

Synthetic Drugs in East and Southeast Asia



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Supervision, direction and review

Justice Tettey, Chief, Laboratory and Scientific Service Jeremy Douglas, Regional Representative, Southeast Asia and the Pacific

Research and drafting

Martin Raithelhuber, Illicit Synthetic Drugs Expert
Tun Nay Soe, Inter-regional Programme Coordinator
Inshik Sim, Regional Coordinator, Southeast Asia and the Pacific
Kavinvadee Suppapongtevasakul, Regional Synthetic Drug Analyst, Southeast Asia and the Pacific

Graphic design and layout

Akara Umapornsakula, Graphic Designer

The present report also benefited from the expertise and valuable contributions of UNODC colleagues in the Laboratory and Scientific Service and the Regional Office for Southeast Asia and the Pacific, including Conor Crean, Reiner Pungs, Lili Sang, and John Wojcik.

Disclaimer

This report has not been formally edited.

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The term "region" unless specified, generally refers to the geographical area that includes the countries and territories in East and Southeast Asia. The term "lower Mekong region" refers to the geographical area that includes five countries, Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam. The term "maritime Southeast Asian countries" includes Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Timor Leste.

Reference to dollars (\$) are to United States dollars, unless otherwise stated.

Reference to tons are to metric tons, unless otherwise stated.

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Abbreviations

ARQ Annual report questionnaire

ATS Amphetamine-type stimulants

BNN Narcotics Control Board (Indonesia)

CCDAC Central Committee for Drug Abuse Control (Myanmar)

CNB Central Narcotics Bureau (Singapore)

DAINAP Drug Abuse Information Network for Asia and the Pacific

DDB Dangerous Drugs Board (Philippines)

EWA UNODC Early Warning Advisory on New Psychoactive Substances

HSA Health Sciences Authority (Singapore)

IFS Institute of Forensic Science (Viet Nam)

INCB International Narcotics Control Board

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)

NCNP National Center of Neurology and Psychiatry (Japan)

NDSB Narcotics Division, Security Bureau (Hong Kong, China)

NFS National Forensic Service (Republic of Korea)

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

SMART Synthetics Monitoring: Analyses, Reporting and Trends

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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EXECUTIVE SUMMARY

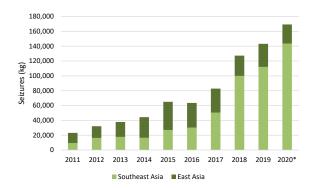
Major developments in the regional synthetic drug market

Methamphetamine

Despite the COVID-19 pandemic and its associated restrictions on mobility of trade and transport, the methamphetamine market in East and Southeast Asia has continued to expand. While Shan State, Myanmar, remains the main source of illicit manufacture of methamphetamine in the region, there are growing signs that Cambodia is being increasingly targeted for large-scale illicit methamphetamine manufacture, showing organized crime diversifying their methamphetamine supply channels.

As for the past decade, the total amount of methamphetamine seized in East and Southeast Asia has continued to increase, reaching another record level in 2020 with preliminary data showing at least 169 tons of methamphetamine seized. Though there was a decline in seizures in East Asia, it was more than offset by the increase in seizures in Southeast Asia, largely due to the lower Mekong countries, which accounted for 71 per cent of the total amount of methamphetamine seized in East and Southeast Asia.

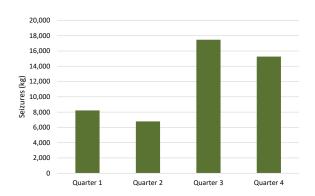
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Note: * Data are preliminary. Sources: DAINAP; UNODC, responses to the annual report questionnaire (ARQ); Official communication with national drug agencies in the region, March-April 2021 Several trafficking routes have emerged, and seizures of methamphetamine point to diversified sources of the substance. Lao PDR has been increasingly targeted for transit and trafficking of methamphetamine and its related chemicals, as indicated by sharp increases in seizures of the drug along the border between Lao PDR and northeastern Thailand. Sources of methamphetamine have diversified beyond Shan State, Myanmar, with reports of methamphetamine being trafficked to the region from West Asia and South Africa.

COVID-19 and its associated mobility restrictions resulted in only a short-lived disruption to the supply of and demand for methamphetamine. Available quarterly data from both East and Southeast Asia show a drop in seizures in the second quarter of 2020 during the height of the pandemic. However, seizures quickly rebounded from the third quarter onwards, demonstrating the flexibility of organized crime groups to adapt to change and take advantage of porous borders in the region. Wholesale prices of crystalline methamphetamine declined in several countries in Southeast Asia, namely Cambodia, Malaysia, and Thailand, while its purity remained stable, indicating limited impact on the availability of methamphetamine.

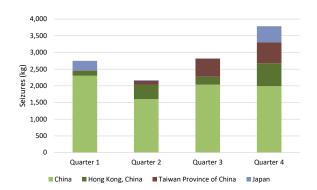
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Note: * Data are preliminary and exclude Myanmar and Viet Nam. Sources: DAINAP; Official communication with national drug agencies in the region, March-April 2021.

The lower Mekong countries include Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam.

Figure 3. Seizure amounts of crystalline methamphetamine in China, including Hong Kong and Taiwan Province of China, and Japan, by quarter, 2020*



Note: * Data are preliminary; Japan data only include seizure data from Japan Customs.

Sources: DAINAP; Official communication with NNCC of China, March 2021; Taiwan Ministry of Justice, "Drug Offenses" (accessed at https://www.moj.gov.tw/2832/2833/2853/2854/2857/); Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

While demand for methamphetamine is established in the region, there are indications that recent increases may be driven by supply, for example in Thailand and Viet Nam where increases in methamphetamine use are commensurate with increases in methamphetamine seizures.

At the same time, the evolution of chemicals used for the illicit manufacture of methamphetamine in East and Southeast Asia cannot be disregarded. Although ephedrine and pseudoephedrine (ephedrines) remain the primary chemicals used in the illicit manufacture of methamphetamine in the region, only very small amounts have been seized. The situation has been compounded by the emergence of a variety of non-controlled chemicals that can potentially be used for the illicit manufacture of methamphetamine and its key precursors.

"Ecstasy"

The "ecstasy"² market in East and Southeast Asia remains small compared to the market for methamphetamine, and "ecstasy" use is limited. Of the five countries³ that shared expert perception on the use of "ecstasy", only Brunei Darussalam

and Malaysia indicated an increase in 2020. In addition, drug treatment admissions for "ecstasy" across countries in the region remain low.

However, there are indications of increases in the scale of clandestine "ecstasy" manufacture in Southeast Asia. Organized crime groups have been increasingly targeting Cambodia in recent years, while "ecstasy" manufacture in maritime Southeast Asian countries seem to be re-emerging. In the meantime, "ecstasy" trafficking flows from other regions continue to be reported in East and Southeast Asia, particularly from Europe.

Seizures of "ecstasy" in the region increased in both East and Southeast Asia, with all countries except for Indonesia and Myanmar reporting a larger amount than in the preceding year. An equivalent of over 8.9 million "ecstasy" tablets were seized in 2020 in the region, two thirds of which were seized by Cambodia and Malaysia.

The content of MDMA per "ecstasy" tablet has also increased in recent years and high doses of MDMA are becoming more common. Large tablets containing up to 231 mg of MDMA have been found in Viet Nam, and crystalline MDMA, which has higher MDMA content than "ecstasy" tablets, continues to be found in the region.

In addition to MDMA, a variety of other substances continue to be found in tablets sold as "ecstasy" in the region. These substances include ketamine, caffeine, amphetamine, and methamphetamine, as well as a range of NPS.⁴

New Psychoactive Substances (NPS)

As of December 2020, a total of 485 different NPS have been identified in East and Southeast Asia. Though the number of newly identified NPS each year in the region has continued to decline since 2015, this may, in part, be due to the limited forensic capacity of some countries in the region to identify these substances.

^{2 &}quot;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.

³ These countries include Brunei Darussalam, Cambodia, Malaysia, Singapore, and Thailand.

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.

Figure 4. Emergence of NPS in East and Southeast Asia, 2015-2020*

600

500

400

400

200

100

2015

2016

2017

2018

Reported in previous years

Newly reported in that year

Note: * Data are preliminary.

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

Synthetic cannabinoids dominate the regional NPS market in East and Southeast Asia. China, Indonesia, Malaysia, Singapore, the Republic of Korea, and Viet Nam reported that synthetic cannabinoids were the most identified NPS in samples analysed. The Republic of Korea and Indonesia also reported increases in the amount of synthetic cannabinoids seized in 2020 compared to 2019.

While synthetic opioids have been continuously detected in the region, they remain rare compared to synthetic cannabinoids and NPS with stimulant effects.

The market for ketamine in Southeast Asia has continued to expand while its sources have diversified. Although preliminary data show that the amount of ketamine seized in East Asia has again declined in 2020, seizures of the substance in Southeast Asia continued to rise, increasing by 1.9 tons in 2020 to reach a total of 5.9 tons. Ketamine seized in the region continues to be predominantly illicitly manufactured in, and trafficked from, the Golden Triangle. However, recent cases also point to emerging supply from West Asia. Over the years, ketamine analogues have also emerged in East and Southeast Asia, further compounding the non-medical use of ketamine.

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 with sedative/hypnotic effects, particularly

benzodiazepine-type NPS, also known as "designer benzodiazepines", which continue to be found in "Erimin 5"⁵ tablets in the region.

[&]quot;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.





INTRODUCTION

At the time of writing of this report, the world continues to experience the impact of COVID-19. The mobility of people has been severely restricted since the onset of the pandemic, and the global economy is facing its deepest recession in nearly a century. However, while this is visible in many sectors of the licit economy, recent developments observed in the illicit synthetic drug market in East and Southeast Asia have demonstrated its resilience.

Yet again, seizures of methamphetamine reached new highs in 2020 amidst continued market expansion. This is in part attributable to the ease with which organized crime has been able to diversify the locations of manufacture and obtain controlled precursors as well as an increasingly wide range of non-controlled chemicals. As a result, oversupply of methamphetamine in the drug market has kept prices at record lows, which contributes to increasing demand and use in the region.

The expansion of the methamphetamine market amidst the global pandemic is not the only worrying development related to synthetic drugs in the region. Other challenges include the very high MDMA dose of some "ecstasy" tablets found in the market, which can lead to overdose events with fatal consequences. At the same time, potentially harmful new psychoactive substances (NPS) in the region and products offered to users, which contain mixtures of synthetic drugs, and that have led to a number of reported overdose cases have continued to emerge.

 United Nations Conference on Trade and Development (UNCTAD), "Out of the frying pan...in the fire?", March 2021. With the evolution of the synthetic drug market in East and Southeast Asia, the role of forensic laboratories has become more important than ever before. Forensic experts need to be able to accurately and rapidly detect emerging and potent synthetic drugs for early warning purposes at national and regional levels. Trace analysis of synthetic drugs samples to determine synthesis routes and precursors can contribute valuable information for law enforcement and drug and precursor policy. The collection of information on morbidity and mortality associated with drug use is more important than ever as synthetic drugs are getting purer and an even wider range of potentially harmful NPS emerges.

The safe disposal of seized drugs and chemicals used in their illicit manufacture is a growing challenge for Governments in East and Southeast Asia, in view of the sheer volume of methamphetamine manufacture in the region and the even greater quantities of chemicals used in the process. It is essential that these chemicals are adequately disposed of to prevent reintegration into the illicit economy or endanger the environment and the population. However, many countries in the region, particularly those affected by illicit manufacture of synthetic drugs, have only very limited resources and expertise available for that purpose.

East and Southeast Asia is composed of countries with different capacities, practices, and regulations in forensics, law enforcement, and regulatory measures. These gaps have been exploited by organized crime to further expand the synthetic drugs market. Meanwhile, the globalization of illicit drug trafficking in combination with increasing inter-connectivity between regions pose a growing threat to East and Southeast Asia. UNODC hopes that the findings presented in this report will be useful for countries in East and Southeast Asia to address these challenges.

^{2 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

³ 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/Mandateand-Functions_Scheduling.html.





Overview of the methamphetamine market

Despite COVID-19 and its associated restrictions on trade and people's movements, there has been an overall sustained expansion of the methamphetamine market in East and Southeast Asia. This is in part due to both the mobility of synthetic drug production as well as the continuous supply of precursors and chemicals to manufacturing sites of methamphetamine in the region. It is also important to acknowledge the evolution in the range of chemicals employed by transnational organized crime groups to manufacture methamphetamine in the region.

Demand for methamphetamine in Southeast Asia appears to have grown in parallel with increases in its availability. Despite record quantities seized in 2020, a large number of countries in the region have reported further decreases in prices of methamphetamine, which indicates that the market continues to be driven by supply.

Beyond Shan State, Myanmar: Growing signs of Cambodia targeted for large-scale illicit methamphetamine manufacture

Available data on seizures and major trafficking cases reported in 2020 from countries in East and Southeast Asia point to the continuous large-scale manufacturing of methamphetamine in Shan State, Myanmar, situated in the three-country border area known as the Golden Triangle. Despite the COVID-19-related restrictions that should have disrupted the methamphetamine supply chain from Shan State, record quantities were seized by Myanmar authorities in 2020, totalling 49 tons in 2020. At the same time, the Lao People's Democratic Republic and Thailand, which share borders with Myanmar, have been targeted as major entry points for

methamphetamine trafficked from Shan State, Myanmar, and seized significant quantities of the drug totalling 7.2 tons and 58.2 tons respectively in the same year.¹

Between mid-February and early April of 2020, Myanmar authorities conducted a series of operations in northern Shan State. The operations resulted in seizures of 193 million methamphetamine tablets (equivalent to 17.4 tons)2 and 500 kg of crystalline methamphetamine. In addition, a wide variety of chemicals, amounting to 36.5 tons and 166,000 litres, including 630 kg of ephedrine and 1.5 million tablets containing pseudoephedrine, were seized.3 These volumes demonstrate the industrial methamphetamine manufacturing capacity in northern Shan State. Concerningly, the illicit manufacture of methamphetamine appears to have intensified in southern Shan State in 2020, evidenced by the growing number of trafficking cases involving more than one ton reportedly originating from that state (map 4).

There are also noticeable increases in the number of clandestine laboratories for methamphetamine dismantled in other parts of Southeast Asia. For instance, Cambodian authorities dismantled five clandestine synthetic drug laboratories in 2020 alone. Most notably, in August, 1.9 tons of a suspected methyl alpha-phenylacetoacetate (MAPA)⁴ and 600 kg of 3,4-MDP-2P (PMK)⁵ were

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

The kilogram amount was converted from estimated pill equivalents at 90 mg per tablet.

³ Official communication with the Central Committee for Drug Abuse Control (CCDAC) in Myanmar, May 2020.

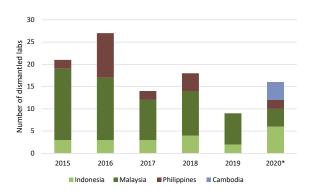
⁴ MAPA is a designer precursor for P-2-P and listed in Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

⁵ PMK is a precursor for MDMA and is listed in Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

seized in Sihanoukville,⁶ located in the country's southwest region, on the Gulf of Thailand. Another relatively large-scale synthetic drug manufacturing facility was dismantled in July, with 193 kg of crystalline methamphetamine and nearly two tons of a variety of chemicals⁷ seized at the site.⁸ These developments suggest that organized crime groups have increasingly targeted Cambodia to diversify their methamphetamine supply channels.

In the case of China, data on the number of methamphetamine manufacturing facilities dismantled in the country is not available for every year. However, Chinese authorities have noted that the overall number of clandestine drug laboratories seized in the country has continued to decline in recent years. The number of illicit methamphetamine manufacturing facilities dismantled in Malaysia also continued to decline during the same period (figure 1).9

Figure 1. Number of methamphetamine manufacturing and/or re-processing facilities dismantled in Cambodia, Indonesia, Malaysia and the Philippines, 2015-2020*

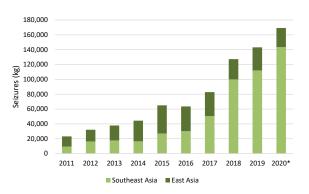


Note: * Data are preliminary. The figures refer to all laboratories, regardless of the size of the facility or the scale of the output. At present, there are no comprehensive data to assess the scale of the dismantled manufacturing facilities in East and Southeast Asia. Source: Drug Abuse Information Network for Asia and the Pacific (DAINAP).

Record seizures of methamphetamine in East and Southeast Asia, primarily driven by the lower Mekong countries

The total amount of methamphetamine seized in East and Southeast Asia in 2020 reached another record level, primarily due to increases in Southeast Asia. Despite the COVID-19-related restrictions on the mobility of trade and transport, at the time of writing, countries in the region had confirmed seizures in 2020 amounting to at least 169 tons, marking a 19 per cent increase from the 142 tons seized in 2019. This was primarily driven by increases in seizure amounts in the five lower Mekong countries (Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam), which accounted for 71 per cent of total seizures.¹⁰

Figure 2. Seizures of methamphetamine in East and Southeast Asia, by region, 2011-2020*



Note: * Data are preliminary.

Sources: DAINAP; UNODC, responses to the annual report questionnaire (ARQ); Official communication with national drug agencies in the region, March-April 2021.

10 DAINAP.

⁶ Official communication with the National Authority for Combating Drugs (NACD) of Cambodia, March 2021.

⁷ Those seized chemicals include hydrochloric acid, sodium hydroxide, ethyl benzoate, acetone, activated carbon and sodium chloride.

⁸ Official communication with the NACD, February 2021.

⁹ DAINAP.

Table 1. Change in methamphetamine seizure amounts in Southeast Asia by percentage and weight from 2019 to 2020*

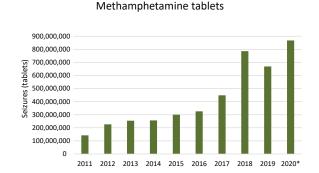
2013 to 2020				
Lower Mekong countries	Percentage change	Seizure amount change (kg)		
Cambodia	+102.5%	+439		
Lao PDR	+8%	+538.4		
Myanmar	+143.6%	+28,926.7		
Thailand	+9.5%	+5,071.5		
Viet Nam	-25.4%	-1,420.17		

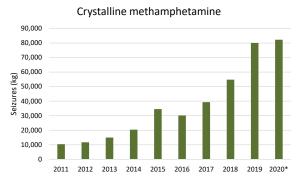
Maritime countries	Percentage change	Seizure amount change (kg)
Brunei Darussalam	+397.6%	+25.57
Indonesia	-55.9%	-10,022.7
Malaysia	+136.2%	+7,914.7
Philippines	-3.4%	-77.6
Singapore	+45.4%	+14.05

Note: * Data are preliminary and include all forms of methamphetamine.

Sources: DAINAP; UNODC, responses to the ARQ; Official communication with national drug agencies in the region, March-April 2021.

Figure 3. Seizures of methamphetamine tablets and crystalline methamphetamine, 2011-2020*





Note: * Data are preliminary.

Sources: DAINAP; UNODC, responses to the ARQ; Official communication with national drug agencies in the region, March-April 2021.

Seizures of all forms of methamphetamine, namely tablet, crystalline, liquid and powder, reached their highest level in a single year in 2020. After a slight drop in 2019, seizures of methamphetamine tablets rose again in 2020, with more than 867 million tablets seized. Although crystalline methamphetamine seizures only increased by two tons, a total of 6.4 tons of liquid methamphetamine, which can be further processed into crystalline methamphetamine, was seized in 2020.

The amount of methamphetamine seized in East Asia dropped by 17 per cent, from 31 tons in 2019 to 25.7 tons in 2020, reaching its lowest level since 2013. All countries and territories in East Asia reported smaller total seizures in 2020 than in 2019, 11 with the exception of Hong Kong, China, which seized the largest amount of methamphetamine on record. This may be due to the COVID-19 pandemic and the movement restrictions that governments imposed, which helped to limit the channels for trafficking the drug from Southeast Asia to East Asia. Chinese authorities, for instance, noted a disruption to the supply of methamphetamine from the Golden Triangle in the first quarter of the year. 12 This downward seizure trend also may be due to difficulties in transporting methamphetamine from China's Yunnan Province, which is the main entry point for methamphetamine trafficked from the Golden Triangle to other provinces in the country, as the first quarter was when COVID-19 was at its peak in the country. Japan also saw a steep decline in seizures in the second and third quarters of 2020, when Japan Customs seized only 26 kg of methamphetamine.13

Seizure data for maritime Southeast Asia show a mixed picture, with seizure amounts in both Indonesia and the Philippines declining in 2020. But this decrease was partly offset by the significant increase in seizures in Malaysia. All countries in the lower Mekong except Viet Nam reported increases in methamphetamine seizures in 2020. Although Thailand once again recorded the largest volume of methamphetamine seized by a single country in East and Southeast Asia in 2020, seizures in Myanmar also increased markedly.

At the time of writing, data on methamphetamine seizures in Japan for 2020 were preliminary.

¹² National Narcotics Control Commission (NNCC) of China, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020.

Japan Customs, "Summary of Japan Customs' Enforcement in 2020" and monthly reports, February 2021.

Crystalline methamphetamine teabag packages found in East and Southeast Asia

In recent years, law enforcement authorities across East and Southeast Asia have frequently detected teabag packages containing crystalline methamphetamine originating in the Golden Triangle. According to the authorities in Malaysia and Thailand, a large majority of their crystalline methamphetamine seizures (75-80 per cent) in recent years was packaged in such teabags. Seizures of what is now commonly referred to by authorities as "teabag crystalline methamphetamine" were made in other regions, including in Australia, India and New Zealand. These teabag packages have become a unique physical characteristic for methamphetamine manufactured in the Golden Triangle.

Some of the most commonly detected crystalline methamphetamine teabag packages include those labelled 'Guanyinwang', 'Qing Shan', 'Pin Wei', and 'Daguanyin'. In 2020, green-coloured 'Guanyinwang' teabags were the most

Figure 4. Major teabag packages found in Southeast Asia

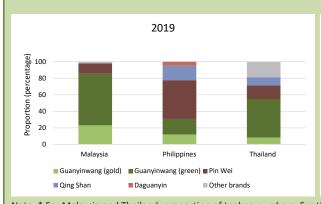


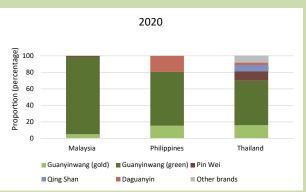
Sources: National Anti-Drug Agency (NADA) of Malaysia, Central Committee for Drug Abuse Control (CCDAC) of Myanmar, and Philippine Drug Enforcement Agency (PDEA) of the Philippines.

There has been limited research to assess the differences in purity and chirality of the drug found in the different teabags. The available data from countries, including Indonesia, the Philippines and Thailand, indicate that teabag packages, regardless of their brand, frequently contain high-purity *d*-methamphetamine in crystalline form.¹⁵

There is also limited information on the origins of the teabags used for packaging the crystalline methamphetamine. In 2019,

Figure 5. Proportion* of different teabag package brands seized in Malaysia, the Philippines and Thailand, 2019 and 2020





Note: * For Malaysia and Thailand: proportion of teabag numbers. For the Philippines: proportion of teabag weights.

Sources: Official communication with NADA of Malaysia, PDEA of the Philippines, and Office of the Narcotics Control Board (ONCB) of Thailand, March 2021.

frequently detected teabag package in Malaysia (94 per cent), the Philippines (65 per cent) and Thailand (54 per cent) in relation to the total teabag-concealed crystalline methamphetamine seizures reported in those countries. In 2019, considerable quantities of teabag packages in different labels were also seized.

Myanmar authorities seized 12,600 empty bags of 'Guanyinwang' in Muse, northern Shan State, bordering China, together with several chemicals, including 160 litres of P-2-P.¹⁶

Office of the Narcotics Control Board (ONCB) of Thailand, "Precursor chemical and drugs profiling in Thailand", presented at the Meeting of Drug and Precursor Forensic Specialists, Beijing, China, December 2019; Royal Malaysia Police (RMP), "Malaysia: Transit point of the Golden Triangle drugs", presented at the Operation Mekong Dragon meeting, Seoul, the Republic of Korea, April 2019.

¹⁵ For more information on purities and chirality of crystalline methamphetamine found in these countries, see their respective country chapters in this report.

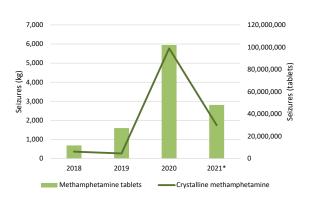
¹⁶ CCDAC, "Country briefing" presented at the Meeting of Drug and Precursor Intelligence Specialists, Mandalay, Myanmar, February 2020.

