13.4	●	●
Khat	Kg	5,600	2,500	●	●	●	●
NPS	kg	108	103.28	●	●	●	●

Note: ● = Not reported.

Sources: DAINAP; UNODC Annual Report Questionnaire (ARQ) Viet Nam for 2021 and previous years; SODC, “Country briefing”, December 2022; official communication with SODC, April 2023.



**Table 2. Typical purity of selected drugs in Viet Nam, 2019-2022 (percentage)**

Drug type	Form	2019	2020	2021	2022
Methamphetamine	Tablet	12-15%	10-15%	10-15%	10-15%
	Crystal	70-80%	75-80%	75-80%	70-80%
Ecstasy / MDMA	Tablet	30-40%	35-40%	35-40%	35-40%
	Crystal	75%	75%	75%	75%
Ketamine	Tablet	1-5%	1-5%	1-5%	1-5%
	Crystal	80%	80%	75-80%	75-80%
	Liquid	100 mg/ml	100 mg/ml	●	●

Note: Data in this graph refer to the weight/weight (w/w) % expressed as the base form of these substances; ● = Not reported.  
Sources: SODC, "Country briefing", December 2022; official communication with SODC, April 2023.

**Table 3. Types of NPS and other emerging synthetic substances identified in Viet Nam, 2021-2022**

Substance type	2021	2022
Synthetic cannabinoids	<ul style="list-style-type: none"> <li>• MDMB-4en-PINACA</li> <li>• 4F-MDMB-BICA</li> <li>• ADB-BUTINACA</li> <li>• 4F-ABINACA</li> </ul>	<ul style="list-style-type: none"> <li>• MDMB-4en-PINACA</li> <li>• 4F-MDMB-BICA</li> <li>• ADB-BUTINACA</li> <li>• ADB-4en-PINACA*</li> </ul>
Synthetic cathinones	<ul style="list-style-type: none"> <li>• 3-methylmethcathinone (3-MMC)</li> </ul>	-
Designer benzodiazepines	<ul style="list-style-type: none"> <li>• 2-fluoromethamphetamine (2-FMA)</li> <li>• 3-fluoroethamphetamine (3-FEA)</li> </ul>	-
Others	<ul style="list-style-type: none"> <li>• 1-Cp-lsd</li> </ul>	-

Note: This substance was newly identified in the country in 2022.  
Source: Official communication with SODC, April 2023.







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