Emerging trafficking routes and diversified sources of methamphetamine

Lao PDR has been increasingly targeted for transit and trafficking of methamphetamine and its related chemicals

While methamphetamine in the region continues to be manufactured and supplied predominantly from the Golden Triangle, there was a shift in one of the main routes in 2020. Whereas shipments of the drug previously primarily crossed the border into Thailand directly from Myanmar in 2019, strict enforcement at the border between Myanmar and Thailand to control the spread of COVID-19 led organized crime groups to increasingly use Lao PDR as a transit route for both methamphetamine tablets and crystalline methamphetamine to Thailand. Although the route through Lao PDR has been used in previous years, seizures of the drug along the border between northeastern Thailand and Lao PDR in 2020 indicate the growing importance of Lao PDR as a transit country.

Figure 6. Seizure amounts of methamphetamine in northeastern Thailand, 2018-2021*



Note: * Data are preliminary and only covers the first three months of the year.

Source: Official communication with ONCB of Thailand, April 2021.

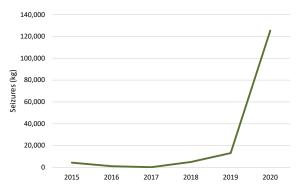
In 2020, Thai authorities seized a total of nearly 102 million methamphetamine tablets in the northeastern part of the country¹⁷—more than double the combined amount seized in the two preceding years (figure 6). This intensification of trafficking between Lao PDR and northeastern Thailand is also noticeable for crystalline methamphetamine, which has had an even greater rise in seizure amounts,

from 266 kg in 2019 to more than 5.7 tons in 2020.¹⁸ Notwithstanding the increased seizure amounts of methamphetamine tablets in northeastern Thailand, northern Thailand also remained a major transit area in 2020, with Chiang Rai and Chiang Mai the top two provinces for seizures in the country (map 1).¹⁹

Trafficking of crystalline methamphetamine from Myanmar through the western border of Thailand, which was first reported in 2019, gained importance in 2020, particularly between Myawaddy town in Myanmar and Kanchanaburi Province in Thailand. Attempts to traffic single shipments of more than one ton of crystalline methamphetamine through the western border were reported by Thai authorities in 2020.²⁰

Lao PDR has become a key hub for the transit of chemicals destined to Shan State, Myanmar, with more than 125 tons of chemical substances seized in 2020, compared with just 13 tons in 2019 (figure 7).²¹ Notably, approximately 30 tons of the chemicals seized in June 2020 were ethyl acetate, a non-controlled substance that can be used as a solvent for a range of illicit drugs, including methamphetamine. Additionally, 72 tons of propionyl chloride, which can be used in the manufacture of ephedrine (as well as fentanyl and its analogues), were seized in Lao PDR in July 2020.²²

Figure 7. Seizure amounts of chemicals in Lao PDR, 2015-2020



Source: Lao National Commission for Drug Control and Supervision (LCDC) of Lao PDR, Report of seizures of illicit drugs from January to December 2020, April 2021.

¹⁷ These provinces include Loei, Nong Khai, Nakhon Phanom, Bueng Kan and Mukdahan at the border, as well as Khon Kaen, Udon Thani, Maha Sarakham, Kalasin, Nong Bua Lamphu, Roi Et and Sakon Nakhon.

Official communication with ONCB, April 2021.

¹⁹ Official communication with ONCB, March 2021.

²⁰ ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", presented at the Global SMART Programme Regional Workshop, November 2020.

²¹ For further information on the chemicals seized, see the Lao PDR country chapter in this report.

Official communication with LCDC, April 2021.

lyanmar lyanmar Lao PDR Lao PDR Viet Nam Viet Nan Thailand Cambodia Cambodia Largest Largest Second largest Second largest Third largest Third largest Fourth largest Fourth largest Fifth largest Fifth largest 2019 2020

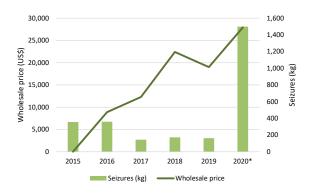
Map 1. Top five provinces for crystalline methamphetamine seizures in Thailand, by weight, 2019 and 2020

Note: Boundaries, names and designations used do not imply official endorsement or acceptance by the United Nations. Source: Official communication with ONCB of Thailand, March 2021.

Hong Kong, China, also has been increasingly targeted as a transit for methamphetamine trafficking

Authorities in Hong Kong, China, reported significant increases in the amount of crystalline methamphetamine seized in 2020, indicating that the area may have been more frequently used as a transit location since the onset of the COVID-19 pandemic. Furthermore, Hong Kong, China, was the only area in East Asia to report an increased amount of methamphetamine seized in 2020, with a near tenfold increase from 2019. Despite this increase, the wholesale price of methamphetamine in Hong Kong, China, reached a record high over the past five years (figure 8), which suggests that the increased trafficking volumes associated with these increases reflect transit trafficking and do not affect the local market. For example, in November 2020, Hong Kong Customs seized 500 kg of crystalline methamphetamine in a container shipment from Mexico that transited through the Republic of Korea and Viet Nam and was en route to Australia via Singapore.²³

Figure 8. Seizure amounts and wholesale price of crystalline methamphetamine in Hong Kong, China, 2016-2020* (US\$)



Note: * Data are preliminary. Source: Official communication with NNCC of China, March 2021.

²³ Hong Kong Customs, "Suspected methamphetamine worth about \$300 million seized in Hong Kong Customs record haul", press release, November 2020.

Malaysia as an important hub for methamphetamine trafficking

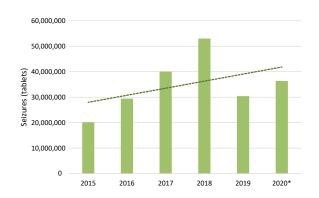
Maritime drug trafficking along the Andaman Sea and Malacca Strait to transport crystalline methamphetamine to Malaysia and Indonesia, as well as Australia and Japan, also gained importance in 2020. Malaysian authorities reported that, since the start of the COVID-19 pandemic, stringent land border controls led to a rise in the use of sea routes, including from southern Thailand,²⁴ to Langkawi and Penang in Malaysia.²⁵ Significant seizures included 960 kg of crystalline methamphetamine in November 2020²⁶ intended for the local market and 2,118 kg of the drug, off the coast of Penang in distinctive Golden Triangle teabag packaging, in December 2020.27 Increases in seizures of drug parcels originating from Malaysia were also noted in Australia, New Zealand, Indonesia, the Republic of Korea, Hong Kong, China, and Taiwan Province of China.²⁸ Malaysia has also emerged as a key transit location for amphetamines believed to have originated from the Middle East. According to open-source information, Malaysian authorities seized 16 tons of suspected "captagon" tablets in March 2021 and an additional 650 kg of the drug in April 2021.29

Continuous flow of methamphetamine tablets from Myanmar to South Asia

Organized crime groups continue to exploit the porous borders between Bangladesh, India and Myanmar for further westward flow of methamphetamine tablets from Shan State of Myanmar into South Asia. In 2020, 36.4 million methamphetamine tablets were seized in Bangladesh (figure 9).³⁰ Seizures of methamphetamine tablets continued along the

This is further supported by crystalline methamphetamine seizures in Thailand, where authorities in southern Narathiwat Province seized the largest amount of crystalline methamphetamine in 2020. border between India and Myanmar throughout 2020 and early 2021, including 190,000 tablets in July 2020, 300,000 tablets in August 2020 and 241,900 tablets in March 2021.³¹

Figure 9. Seizure amounts of methamphetamine tablets in Bangladesh, 2015-2020*



Note: * Data are preliminary. Source: Department of Narcotics Control of Bangladesh.

Diversified sources of methamphetamine trafficked to East and Southeast Asia

Interregional trafficking links between West Asia and Southeast Asia re-emerged in 2020. In May 2020, 821 kg of crystalline methamphetamine were seized in Indonesia, and more than 300 kg were seized in January 2021. Although specific information concerning the drug syndicates involved is unavailable, box and wrap packaging of the methamphetamine is reminiscent of the packaging used by the Golden Crescent drug syndicates from West Asia.³²

South Africa emerged as a new trafficking route for methamphetamine to East Asia in 2020. Japan Customs reported that 32 per cent of the methamphetamine seized in 2020 originated from South Africa.³³ Japan Customs seized 237 kg in October 2020 and then 16 kg of crystalline methamphetamine in December 2020 in shipments also from South Africa.^{34,35} However, the origin

²⁵ Official communication with NADA, March 2021.

²⁶ NADA, Royal Malaysia Police (RMP) and Department of Chemistry (KIMIA), "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

²⁷ Malaysian Maritime Enforcement Agency official Facebook account, December 2020. (accessed at https://www.facebook. com/watch/?v=975993102924637)

 $^{28 \}quad \hbox{Official communication with NADA, March 2021}.$

²⁹ The Star, "Police foil drug trafficking bid, seize RM 221mil worth of pills", April 2021.

³⁰ Department of Narcotics Control (DNC), Bangladesh, "Result of operations and outreach", 2021 (accessed at http://www.dnc.gov.bd/sites/default/files/files/dnc.portal.gov.bd/files/c438f858_5db1_492a_8b32_ee2ee8a27550/2021-03-14-15-40-5b717fbbeb1ac62a6209cf347460a378.pdf).

³¹ The Assam Rifles official Twitter account, July 2020, August 2020, and March 2021 (accessed at https://twitter.com/official_dgar/status/1288886693655846912; https://twitter.com/official_dgar/status/1291432087652720641; https://twitter.com/official_dgar/status/1375992137683066882)

National Narcotics Board (BNN) of Indonesia, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

³³ Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

³⁴ Japan Customs, "2020-Drug-029", press release, November 2020.

World Customs Organization, reported by Japanese authorities as part of Operation GOALS.

Map 2. Methamphetamine tablet trafficking flows in the Mekong region, 2020



Note: Flow arrows represent the general direction of trafficking and do not coincide with precise sources of production or manufacture, are not actual routes and are not weighed for significance or scale. Boundaries, names and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on information presented at the Global SMART Programme Regional Workshop, November 2020.



Map 3. Crystalline methamphetamine trafficking flows in East and Southeast Asia, 2020

Note: Flow arrows represent the general direction of trafficking and do not coincide with precise sources of production or manufacture, are not actual routes and are not weighed for significance or scale. Boundaries, names and designations used do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on information presented at the Global SMART Programme Regional Workshop, November 2020.

of the methamphetamine was unclear. The illicit manufacture of methamphetamine exists in South Africa, but the country is also a transit hub for the drug sourced from Nigeria and countries in West Asia.³⁶

Analysis of impact of COVID-19 mobility restrictions on methamphetamine demand: Only short-lived disruption to its supply

The COVID-19 pandemic has not seriously inhibited the methamphetamine market in the region. Any disruption to the supply of methamphetamine was short-lived.

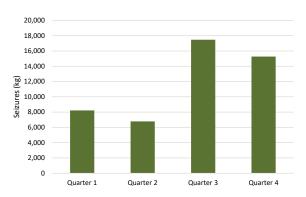
Available quarterly data for Southeast Asia³⁷ show a drop in crystalline methamphetamine seizures in the second quarter of 2020 (figure 10). This drop has been attributed to the mobility-restriction measures, including strict border controls.³⁸ This was the case for seizures of methamphetamine tablets in both Lao PDR and Thailand (figure 11). However, seizures of both tablet and crystalline methamphetamine rebounded in the third quarter, demonstrating the flexibility of organized crime groups to adapt to change and take advantage of porous borders in the region.

³⁶ Jason Eligh, "A Synthetic Age: The Evolution of Methamphetamine Markets in Eastern and Southern Africa", March 2021.

³⁷ For more information on country-specific quarterly seizure data, see the individual country chapters in this report.

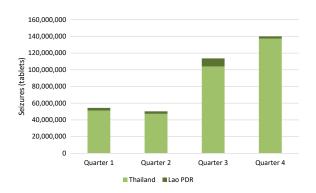
³⁸ Official communication with the NADA, March 2021; official communication with the Central Narcotics Bureau (CNB) of Singapore, March 2021; official communication with the ONCB, March 2021.

Figure 10. Seizure amounts of crystalline methamphetamine in Southeast Asia, excluding Myanmar and Viet Nam, by quarter, 2020*



Note: * Data are preliminary and exclude Myanmar and Viet Nam. Sources: DAINAP; Official communication with national drug agencies in the region, March-April 2021.

Figure 11. Seizure amounts of methamphetamine tablets in Lao PDR and Thailand, by quarter, 2020*

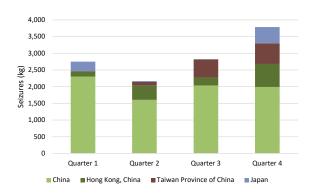


Note: * Data are preliminary.

Sources: DAINAP; Official communication with ONCB of Thailand, March 2021.

In East Asia, preliminary data available from Japan and China, including Hong Kong, China, and Taiwan Province of China, show a similar trend, with combined seizures for the year reaching their smallest amount in the second quarter of 2020 before bouncing back in the third quarter onwards. Notably, Japan, Hong Kong, China, and Taiwan Province of China, reported their largest amount of crystalline methamphetamine seizures in the last quarter of 2020. Apart from Hong Kong, China, all the others reported significantly smaller amounts of seizures in the second quarter of the year. Chinese authorities also reported that, due to the disruption in methamphetamine supply from the Golden Triangle in the first quarter of 2020, drug users in China temporarily shifted to other drugs. Increases in the non-medical use of prescriptionrequired drugs and non-controlled substances were reported.³⁹

Figure 12. Seizure amounts of crystalline methamphetamine in China, including Hong Kong and Taiwan Province of China, and Japan, by quarter, 2020*



Note: * Data are preliminary; Japan data only include seizure data from Japan Customs.

Sources: DAINAP; Official communication with NNCC of China, March 2021; Taiwan Ministry of Justice, "Drug Offenses" (accessed at https://www.moj.gov.tw/2832/2833/2853/2854/2857/); Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

Between May and December 2020, authorities reported at least 14 cases involving seizures of more than one ton of crystalline methamphetamine in Myanmar and Thailand (map 4). This might indicate that once organized crime adapted to border controls, traffickers tried to catch up by sending larger-than-usual shipments.

After onset of COVID-19, increased use of several drug transport and concealment methods emerged, including transport through drones and concealment in fruits and vegetables. The time available to check perishable fruits and vegetables is short, and traffickers might have hoped that this would translate into less stringent controls.⁴⁰ China also has reported increased use of online drug trade and logistic service providers.⁴¹

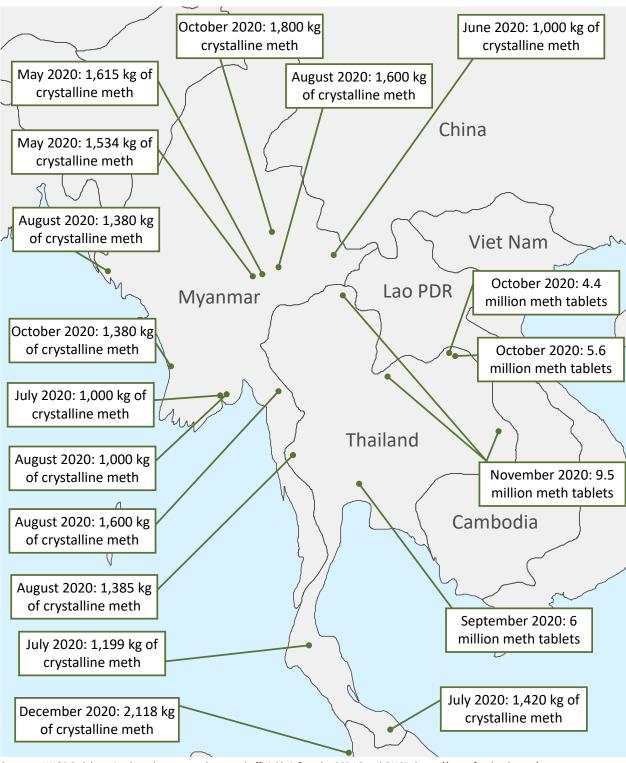
Similar to seizure amounts, purity and price data also indicate that the COVID-19 pandemic has not significantly hindered the development of

³⁹ NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020.

⁴⁰ CNB and Health Sciences Authority (HSA), "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020.

⁴¹ NNCC, "Latest situation on synthetic drugs and responses to the threats in China", November 2020.

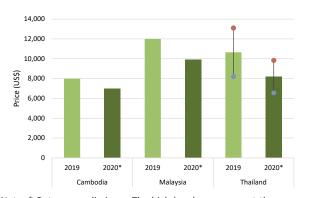
Map 4. Selected seizures of crystalline methamphetamine exceeding one ton and methamphetamine tablets exceeding four million tablets that originated in Myanmar, May-December 2020



Sources: UNODC elaboration based on press release and official briefings by CCDAC and ONCB; https://www.facebook.com/watch/?v=975993102924637.

the methamphetamine market in Southeast Asia. Although methamphetamine tablet prices have remained stable, available wholesale price data for crystalline methamphetamine from several countries in the region, including Cambodia, Malaysia and Thailand, show that the price decreased even further in 2020 (figure 13), while purity of the drug increased in Cambodia and Thailand and remained stable in Malaysia (figure 14).

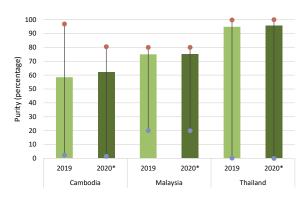
Figure 13. Wholesale price of crystalline methamphetamine in Cambodia, Malaysia and Thailand, 2019 and 2020* (US\$)



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

Sources: Official communication with NACD of Cambodia, NADA of Malaysia, and ONCB of Thailand, March 2021.

Figure 14. Purity of crystalline methamphetamine in Cambodia, Malaysia and Thailand, 2019 and 2020*



Note: * Data are preliminary. Purity data for Cambodia and Thailand refer to the weight/weight (w/w) percentage, expressed as the hydrochloride salt of these substances. For Malaysia, it refers to the weight/weight (w/w) percentage, expressed as the free base 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: Official communication with NACD of Cambodia, NADA of Malaysia, and ONCB of Thailand, March 2021.

This data confirm that the COVID-19 mobility restrictions have had little impact on the supply of methamphetamine. A possible contributing explanation could be a drop in the cost of manufacturing the drug, but too little is known about the costs of illicit manufacture. A further increase in the volume of methamphetamine flows in the region also cannot be excluded. There are signs that traffickers have sought to diversify the range of products manufactured in clandestine laboratories with additional drugs other than methamphetamine in tablet and crystalline form.⁴²

Supply driving the methamphetamine demand in the region

There has been a clear geographical shift in the major methamphetamine manufacturing sites in East and Southeast Asia, from China to Myanmar. The trend appears to have started around 2015, based on changes in the supply and demand indicators reported from the two countries, including the number of clandestine drug laboratories dismantled and the amount of methamphetamine seized.

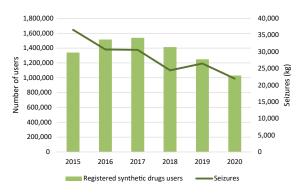
The geographical shift in the major methamphetamine manufacturing locations in the region and its impact also have been observed in the demand indicators.⁴³ In China (figure 15), the number of registered synthetic drugs users,⁴⁴ mostly for methamphetamine, decreased from 1,340,000 users in 2015 to 1,030,600 users in 2020, while seizures of methamphetamine decreased by 40 per cent in that same period.

⁴² Official communication with ONCB, March 2021.

⁴³ Data on registered drug users are limited in that it encompasses users identified by law enforcement and may be impacted by a range of factors, including law enforcement performance and operation goals.

⁴⁴ The registered drug users are people whose use of illicit drugs has been identified by law enforcement authorities, and are registered in the Register of the Dynamic Management and Control System for Illicit Drug Users.

Figure 15. Seizure amounts of methamphetamine and number of registered synthetic drugs users in China, 2015-2020*

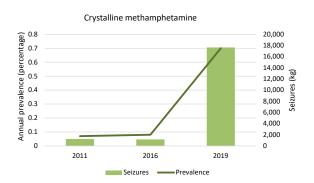


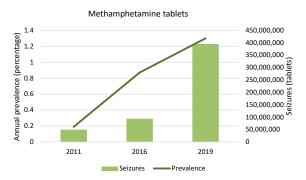
Sources: DAINAP; Official communication with NNCC of China, March

Note: * Data are preliminary.

Contrary to the situation in China, the rise in annual seizure amounts of methamphetamine in Southeast Asia has been accompanied by increases in the use of the drug, especially following the consolidation of methamphetamine manufacturing in the lower Mekong subregion beginning in 2015. This can be seen in the cases of Thailand and Viet Nam, where increases in methamphetamine are commensurate with increases methamphetamine seizures. In Thailand, the annual prevalence of methamphetamine tablet use increased from 2011 through 2019. This increase is even more stark in the case of crystalline methamphetamine, with a tenfold increase in the annual prevalence of use within only three years, between 2016 and 2019. During the same period, the annual seizure of crystalline methamphetamine increased by fifteenfold in the country. If the trend observed in Thailand had been driven by demand, the price of methamphetamine would not have decreased in the same period.45 A similar trend occurred in Viet Nam, where both the number of reported methamphetamine users and seizures of the drug increased significantly between 2017 and 2019 (figure 17). The changes observed in China, Thailand and Viet Nam strongly indicate that supply is driving the methamphetamine market in these countries.

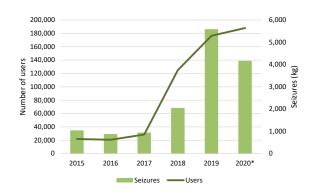
Figure 16. Seizure amounts and annual prevalence of methamphetamine use in Thailand, 2011, 2016 and 2019





Sources: DAINAP; UNODC, responses to the ARQ; Official communication with ONCB, March 2021; Darika Saingam, "Substance Abuse Policy in Thailand: Current Challenges and Future Strategies", Journal of Drug and Alcohol Research, vol. 7 (2018).

Figure 17. Seizure amounts and number of registered methamphetamine users in Viet Nam, 2015-2020*



Note: * Data are preliminary. Seizure amount includes crystalline methamphetamine and methamphetamine tablets, which were converted from estimated pill equivalents at 90 mg per tablet. Sources: DAINAP; Official communication with the Standing Office on Drugs and Crime (SODC) of Viet Nam, March 2021.

⁴⁵ According to the ONCB, the retail price for crystalline methamphetamine in Thailand was reportedly between US\$42 and US\$98 per gram in 2015 and between US\$33 and US\$49 per gram in 2019. It further reduced to between US\$16 and US\$27 in 2020.

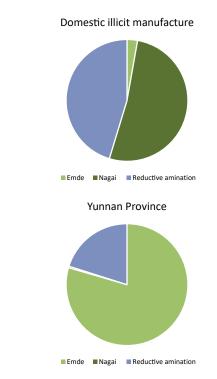
Evolution of chemicals used for the illicit manufacture of methamphetamine in East and Southeast Asia

The escalating methamphetamine manufacturing and trafficking situation in East and Southeast Asia takes place in an uneven landscape in terms of efforts by authorities in the region to prevent the diversion of and trafficking in chemicals listed in the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. In recent years, the emergence of a variety of noncontrolled chemicals that can be used for the illicit manufacture of methamphetamine as well as the key precursors (ephedrine, pseudoephedrine and P-2-P) have compounded the situation. These changes have contributed to the further deterioration of the situation in the region.

Ephedrine and pseudoephedrine (ephedrines) continue to represent the primary chemicals used for the illicit manufacture of methamphetamine in East and Southeast Asia, evidenced by the data on methamphetamine forensic profiles (figure 19). However, differences are evident in the ephedrines-based manufacturing methods for methamphetamine by source of origin. For instance, the Government of Chinanoted that the 2019 for ensic profiles of crystalline methamphetamine collected from Yunnan Province, bordering Myanmar, were vastly different from samples collected from illicit manufacturing sites in other parts of the country. While the Emde⁴⁶ method accounted for only 2.8 per cent of crystalline methamphetamine samples collected from clandestine laboratories found in China in 2019, the corresponding figure for Yunnan Province was 80 per cent (figure 18).47,48 The Emde method was also the predominant ephedrinesbased manufacturing method for crystalline methamphetamine samples analysed in Indonesia between 2019 and 2020, at 92 per cent of the total (n=165).49 Although information on specific synthesis routes is not available for the Philippines,

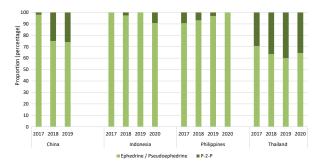
46 Ephedrine or pseudoephedrine are reacted with thionyl chloride to produce chloroephedrine, which is then subjected to catalytic hydrogenation to produce methamphetamine. all samples of crystalline methamphetamine analysed in the country (n=121) in 2020 were manufactured with ephedrines as the principal precursors.⁵⁰ In Thailand, however, the crystalline methamphetamine samples had continuously larger proportions of P-2-P-based manufacturing methods (30- 40 per cent annually) in recent years, but ephedrines remained the main precursors (figure 19).

Figure 18. Comparison of crystalline methamphetamine samples collected and profiled in China, by source of drug, 2019



Source: NNCC of China.

Figure 19. Forensic profiles of crystalline methamphetamine analysed in China, Indonesia, the Philippines and Thailand, 2017-2020



Note: Data reported as "unknown" were not included. Sources: NNCC of China, BNN of Indonesia, PDEA of the Philippines and ONCB of Thailand.

⁴⁷ NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020 and 2019.

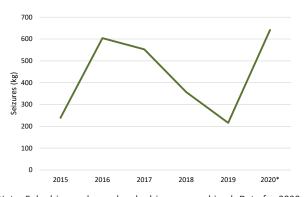
⁴⁸ For more information on crystalline methamphetamine samples analysed in China in 2019, see the China country chapter of this report.

⁴⁹ BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", Global SMART Programme Regional Workshop, November 2020 and 2019.

⁵⁰ Official communication with PDEA, April 2021.

Seizures of ephedrines in East and Southeast Asia remain incommensurate with the amounts of methamphetamine seized (figure 20). Of particular concern are the miniscule amounts of ephedrines that only have been seized in Myanmar, which is the largest source for methamphetamine in the region. In 2020, only 630 kg of ephedrine, which could yield approximately 420 kg of methamphetamine hydrochloride,⁵¹ as well as 2.7 kg of pseudoephedrine and 1.5 million tablets of pharmaceutical preparations containing the substance were seized in Myanmar.52 Additionally, at the time of writing, the only other countries in Southeast Asia that had reported seizures of ephedrines in 2020 were Indonesia and the Philippines, at 0.4 kg and 10.8 kg, respectively.⁵³ Similarly, in the case of P-2-P, preliminary data for 2020 show only 160 litres of the substance seized in Myanmar, while no seizures were reported in other countries in the region (figure 21).

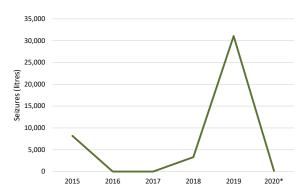
Figure 20. Seizure amounts of ephedrine and pseudoephedrine (raw material) in Southeast Asia, 2015-2020*



Note: Ephedrine and pseudoephedrine are combined; Data for 2020 are preliminary.

Sources: International Narcotics Control Board (INCB) Annual Reports; Official communication with and briefings from authorities in the region

Figure 21. Seizure amounts of P-2-P in Southeast Asia, 2015-2020*



Note: * Data for 2020 are preliminary.

Sources: INCB Annual Reports; Official communication with and briefings from authorities in the region.

The fact that for years only small quantities of ephedrines have been seized in the region could indicate the increased use of non-controlled chemicals and pre-precursors in the manufacture of methamphetamine. One substance that has been seized in the region is propionyl chloride, which is not controlled internationally and can be used to manufacture ephedrine (figure 22). In January 2020, Myanmar authorities seized 400 litres of propionyl chloride and 140 litres of benzene, a substance required to convert propionyl chloride to propiophenone, which is a precursor for ephedrine.⁵⁴ Another case involving the seizure of propionyl chloride was reported in Lao PDR in July 2020, when 72 tons of the substance destined to Special Region 4 of Myanmar (Mong La) via the Mekong River were seized at the Thai-Lao Friendship Bridge 4.55 While it remains unclear whether all 72 tons of the propionyl chloride were meant for the illicit manufacture of ephedrine, the case highlights major vulnerabilities associated with noncontrolled chemical flows in the region. In addition, in 2020, Myanmar authorities seized benzoic acid⁵⁶ and propionic acid,57 both of which can be used as pre-precursors for methamphetamine.⁵⁸

⁵¹ The estimate was calculated based on information from the International Narcotics Control Board that 150 kg of ephedrines were required for the manufacture of 100 kg of methamphetamine hydrochloride.

⁵² CCDAC of Myanmar.

⁵³ DAINAP.

⁵⁴ CCDAC, "Country briefing", presentation to the Meeting of Drug and Precursor Intelligence Specialists, Mandalay, Myanmar, February 2020.

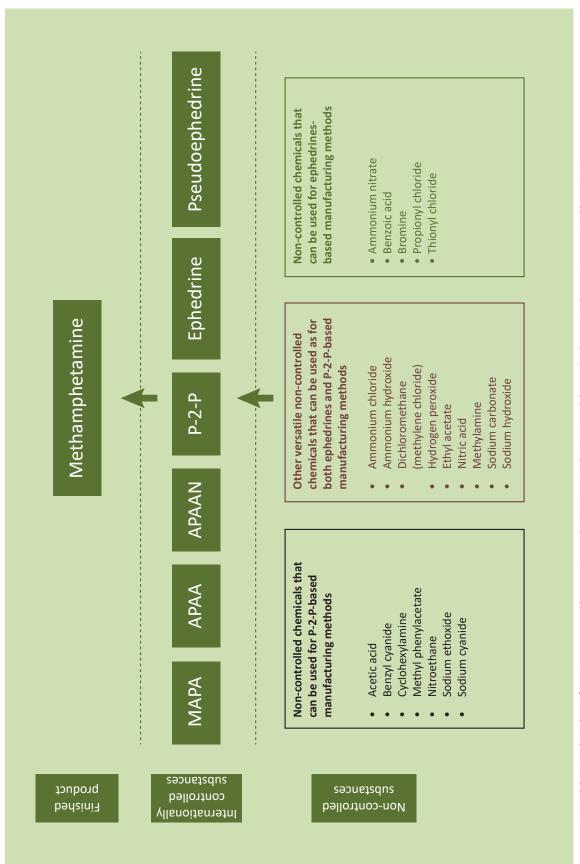
⁵⁵ Official communication with Lao PDR Customs, July 2020; LCDC, reports of seizures of illicit drugs from January to December, 2020 and April 2021.

Together with propionyl chloride, benzoic acid can be used for the manufacture of propiophenone.

⁵⁷ The substance was found in a mixture with isopropyl orthoformate.

⁵⁸ Official communication with CCDAC on results of confirmatory testing for substances seized during the operation conducted between February and April 2020, September 2020.

Figure 22. Selected chemicals that can be used in the manufacture of methamphetamine and its precursors seized in Southeast Asia, by international control status, 2017-2020



Source: UNODC elaboration based on information presented by countries at the 2020 Regional SMART workshop and other regional meetings organized by UNODC.

In East and Southeast Asia, only China has reported the seizure of ephedra plant material and the use of ephedrine extracted from ephedra herb in the illicit manufacture of methamphetamine. For instance, in May 2020, Chinese authorities dismantled a clandestine ephedrine extraction laboratory in Shaanxi Province, located in the northwest part of China. The laboratory was found with 7 tons of ephedra plants, 9 tons of ephedrine solution, 1.4 tons of dimethylbenzene (xylene), 800 kg of sodium hydroxide and 100 kg of oxalic acid. The ephedra plant material was sourced from Inner Mongolia, China, and the extracted ephedrine was reportedly destined for illicit methamphetamine manufacturing sites outside of China.⁵⁹ Only a few countries in the region routinely perform trace analysis of seized methamphetamine samples, and the current extent of the use of ephedra plant material in illicit methamphetamine manufacture is unknown.

Several non-controlled chemicals that can potentially be used for the manufacture of P-2-P, phenylacetic acid or their precursors have been seized in East and Southeast Asia in recent years. These included acetic anhydride, benzyl cyanide, methyl phenylacetate, nitroethane, and cyclohexylamine.⁶⁰

Figure 22 lists selected non-controlled chemicals identified at or en route to drug manufacturing sites in East and Southeast Asia between 2017 and 2020. Importantly, not all listed substances have been confirmed to be employed for the illicit manufacture of methamphetamine and its key precursors. In fact, their potential illicit applications are not limited to the illicit manufacture of those substances but also other drugs, including MDMA⁶¹ and heroin.

⁵⁹ NNCC, July 2020 (accessed at https://mp.weixin.qq.com/s/ coEPbiRRZ6wqysJespozTA).

⁶⁰ Seizures of benzyl cyanide and methyl phenylacetate were reported from CCDAC in 2019 and 2020. Nitroethane and cyclohexylamine were seized in Indonesia in 2017 according to BNN.

^{61 3,4-}Methylenedioxymethamphetamine.

Overview of the "ecstasy" market

The "ecstasy" market in East and Southeast Asia remains small in comparison with the market for methamphetamine. Although the reported use of "ecstasy" remains limited in the region, increasing seizures of the drug as well as the number of clandestine "ecstasy" laboratories dismantled indicate a possible growing importance of "ecstasy" in the region and beyond.

"Ecstasy" tablets of larger weight and with a higher MDMA dose per tablet than in previous years have been seized in the region. In addition, "ecstasy" tablets may contain other substances, including new psychoactive substances (NPS).⁶³ This situation poses an increased risk of harm to "ecstasy" users.

"Ecstasy" use remains limited in the region

Of the five countries⁶⁴ that shared expert perception on the use of "ecstasy", only Brunei Darussalam and Malaysia indicated an increase in 2020. Drug treatment admissions for "ecstasy" use also remained low in 2020, with Cambodia and Singapore reporting less than two per cent of the drug treatment admissions due to the use of "ecstasy", while in Thailand and the Philippines it was less than one per cent.⁶⁵

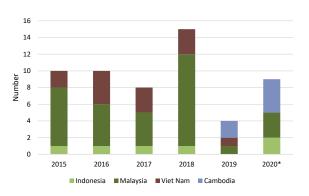
"Ecstasy" manufacture in the region is gaining importance

Although the "ecstasy" market remains small in comparison with methamphetamine, there are indications of increases in the scale of clandestine "ecstasy" manufacturing in Southeast Asia. Similar to the trend observed in the illicit manufacture of methamphetamine, organized crime groups increasingly have targeted Cambodia in recent

62 "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. years. In at least four synthetic drug manufacturing facilities in Cambodia, MDMA or its precursors were seized, which points to an increasing importance of "ecstasy" manufacture in the country. Significant cases include the seizure of 57 kg of MDMA in Phnom Penh in April 2020 and the seizure of 600 kg of a substance suspected to be 3,4-MDP-2-P, a precursor of MDMA, at a dismantled facility in August 2020. ⁶⁶

"Ecstasy" manufacture seems to be re-emerging in maritime Southeast Asian countries. Although Indonesia did not dismantle any clandestine "ecstasy" laboratories in 2019, two were found in 2020.⁶⁷ In Malaysia, three laboratories were dismantled in 2020.⁶⁸

Figure 23. Number of clandestine ecstasy manufacturing facilities dismantled in Southeast Asia, 2015-2020*



Note: * Data are preliminary.

Sources: Official communication with BNN of Indonesia, NADA of Malaysia, SODC of Viet Nam and NACD of Cambodia, March-April 2021

Seizures of "ecstasy" are rapidly increasing in Southeast Asia

As with methamphetamine and despite of the pandemic-related restrictions, preliminary data for 2020 show that seizures of "ecstasy" in the region increased in both East and Southeast Asia (figure 24), with all countries except for Indonesia and Myanmar reporting a larger amount than in 2019. ⁶⁹ An equivalent of more than 8.9 million "ecstasy" tablets were seized in 2020, a substantial increase compared with the 5.8 million tablets seized in 2019. The increase was primarily driven by Cambodia and

⁶³ 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.

⁶⁴ These countries include Brunei Darussalam, Cambodia, Malaysia, Singapore, and Thailand.

⁶⁵ For more information, see the Cambodia, Singapore, Thailand, and Philippines country chapters in this report.

⁶⁶ Official communication with NACD. March 2021.

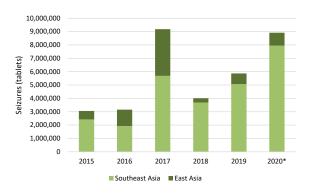
⁶⁷ Official communication with BNN, April 2021.

⁶⁸ Official communication with NADA, March 2021.

⁶⁹ DAINAP.

Malaysia, which seized the equivalent of 5.9 million tablets, accounting for 66.1 per cent of the regional total.

Figure 24. Seizures of "ecstasy" tablets in East and Southeast Asia, 2015-2020*



Note: * Data are preliminary. Figures reported other than the number of tablets were converted into estimated tablet equivalents at 300 mg per tablet.

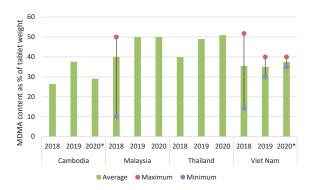
Sources: DAINAP; Country presentations at the Global SMART Programme Regional Workshop, November 2020; Official communication with national drug agencies in the region, March-April 2021.

"Ecstasy" trafficking flows from other regions continue to be reported in East and Southeast Asia, particularly from Europe. Germany, the Netherlands and France were indicated as major departure points for the drug trafficked to Malaysia and Thailand in 2020.⁷⁰

High content of MDMA and increasing size of "ecstasy" tablets pose serious harm for users

The amount of MDMA per "ecstasy" tablet has increased in recent years. High doses of MDMA is becoming more common. While the average MDMA content in "ecstasy" tablets in the region varies from country to country, several countries have reported sustained increases in recent years, including Malaysia, Thailand and Viet Nam (figure 25). In Viet Nam, the average MDMA content in "ecstasy" tablets analysed as of November 2020 was 37.5 per cent, compared with 35 per cent in 2019.71 In Malaysia, the average MDMA content of "ecstasy" tablets analysed increased strongly, from 30 per cent in 2018 to 50 per cent in 2019 and 2020.72 And the MDMA content in "ecstasy" tablets in Thailand rose significantly, from 40 per cent in 2018 to more than 50 per cent in 2020.73 Although these figures should be interpreted with caution because "ecstasy" tablets are of different weights, and average weights may change from year to year, they still provide some insight to changes to "ecstasy" found in the region.

Figure 25. Changes in MDMA content in "ecstasy" tablets analysed in Cambodia, Malaysia, Thailand and Viet Nam, 2018-2020*



Note: * Data are preliminary and as of November 2020. This graph should be interpreted with caution because it does not consider changes in the average weight of "ecstasy" tablets analysed during the period in the three countries.

Sources: Official communication with NACD of Cambodia, NADA of Malaysia, ONCB of Thailand and SODC of Viet Nam, March 2021.

In a related vein, the Philippines, Thailand and Viet Nam reported that the weight of seized "ecstasy" tablets has been increasing. The Philippines and Thailand both reported average "ecstasy" tablet weights of 400 mg or heavier. Of particular note are the large tablets with high MDMA content that were reportedly difficult to crush that were found in Viet Nam, including a tablet weighing 580 mg and containing 231 mg of MDMA (table 2). Considering the high amount of MDMA present in a single tablet, this has the potential to cause serious harm to "ecstasy" users, especially if the tablet cannot be easily crushed to be divided among users.

MDMA in crystalline form has also been seized in the region. Viet Nam authorities reported that crystalline MDMA samples analysed in the country in 2020 had an average purity of 75 per cent of MDMA.⁷⁶

⁷⁰ Official communication with NADA, March 2021; Official communication with ONCB, March 2021.

⁷¹ Institute of Forensic Science (IFS), "Trend of Synthetic Drugs in Viet Nam in 2020 through Laboratory Examination Results", presented at the Global SMART Programme Regional Workshop, November 2020.

⁷² Official communication with NADA, March 2021.

⁷³ Official communication with ONCB, March 2021.

⁷⁴ ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", and PDEA & Dangerous Drugs Board (DDB) of the Philippines, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020.

⁷⁵ SODC, "Latest situation on synthetic drugs and responses to the threats in Viet Nam", presented at the Global SMART Programme Regional Workshop, November 2020.

⁷⁶ IFS, "Trend of Synthetic Drugs in Viet Nam in 2020 through Laboratory Examination Results", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 2. Examples of "ecstasy" tablets with more than 200 mg of MDMA doses analysed in Southeast Asia, 2020

Photo	Reporting country	Weight of tablet	Purity	MDMA dose
	Viet Nam	580 mg	39.8 per cent	231 mg
	Viet Nam	520 mg	40.3 per cent	210 mg
	Viet Nam	520 mg	40.5 per cent	211 mg
	Singapore	340 mg	61.4% per cent	209 mg

Sources: Institute of Forensic Science (IFS), "Trend of Synthetic Drugs in Viet Nam in 2020 through Laboratory Examination Results", presented at the Global SMART Programme Regional Workshop, November 2020; CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020.

Substances found in "ecstasy" tablets

In addition to MDMA, a variety of other substances continue to be found in tablets sold as "ecstasy" in the region. These substances include ketamine, caffeine, amphetamine and methamphetamine as well as a range of NPS.

In Malaysia, "ecstasy" tablets containing NPS were first detected in 2012. Since then, a wide range of NPS has been identified as adulterants in "ecstasy" tablets analysed in the country, 77 including synthetic cannabinoids, synthetic cathinones, phenethylamines, tryptamines and piperazines. These include JWH-018, 3,4-methylenedioxy-N,Ndimethcathinone (dimethylone), 5-methoxy-N,Ndiisopropyltryptamine and N-benzylpiperazine (BZP), among others. 78 China, Indonesia and Thailand also have identified NPS in "ecstasy" tablets: ethylone para-methoxymethylamphetamine (PMMA) and 2,5-dimethoxy-4-chloroamphetamine (DOC) in Indonesia; and beta-keto-N-

methylbenzodioxolylbutanamine (butylone) in Thailand. Other substances in "ecstasy" tablets reported in the region include, but are not limited to, eutylone and methoxetamine.⁷⁹

⁷⁷ Of the substances mentioned, JWH-018, N-Benzylpiperazine (BZP), para-methoxymethylamphetamine (PMMA), 2,5-dimethoxy-4-chloroamphetamine (DOC), ethylone, and methoxetamine are already controlled under the 1971 Convention on Psychotropic Substances.

⁷⁸ NADA, "Synthetic Drug Pills in Malaysia", presented at the Global SMART Programme Regional Workshop, April 2016.

⁷⁹ Country presentations at the Global SMART Programme Regional Workshop, November 2020, and previous years.

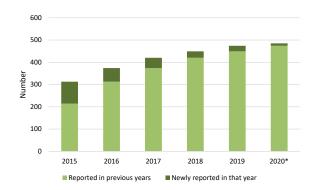
Overview of the new psychoactive substances (NPS) and other synthetic drug markets

In addition to methamphetamine and "ecstasy", East and Southeast Asia is also a market for other synthetic drugs, including NPS⁸⁰ and ketamine. In recent years, synthetic cannabinoids have been the most frequently identified NPS in most countries in the region, where NPS data is available. Meanwhile, the market for the non-medical use of ketamine has contracted in China,⁸¹ while increasing seizure amounts and a diversification of sources indicate a continued presence on illicit markets in Southeast Asia.

Dominance of synthetic cannabinoids in the regional NPS market

As of December 2020, a total of 485 individual NPS had been identified in East and Southeast Asia, or approximately 46 per cent of the 1,047 individual NPS reported at the global level thus far. ⁸² Although the data for 2020 are preliminary, the number of newly identified NPS each year in the region has continued the decline that began in 2015. This is contrary to the trend observed in Europe and North America, where the annual number of NPS reported for the first time remains high. ⁸³ The decline in East and Southeast Asia may in part be due to the limited forensic capacity of some countries to identify them.

Figure 26. Emergence of NPS in East and Southeast Asia, 2015-2020*

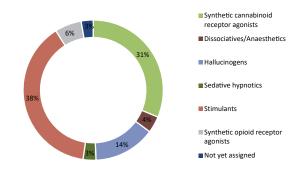


Note: * Data are preliminary.

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

By chemical substance group, synthetic cannabinoids (147) form the largest proportion of individual NPS reported, then synthetic cathinones (106). In terms of pharmacological effects, though NPS with stimulant effects (182) remain the largest group in terms of the number of different substances, it is followed by synthetic cannabinoid receptor agonists (147) and hallucinogens (67).

Figure 27. Proportion of NPS in East and Southeast Asia, by effect, up to December 2020*



Note: * Data are preliminary and based on analysis of 470 synthetic NPS. Plant-based substances were excluded from the analysis because they usually contain a large number of different substances, some of which may not even be known and whose effects and interactions are not fully understood. Percentage sum may exceed 100 due to rounding of decimals.

Source: UNODC EWA on NPS.

In Indonesia, Malaysia, Singapore, the Republic of Korea and Viet Nam, synthetic cannabinoids are the most identified NPS in analysed samples. Among this group, MDMB-4en-PINACA was the most frequently identified NPS in 2020 by the number of occurrences in drug samples analysed in China and Viet Nam and the second-most frequently

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.

⁸¹ Official communication with NNCC, March 2021.

⁸² UNODC EWA on NPS.

⁸³ UNODC, Regional diversity and the impact of scheduling on NPS trends, Global SMART Update, Vol. 25, April 2021.

identified in Malaysia and Singapore.⁸⁴ Other frequently identified synthetic cannabinoids in 2020 included 5F-MDMB-PICA, 4F-MDMB-BINACA and 5F-MDMB-PINACA.⁸⁵

Although synthetic opioids have been detected in the region, they remain rare compared with synthetic cannabinoids and NPS with stimulant effect. The appearance of new synthetic opioids declined in 2020, with only one detected for the first time: crotonylfentanyl.86 This may be due in part to the class-scheduling of fentanyl-related substances in May 2019 in China. Following the implementation of this measure, no fentanyls were detected in China.⁸⁷ Authorities in the United States also noted a decline in direct shipments of fentanyls and fentanyl-related compounds from China to the United States following the scheduling.88 However, organized crime groups may be targeting China for chemicals that can be used in the illicit manufacture of fentanyl and its analogues. Canadian authorities reported imports of such chemicals from China and Hong Kong, China, including t-Boc 4-AP, 4-piperidone and 2-phenethylbromide, as well as a shipment of mixed chemicals that can be used for the "ionic liquid" route to fentanyl.89

Although seizure data of NPS are limited in the region, a few countries reported an increase in seizure amounts of synthetic cannabinoids in 2020. In the Republic of Korea, authorities seized a total of 3.2 kg of synthetic cannabinoids.⁹⁰ While this figure is not high, it exceeds the combined amount seized in the five preceding years. In Indonesia, a total of 492.4 kg of synthetic cannabinoids were seized in 2020, almost twentyfold the amount seized in 2019 (25.1 kg).⁹¹ This increase was primarily driven by seizures of a product marketed as "Gorilla Tobacco (Tembakau Gorila)", which typically contains the

84 Official communication with NNCC, March 2021; Official communication with SODC, April 2021; Official communication with CNB, March 2021; Official communication with NADA, March 2021. synthetic cannabinoids FUB-AMB and/or AB-CHMINACA sprayed onto tobacco.⁹² Indonesia also seized two clandestine laboratories for "Gorilla Tobacco" in 2020.⁹³

The market for ketamine in Southeast Asia continues to expand while its sources have diversified

Preliminary data for 2020 show that while the overall amount of ketamine seized decreased in East Asia, the amount seized in Southeast Asia continued the increasing trend that began in 2015. In 2020, 5.9 tons of ketamine were seized in Southeast Asia, a 1.9 ton increase from the previous year. This was primarily due to increases in Malaysia (3 tons) and Thailand (1.9 tons), which together accounted for 83 per cent of the total amount seized in 2020.

In East Asia, ketamine seizures were predominantly reported by China, including Hong Kong, China, and Taiwan Province of China.

Figure 28. Seizure amounts of ketamine in East and Southeast Asia, 2015-2020*



Note: * Data are preliminary.

Sources: DAINAP; Country responses to UNODC ARQ; Official communication with national drug agencies in the region, March-April 2021; Taiwan Ministry of Justice, "Drug Offenses" (accessed at https://www.moj.gov.tw/2832/2833/2853/2854/2857/).

Ketamine seized in the region continues to be predominantly illicitly manufactured in and trafficked from the Golden Triangle. Authorities in China reported that 83 per cent of the methamphetamine and ketamine seized in the country had originated from the Golden Triangle.⁹⁴

⁸⁵ Country presentations at the Global SMART Programme Regional Workshop, November 2020.

⁸⁶ UNODC EWA on NPS.

⁸⁷ NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020.

⁸⁸ Drug Enforcement Administration (DEA), "National Drug Threat Assessment 2020", March 2021.

⁸⁹ Canada Border Services Agency (CBSA), "Drug Report for 2020", March 2021; Official communication with CBSA, March 2021.

⁹⁰ Official communication with the Supreme Prosecutors' Office (SPO) of Korea, March 2021.

⁹¹ Official communication with BNN, April 2021.

⁹² Ibid.

⁹³ Ibio

NNCC remarks at the "COVID and the Mekong: How the drug situation has changed and what it means for the future" side event, 64th Session of the Commission on Narcotic Drugs (CND), April 2021.

Thailand also reported that drug syndicates from Taiwan Province of China had smuggled ketamine from the northern border of Thailand for further shipment to Malaysia and Hong Kong, China. Similar with the case of methamphetamine and "ecstasy", organized crime groups in the region may also be increasingly targeting Cambodia for the trafficking and transhipment of ketamine. In February 2021, Cambodian authorities seized 465 kg of ketamine in Poulo Wai Island, Preah Sihanouk Province, concealed in distinctive teabags, indicating it was manufactured by organized crime groups operating in the Golden Triangle that use a similar packaging method for crystalline methamphetamine. Se

Clandestine ketamine laboratories were also dismantled in other countries in the region, including Cambodia and Malaysia. Ketamine was found at four re-processing laboratories in Cambodia in 2020, along with other substances and chemicals.⁹⁷ Illicit ketamine manufacture has been gaining importance in Malaysia, with three clandestine laboratories dismantled in 2020, compared with only one in 2019.⁹⁸ According to the latest data from Taiwan Province of China (2019), 1,183 kg of hydroxylamine, a precursor for ketamine, trafficked from Viet Nam were seized, indicating the presence of clandestine ketamine laboratories.⁹⁹

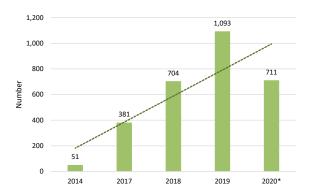
Although ketamine seized in the region was predominantly supplied from within the region, recent cases point to emerging links between South Asia and East Asia. For instance, Hong Kong Police reported that in February 2021, 682 kg of ketamine originating from Pakistan were seized. This single seizure was greater than the annual amounts of ketamine seized in Hong Kong, China, since 2013. 101

Available drug treatment admission data for 2020 for ketamine in Cambodia, the Philippines,

95 Official communication with ONCB, March 2021.

Singapore and Thailand show that less than one per cent of the admissions were due to the use of ketamine. ¹⁰² In Thailand, although the proportion is small, the number of admissions has been on an increasing trend in recent years. Expert perception also suggests that the use of ketamine in Brunei Darussalam as well as Cambodia increased in 2020. ¹⁰³ In China, the number of registered ketamine users continues to decline, from 236,000 users in 2015 to 41,100 users in 2020. ¹⁰⁴

Figure 29. Number of drug treatment admissions for the use of ketamine in Thailand, 2014-2020*



Note: * Data are preliminary. Ketamine drug treatment admission data were not available for 2015 and 2016.

Sources: DAINAP; UNODC ARQ Thailand for 2019 and previous years; Official communication with ONCB of Thailand, March 2021.

In January 2021, a series of drug overdose cases resulting in 13 deaths occurred in Thailand among users of a product locally called "K-powdered milk", which was presented to users as ketamine (table 3). According to autopsy results, the product contained ketamine, diazepam and caffeine in varying combinations and purity.

Table 3. Forensic profile of "K-powdered milk" analysed in Thailand, 2021

Number of samples	Forensic profile of "K-powdered milk"
7	Diazepam, 12-99% diazepam purity
5	Diazepam and ketamine, 18-99% diazepam purity
4	Ketamine hydrochloride and caffeine, 13-24% ketamine purity

Source(s): Official communication with ONCB of Thailand, March 2021.

⁹⁶ ONCB, "Overview of Thailand drugs and interesting trends", March 2021.

⁹⁷ Official communication with NACD, March 2021.

⁹⁸ Official communication with NADA, March 2021.

⁹⁹ Ministry of Justice Investigation Bureau, Taiwan Province of China, "Report on Drug Control and Prevention 2019", August 2020.

¹⁰⁰ Hong Kong Police official Twitter account, February 2021. (accessed at https://twitter.com/hkpoliceforce/status/1357640178618126344)

¹⁰¹ Responses to UNODC ARQ; Official communication with NNCC, March 2021.

¹⁰² For more information, see the Cambodia, Philippines, Singapore, and Thailand country chapters in this report.

¹⁰³ Official communication with the Narcotics Control Bureau (NCB) of Brunei Darussalam, March 2021; Official communication with NACD, March 2021.

¹⁰⁴ Official communication with NNCC, March 2021.

Table 4. Ketamine analogues detected in East and Southeast Asia, 2019-2020

Year	Substance	Detected in
2019	2-Fluorodeschloroketamine	 China Hong Kong, China Taiwan Province of China Indonesia Singapore Viet Nam
	Deschloro- <i>N</i> -ethyl-ketamine	Hong Kong, ChinaMalaysia
	Deschloroketamine	Hong Kong, China
	Methoxetamine	IndonesiaMalaysia
2020	2-Fluorodeschloroketamine	Singapore
	Deschloroketamine	Singapore
	Methoxetamine	Singapore

Sources: UNODC EWA on NPS; Ministry of Justice Investigation Bureau, Taiwan Province of China, "Report on Drug Control and Prevention 2019", August 2020.

Emergence of ketamine analogues in East and Southeast Asia

The emergence of ketamine analogues in East and Southeast Asia further compounds the situation of non-medical use of ketamine (table 4). Since 2019, several ketamine analogues emerged in the region, including deschloro-*N*-ethyl-ketamine, 2-fluorodeschloroketamine, methoxetamine and deschloroketamine.¹⁰⁵

Evolution of benzodiazepine-type NPS and its impact on drug users

The non-medical use of prescription benzodiazepines, including diazepam nimetazepam, has long been an important feature of the illicit drug market in East and Southeast Asia. This is also reflected in the emergence of NPS with sedative/hypnotic effects, particularly benzodiazepine-type NPS, also known as "designer benzodiazepines". 106 While the street name "Erimin 5"107 and the form of presentation as tablets have shown some continuity, as of December 2020, 12 different benzodiazepine-type NPS had been detected in the region. 108

The emergence of benzodiazepine-type NPS in East and Southeast Asia does not seem to follow any particular pattern, but etizolam has been consistently found in the region since its first appearance in 2016. In 2020, flubromazolam, which was last detected in 2015, was also detected in addition to etizolam. 109 Although toxicology data related to benzodiazepine-type NPS are limited in the region, available data from other parts of the world show that the use of these substances has been associated with severe negative health implications, including death. 110

¹⁰⁵ UNODC EWA on NPS.

¹⁰⁶ See also UNODC, Non-medical use of benzodiazepines: a growing threat to public health?, Global SMART Update, Vol. 18, September 2017.

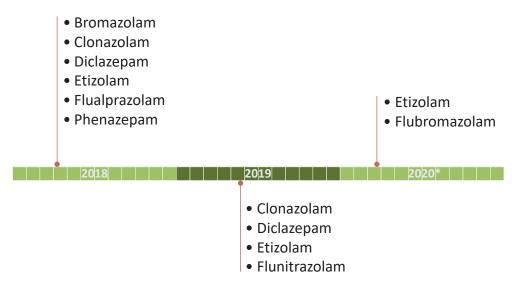
[&]quot;Erimin 5" is a proprietary product of Sumitomo corporation, and its licit production has been discontinued since 2015. The proprietary product contains nimetazepam, a benzodiazepine, which is controlled in Schedule IV of the Convention on Psychotropic Substances of 1971. It is probable that current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

¹⁰⁸ These designer benzodiazepines include bromazolam, clonazolam, deschloroetizolam, etizolam, flualprazolam, flubromazepam, flubromazolam, flunitrazolam, nifoxipam, phenazepam, and pyrazolam.

¹⁰⁹ UNODC EWA on NPS.

¹¹⁰ European Monitoring Centre for Drugs and Drug Addiction, European Drug Report 2020: Trends and Developments, September 2020.

Figure 30. Timeline of benzodiazepine-type NPS detected in East and Southeast Asia, 2018-2020*



Note: *Data for 2020 are preliminary.

Sources: UNODC EWA on NPS; Official communication with CNB of Singapore and NADA of Malaysia, March 2021.

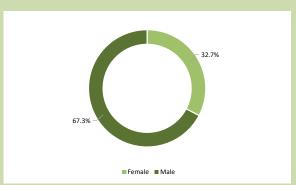
Emergence of LSD analogues

New psychoactive substances (NPS) with hallucinogenic effect, particularly LSD analogues, emerged in recent years in some countries in the region, particularly Japan, Singapore, the Republic of Korea and Viet Nam. These LSD analogues are sold on impregnated blotter paper, similar to the form of presentation typically used for LSD. They first emerged in 2015. Table 5 presents the substances identified so far.

The latest available data for the number of people in Japan who use drugs indicate that 277,224 people reported having used LSD once in their lifetime in 2019. 112 Although it is unclear whether the LSD use also encompassed the use of LSD analogues, given the high number of LSD users and the availability of LSD and other NPS through online channels, 113 it is possible that users of LSD may also have—knowingly or unknowingly—used LSD analogues.

One notable observation related to LSD use is the large proportion of female LSD users, when compared to other drugs consumed in Japan. The underlying reason for this is unclear.

Figure 31. Proportion of estimated number of people who reported having used LSD once in their lifetime in Japan, by gender, 2019



Source: National Center of Neurology and Psychiatry (NCNP), "2019 Nationwide General Population Survey on Drug Use in Japan", July 2020.

Table 5. LSD analogues identified for the first time in East and Southeast Asia, 2015-2020

	2015	2016	2019	2020
LSD analogue	- 1P-LSD	- AL-LAD	- ALD-52	- ETH-LAD
		- Lysergic acid, 2,4-dimethylazetide		- 1-CP-LSD
		1.12 - 12		- 1-CP-LSD

Sources: UNODC EWA on NPS; National Police Agency (NPA) & Ministry of Health, Labour and Welfare (MHLW), "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

¹¹¹ UNODC EWA on NPS.

¹¹² National Center of Neurology and Psychiatry (NCNP), "2019 Nationwide General Population Survey on Drug Use in Japan", July 2020.

¹¹³ NPA & MHLW, "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.





Summary of major trends and emerging concerns

Methamphetamine

- Crystalline methamphetamine remains the main drug of concern in Brunei Darussalam, accounting for the largest proportion of drug-related offences as well as drug treatment admissions (figure 1 and table 2).
- The amount of crystalline methamphetamine seized in 2020 exceeded the combined amount for the last five years by threefold, despite the COVID-19 restriction measures which included a full lockdown of the country (table 3). Three significant interdiction cases in the second half of the year offset an initial decrease in seizures in the first half of 2020 (figure 3).

"Ecstasy"1

• Although "ecstasy"-related seizures and arrests increased slightly in 2020, they remained low in comparison with other countries in the region (figure 1 and table 3).

New Psychoactive Substances (NPS) and other synthetic drugs

• Seizures of ketamine, while still low, increased in 2020, as did the perceived non-medical use of the drug (tables 1 and 3).

Other drugs

- "Erimin 5", which may contain nimetazepam, a benzodiazepine derivative, continues to be marketed and used in the country. Although, the amount was seized in 2020 was smaller than in previous years.²
- Cannabis is the second drug of concern behind methamphetamine and is most prevalent among youth and students.³

^{1 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of

^{2 &}quot;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.

³ Narcotics Control Bureau (NCB), "Latest situation on synthetic drugs and responses to the threats in Brunei Darussalam", presented at the Global SMART Programme Regional Workshop, November 2020.

Key facts and figures

Drug demand indicators

Table 1. Trend in use of selected drugs in Brunei Darussalam, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	↔	ţ	1	1	1	1
"Ecstasy"	1	ţ	1	1	1	1
Cannabis herb	↔	1	ţ	1	1	1
Inhalants	1	ţ	•	↔	↔	•
Ketamine	1	1	1	Ţ	•	1
Nimetazepam	↔	†	↔	1	1	•

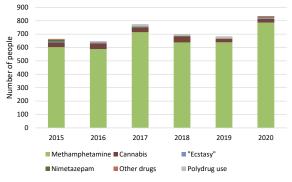
Note: Based on expert perception provided by the Narcotics Control Bureau (NCB), Brunei Darussalam.

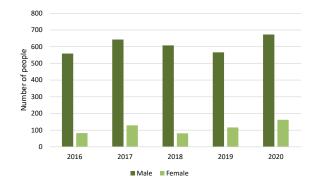
 \uparrow = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaires (ARQ) Brunei Darussalam for 2019 and previous years; Official communication with NCB, March 2021.

Figure 1. Number of people brought into formal contact with authorities for drug-related offences in Brunei Darussalam, by drug type, 2015-2020

Figure 2. Number of people brought into formal contact with authorities in Brunei Darussalam for drug related offences, by gender, 2016-2020





Source(s): DAINAP; NCB, "Latest situation on synthetic drugs and responses to the threats in Brunei Darussalam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NCB, March 2021.

Source(s): DAINAP.

Table 2. Number of people who use drugs receiving treatment in Brunei Darussalam, by gender and selected drug types, 2018-2020

	2018			2019			2020		
Drug type	Male	Female	Total	Male	Female	Total	Male	Female	Total
Methamphetamine	218	32	250	195	31	226	106	16	122
Cannabis	3	0	3	4	0	4	6	0	6
Inhalants	0	0	0	1	0	1	0	0	0
Polydrug use	2	0	2	1	0	1	0	0	0
Total	223	32	255	201	31	232	112	16	128

Source(s): DAINAP; NCB, "Latest situation on synthetic drugs and responses to the threats in Brunei Darussalam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NCB, March 2021.

Drug supply indicators

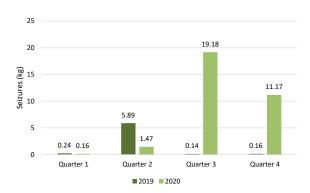
Table 3. Seizures of selected drugs in Brunei Darussalam, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	kg	1.4	0.7	0.8	0.8	6.4	32
"Ecstasy"	tablet / g	43 and 30.4 g	21 tablets	31 and 1.6 g	0	42 tablets	100 tablets
Cannabis herb	kg	3.8	6	1.1	0.4	6.5	1.3
Heroin	kg	•	•	•	•	•	•
Ketamine	tablet / g	10.2 g	17.6 g	50 and 54.5 g	21 g	1.6 g	229.9 g
Nimetazepam	tablet / g	243 tablets and 4.1 g	457 tablets and 1.4 g	453 tablets and 11.8 g	275 tablets	503 tablets and 0.29 g	108 tablets and 0.30 g
Kratom (liquid)	litre	0	0	0	0	0.9	0
Khat	kg	0	0	0	0	80	0

Note: ●= Not reported

Source(s): DAINAP; UNODC ARQ Brunei Darussalam for 2019 and previous years; NCB, "Latest situation on synthetic drugs and responses to the threats in Brunei Darussalam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NCB, March 2021.

Figure 3. Seizures of crystalline methamphetamine in Brunei Darussalam, by quarter, 2019 and 2020



Source(s): DAINAP; Official communication with NCB, March 2021.

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

Drug type	Unit	2020
Crystalline methamphetamine	per g	BND 195 (\$146.7)
"Ecstasy"	per tablet	BND 30-BND 50 (\$22.6-\$37.6)
Cannabis herb	per g	BND 15 (\$11.3)
Ketamine	per g	BND 50 (\$37.6)
Benzodiazepines ("Erimin 5")	per tablet	BND 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 1 BND = US\$0.75.

Source(s): DAINAP; NCB, "Latest situation on synthetic drugs and responses to the threats in Brunei Darussalam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NCB, March 2021.



CAMBODIA

Summary of major trends and emerging concerns

Methamphetamine

- Despite the COVID-19 pandemic, the market for crystalline methamphetamine appears to have further expanded, as evidenced by a record seizure in 2020, exceeding the combined amount seized in the four preceding years (table 3). This is also supported by the increase in the use of crystalline methamphetamine in 2020, according to expert perception, as well as the fact that crystalline methamphetamine users continue to account for the largest proportion of drug treatment admissions (tables 1 and 2).
- While there was a brief respite in crystalline methamphetamine seizures in the first half of 2020, it quickly rebounded in the second half of the year with 84 per cent of the total amount seized in 2020 (figure 3).
- Average retail prices for methamphetamine tablets dropped even further in 2020 than in 2019 to only US\$1 per tablet while purity remained stable, indicating continued widespread availability of the drug (see Figure 5).

"Ecstasy"1

• Seizures of "ecstasy" decreased in 2020 (table 3), with most seizures occurring at four re-processing and tableting facilities dismantled in Cambodia. A significant amount of 3,4-MDP-2-P (600 kg), a controlled precursor of MDMA, was also found at a re-processing facility in August 2020.²

New Psychoactive Substances (NPS) and other synthetic drugs

- Seizures of "Erimin 5" were reported for the first time in 2020 (table 3).
- Expert perception and drug treatment admission data suggest an increase in the use of ketamine in 2020 (tables 1 and 2). Ketamine seizures also continued to increase, reaching over 100 kg for the first time (table 3).

Other drugs

• A record amount of heroin was seized in 2020, in large part due to a significant seizure case (186.6 kg) in August 2020 (table 3).

^{1 &}quot;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 2021.

^{3 &}quot;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

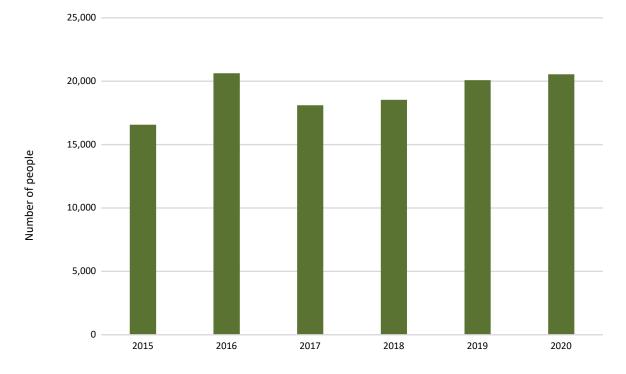
Table 1. Trend in use of selected drugs in Cambodia, 2015-2020

2015	2016	2017	2018	2019	2020
1	1	1	1	1	1
†	1	1	†	†	†
1	1	Ţ	1	1	1
1	Ţ	1	1	1	1
1	1	1	•	1	1
†	1	1	Ţ	†	1
Ţ	•	1	•	1	1
	2015 ↑ ↑ ↓ ↑ ↓ ↑	2015 2016 ↑ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑	2015 2016 2017 ↑ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑ ↓	2015 2016 2017 2018 ↑ ↑ ↓ ↓ ↑ ↓ ↑ ↑ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓	2015 2016 2017 2018 2019 ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↑

Note: Based on expert perception provided by the National Authority for Combating Drugs (NACD), Cambodia.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Official communication with NACD, March 2021.

Figure 1. Number of people who use drugs brought into formal contact with authorities in Cambodia, 2015-2020



Source(s): DAINAP; NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NACD, March 2021.

 $[\]uparrow$ = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

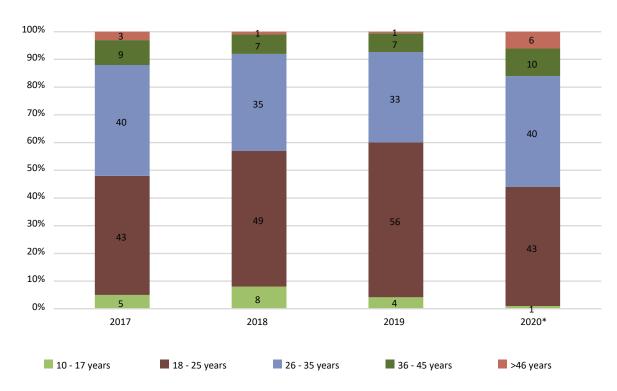
Table 2. Number of treatment admissions in Cambodia, by drug type and gender, 2020*

Drug type	Male	Female	Total
Crystalline methamphetamine	4,025	205	4,230
Methamphetamine tablet	217	14	231
"Ecstasy"	55	0	55
Heroin	39	2	41
Ketamine	34	2	36
Cannabis herb	31	0	31
Other drugs	26	0	26
Total	4,427	223	4,650

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

Source(s): DAINAP; Official communication with NACD, March 2021.

Figure 2. Drug treatment centre admissions in Cambodia, by age group, 2017-2020*



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

Source(s): DAINAP; NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NACD, March 2021.

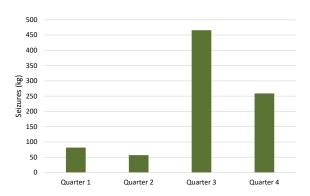
Drug supply indicators

Table 3. Seizures of selected drugs in Cambodia, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablets ^a	tablets	265,760	490,689	371,556	77,000	483,444	43,222
Crystalline methamphetamine	kg	72.9	66.3	80.1	306.6	384.9	863.5
"Ecstasy"b	tablets	70	5,509	83,533	599,200	382,733	245,200
Cannabis herb	kg	1,511.5	37	116.3	74.0	102.9	292.2
Cocaine	kg	5.3	14	12.8	5.4	0.6	0.5
Heroin	kg	2.5	6.2	22.5	1.3	0.5	299
Ketamine	kg	0.1	1.1	6.3	36.3	33	112.5
Nimetazepam	kg	•	•	•	•	•	9.4

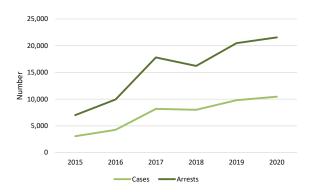
Note: ● = Not reported; ^aThese figures include quantities reported as grams, all of which were converted into estimated tablet equivalent at 90 mg per tablet. ^bThese figures include quantities reported as grams, all of which were converted into estimated tablet equivalent at 300 mg per tablet. Source(s): DAINAP; UNODC Annual Report Questionnaire (ARQ) Cambodia 2019 and previous years; NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NACD, March 2021.

Figure 3. Seizures of crystalline methamphetamine in Cambodia, by quarter, 2020



 $Source (s): DAINAP; Official\ communication\ with\ NACD,\ March\ 2021.$

Figure 4. Number of drug-related arrests and cases in Cambodia, 2015-2020



Source(s): DAINAP; NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NACD, March 2021.

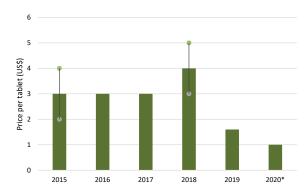
Table 4. Typical purity of selected drugs in Cambodia, 2019 and 2020* (percentage)

	2019				2020*			
	Number of samples analysed	Minimum	Average	Maximum	Number of samples analysed	Minimum	Average	Maximum
Crystalline methamphetamine	5,237	2.3	58.5	96.9	3,668	1.5	62	80.5
Methamphetamine tablets	203	10.8	19.1	29.9	133	12.2	17	23.7
"Ecstasy" tablets (MDMA)	203	27.4	37.6	54.7	50	14.6	29	43.5
Ketamine (powder)	181	0.7	38.9	88.8	17	5	25.9	68

Note: *The data cover the first ten months of the year and refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances.

Source(s): NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 5. Retail prices of methamphetamine tablets in Cambodia, 2015-2020* (US\$)



Note: *The data cover the first six months of the year; the high-low bars represent the upper and lower limits of the price ranges reported in addition to the typical price.

Source(s): NACD, "Latest situation on synthetic drugs and responses to the threats in Cambodia", presented at the Global SMART Programme Regional Workshop, November 2020.

Summary of major trends and emerging concerns

Methamphetamine

- Although seizures of methamphetamine tablets increased slightly in 2020, the amount of crystalline
 methamphetamine seized dropped to its lowest value in the past six years (table 1). Seizures of
 crystalline methamphetamine dropped sharply in February 2020 following strict COVID-19 mobility
 measures. Although monthly seizure amounts fluctuated during 2020, the overall trend suggests that
 seizures began to increase following the relaxation of the COVID-19 mobility restrictions from the
 second quarter onwards (figure 4).
- Data on drug use, together with supply indicators such as arrests, manufacture and seizures, indicate a decrease in the illicit synthetic drug market in China in 2020. However, methamphetamine continues to account for the largest proportion of registered drug users.¹
- Chemical profiling indicates that crystalline methamphetamine seized in China is predominantly trafficked from the Golden Triangle.²

"Ecstasy"3

• Following a significant reduction in "ecstasy" seizures in 2018, seizures have been steadily rising over the past couple of years (table 1).

New Psychoactive Substances (NPS) and other synthetic drugs

- The number of synthetic cathinones identified has decreased annually since 2016, with only six different synthetic cathinones detected in 2020 (figures 6 and 8).
- Synthetic cannabinoids continue to account for the largest proportion of NPS identified in the past three years (figure 6).
- No fentanyl analogues were detected in the country following their national scheduling in May 2019⁴ (figure 6).
- Seizures of ketamine continue to decrease, with the amount seized in 2020 less than a tenth of the record quantity reported in 2015 (table 1).

Other drugs

- According to expert perception, the non-medical use of prescription medicines and non-controlled substances have increased, including nitrous oxide, also known as "laughing gas", due to disruptions in the drug supply from the Golden Triangle as a result of the COVID-19 mobility restrictions during the first quarter of 2020.⁵
- The number of registered users of opiates decreased in 2020, although they continue to constitute the second largest proportion of registered drug users in China, after users of synthetic drugs (figure 2).

¹ Official communication with the National Narcotics Control Commission (NNCC), March 2021.

² NNCC remarks at the "COVID and the Mekong: how the drug situation has changed and what it means for the future" side event, 64th Session of the Commission on Narcotic Drugs (CND), April 2021.

^{3 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of

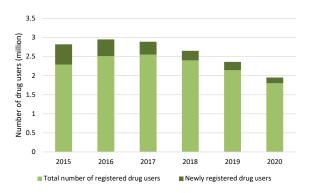
⁴ NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020.

b Ibid.

Key facts and figures

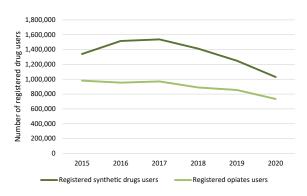
Drug demand indicators

Figure 1. Number of registered drug users in China, 2015-2020



Source(s): Official communication with the National Narcotics Control Commission (NNCC), March 2021.

Figure 2. Number of people who were registered for using synthetic drugs and opiates in China, 2015-2020



Source(s): Official communication with NNCC, March 2021.

Drug supply indicators

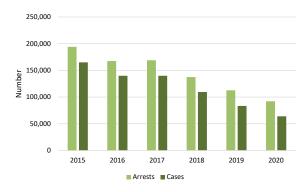
Table 1. Seizures of selected drugs in China, 2015-2020

3								
Drug type	Unit	2015	2016	2017	2018	2019	2020	
Crystalline methamphetamine	kg	22,663.8	17,361.8	17,033.6	10,654.8	12,155.32	7,935.5	
Methamphetamine tablets ^a	tablets	134,126,000	129,123,556	122,410,444	138,888,888	129,464,300	132,360,700	
Methamphetamine powder	kg	393.9	399.7	332.4	354.4	235.8	364.5	
Methamphetamine liquid	lt	1,443.7	1,323.8	2,195.9	921.3	1,174	437.8	
"Ecstasy" b	tablets	632,100	1,200,267	3,481,233	213,600	345,900	490,667	
Ketamine	kg	19,600	10,361.1	7,292.6	5,742.9	1,761.8	1,406.8	
Cannabis herb	kg	8,721.8	5,833.3	4,919.1	6,059.8	621.7	406.1	
Cannabis resin	kg	5.9	34.4	8.0	0.3	2,559.7	3	
Cocaine	kg	97.7	430.6	311.7	1,365.8	166.1	582.2	
Heroin	kg	8,796.1	8,777.4	9,519.9	8,070.3	6,136.4	3,771.5	
Opium	kg	2,451.9	3,104.3	3,909.3	2,515.9	2,908.4	2,770.8	

Note: * Seizure data for 2018 shown in the table was provided by NNCC to the UNODC Global SMART programme for this report and may differ from the data in the annual report questionnaire (ARQ); Some of the figures reported in previous reports have been updated with revised data shared by NNCC in March 2021; ^a Figures not reported as number of tablets converted into estimated tablet equivalent at 100 mg per tablet. ^b Figures not reported as number of tablets converted into estimated tablet equivalent at 300 mg per tablet.

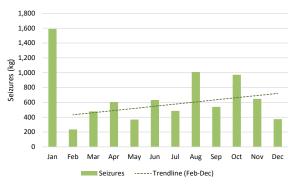
Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC ARQ China for 2019 and previous years; NNCC, "Annual Report on Drug Control in China 2019" and previous reports; Official communication with NNCC, March 2021.

Figure 3. Number of drug related arrests and cases in China, 2015-2020



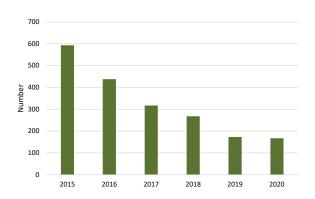
Source(s): NNCC, "Annual Report on Drug Control in China 2019" and previous reports; Official communication with NNCC, March 2021.

Figure 4. Seizure amounts of crystalline methamphetamine in China, by month, 2020



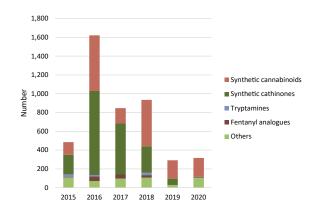
Source(s): Official communication with NNCC, March 2021.

Figure 5. Number of illicit drug manufacturing facilities dismantled in China, 2015-2020



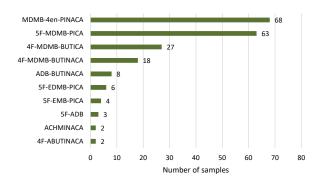
Source(s): NNCC, "Annual Report on Drug Control in China 2019" and previous reports; Official communication with NNCC, March 2021.

Figure 6. Frequency of NPS identified by the NPS Monitoring Programme of China, by substance group, 2015-2020



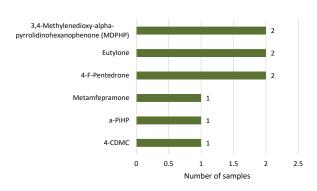
Source(s): Official communication with NNCC, March 2021.

Figure 7. Top 10 synthetic cannabinoids identified by the NPS Monitoring Programme of China, 2020



Source(s): Official communication with NNCC, March 2021.

Figure 8. Top 6 synthetic cathinones identified by the NPS Monitoring Programme of China, 2020*



Note: * These are all the synthetic cathinones identified by the NPS Monitoring Programme of China in 2020.

Source(s): Official communication with NNCC, March 2021.

Table 2. Newly identified NPS in China, 2019-2020

Substance Type	2019	2020							
Synthetic cannabinoids	MDMB-4en-PINACA	Adamantyl-CHMINACAADB-BUTINACA5F-EMB-PICA							
Synthetic cathinones	 3,4-Methylenedioxy-alpha-pyrrolidi- nohexanophenone (MDPHP) N-Benzylheptedrone N-Ethylheptedrone 	Metamfepramone							
Tryptamines	 5-Methoxy-alpha-methyltryptamine (5-MeO-AMT) 	-							

Source(s): NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NNCC, March 2021.

Table 3. Typical retail purities of methamphetamine and ketamine in China, 2016-2020 (percentage)

Drug type	2016	2017	2018	2019	2020
Crystalline methamphetamine	91	87	82	85	82
Methamphetamine tablet	16	16	17	17	17
Ketamine	69	74	74	72	69

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

Source(s): NNCC, "Latest situation on synthetic drugs and responses to the threats in China", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NNCC, March 2021.

Hong Kong (Special Administrative Region of China)

Summary of major trends and emerging concerns

Methamphetamine

- Despite the COVID-19 pandemic, seizures of crystalline methamphetamine reached its highest recorded level in 2020, surpassing the combined amounts seized in the previous five years (table 1). However, the reported wholesale and retail prices also rose in 2020 to the highest in the past five years (table 2).
- The number of methamphetamine users brought into formal contact with authorities has declined annually since 2016 (figure 1). Thus, the large amount seized in 2020 may not necessarily indicate an increased availability of methamphetamine in the local market but may be related to methamphetamine shipments transiting Hong Kong, China.

"Ecstasy"6

• The number of seized "ecstasy" tablets decreased in 2020, although a significant amount of "ecstasy" powder was seized (table 1). Nevertheless, the number of "ecstasy" users remained low and accounted for only 0.8 per cent of the number of reported drug users.⁷

New Psychoactive Substances (NPS) and other synthetic drugs

- While annual seizures of ketamine have increased every year since 2017 (table 1), the number of reported cases of non-medical use of ketamine continues to decline (figure 1).
- Preliminary data for 2020 show that the proportion of female ketamine users, brought into contact with formal authorities, was higher than for any other drug (figure 2).

Other drugs

- Seizures of heroin increased significantly in 2020 (table 1). Although heroin remains the most commonly reported substance of use, the number of heroin users has decreased every year for the past decade (figure 1).
- The number of cannabis users remained stable in 2020, contrary to the trend observed with other drugs (figure 1).

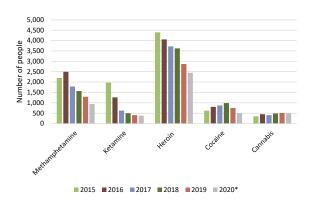
^{6 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA

⁷ 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 http://www.nd.gov.hk/text/en/statistics_list.htm).

Key facts and figures

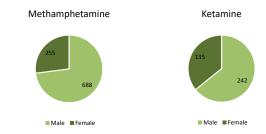
Drug demand indicators

Figure 1. The number of people who use methamphetamine, ketamine, heroin, or cocaine brought into formal contact with authorities in Hong Kong, China, 2015-2020*



Note: * The data cover the first nine months of the year.
Source: 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 http://www.nd.gov.hk/text/en/stat/statistics_list.htm).

Figure 2. The number of people who use methamphetamine and ketamine, brought into formal contact with authorities in Hong Kong, China, by gender, 2020*



Note: * The data cover the first nine months of the year. Source: Narcotics Division, Security Bureau (NDSB), "Reported drug abusers by sex by common type of drugs abused (T15)" (Accessed at http://www.nd.gov.hk/text/en/stat/statistics_list.htm).

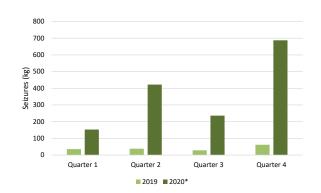
Drug supply indicators

Table 1. Seizures of selected drugs in Hong Kong, China, 2015-2020*

Drug type	Unit	2015	2016	2017	2018	2019	2020*
Crystalline methamphetamine	kg	355.5	359	144	171.8	162.8	1,498.6
"Ecstasy" ^a	tablets	2,848	5,861	9,828	57,275	56,385	332,094
Ketamine	kg	660	281.7	94.5	118.6	273.9	472.86
Cannabis	kg	130	241.9	1,375.6	514.9	374.1	1,070.8
Cocaine	kg	292.4	471	219.9	538.1	1677.6	1,269.2
Heroin	kg	27.4	73.5	29.5	49.1	46.8	367.8

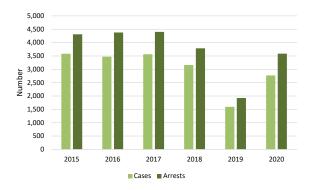
Note: * Data are preliminary; ^a Figures reported other than the number of tablets converted into estimated tablet equivalent at 300 mg per tablet. Source(s): UNODC ARQ for Hong Kong, China, for 2019 and previous years; Official communication with NNCC, March 2021.

Figure 3. Seizure amounts of crystalline methamphetamine in Hong Kong, China, by quarter, 2019 and 2020*



Note: * Data are preliminary. Source(s): Official communication with NNCC, March 2021.

Figure 4. Number of drug-related arrests and cases in Hong Kong, China, 2015-2020



Source(s): Hong Kong Police Force, "Drug situation in Hong Kong", presented at the 24th ADEC, Tokyo, Japan, February 2018; Official communication with NNCC, March 2021.

Table 2. Wholesale and retail prices of selected drugs in Hong Kong, China, 2016-2020 (US\$)

Drug type	Unit	2016	2017	2018	2019	2020
Crystalline methamphetamine	Per kg	8,874.39	12,296.88	22,402.37	19,013.54	27,935.13
Crystalline methamphetamine	per gram	42.43	46.17	70.29	65.39	79.31
"Ecstasy"	per tablet	7.74	10.32	10.19	9.54	6.84
Heroin	per gram	96.08	98.01	108.72	105.88	151.41
Ketamine	per gram	28.50	49.26	65.64	75.32	70.03
Cocaine	per gram	140.70	122.00	171.14	142.38	174.23

Note: Prices reported in Hong Kong dollars were converted with a March 2021 conversion ratio of HKD 7.754 = US\$1. Source(s): Official communication with NNCC, March 2021.

Summary of major trends and emerging concerns

Methamphetamine

- The amount of methamphetamine seized declined sharply in 2020, possibly due to the impact of COVID-19-related restrictions but was still at the levels reported in 2017 and 2018 (table 3).
- Methamphetamine continues to account for the largest proportion of drug-related arrests as well
 as the number of drug treatment admissions in the country (table 2 and figure 1). Although a large
 majority of the methamphetamine seized in the country had been sourced from the Golden Triangle,
 Indonesian authorities also seized more than one ton of the drug trafficked from West Asia between
 May 2020 and January 2021.¹
- Six clandestine methamphetamine laboratories were dismantled in 2020, a significant increase on the average of three laboratories dismantled annually in recent years (table 4).
- The Emde route, which uses ephedrine and pseudoephedrine as its starting material, remains the most common synthesis route of crystalline methamphetamine samples encountered in Indonesia. However, some samples manufactured with P-2-P as the starting material, namely reductive amination and the Leuckart method, were found in 2020 (figure 2).²

"Ecstasy"3

• "Ecstasy" seizures and use have remained stable in recent years (tables 1 and 3). Although "ecstasy" seized in Indonesia is primarily trafficked from Europe, clandestine "ecstasy" laboratories have also been dismantled within the country in recent years (table 4).

New Psychoactive Substances (NPS) and other synthetic drugs

- Synthetic cannabinoids continue to dominate the NPS market in Indonesia (figure 3). Seizures reached record levels in 2020, with nearly half a ton of synthetic cannabinoids seized, in part due to the domestic manufacture of MMB-FUBINACA and/or AB-CHMINACA sprayed onto tobacco, locally known as "Tembakau Gorila (Gorilla Tobacco)" (tables 3 and 4). Synthetic cannabinoids also accounted for the largest number of newly identified NPS in 2020 (table 7).
- Seizures of tablets containing paracetamol, carisoprodol, and caffeine, sold as "PCC", declined in 2020 (table 3). The amount of benzodiazepines seized, predominantly nimetazepam and lorazepam, significantly increased in 2020 from preceding years, although not to the record level reached in 2015 (table 3).

Other drugs

• Indonesia continues to seize the largest amount of cannabis herb in East and Southeast Asia (table 3). The use of cocaine and heroin are limited (table 3).

¹ Official communication with the National Narcotics Board (BNN) of Indonesia, March 2021.

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 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

Drug demand indicators

Table 1. Trend in use of selected drugs in Indonesia, 2015-2019

Drug type	2015	2016	2017	2018	2019
Crystalline methamphetamine	↔	↔	↔	↔	↔
"Ecstasy"	†	↔	†	↔	↔
Barbiturates	1	1	1	1	↔
Benzodiazepines	1	↔	↔	1	↔
Cannabis herb	↔	↔	↔	↔	↔
Cannabis resin	1	1	•	•	•
Cocaine	•	1	↔	1	↔
Heroin	↔	1	1	1	1
LSD	•	↔	↔	1	•
Ketamine	↔	•	•	•	•

Note: Based on expert perception provided by the National Narcotics Board (BNN), Indonesia.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaires (ARQ) Indonesia for 2019 and previous years; Official communication with BNN, April 2021.

Table 2. Drug treatment admissions in Indonesia, by drug type and gender, 2019

Drug time		All admissions	
Drug type	Male	Female	Total
Methamphetamine ^a	6,982	726	7,707
Opiates ^b	427	30	457
Cannabis	1,453	45	1,498
Cocaine	24	4	28
Benzodiazepines	622	49	672
Barbiturates	67	9	76
LSD	559	81	640
Inhalants	622	49	672
Poly-drug use	335	39	374
Other drugs	1,159	144	1,303
Total	12,350	1,176	13,427

Note: *Includes few "ecstasy" related admissions. *Include heroin, morphine and methadone.

Source(s): Official communication with BNN, April 2021.

Drug supply indicators

Table 3. Seizures of selected drugs in Indonesia, 2015-2020*

			,				
Drug type	Unit	2015	2016	2017	2018	2019	2020*
Crystalline methamphetamine	kg	4,420.2	2,630	7,544.8	8,231.3	17,928.3	7,905.7
Methamphetamine powder	kg	•	•	•	4	•	•
Amphetamine	kg	1.1	•	O ^a	65.4	•	•
"Ecstasy"	tablets	1,995,240	1,694,970	3,102,679	1,594,084	1,537,806	1,543,336
"Ecstasy" powder	kg	4.3	0.9	21.1	2.3	142.7	14.4
Barbiturates	tablets	7,332	273,201	264,107	138,516	722,572	65,774
Benzodiazepines	tablets	1,247,895	475,860	64,962	10,703	12,125	574,421

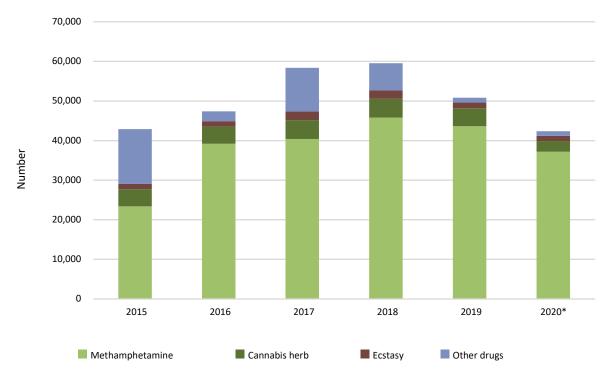
^{↑ =} Increasing, \downarrow = Decreasing, \leftrightarrow = Stable, \bullet = Not reported.

Drug type	Unit	2015	2016	2017	2018	2019	2020*
Cannabis herb	kg	29,389.3	15,700	151,670.9	41,266.8	63,212.19	53,573
Cannabis plants	plants	101,815	2,171,841	205,708	1,047,915	350,868	16,539
Cocaine	kg	0.0ª	0.5	0.1	8.4	8.39	0.5
Heroin	kg	13.3	2.2	0.5	1.4	23.9	44
Prescription opioid (tramadol)	tablets	•	•	•	7,477	3,476	5,998
Ketamine	kg	3.5	O ^a	1.8	22.2	11	8.2
Synthetic cannabinoids	kg	•	10.5	45.2	5.4	25.12	492.4
PCC (paracetamol, carisoprodol, and caffeine)	tablet	•	•	•	1,652,864	1,652,864	400,000

Note: * Data are preliminary; ● = Not reported. a Less than 0.05 kg of the substance was seized.

Source(s): DAINAP; UNODC ARQ Indonesia for 2019 and previous years; BNN; "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Figure 1. Number of drug-related arrests in Indonesia, by drug type, 2015-2020*



Note: * Data are preliminary.

Source(s): DAINAP; BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 4. The number of illicit drug manufacturing facilities dismantled in Indonesia, by drug type, 2014-2020*

Drug type	2015	2016	2017	2018	2019	2020*
Methamphetamine	3	3	3	4	2	6
Ecstasy	1	0	1	1	0	2
Synthetic cannabinoids	0	0	0	0	0	2
Synthetic cathinones	0	0	0	0	1	0
PCC	0	0	0	0	1	0

Note: * Data are preliminary.

Source(s): DAINAP; BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Table 5. Typical retail price of selected drugs in Indonesia, 2016-2020* (US\$)

Drug type	Unit	2016	2017	2018	2019	2020*
Crystalline methamphetamine	per g	185-190	153-185	124-185	85.7-114.3	106.7
"Ecstasy"	per tablet	18	18-31	18-28	24.3-28.6	26
Amphetamine	per g	30	30	30	•	•
Ketamine	per g	•	77	•	50-71.4	•
Cannabis herb	per kg	185-191	185-191	185	•	•
LSD	Per blot	•	•	•	10.7-21.4	•
Synthetic cannabinoid	Per bag (5 grams)	•	•	•	28.6-35.7	•
Heroin	per g	111-115	111-115	185	214.3	116.7
Cocaine	per g	74	74	74-241	179	183.3

Note: * The data cover the first nine months of the year. Indonesia reported rupiah prices with a conversion ratio of IDR 13,500-14,500 = US\$1 during the reporting period; •: Not reported.

Source(s): DAINAP; UNODC ARQ Indonesia for 2019 and previous years; BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Table 6. Typical purity of crystalline methamphetamine in Indonesia, 2017-2020 (percentage)

	<u>' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' </u>	•	11 0 7
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

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

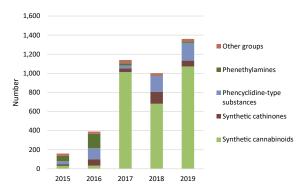
Source(s): BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Figure 2. Proportion of synthesis routes of crystalline methamphetamine samples analysed in Indonesia, 2019 and 2020*

100%
90%
80%
70%
60%
40%
30%
20%
10%
0%
2019
2020*
■Emde ■Nagai ■Leuckart ■Reductive amination

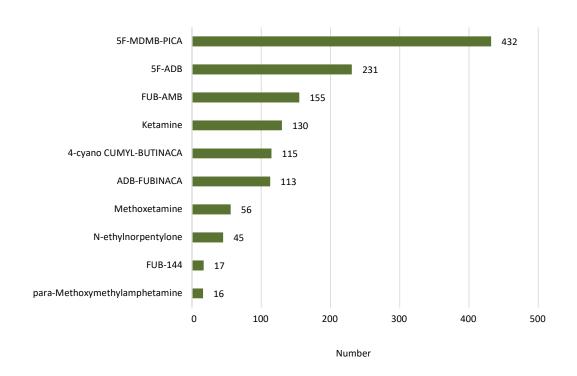
Note: * The data cover the first nine months of the year. Source(s): BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 3. Number of NPS samples identified and analysed in Indonesia, by substance group, 2015-2019



Source(s): BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Figure 4. Top 10 most frequently identified NPS and other emerging synthetic substances in Indonesia, 2019



Source(s): BNN, "Latest situation on synthetic drugs and responses to the threats in Indonesia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with BNN, April 2021.

Table 7. Newly identified NPS and other emerging synthetic substances in Indonesia, 2020

Substance type	Substance name	Form
Synthetic cannabinoids	4F-ABUTINACA	Powder
	5F-EMB-PICA	Herbal blend
	4F-MDMB-BICA	Crystalline and herbal blend
	5F-EDMB-PICA	Crystalline
Synthetic cathinones	1-(4-fluorophenyl)-2-(methylamino) pentan-1-one	White crystalline
Phenethylamines	2C-E	Blotter paper

Source(s): Official communication with BNN, April 2021.



JAPAN

Summary of major trends and emerging concerns

Methamphetamine

- Preliminary data for seizures of methamphetamine show a sharp decrease in amount in 2020, most likely due to the impact of COVID-19 restrictions. Monthly data shows a sharp drop in methamphetamine seizure at the height of the restrictions (February to September 2020) before rebounding in the last quarter of the year (figure 4).
- A comparatively small number of sea cargo cases accounted for 80 per cent of the amount of methamphetamine that Japan Customs seized in 2020 (figures 6 and 7).
- Asian countries, especially Thailand and Viet Nam, remain the most common embarkation points in terms of the number of cases of methamphetamine seizures in Japan (figure 5). However, in terms of quantities, South Africa has emerged as a prominent source, accounting for 32 per cent of the total amount seized (figure 5).¹
- Japan remains an attractive target for local and transnational crime groups involved in trafficking methamphetamine due to the high typical price of crystalline methamphetamine, which further increased in 2020 to more than US\$600 per gram—the highest price in East and Southeast Asia (table 3).

"Ecstasy"2

• Preliminary data indicate that seizures of "ecstasy" increased in 2020, while available data up to 2019 shows that the number of people who reported having used "ecstasy" at least once in their lifetime in Japan has been increasing steadily since 2015 (figure 1 and table 2).

New Psychoactive Substances (NPS) and other synthetic drugs

- The use and smuggling of NPS remain a concern for Japan, although the number of arrestees related to NPS in Japan has continued to decline since 2015 (figures 8).
- Synthetic cannabinoids form the largest proportion of NPS reported from the country (figure 9). Newly scheduled synthetic cannabinoids in 2020 included 4F-MDMB-BINACA and MDMB-4en-PINACA.³
- The proportion of female users of LSD is greater than for other major drugs (figure 2). Japan has also seen an emergence of LSD analogues, including ALD-52, AL-LAD and ETH-LAD, which were newly classified as "designated substances" in 2020.4

Other drugs

• Both the number of people brought into formal contact with authorities for cannabis and the number of people who have used cannabis have increased in recent years (figures 1 and 3), particularly among people younger than 30, who accounted for 57.4 per cent of the total number of people brought into formal contact with authorities for cannabis in 2019.⁵

¹ Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

^{2 &}quot;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) & Ministry of Health, Labour and Welfare (MHLW), "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

⁴ Ibid.

⁵ Ibid.

Drug demand indicators

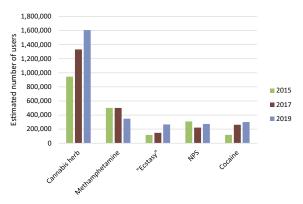
Table 1. Trends in use of selected drugs in Japan, 2009-2019

Drug type	2009	2011	2013	2015	2017	2019
Crystalline methamphetamine	↓	1	1	↔	↔	•
Ecstasy	↔	Ţ	1	1	1	•
Cannabis	1	\	↓	\	1	•
NPS	•	•	•	1	V	•

Note: \uparrow = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

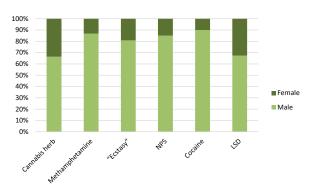
Source(s): UNODC Annual Report Questionnaires (ARQ) Japan for 2019 and previous years; National Police Agency (NPA) & Ministry of Health, Labour and Welfare (MHLW), "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

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



Source(s): National Center of Neurology and Psychiatry (NCNP), "2019 Nationwide General Population Survey on Drug Use in Japan", July 2020.

Figure 2. Proportion of estimated number of people who have used drugs once in their lifetime in Japan, by gender, 2019



Source(s): NCNP, "2019 Nationwide General Population Survey on Drug Use in Japan", July 2020.

Drug supply indicators

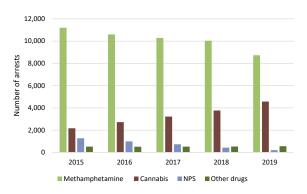
Table 2. Seizures of selected drugs in Japan, 2015-2020*

		-					
Drug type	Unit	2015	2016	2017	2018	2019	2020*
Crystalline methamphetamine	kg	431.8	1,521.4	1,136.6	1,206.7	2,649.7	911.7
"Ecstasy"	tablets	1,074	5,122	3,244	12,307	73,915	106,861
Cannabis herb	kg	104.6	159.7	270.5	337.3	430.1	123.8
Cannabis resin	kg	3.9	1.0	21.9	3.1	14.8	0.5
Cocaine	kg	18.6	113.3	11.6	157.4	639.9	835.9
Heroin	kg	2.0	0	70.3	0	16.7	14.8
Opium	kg	0	0.7	0	0	0	0
Benzodiazepines	tablets	•	•	8,209	18,851	•	•

Note: * Data are preliminary and only covers the first six months as reported by NPA, and full year amount as reported by Japan Customs; ● = Not reported.

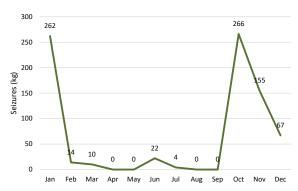
Source(s): UNODC ARQ Japan for 2019 and previous years; NPA & MHLW, "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020; Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

Figure 3. Number of drug-related arrests in Japan, 2015-2019



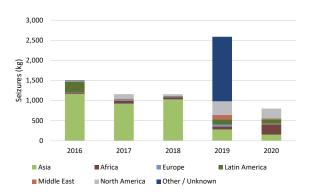
Source(s): MHLW, "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 4. Seizure amounts of methamphetamine in Japan, by month, as reported by Japan Customs, 2020



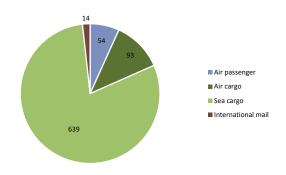
Note: Seizure amounts of 0 kg means 500 g or 500 tablets or less. Source(s): Japan Customs, "Summary of Japan Customs' Enforcement in 2020" and monthly reports, February 2021.

Figure 5. Proportion of embarkation points of methamphetamine trafficking to Japan, by seizure amount, 2016-2020



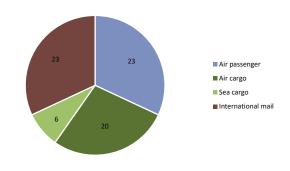
Source(s): Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

Figure 6. Seizures of methamphetamine in Japan, by mode of trafficking and seizure amount (kg), 2020



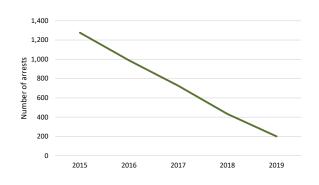
Source(s): Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

Figure 7. Seizures of methamphetamine in Japan, by mode of trafficking and number of cases, 2020



Source(s): Japan Customs, "Summary of Japan Customs' Enforcement in 2020", February 2021.

Figure 8. Number of arrestees related to NPS in Japan, 2015-2019



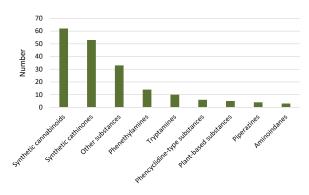
Source(s): MHLW, "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 3. Retail prices of selected drugs in Japan, 2015-2020* (US\$)

Drug type	Unit	2015	2016	2017	2018	2019	2020*
Crystalline methamphetamine	Per gram	581	588	560	562	562	613.6
"Ecstasy"	Per tablet	33.2	36.7	36	37	37.5	38.4
Cannabis herb	Per gram	41.5	55	55	47	47	57.5
Heroin	Per gram	498.1	276	270	281.4	281.4	287.6
Cocaine	Per gram	•	•	•	187.6	187.6	191.7

Note: * Prices are preliminary and prices reported in Japanese yen were converted with a conversion ratio of JPY 104.31 = US\$ 1; ● = Not reported. Source(s): UNODC ARQ Japan for 2019 and previous years; NPA, "Latest situation on synthetic drugs and responses to the threats in Japan", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 9. Number of NPS reported by Japan, by substance group, 2015-2020*



Note: * Data are preliminary and as of March 2021. Source(s): UNODC Early Warning Advisory on NPS.



Summary of major trends and emerging concerns

Methamphetamine

- Lao PDR remains a major transit point for methamphetamine trafficking from Shan State, Myanmar. Despite mobility restrictions associated with the COVID-19 pandemic, annual seizure amounts in 2020 exceeded those of 2019 (table 2). Smaller amounts seized in the first half of 2020 were more than compensated by the amounts seized in the second half of the year (figures 4 and 5).
- Methamphetamine continues to account for the largest proportion of drug-related offences, drug users brought into formal contact with authorities, and treatment admissions.¹
- Since 2018, seizures of chemicals suspected to be destined for the illicit manufacture of drugs in the Golden Triangle area have increased exponentially, reaching more than 125 tons in 2020, or more than fivefold the combined amount seized in the preceding five years (figure 7 and table 3).

"Ecstasy"2

• There is limited information on "ecstasy" use in Lao PDR, and authorities have not reported any seizures of the drug.

New Psychoactive Substances (NPS) and other synthetic drugs

• There has been no reported use or trafficking of NPS in Lao PDR.

Other drugs

• Lao PDR remains a producer of opium, although its area under illicit opium poppy cultivation and seizures of the drug have decreased in recent years (table 2).³ According to expert perception, the use of opium has decreased year on year since 2018 (table 1).

¹ Lao National Commission for Drug Control and Supervision (LCDC), "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020.

^{2 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA

³ According to UNODC ARQ data for 2019, the estimated size of opium poppy fields in the country was 4,624 hectares, a 6.11 per cent decrease compared to 2018.

Drug demand indicators

Table 1. Trend in use of selected drugs in Lao PDR, 2015-2020

Drug used in the past year	2015	2016	2017	2018	2019	2020
Methamphetamine tablets	1	1	1	1	ţ	1
Crystalline methamphetamine	Ť	1	Ţ	1	Ť	1
Cannabis herb	1	1	1	Ţ	1	1
Opium	1	1	1	Ţ	ţ	Ţ
Heroin	Ţ	1	1	1	Ţ	1

Note: Based on expert perception provided by Lao National Commission for Drugs Control and Supervision (LCDC).

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Official communication with LCDC, March 2021.

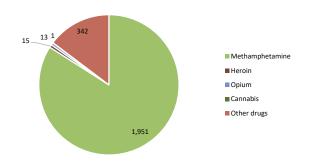
Figure 1. Number of drug users admitted for treatment in Lao PDR, 2015-2020

3,000 2,500 2,000 2,000 3,000 1,000 500 0 2015 2016 2017 2018 2019 2020

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.

Source(s): LCDC, "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with LCDC, March 2021.

Figure 2. Number of drug treatment centre admissions in Lao PDR, by drug type, 2019



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.

Source(s): LCDC, "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with LCDC, March 2021.

Drug supply indicators

Table 2. Seizures of selected drugs and chemicals in Lao PDR, 2015-2020

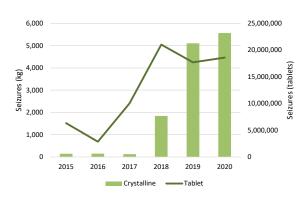
Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablets	tablets	6,331,692	2,849,414	10,019,643	21,036,045	17,703,036	18,602,900
Crystalline methamphetamine	kg	141.9	150.0	124.4	1,841.4	5,106.9	5,564.4
Cannabis herb	kg	3,258.0	465.9	4,810.0	450.9	2,577.4	5,167.6
Cocaine	kg	0	0	0	8.3	3.5	0
Heroin	kg	134.8	221.0	149.5	281.2	174. 0	537.2
Opium	kg	51.6	137.7	142.9	103.7	89.4	60.3
Unspecified chemicals*	kg	4,372.2	1,102.5	189.2	5,016.3	13,141.9	125,418

Note: * Includes precursor chemicals.

Source(s): DAINAP; LCDC, "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with LCDC, March 2021.

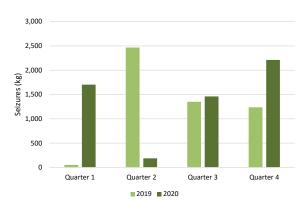
 $[\]uparrow$ = Increasing, \downarrow = Decreasing, \leftrightarrow = Stable, • = Not reported.

Figure 3. Seizures of crystalline methamphetamine and methamphetamine tablets in Lao PDR, 2015-2020



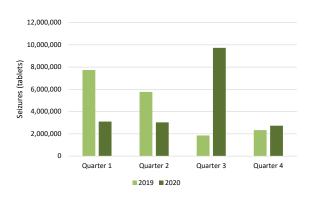
Source(s): DAINAP; LCDC, "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with LCDC, March 2021.

Figure 4. Seizures of crystalline methamphetamine in Lao PDR, by quarter, 2019 and 2020



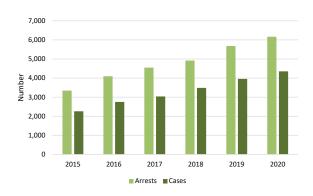
Source(s): DAINAP; Official communication with LCDC, March 2021.

Figure 5. Seizures of methamphetamine tablets in Lao PDR, by quarter, 2019 and 2020



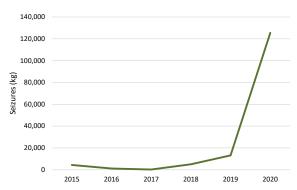
Source(s): DAINAP; Official communication with LCDC, March 2021.

Figure 6. Number of cases and arrests for drugrelated offences in Lao PDR, 2015-2020



Source(s): DAINAP; LCDC, "Latest situation on synthetic drugs and responses to the threats in Lao PDR", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with LCDC, March 2021.

Figure 7. Seizures amount of chemicals in Lao PDR, 2015-2020



Source(s): DAINAP; Official communication with LCDC, April 2021.

Table 3. Seizures of selected chemicals and substances in Lao PDR, 2020

Drug type	Unit	Amount
Ethyl acetate	kg	30,600
Propionyl chloride	kg	72,000
Hydrochloric acid	kg	16,000
Hexane	kg	600
Acetone	kg	18
Ammonia	kg	4,000
Other	kg	2,200

Source(s): Official communication with LCDC, April 2021.



Summary of major trends and emerging concerns

Methamphetamine

- Although mobility restrictions due to the COVID-19 pandemic, including strict enforcement at
 international entry points were in place, overall seizure amounts of methamphetamine in tablet,
 crystalline and liquid forms increased in 2020 (table 4). While seizures, in quantity of crystalline
 methamphetamine, dropped sharply during the first half of the year, they rebounded in the second
 half (figure 2).
- Methamphetamine users continue to account for the largest proportion of people who use drugs, brought into formal contact with authorities, as well as drug treatment admissions (tables 2 and 3).
- The number of methamphetamine manufacturing facilities dismantled in the country continues to decline despite increases in seizures, indicating that methamphetamine is increasingly sourced from outside the country (table 5).
- Compared with the prices of other drugs, the average wholesale price of crystalline methamphetamine dropped significantly in 2020, while its purity remained stable (tables 6 and 7).

"Ecstasy"1

• Seizures of "ecstasy" continue to increase, with seizures in 2020 of "ecstasy" tablets and powder together exceeding one ton for the first time. This represented the largest amount of "ecstasy" seized by a country in Southeast Asia in the year (table 4).

New Psychoactive Substances (NPS) and other synthetic drugs

- The amount of ketamine seized annually increased substantially in 2020, surpassing the amount seized in the preceding five years combined (table 4). The dismantling of three clandestine ketamine laboratories in 2020 may indicate that ketamine is increasingly manufactured domestically (table 5).
- Seizures of kratom leaves reached record levels, at more than 296 tons in 2020, nearly tenfold the amount seized in 2015 (table 4).
- Within 2019 and 2020, a total of 31 NPS were identified in the country (table 8). While the majority of NPS identified were synthetic cathinones, synthetic cannabinoids formed the most common NPS identified in both 2019 and 2020 (table 9).

Other drugs

• Users of opiates, including heroin and morphine, continue to account for the second-largest proportion of people who use drugs brought into formal contact with authorities (figure 1).

^{1 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

Drug demand indicators

Table 1. Trend in use of selected drugs in Malaysia, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	1	1	1	1	1	1
Methamphetamine pills	Ţ	1	1	1	1	1
"Ecstasy"	1	↓ ·	1	1	Ţ	1
Amphetamine	1	1	Ţ	1	•	1
Benzodiazepines	1	1	1	1	•	Ţ
Cannabis herb	Ţ	Ţ	1	1	1	Ţ
Heroin	1	1	1	Ţ	Ţ	1
Ketamine	Ţ	1	1	1	1	1
Cocaine	•	•	•	•	1	•
Kratom	•	Ť	Ţ	1	1	•

Note: Based on expert perception provided by the National Anti-Drug Agency (NADA), Malaysia.

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaire (ARQ) Malaysia for 2019 and previous years; Official communication with NADA, May 2021.

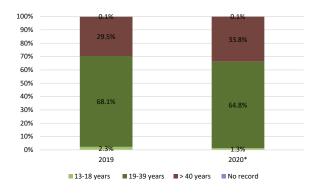
Table 2. Number of people who use drugs brought into formal contact with authorities in Malaysia, by drug type, 2019-2020*

Drug type	2016	2017	2018	2019	2020*
Crystalline methamphetamine	10,107	10,419	11,531	64,842	34,080
Opiates ^a	16,985	10,154	7,746	43,545	34,139
Methamphetamine pills	2,631	4,366	4,853	7,971	13,642
Cannabis	1,236	1,066	1,122	4,497	2,821
Amphetamine and "Ecstasy"	764	764	1,152	18,871	9,865
Other drugs ^b	41	22	45	2,473	958

Note: ^a Refers to heroin and morphine; ^b Mainly composed of kratom, inhalants and others; * The data cover the first six months of the year. According to NADA, data for 2019 and 2020 for other drugs include those provided by different government agencies, which was not the case for previous years. Thus, the data should be interpreted with caution.

Source(s): DAINAP; NADA, Royal Malaysia Police (RMP) & Department of Chemistry (KIMIA), "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 1. Proportion of drug and substance users in Malaysia, by age group, 2019-2020*



Note: * The data cover the first six months of the year. Source(s): DAINAP; NADA, RMP & KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

 $[\]uparrow$ = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

Table 3. Drug treatment admissions in Malaysia, by drug type and gender, 2020

Downstown	١	New admission	s		All admissions		
Drug type	Male	Female	Total	Male	Female	Total	
Crystalline methamphetamine	17,750	1,173	18,923	30,154	1,714	31,868	
Methamphetamine tablets	4,260	153	4,413	7,988	241	8,229	
"Ecstasy"	104	20	124	369	28	397	
Amphetamine	2,747	194	2,941	4,172	254	4,426	
Heroin	10,063	314	10,377	33,344	792	34,136	
Opium	3	0	3	52	0	52	
Cannabis	1,126	31	1,157	1,945	56	2,001	
Ketamine	83	17	100	142	26	168	
Benzodiazepines	20	2	22	83	6	89	
Psychotropic pills	1	0	1	19	0	19	
Others ^a	80	4	84	125	5	130	
Total	36,237	1,908	38,145	78,393	3,122	81,515	

Note: ^a Includes kratom, inhalants, cocaine and other substances. Source(s): DAINAP; Official communication with NADA, May 2021.

Drug supply indicators

Table 4. Seizures of selected drugs in Malaysia, 2015-2020

	0						
Drug type	Unit	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	kg	1,138.5	718.5	1,553.3	6,851.8	5,302.4	7,557.2
Liquid methamphetamine	lt/kg	539.2 kg	429 kg	460 lt	296.9 lt	308.4 kg	5,960 kg
Methamphetamine tablets ^a	tablets / kg	538,176	895,499	847,334	2,512,444	198.8 kg	207.02 kg
"Ecstasy" ^b	tablets	407,475	200,763	329,594	146,758	700.0	1.000 1
"Ecstasy" powder	kg	267.9	•	430.6	337.4	706.9	1,096 kg
Ketamine	kg	48.4	380	506.4	217.1	1,261	3,004.2
Heroin	kg	742.6	742.6	1,441.4	731.5	709.9	930.3
Benzodiazepines	tablets / kg	4,038,733 tablets	1,891,852 tablets	2,756,552 tablets	912.4 kg	683.2 kg	925.4 kg
Cannabis herb	kg	1,844.2	2,945.5	2,696.3	1,894.8	649.6	5,426.8
Cocaine	kg	18	253.1	23	12.1	15,247.1	11.3
Codeine	lt	3,169.1	5,616	10,216.3	37,263.9	13,312.6	4,187.8
Kratom leaf	kg	28,961.4	124,717.9	81,028.6	87,564.8	161,233.6	296,120.8
Kratom liquid	lt	206,175.8	274,421	89,060.1	233,525.9	101,516.7	75,545.1
Opium (raw and prepared)	kg	0.1	0.7	0.1	0.2	0.4	•
Psychotropics	tablets / kg	1,287,472 tablets	56,279 tablets	39,979 tablets	13,944 tablets	2.61 kg	2 kg

Note: • = Not reported; ^a Figures reported other than the number of tablets converted into estimated pill equivalent at 100 mg per tablet. ^b Figures reported other than the number of tablets converted into estimated tablet equivalent at 300 mg per tablet.

Source(s): DAINAP; UNODC ARQ Malaysia for 2019 and previous years; NADA, RMP & KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NADA, March 2021.

4,000

3,500

2,500

1,500

1,000

Quarter 1

Quarter 2

Quarter 3

Quarter 4

Figure 2. Seizure amounts of crystalline methamphetamine in Malaysia, by quarter, 2019 and 2020

Source(s): DAINAP; Official communication with NADA, March 2021.

Table 5. Number of illicit drug manufacturing facilities dismantled in Malaysia, by drug type, 2015–2020*

2020

2019

Drug type	2015	2016	2017	2018	2019	2020*
Methamphetamine	16	14	9	10	7	4
Heroin ^a	15	4	4	12	12	10
"Ecstasy"	7	5	4	11	1	3
Benzodiazepines	1	0	2	1	1	0
Ketamine	0	1	0	0	1	3
Other drugs	0	0	0	1	0	0

Note: * The data cover the first nine months of the year; * Facilities are for adulterating and re-processing rather than producing from scratch.

Source(s): DAINAP; UNODC ARQ Malaysia for 2019 and previous years; KIMIA, "Country briefing", presented at the Meeting of drug forensic specialists, Beijing, China, December 2019; and NADA, RMP & KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 6. Trends in wholesale and retail prices of selected drugs in Malaysia, 2015-2020 (US\$)

		-		_	-		
Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablet	per tablet	5.3	3-5	3.6	4.8	2.4-3.6	3.71
Crystalline methamphetamine	per kg	28,080	16,000- 26,800	16,800	12,000	12,000	9,889
"Ecstasy"	per tablet	11	8.4-10.8	12	7.2	7.2	4.45-7.42
Heroin (No.3)	per kg	4,704	3,744- 4,368	5,880	2,667	3,240	2,747
Ketamine	per kg	4,800	6,000- 10,800	10,800	12,720	14,400	11,125- 13,597
Cannabis	per kg	632	486-681	586	576	480-600	445-618

Note: Prices reported in Malaysian ringgit were converted with a conversion ratio of MYR 1 = U\$\$0.24.

Source(s): DAINAP; NADA, RMP and KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 7. Typical purity (base form) of selected drugs in Malaysia, 2018-2020*

Drug type	2018	2019	2020*
Crystalline methamphetamine	75	75	75
	(40 – 80)	(20 – 80)	(20 – 80)
"Ecstasy"	15 - 40	50 (10 – 60)	50 (10 – 60)
Heroin (No.3)	3	4	3
	(1-5)	(3 – 70)	(3 – 70)
Ketamine	75	80	80
	(70 – 85)	(50 – 85)	(50 – 85)

Note: * The data cover the first six months of the year; Values in parentheses are the purity range (minimum-maximum) of the substances. Source(s): KIMIA, "Country briefing", presentenced at the Meeting of drug forensic specialists, Beijing, China, December 2019; and NADA, RMP & KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 8. Types of NPS and other emerging synthetic substances identified in Malaysia, 2019-2020

Number	Substance group	Substance name
1.	Synthetic cathinones	4-Methylmethcathinone (Mephedrone / 4MMC)
2.	-	Methylone (MDMC / 3,4-Methylenedioxy-N-methcathinone)
3.		Ethylone (MDEC / 3,4-Methylenedioxy-N-ethylcathinone)
4.		4-Methylethcathinone (4-MEC)
5.		Dimethylone
6.		3-fluoromethcathinone
7.		4-chloromethcathinone
8.		4-methylbuphedrone
9.		4-Methyl-α-pyrrolidinobutiophenone
10.		Methcathinone (ephedrone)
11.		N-ethylnorpentylone
12.		beta-keto- <i>N,N</i> -dimethylbenzodioxolylbutanamine (Dibutylone)
13.		beta-keto-N-methylbenzodioxolylpentanamine (Pentylone)
14.	Synthetic cannabinoids	JWH-018
15.		AM-2201
16.		JWH-250
17.		XLR-11
18.		MMB-FUBINACA
19.		MDMB-CHMICA
20.		5F-INPB-22
21.		5F-MDMB-PINACA
22.		5F-MDMB-PICA
23.		4F-MDMB-BINACA
24.		MDMB-4en-PINACA
25.	Piperazines	1-(3-Trifluoromethylphenyl)piperazine (TFMPP)
26.		N-Benzylpiperazine (BZP)
27.	Phencyclidine-type substances	Methoxetamine
28.	Phenethylamines	para-Methoxymethylamphetamine (PMMA)
29.		para-methoxyamphetamine (PMA)

Number	Substance group	Substance name			
30.	Tryptamines	5-Methoxy- <i>N</i> , <i>N</i> -diisopropyltryptamine			
31.		5-methoxy- <i>N</i> , <i>N</i> -methylisopropyltryptamine			

Note: * Some of substances in the table have been under international control but listed here for a monitoring purpose; Newly discovered in 2019; Newly discovered in 2020.

Source(s): DAINAP; NADA, RMP & KIMIA, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with NADA, March 2021.

Table 9. Top five NPS and other emerging synthetic substances identified in drug samples in Malaysia, 2019 and 2020

Ranking	2019	2020
1.	5F-MDMB-PICA	5F-MDMB-PICA
2	4F-MDMB-BINACA	MDMB-en-PINACA
3.	5F-MDMB-PINACA	4F-MDMB-BINACA
4.	N-ethylnorpentylone	5F-MDMB-PINACA
5.	XLR-11	beta-keto- <i>N,N</i> -dimethylbenzodioxolylbutanamine

Source(s): Official communication with NADA, March 2021.

Summary of major trends and emerging concerns

Methamphetamine

- Notwithstanding the COVID-19 pandemic, the seizures of methamphetamine increased significantly in 2020 with the combined weight of methamphetamine tablet, crystalline methamphetamine, and methamphetamine powder seizures in excess of twice the amount seized in 2019 (table 2).
- Expert perception on the use of both methamphetamine tablets and crystalline methamphetamine indicates an increasing trend over the past six years (table 1).
- Myanmar authorities continued to seize a wide variety of controlled and non-controlled chemicals used in methamphetamine manufacturing *en route* to, and at clandestine manufacturing facilities, particularly in the northeastern part of Myanmar (table 3).
- Despite the substantially larger amount of methamphetamine seized in Myanmar in 2020, the retail prices of crystalline methamphetamine and methamphetamine tablets remain stable, indicating minimal changes to the availability of these products on the market (table 4).

"Ecstasy"2

• Information on the use of "ecstasy" in Myanmar is limited. Seizures of the drug decreased significantly in 2020 from the preceding year (table 2).

New Psychoactive Substances (NPS) and other synthetic drugs

- Following the record high seizures of ketamine in 2018, the amount seized has decreased to less than one ton in 2020 (table 2).
- Seizures of kratom³ have remained high, with more than two tons seized in 2020 (table 2).

Other drugs

• According to expert perception, the use of opium decreased in 2020 for the first time in six years (table 1). The area under illicit opium poppy cultivation in Myanmar continues to decrease, with the estimated area in 2020 reaching only 29,500 hectares (ha), representing an 11 per cent decrease from 2019.⁴

¹ Methamphetamine tablet seizures converted into estimated pill equivalents at 90 mg per tablet.

^{2 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA

³ Kratom is a plant-based substance that contains alkaloids which can cause stimulant effects.

⁴ UNODC, "Myanmar Opium Survey 2020: Cultivation, Production, and Implications", January 2021.

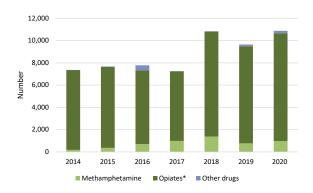
Drug demand indicators

Table 1. Trend in use of selected drugs in Myanmar, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Heroin	↔	↔	1	1	1	+
Opium	↔	↔	↔	↔	\leftrightarrow	1
Methamphetamine tablets	1	1	1	1	1	1
Crystalline methamphetamine	1	1	•	1	•	†
Cannabis	1	•	1	↔	+	+

Note: Based on expert perception provided by the Central Committee for Drug Abuse Control, Myanmar (CCDAC).

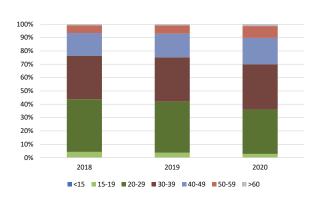
Figure 1. Number of people admitted to drug treatment centres in Myanmar, by drug type, 2015-2020



Note: * Includes opium and heroin.

Source(s): DAINAP; CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.

Figure 2. Proportion of persons admitted to drug treatment centres in Myanmar, by age group, 2018-2020



Source(s): Communication with CCDAC.

Drug supply indicators

Table 2. Seizures of selected drugs in Myanmar, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablets	tablets	49,950,000	98,353,463	74,001,667	106,702,365	108,719,071	328,410,692
Crystalline methamphetamine	kg	2,261.7	2464.1	1,107.5	2,827.5	9,426.2	17,363.9
Methamphetamine powder ^a	kg	197.9	54.8	106.9	45.2	679.5	2,145.2
"Ecstasy"	tablets	1	22	645,882	2,686	27,995	2,437
Heroin ^b	kg	186.0	769.3	570.6	1,099.1	690.2	1,853.4
Opium	kg	888.8	945.7	1,256.2	2,829.0	1,552.7	3,882.9
Cannabis ^c	kg	87.7	188.8	99.4	142.4	364.8	737.6
Kratom	kg	687.4	1,409.4	652.1	1,833.9	2,542.6	2,632.7
Ketamine ^d	kg	3.1	940.2	75.1	2,360.2	1,096	888.5

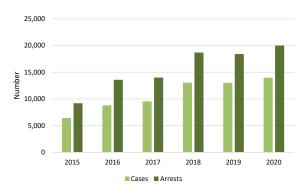
Note: Methamphetamine for processing into methamphetamine tablets; Reported as heroin No.4; Combined herb and resin; Figures reported in lt were converted into kg with the ratio 1 lt = 1 kg.

Source(s): DAINAP; UNODC ARQ Myanmar for 2019 and previous years; CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.

 $[\]uparrow$ = Increasing, \downarrow = Decreasing, \leftrightarrow = Stable, • = Not reported.

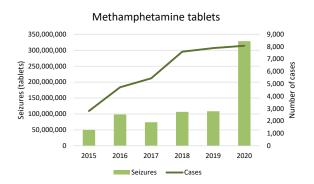
Source(s): DAINAP; UNODC Annual Report Questionnaires (ARQ) Myanmar for 2019 and previous years; Communication with CCDAC.

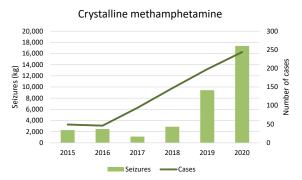
Figure 3. Drug related arrests and number of cases in Myanmar, 2015-2020



Source(s): DAINAP; CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.

Figure 4. Trends in the number of cases and seizures for methamphetamine in Myanmar, 2015-2020





Source(s): DAINAP; CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.

Table 3. Seizures of selected precursors and chemicals in Myanmar, 2015-2020

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Drug type	Unit	2015	2016	2017	2018	2019	2020	
Ephedrine	kg	112.0	534.2	0	139.7	402	630	
Pseudoephedrine ^a	tablets	12,720,000	1,192,000	3,901,000	450,000	0	1,500,000	
Phenylacetic acid	lt	0	0	950	4,000	0	•	
P-2-P	lt	4,800	0	0	3,298	30,001	160	
Acetic anhydride	lt	260	16	1,318.3	40	4,140.1	12,240	
Safrole	lt	0	0	0	0	1,440	•	
Thionyl chloride	lt	0	0	0	16	11,600	•	
Methyl ethyl ketone	lt	•	•	•	7,860	9,600	•	
Sodium cyanide	kg	•	•	19,000	23,550	4,640	107,870	
Benzyl cyanide	lt	•	•	•	•	22,160	17,272.5	
Tartaric acid	lt	•	•	•	•	•	2,855	
Caffeine	kg	9,532.3	19,847.5	5,885	20,759.5	19,226	11,371.9	
Toluene	lt	•	•	•	4,602	16,680	18,080	
Ethyl acetate	lt	•	•	•	•	59,000	53,319	
Ammonium nitrate	kg	•	•	•	•	500	103,585.03	
Sodium ethoxide	kg	•	•	•	•	•	15,400	
Methyl phenylacetate	lt	•	•	•	•	•	5,085	

Note: ●= Not reported; ^aThe amount of pseudoephedrine found in tablets varies.

Source(s): DAINAP; CCDAC, CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.

Table 4. Typical retail price of selected drugs in Myanmar, 2017-2020 (US\$)

Drug type	Unit	2017	2018	2019	2020
Methamphetamine tablet	tablet	2.0	2.0	2.1	2.3
Crystalline methamphetamine	g	20-24	14-18	14.28	15.2
"Ecstasy"	tablet	31	30	32.1	34.3
Cannabis herb	kg	207	200	214	228.8

Source(s): DAINAP; CCDAC, "Latest situation on synthetic drugs and responses to the threats in Myanmar", presented at the Global SMART Programme Regional Workshop, November 2020; Communication with CCDAC.



PHILIPPINES

Summary of major trends and emerging concerns

Methamphetamine

- Overall drug treatment admissions declined in 2020, and admissions for treatment related to methamphetamine use more than halved due to the COVID-19-related restrictions, the suspension of admission during the height of the pandemic and a shift in government priorities, from rehabilitation to COVID-19 response.¹
- Despite the COVID-19 mobility restrictions, the annual seizure of crystalline methamphetamine in 2020 exceeded the quantity recorded for 2019 (table 2).
- Crystalline methamphetamine remains the main drug of concern in the Philippines, representing the reason for the largest proportion of drug-related arrests and treatment admissions in 2020 (figures 1 and 4).
- The average purity of crystalline methamphetamine seized in the Philippines declined from 2017 to 2020 due to some seizures of methamphetamine with purity as low as 1.9 per cent (table 4).²

"Ecstasy"3

• Though the seizures of "ecstasy" increased slightly in 2020, its use remains low in the Philippines.

New Psychoactive Substances (NPS) and other synthetic drugs

• With the exception of gamma-butyrolactone (GBL), which is sold as "liquid ecstasy" in the Philippines, no other NPS were reported in 2020.

Other drugs

 No seizures of benzodiazepines were reported in 2020. However, experts perceive that the use of benzodiazepines increased in 2020 (table 1) and this is consistent with an increase in the number of treatment admissions for non-medical use of benzodiazepines.⁴

¹ Dangerous Drugs Board (DDB) and Philippines Drug Enforcement Agency (PDEA), "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020.

² Not enough information is available to determine to what extent this trend reflects the typical purity of methamphetamine sold at the retail level.

^{3 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of

⁴ Although the use of benzodiazepines remains low in the Philippines, accounting for less than one per cent of drug treatment admissions, drug treatment admission data reported by the DDB indicates that benzodiazepines are the fourth most common drug for facility-based treatment admissions in 2020, behind methamphetamine, cannabis, and codeine, with 24 of the 25 treatment admissions for benzodiazepines being new admissions.

Drug demand indicators

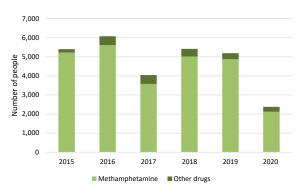
Table 1. Trend in use of selected drugs in the Philippines, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	1	1	ţ	1	1	1
Benzodiazepines	1	1	ţ	1	Ţ	1
Cannabis herb	1	1	Ţ	1	1	1
Inhalants	1	ţ	ţ	1	Ţ	Ţ

Note: Based on expert perception provided by the Dangerous Drugs Board (DDB).

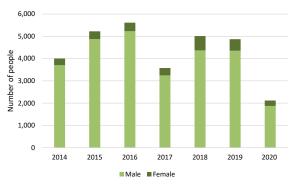
Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Official communication with DDB, March 2021.

Figure 1. Number of methamphetamine-related treatment admissions among all treatment admissions in the Philippines, 2015-2020



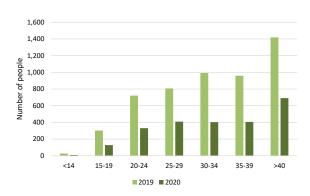
Source(s): DAINAP; UNODC Annual Report Questionnaire (ARQ) Philippines for 2019 and previous years; Official communication with DDB, March 2021.

Figure 2. Number of methamphetamine-related treatment admissions in the Philippines, by gender, 2015-2020



Source(s): DAINAP; UNODC ARQ Philippines for 2019 and previous years; Official communication with DDB, March 2021.

Figure 3. Number of treatment admissions in the Philippines, by age group, 2019 and 2020



Source(s): DAINAP; UNODC ARQ Philippines for 2018 and previous years; DDB and Philippines Drug Enforcement Agency (PDEA), "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB, February 2021.

[↑] = Increasing, ↓ = Decreasing, ↔ = Stable, \bullet = Not reported.

Drug supply indicators

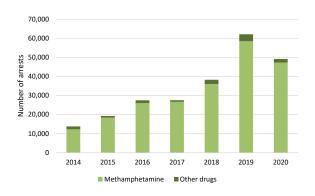
Table 2. Seizures of selected drugs and precursor chemicals in the Philippines, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	kg	350.8	2,210.5	1,053.9	785.8	2,071.1	2,196
Liquid methamphetamine	lt	856.5	1,805.7	50.2	110.8	203.2	0.7
"Ecstasy"	tablets	2,902	21,736	591	16,713	13,108	42,794
Benzodiazepines	tablets	2,304	120	83	876	236	•
Cannabis herb	kg	1,032.4	1,334.6	431.7	257.8	900.4	1,474.4
Heroin	kg	2.0	0	0	0	0	•
Cocaine	kg	11.5	70.6	9.9	94.6	347	1.38
Ketamine	kg / tablet	•	0 a	•	0 a	0.2	•
GHB	lt	3.1	•	0 a	•	0 a	•
GBL	lt	•	•	0.9	0.7	2.3	3.5
Pseudoephedrine	kg	2.11	•	209.5	0	•	10.8
Ephedrine	kg	49.75	9.9	0.2	0.53	0.1	0°

Note: ● = Not reported; a Reported as less than 10 g seized.

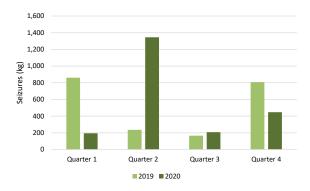
Source(s): DAINAP; UNODC ARQ Philippines for 2019 and previous years; DDB & PDEA, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB & PDEA, March 2021.

Figure 4. Number of drug-related arrests in the Philippines, by drug type, 2015-2020



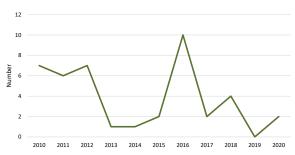
Source(s): DAINAP; UNODC ARQ Philippines for 2019 and previous years; DDB & PDEA, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB & PDEA, March 2021.

Figure 5. Seizure amounts of crystalline methamphetamine in the Philippines, by quarter, 2019 and 2020



Source(s): DAINAP; Official communication with DDB & PDEA, March 2021.

Figure 6. Number of illicit methamphetamine facilities dismantled in the Philippines, 2010-2020



Source(s): DAINAP; DDB & PDEA, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB & PDEA, March 2021.

Table 3. Retail prices of selected drugs in the Philippines, 2015-2020 (US\$)

Drug type	Unit	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	per gram	29.6- 317.6	25.8-236.6	163.7	130.1	136	130.8
"Ecstasy"	per tablet	19-63.5	30	37.7	32.5	34	32.7
Cocaine	per gram	•	•	99.3	101.4	106	106
Cannabis herb	per gram	•	•	3.2	2.3	2.4	2.3

Source(s): DAINAP; UNODC ARQ Philippines for 2019 and previous years; DDB & PDEA, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB & PDEA, March 2021.

Table 4. Purity of selected drugs analysed in the Philippines, 2015-2020 (percentage)

	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	67.3	82.4	87.7	72.5	67.99	58.29
MDMA ("Ecstasy")	-	47.5	31.4	45.5	25.56	23.42

Note: Data in this table refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances. There was no reported average weight of "ecstasy" tablets in the Philippines.

Source(s): DAINAP; DDB & PDEA, "Latest situation on synthetic drugs and responses to the threats in the Philippines", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with DDB & PDEA, March 2021.

Table 5. Types of NPS and other emerging synthetic substances identified in the Philippines, 2018-2020

Substance name	2018	2019	2020
Phencyclidine-type substances	Ketamine	-	-
Phenethylamines	-	N,N-Dimethylamphetamine	-
Synthetic cathinones	 4-Methylethcathinone (4-MEC) Dimethylone 4-chloro cathinone 	4-Methylethcathinone (4-MEC)Dimethylone	-
Synthetic cannabinoids	-	5CI-MDMB-PINACA5-F-MDMB-PINACA5-F-MDMB-PICA	-
Tryptamines	Dimethyltryptamine (DMT)	-	-
Others	Gamma-butyrolactone (GBL)Sibutramine	Etizolam Gamma-butyrolactone (GBL)	Gamma-butyrolactone (GBL)

Source(s): Official communication with DDB & PDEA, March 2021; UNODC Early Warning Advisory on NPS.



Summary of major trends and emerging concerns

Methamphetamine

- Monthly drug offender data¹ show a steep decline during the period of the COVID-19 mobility restrictions in April and May 2020, compared to the same time frame in 2018 and 2019. However, from June 2020 onwards, the monthly number of drug offenders consistently surpassed the comparative time frames in both 2018 and 2019 (figure 2).
- Seizure amounts of crystalline methamphetamine as well as its retail price decreased in 2020. However, expert perception indicates that the use of crystalline methamphetamine has increased over the past two years (tables 1, 2 and 4).
- In recent years, Thailand has become more prominent as a country of departure for methamphetamine shipments to the Republic of Korea while the importance of the United States, Malaysia, and Taiwan Province of China as main points of departure diminished in 2020 (figures 4 and 5).

"Ecstasy"2

• The amount of "ecstasy" seized in the Republic of Korea tripled in 2020 while the retail price per tablet halved, dropping to its lowest price in recent years (tables 2 and 4).

New Psychoactive Substances (NPS) and other synthetic drugs

• Most NPS identified in the Republic of Korea from 2015 to 2020 were synthetic cannabinoids. Seizure amounts of this class of compounds increased over the past four years (table 2 and figure 7).

Other drugs

• The number of cannabis users brought into formal contact with authorities increased significantly over the past three years (figure 1).

¹ The number of drug offenders consists mostly of drug users, particularly of psychotropic substances including methamphetamine, "ecstasy", and ketamine

^{2 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

Drug demand indicators

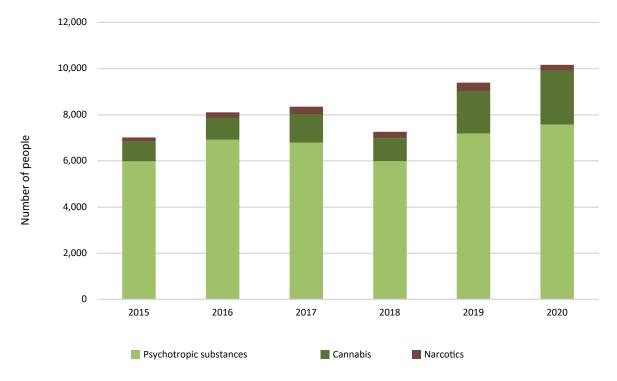
Table 1. Trend in use of selected drugs in the Republic of Korea, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	1	1	1	1	1	1
Cannabis herb	↔	1	1	Ţ	1	1
Other narcotics	1	1	1	Ţ	1	1

Note: Based on expert perception provided by the Supreme Prosecutors' Office (SPO).

Source(s): UNODC Annual Report Questionnaire (ARQ) Republic of Korea for 2019 and previous years; Official communication with SPO, March 2021.

Figure 1. Number of people who use drugs who are brought into formal contact with authorities in the Republic of Korea, by drug type, 2015-2020



Note: The Government of the Republic of Korea categorises synthetic drugs, such as methamphetamine, "ecstasy", LSD and NPS, as psychotropic substances

Source(s): SPO, "White paper on illicit drugs-related crime for 2018", and previous reports; SPO, "Monthly report on illicit-drug related crime for November 2019", January 2020; Official communication with SPO, March 2021.

 $[\]uparrow$ = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

Drug supply indicators

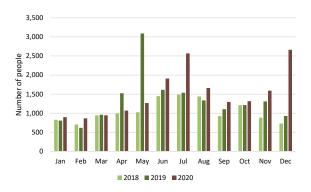
Table 2. Seizures of selected drugs in the Republic of Korea, 2015-2020

		<u> </u>	•				
Drug type	Unit	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	kg	56.6	28.7	30.5	187.95	87.3	63.6
Methamphetamine tablets ^a	tablets	2,383	7,811	28,700	94,867	17,373	22,785
"Ecstasy" ^b	tablets	637	3,690	2,293	9,393	9,512	36,103
Cannabis herb	kg	22.0	75.5	40.1	89.1	81.9	37.3
Cannabis resin	kg	0.32	0.11	1.27	0.08	2.7	3
Cannabis seed	kg	2.9	1.9	1.2	1.2	0.4	5.9
Synthetic cannabinoids	kg	0.43	0.19	0.18	0.48	1.73	3.2
Cocaine	kg	0.01	10.9	0.13	88.3	106.93	48
Heroin	g	5	0.03	3.73	2	0	8.8
Raw opium	g	235	0	537	190	43.5	187.3
Khat	kg	0	3,169	0	132.5	•	•

Note: •= Not reported, Figures reported other than the number of tablets converted into estimated tablet equivalent at 90 mg per tablet; Figures reported other than the number of tablets converted into estimated tablet equivalent at 300 mg per tablet.

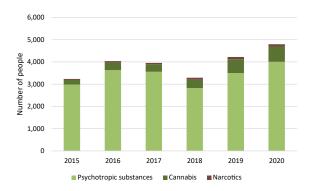
Source(s): UNODC ARQ Republic of Korea for 2018 and previous years; SPO, "Synthetic drug situation in the Republic of Korea", presented at the SMART Regional Workshop, Singapore, August 2019; Official communication with SPO, March 2021.

Figure 2. Number of drug offenders in the Republic of Korea, by month, 2018-2020



Source(s): SPO, "Latest situation on synthetic drugs and responses to the threats in the Republic of Korea", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with SPO, March 2021.

Figure 3. Number of people who are brought into formal contact with authorities for supplying drugs in the Republic of Korea, by drug type, 2015-2020



Source(s): SPO, "White paper on illicit drugs-related crime for 2018", and corresponding previous reports; SPO, "Monthly report on illicit-drug related crime for November 2019", January 2020; SPO, "Synthetic drug situation in the Republic of Korea", presented at the 2019 SMART Regional Workshop, Singapore, August 2019; Official communication with SPO, January 2020; Official communication with SPO, March 2021.

Table 3. Number of clandestine methamphetamine laboratories dismantled and amounts seized in the Republic of Korea, 2015-2020

	Number	Methamphetamine (g)	Intermediate products (g)
2015	5	43	2,400
2016	2	200	0
2017	3	513	0
2018	2	0	660
2019	2	1,320	2,280
2020	2	1.8	0

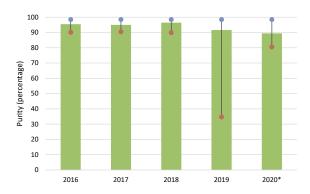
Source(s): SPO, "Latest situation on synthetic drugs and responses to the threats in the Republic of Korea", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with SPO, March 2021.

Figure 4. Origins of methamphetamine in the Republic of Korea, by number of cases, 2017-2020*

35
30
25
20
Taiwan Province of Malaysia United States Thailand
China
2017 2018 2019 2020*

Note: * The data cover the first nine months of the year. Source(s): SPO, "Latest situation on synthetic drugs and responses to the threats in the Republic of Korea", presented at the Global SMART Programme Regional Workshop, November 2020.

Figure 5. Purity of crystalline methamphetamine samples analysed in the Republic of Korea, 2016-2020*



Note: * The data cover the first 11 months of the year. Data in this table refer to the weight/weight (w/w) % expressed as the hydrochloride salt of these substances; The high-low bars represent the upper and lower limits of the purity ranges reported in addition to the average purity. Source(s): SPO, "Latest situation on synthetic drugs and responses to the threats in the Republic of Korea", presented at the Global SMART Programme Regional Workshop, November 2020, and previous years.

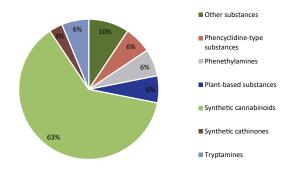
Table 4. Retail prices of selected drugs in the Republic of Korea, 2016-2020 (US\$)

Drug type	Unit	2016	2017	2018	2019	2020
Crystalline methamphetamine	Per gram	436.3 (145.4-727.2)	370	397.2	399	272
"Ecstasy"	Per tablet	72.6 (27.2-118.1)	72.6 (27.2-118.1)	72.6 (27.2-118.1)	95.4 (27.2-163.6)	45.4
Cannabis herb	Per gram	46.3 (1.8-90.9)	50.9 (1.8-100)	86.3 (36.3-136.3)	103.1 (24.5-181.8)	113.6 (90.9-136.3)
Heroin	Per gram	118	118	118	118	118
Cocaine	Per gram	•	•	363.6	295.4 (227.2-363.6)	340.8 (318.1-363.6)
Ketamine	Per gram	•	•	•	318	317.9 (272.2-363.6)
LSD	Per sheet	19.4	19.4	27.8 (19.4-36.3)	28.7 (19.4-38.1)	90.9

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

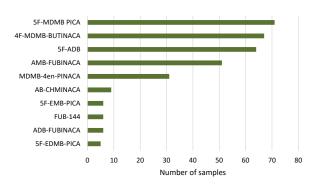
Source(s): UNODC ARQ 2019 for the Republic of Korea and previous years; SPO, "Latest situation on synthetic drugs and responses to the threats in the Republic of Korea", presented at the Global SMART Programme Regional Workshop, November 2020, and previous years; Official communication with SPO, March 2021.

Figure 6. Proportion of NPS identified in the Republic of Korea, by substance group, 2015-2020



Source(s): UNODC Early Warning Advisory for NPS.

Figure 7. Top 10 synthetic cannabinoids identified in drug samples analysed in the Republic of Korea, 2018-2020



Source(s): National Forensic Service (NFS), "12th IDWG Member Institute Country Updates", presented at the 12th AFSN IDWG Annual Meeting and Symposium, December 2020.



Summary of major trends and emerging concerns

Methamphetamine

- Despite the COVID-19-related restrictions in 2020, the amount of crystalline methamphetamine seized surpassed the amount seized in 2019 by almost 50 per cent (table 4).
- Coinciding with the implementation of the so-called 'Circuit Breaker' COVID-19 restrictions in Singapore, seizure amounts of methamphetamine, "ecstasy", heroin and cannabis¹ decreased in the second quarter of 2020 but increased again in the latter half of the year. Methamphetamine seizures in the fourth quarter of 2020 exceeded the amount seized in the third and fourth quarters of 2019 combined (figure 3).
- The number of drug treatment admissions for methamphetamine, which accounts for the largest proportion of drug users brought into formal contact with authorities for the first time, has increased every year since 2017 (figure 1 and table 2).

"Ecstasy"2

• Drug treatment admissions and seizures of "ecstasy" have steadily increased over the past few years. "Ecstasy" seized in Singapore is typically intended for the local market.³

New Psychoactive Substances (NPS) and other synthetic drugs

- Over the past two years, NPS users accounted for the second largest proportion of drug users brought into formal contact with authorities for the first time (figure 1). Although the total number of NPS users decreased in 2020, the proportion of new NPS users increased for the past two years (figure 2).
- Synthetic cannabinoids were the most frequently occurring group of NPS identified in seizures in Singapore for the fourth year in a row. Several synthetic cannabinoids were newly identified in 2019 and 2020 (figure 4 and table 5).
- The number of occurrences of synthetic cathinones identified in seizures has continued to decline since 2017 (figure 4).
- Occurrences of plant-based substances identified in seizures has increased with mitragynine, contained inter alia in kratom powder, being the most frequently identified NPS in Singapore in 2020 (figures 4 and 5).
- Designer benzodiazepines have been increasingly identified in Singapore, particularly in illicitly manufactured "Erimin 5" tablets,⁴ and constituted the third most frequently occurring NPS group in 2020 behind synthetic cannabinoids and plant-based substances (figure 4).

¹ Drug Abuse Information Network for Asia and the Pacific (DAINAP).

^{2 &}quot;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 the Central Narcotics Bureau (CNB), March 2021.

^{4 &}quot;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.

Drug demand indicators

Table 1. Trend in use of specific drugs in Singapore, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Methamphetamine	1	1	1	1	1	1
"Ecstasy"	1	1	1	↔	1	Ţ
Cannabis herb	1	1	1	1	1	Ţ
Heroin	1	1	1	1	1	Ţ
Ketamine	1	1	Ţ	1	1	+
Nimetazepam	1	1	Ţ	•	•	•
Cocaine	1	↔	Ţ	1	†	Ţ
Synthetic cannabinoids	•	•	•	1	†	Ţ

Note: Based on expert perception provided by Central Narcotics Bureau (CNB).

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaires (ARQ) Singapore 2019 and previous years; Official communication with CNB, March 2021.

Figure 1. People who use drugs brought into formal contact with authorities for the first time in Singapore, by drug type, 2020

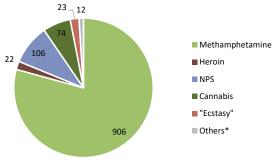
Figure 2. Trends in people who use NPS brought into formal contact with authorities in Singapore, 2018-2020 450

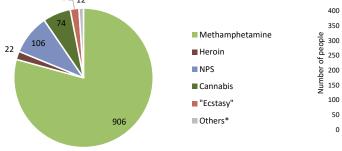
63.5%

36.5%

2019

2020





Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; CNB, "Overview of Singapore's Drug Situation in 2020", February 2021, and previous years; Official communication with CNB, March 2021.

■ New ■ Repeat

32.1%

2018

Note: * Others include cocaine, ketamine and LSD. Source(s): DAINAP; Source(s): CNB & Health Sciences Authority (HSA), "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; CNB, "Overview of Singapore's Drug Situation in 2020", February 2021, and previous years; Official communication with CNB, March 2021.

 $[\]uparrow$ = Increase, \downarrow = Decrease, \leftrightarrow = Stable, \bullet = Not reported.

Table 2. Drug treatment admissions in Singapore, by drug type, 2015-2020

Drug type	2015 2016		2017 2018		2019	2020
Methamphetamine	837	936	870	949	1,250	1,571
Amphetamine	0	0	0	•	•	•
"Ecstasy"	0	1	8	8	19	26
Buprenorphine	0	0	0	•	•	•
Cannabis	85	97	71	77	69	67
Heroin	225	149	141	91	473	327
Ketamine	5	3	4	1	8	4
Benzodiazepines	18	7	2	•	•	•
Other drugs ^a	•	•	•	131	261	249
Total*	1,213	1,263	1,152	1,257	2,080	2,244

Note: a Figures include other unspecified drugs; ● = Not reported.

Source(s): DAINAP; UNODC Annual Report Questionnaires (ARQ) Singapore 2019 and previous years; Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with CNB, March 2021.

Table 3. Number of people who use drugs admitted to treatment centres in Singapore, by gender and drug type, 2020

Drug type	Male	Female	Total
Methamphetamine	1,198	373	1,571
Ecstasy	17	9	26
Cannabis	65	2	67
Heroin	293	34	327
Ketamine	3	1	4
Unclassified / other drugs	229	20	249
Total	1,805	439	2,244

Source(s): Official communication with CNB, March 2021.

Drug supply indicators

Table 4. Seizures of selected illicit drugs in Singapore, 2015-2020*

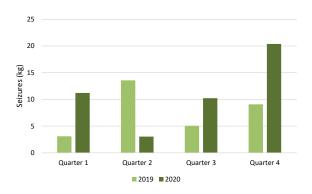
Drug type	Unit	2015	2016	2017	2018	2019	2020*
Crystalline methamphetamine	kg	15.6	18.3	22.2	19.3	30.8	44.9
Methamphetamine tablets	tablets	142	242	827	5,236	691	66
"Ecstasy"	tablets / g	2,943 / 2.49 g	3,891 / 97.9 g	4,743.5 / 11.4 g	4,127 / 5.5 g	5,742 / 469.5 g	19,837 / 63.84 g
Cannabis herb	kg	44.3	54.0	44.1	61.8	27.8	43.1
Heroin ^a	kg	53.7	52.4	36.9	58	38.1	68.3
Ketamine	kg	2.3	1.5	1.0	1.1	3	4.1
Benzodiazepines	tablets	33,686	19,550	19,580	7,873	8,204	42,706
Cocaine	g	0	2	66.4	2,746.8	60.4	22.7
LSD	stamp	130 ^b	704	180	166	17	122
Synthetic cathinones	tablets / g	2,444 / 490.9 g	957 / 3.3 g	219 / 1.6 g	257 / 8.6 g	329 / 1.4 g	5 / 30.9 g
Synthetic cannabinoids	tablets / g	114 / 145.9 g	13 / 13.5 g	1 / 2506.8 g	72 / 8162.0 g	9,240.8 g	87 / 5,097.5 g

Note: * Data for 2020 are preliminary; Data are rounded-up to the first decimal point; ● = Not reported; ^a Refers to Heroin No. 3;

^b Some of these stamps contain NBOMe compounds and other NPS.

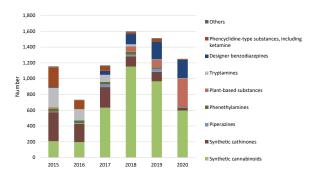
Source(s): DAINAP; UNODC Annual Report Questionnaires (ARQ) Singapore 2019 and previous years; CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; CNB, "Overview of Singapore's Drug Situation in 2020", February 2021; Official communication with CNB, March 2021.

Figure 3. Seizure amounts of crystalline methamphetamine in Singapore, by quarter, 2019 and 2020



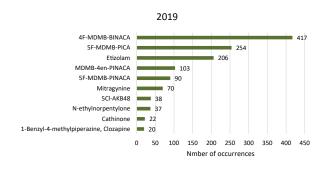
Source(s): DAINAP; CNB, "Overview of Singapore's Drug Situation in 2020", February 2021; Official communication with CNB, March 2021.

Figure 4. Number of NPS and other emerging synthetic substances occurrences in seizures in Singapore, by substance group, 2015-2020



Note: The numbers of occurrences do not equate with the number of exhibits because some exhibits may contain more than one NPS. Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with CNB & HSA, March 2021.

Figure 5. Top 10 NPS and other emerging synthetic substances identified in drug samples in Singapore, by number of occurrences, 2019 and 2020





Note: The numbers of occurrences do not equate with the number of exhibits because some exhibits may contain more than one NPS. Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with CNB & HSA, March 2021.

Table 5. Newly identified NPS and other emerging synthetic substances in Singapore, 2019 and 2020

Substance type	2019	2020
Synthetic cannabinoids	CUMYL-PEGACLONE5F-EMB-PINACA5Br-AKB48	 ADB-BUTINACA CUMYL-5F-PINACA 5F-EMB-PICA 4F-MDMB-BICA 4F-ABINACA
Synthetic cathinones	alpha-ethylaminopentiophenone	 4F-3-methyl-α-PVP
Phencyclidine-type substances, including ketamine	3-Methoxyphencyclidine2-Fluorodeschloroketamine	Deschloroketamine
Tryptamines	• 1P-LSD	5-Methoxy- <i>N,N</i> -dimethyltryptamine
Others	CarbamazepineQuetiapine	-

Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with CNB & HSA, March 2021.

Table 6. Benzodiazepines and substances detected in "Erimin-5" tablets in Singapore, 2018-2020

-		_	-
Substance name	2018	2019	2020
Nimetazepam	✓	✓	✓
Diazepam	✓	✓	✓
Phenazepam	✓	✓	•
Etizolam	✓	✓	✓
Clozapine	✓	✓	✓
Carbamazepine	•	✓	✓
Flubromazolam	•	•	✓

Note: √ = Detected; • = Not detected, = Newly reported.

Source(s): CNB & HSA, "Latest situation on synthetic drugs and responses to the threats in Singapore", presented at the Global SMART Programme Regional Workshop, November 2020, and previous years; Official communication with CNB & HSA, March 2021.

Summary of major trends and emerging concerns

Methamphetamine

- Methamphetamine seizure data suggest that the COVID-19-related restrictions have had little
 impact on the trafficking of methamphetamine to, and through Thailand. Although monthly seizure
 amounts of methamphetamine quickly rebounded after a decline between February and April
 following implementation of the COVID-19 measures, eventually, the annual amount of crystalline
 methamphetamine seized even surpassed the 2019 amount, while methamphetamine tablet seizures
 remained slightly below the 2019 level (figure 1 and table 3).
- Despite the large amount seized, both wholesale and retail prices of crystalline methamphetamine dropped significantly in 2020, with no significant changes in purity level. The retail price of crystalline methamphetamine hit a new low in 2020 (table 6).
- Methamphetamine continues to account for the largest proportion of drug treatment admissions (table 2).
- Ephedrine and pseudoephedrine remain the main precursors used in the manufacture of methamphetamine, accounting for more than half of the drug samples analysed (figure 3).

"Ecstasy"1

• Although "ecstasy" use in Thailand remains limited, quantities of the drug seized annually have continued to increase since 2016 (table 3).

New Psychoactive Substances (NPS) and other synthetic drugs

• Drug treatment admission information shows the continued non-medical use of ketamine in the country, and seizures of the drug have increased every year since 2016 (tables 2 and 3). The prevalence of synthetic NPS² remains limited in Thailand (table 7).

Other drugs

• Heroin has re-emerged as a growing concern, as evidenced by increased seizures and drug treatment admissions (tables 2 and 3).

^{1 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA.

² Synthetic NPS excludes ketamine and plant-based substances.

Key facts and figures

Drug demand indicators

Table 1. Trend in use of selected drugs in Thailand, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Crystalline methamphetamine	1	1	1	1	1	↔
Methamphetamine tablets	1	1	↔	1	1	1
"Ecstasy"	1	•	1	1	Ţ	Ţ
Ketamine	•	•	†	†	1	Ţ
Cannabis herb	1	1	1	1	1	1
Heroin	1	1	1	1	1	1
Kratoma	1	1	1	1	1	1
Cocaine	•	•	•	1	↔	↔

Note: Based on expert perception provided by the Office of Narcotics Control Board (ONCB).

Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Annual Report Questionnaire (ARQ) Thailand for 2019 and previous years; Official communication with ONCB, March 2021.

Table 2. Drug treatment admissions in Thailand, by drug type, 2015-2020

Drug type	2015	2016	2017	2018	2019	2020
Methamphetamine	101,360	130,364	172,847	202,201	185,526	155,676
"Ecstasy"	202	8,422	524	560	413	299
Cannabis	8,720	15,206	14,616	12,976	15,676	9,272
Heroin	3,691	3,767	3,383	3,819	3,660	4,890
Opium	3,691	3,165	3,841	3,481	3,167	8
Ketamine	•	•	381	704	1,093	711
Cocaine	30	84	25	22	12	15
Inhalants	1,787	1,693	1,456	1,288	1,055	698
Kratom ^a	1,727	5,327	6,828	5,384	4,495	2,737
Total	121,208	172,518	205,147	230,435	215,097	174,306

Note: ● = Not reported; a Includes users of kratom in leaf and liquid form.

Source(s): DAINAP; UNODC ARQ Thailand for 2019 and previous years; Official communication with ONCB, March 2021.

Drug supply indicators

Table 3. Seizures of selected drugs in Thailand, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablets	tablets	108,300,000	93,700,000	240,051,853	515,146,570	395,000,000	368,798,198
Crystalline methamphetamine	kg	1,122.4	1,161	8,113.9	18,441.4	17,642.93	25,072.6
"Ecstasy" ^a	tablets	11,467	8,807	80,433	203,407	221,300	398,833
Cannabis herb	kg	24,554.3	3185.5	13,395.9	39,997	26,815.18	41,611.6
Cocaine	kg	45.7	50.1	54.7	49.7	41.81	36.6
Heroin	kg	202.5	147.5	599.4	1,085.4	722.7	1,873.5
Ketamine	kg	25.8	95.1	617.4	720.2	1,175.4	1,926.3
Kratom leaves	kg	75,097.0	91,006.2	97,993.0	50,422.7	85,707.7	81,965.4
Kratom liquid	lt	27,648.6	27,088.6	40,280.1	25,961.3	28,525.0	35,307.8

Note: ^a Ecstasy tablet seizures converted into estimated kg equivalents at 300 mg per tablet.

Source(s): DAINAP; ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with ONCB, March 2021.

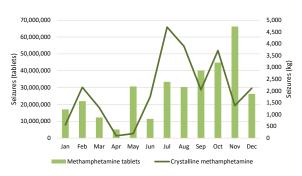
^{↑ =} Increasing, \downarrow = Decreasing, \leftrightarrow = Stable, \bullet = Not reported.

Table 4. Seizures of selected precursor chemicals and substances used as adulterants in illicit drugs in Thailand, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2020
Hydrochloric acid	kg	0	0	0	15,950	0
Sodium cyanide	kg	0	4,000	77,000	99,750	0
Ammonium hydroxide	lt	0	0	90	0	0
Carbon	kg	0	0	160	0	0

Source(s): ONCB, "Drugs and precursor chemical situation in Thailand", presented at the Meeting of Drug and Precursor Intelligence Specialists, Mandalay, Myanmar, February 2020; Official communication with ONCB, March 2021.

Figure 1. Seizure amounts of crystalline methamphetamine and methamphetamine tablets in Thailand, by month, 2020



Source(s): ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with ONCB, March 2021.

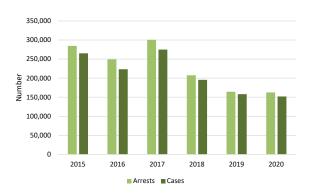
Table 5. Typical purity (HCl form) of selected drugs in Thailand, 2019 and 2020

Drug type	2019	2020
Crystalline methamphetamine	94.85 (0.18-99.75)	95.62 (0.01-99.98)
Methamphetamine tablets	16.82 (0.06-31.17)	17.26 (0.01-30.35)
"Ecstasy"	49.03 (6.47-79.42)	50.93 (0.39-74.60)
Heroin (No. 3)	86.05 (71.85-92.39)	88.19 (41.83-96.63)
Cocaine	75.30 (18.43-98.43)	88.51 (31.38-96.77)
Ketamine	94.03 (3.71-99.79)	96.94 (0.01-99.98)

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

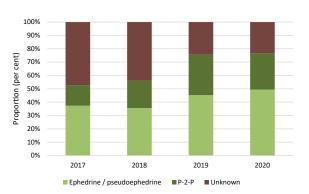
Source(s): Official communication with ONCB, March 2021.

Figure 2. Number of drug-related cases and arrests in Thailand, 2015-2020



Source(s): DAINAP; ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with ONCB, March 2021.

Figure 3. Profiles of crystalline methamphetamine in samples analysed in Thailand, 2017-2020



Source(s): ONCB, "Latest situation on synthetic drugs and responses to the threats in Thailand", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with ONCB, March 2021.

Table 6. Typical wholesale and retail prices of selected illicit drugs in Thailand, 2020 (US\$)

Drug type	2019	2020
Methamphetamine tablet (per 2,000 tablets)	820 - 1,147	820 - 984
Methamphetamine tablet (per tablet)	1.64 - 3.28	1.64 - 3.28
Crystalline methamphetamine (per kg)	8,197 - 13,115	6,557 - 9,836
Crystalline methamphetamine (per gram)	33 - 49	16 - 27
"Ecstasy" (per tablet)	10 - 16	13 - 20
Heroin (per 700 gram)	9,836 - 13,115	13,115 - 16,393
Heroin (per gram)	33 - 66	82 - 98
Cannabis herb (per kg)	164 - 262	180 - 328
Cannabis (per unit*)	1.64 - 3.28	2.62 - 3.28
Ketamine (per kg)	11,475 - 13,115	11,476 - 13,115
Ketamine powder (per gram)	16 - 33	13 - 33

Note: * Approximately 5 g; Thailand reported prices with a conversion ratio of THB 30.5 = US\$1.

Source(s): Official communication with ONCB, March 2021.

Table 7. Types of NPS and other emerging synthetic substances identified in Thailand, 2018-2020

Substance type	Substance name	2018	2019	2020
Synthetic cannabinoids	JWH-018	✓	✓	•
Synthetic cathinones	3,4-Methylenedioxypyrovalerone (MDPV)	•	✓	•
	4-Methylmethcathinone (Mephedrone)	•	✓	•
	beta-keto-N-methylbenzodioxolylbutanamine	•	✓	•
Piperazines	1-(3-Trifluoromethylphenyl)piperazine (TFMPP)	•	✓	•
	1-Benzyl-4-methylpiperazine (MBZP)	✓	•	•
	1-(3-chlorophenyl)piperazine	•	✓	•
Phenethylamines	para-Methoxymethylamphetamine (PMMA)	✓	✓	•
	M-alpha	•	✓	•
	Etizolam + Nitrazepam (combination)	•	•	✓
	Phenazepam	•	•	✓
	Etizolam	✓	✓	✓
	Clonazolam	•	✓	•
	Flunitrazolam	•	✓	•
	Diclazepam	•	✓	•
	Isopropylphenidate	•	✓	•
	7- [2-([1-(4-chloro-2,5-dimethoxyphenyl)propan-2-yl]amino)ethyl] -1,3-dimethyl-3,7 dihydro-1H-purine-2,6-dione		✓	•
	2-[3-(aminomethyl)-5-methyl-4H-1,2,4-triazol-4-yl]-5-chlorophenyl-(phenyl)methanone	•	√	•
Note: / = Detected • = Not	(±)-Dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-N,N,3- trimethylbutan-1-amine	•	✓	•

Note: √ = Detected, • = Not detected.

Source(s): ONCB, "Latest situation on synthetic drugs and responses to the threats in Malaysia", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with ONCB, March 2021; UNODC Early Warning Advisory on NPS.



VIET NAM

Summary of major trends and emerging concerns

Methamphetamine

- The seizures of almost 2.5 million tablets of methamphetamine in 2020 surpassed the combined quantities recorded for 2018 and 2019. While the amount of crystalline methamphetamine seized in 2020 was lower than that recorded for 2019, it was still significantly greater than the annual amounts seized before 2019 (table 1).
- The purity of methamphetamine in both tablet and crystalline forms remained stable in 2020 (table 2).
- The continued increase in the number of registered people who use amphetamine-type stimulants (ATS), predominantly methamphetamine, indicate that the methamphetamine market remains significant in spite of the COVID-19-related restrictions (figure 1).

"Ecstasy"1

• "Ecstasy" tablets have increased in size and purity in recent years. The amount of MDMA in "ecstasy" tablets has increased to as high as 231 mg compared to previous years.²

New Psychoactive Substances (NPS) and other synthetic drugs

- Seizures of ketamine seizures were not reported in 2020, but other available information suggests its continued presence on the illicit market (tables 1 and 2).
- Synthetic cannabinoids remained the most frequently identified group of NPS in 2020 (figure 3).

Other drugs

• Seizures of cannabis herb, heroin and opium all declined in 2020. It is unclear whether it was a result of the COVID-19-related restrictions (table 1).

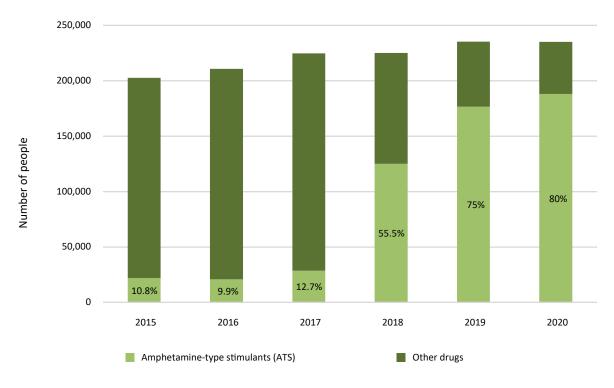
^{1 &}quot;Ecstasy" tablets sold in the country may contain a range of substances in varying composition and quantities in addition or instead of MDMA

² Standing Office on Drugs and Crime (SODC), "Latest situation on synthetic drugs and responses to the threats in Viet Nam", presented at the Global SMART Programme Regional Workshop, November 2020.

Key facts and figures

Drug demand indicators

Figure 1. Number of registered drug users in Viet Nam, 2015-2020



Source(s): Drug Abuse Information Network for Asia and the Pacific (DAINAP); Standing Office on Drugs and Crime (SODC), "Synthetic drug situation in Viet Nam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with SODC, March 2021.

Drug supply indicators

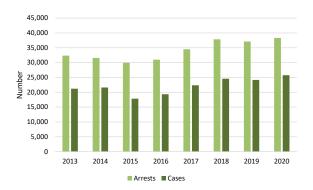
Table 1. Seizures of selected drugs in Viet Nam, 2015-2020

Drug type	Unit	2015	2016	2017	2018	2019	2020
Methamphetamine tablets	tablets	696,632	427,655	979,487	1,363,495	987,913	2,436,507
Crystallline methamphetamine	kg	983	839.6	856.9	1,929	5,500.6	3,950
Cannabis herb	kg	4,500	479.8	111 kg of 'fresh' and 376.4 kg of 'dried'	254.4 kg of 'dried'	586	274.8
Cocaine	kg	178	14.5	2.4	137	120.5	•
Heroin	kg	1,510	607.8	906.7	1,584.4	1,494.3	841
Ketamine	kg	•	4	17.6	6.2	507.5	•
Opium	kg	133.8	92.1	167.1	196.7	600	13.4
Khat	Kg	•	•	5,600	2,500	•	•
NPS (synthetic cannabinoids)	kg	•	1.6	108.01	103.28	•	•

Note: • = Not reported.

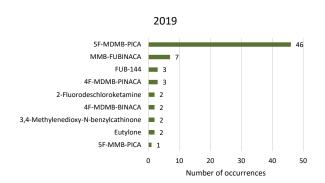
Source(s): DAINAP; UNODC Annual Report Questionnaire (ARQ) Viet Nam for 2019 and previous years; SODC, "Latest situation on synthetic drugs and responses to the threats in", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with SODC, March 2021.

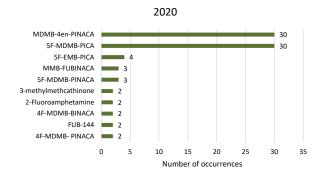
Figure 2. Number of drug-related cases and arrests in Viet Nam, 2015-2020



Source(s): DAINAP; SODC, "Latest situation on synthetic drugs and responses to the threats in Viet Nam", presented at the Global SMART Programme Regional Workshop, November 2020; Official communication with SODC, March 2021.

Figure 3. Top 10 NPS and other emerging synthetic substances identified in drug samples in Viet Nam, by number of occurrences, 2019 and 2020





Source(s): Official communication with the Institute of Forensic Science (IFS), April 2021.

Table 2. Purity of selected drugs analysed in Viet Nam, 2019 and 2020

Drug type	Form	2019	2020	
Methamphetamine	Tablet	12-15%	12-15%	
	Crystalline	70-80%	75-80%	
"Ecstasy" / MDMA	Tablet	30-40%	35-40%	
	Crystalline	75%	75%	
Ketamine	Tablet	1-5%	1-5%	
	Crystalline	80%	80%	
Note: Date of facility of the California	Liquid	100 mg/ml	100 mg/ml	

Note: Data refers to the weight/weight (w/w) % expressed as the free base of these substances and is as of November 2020.

Source(s): IFS, "Trend of Synthetic Drugs in Viet Nam in 2020 through Laboratory Examination Results", presented at the Global SMART Programme Regional Workshop, November 2020.

Table 3. Newly identified NPS and other emerging synthetic substances in Viet Nam, 2019 and 2020

Substance group	2019	2020		
Phenethylamines	-	3-fluoroethylamphetamine		
Tryptamines	-	4-Hydroxy-N,N-diisopropyltryptamine		
Other substances	Phenazepam	• 1-Cp-lsd		

Source(s): Official communication with IFS, April 2021.

United Nations Office on Drugs and Crime (UNODC)
Regional Office for Southeast Asia and the Pacific
United Nations Building, 3rd floor, Block B
Rajadamnern Nok Avenue
Bangkok 10200, Thailand
Website: http://www.unodc.org/southeastasiaandpacific

Global SMART Programme
United Nations Office on Drugs and Crime (UNODC)
Vienna International Centre
P.O. Box 500
A-1400 Vienna, Austria
http://www.unodc.org/unodc/en/scientists/smart-new.html

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