

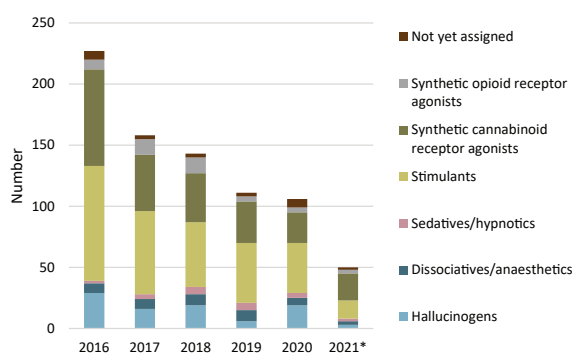
Overview of the new psychoactive substances (NPS) and other synthetic drug markets

In addition to methamphetamine and “ecstasy”, other synthetic drugs, including NPS,⁴⁸ have become relevant in East and Southeast Asia over past few years. Although the annual reported number of NPS identified in the region has gradually decreased in recent years, substances continue to evolve and emerge. Ketamine remains a concern, with signs pointing to increasing supply from within and outside the region.

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

As of December 2021, preliminary data show a cumulative total of 507 individual NPS identified in East and Southeast Asia. However, the total number of individual NPS identified annually has been decreasing with preliminary data showing that only 50 substances were identified in 2021 compared to 106 in 2020.⁴⁹

Figure 21. NPS reported annually to UNODC in East and Southeast Asia, by effect group, 2016-2021*



Source: UNODC Early Warning Advisory (EWA) on NPS; Official communication with national drug agencies in the region, February-May 2022.

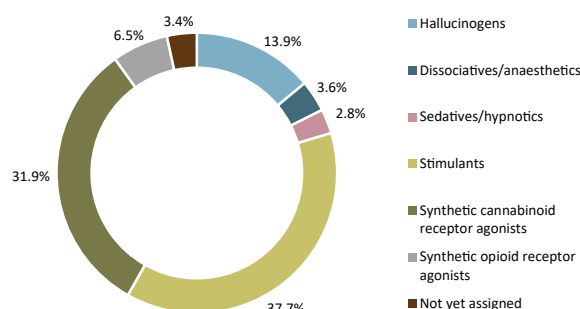
Note: * Data are preliminary.

48 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.

49 UNODC EWA on NPS; Official communication with national drug agencies in the region, February-May 2022.

Of the 507 substances identified in the region thus far, in terms of pharmacological effects, NPS with stimulant effects (187) constitute the largest group of substances, followed by synthetic cannabinoid receptor agonists (158) and hallucinogens (69).

Figure 22. Proportion of NPS in East and Southeast Asia, by effect, up to December 2021*

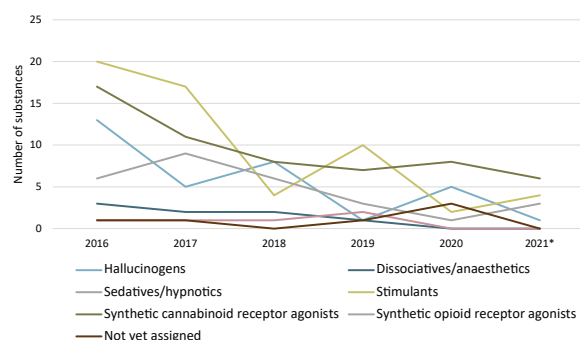


Source: UNODC EWA on NPS.

Note: * Data are preliminary and based on analysis of 496 synthetic NPS. Plant-based substances were excluded from the analysis because they usually contain many different substances, some of which may not even be known and whose effects and interactions are not fully understood.

Though NPS with stimulant effects make up the largest proportion of NPS overall, the number of newly reported stimulant NPS has been on the decrease over the past five years. To some extent, this trend can be observed for other effect groups as well.

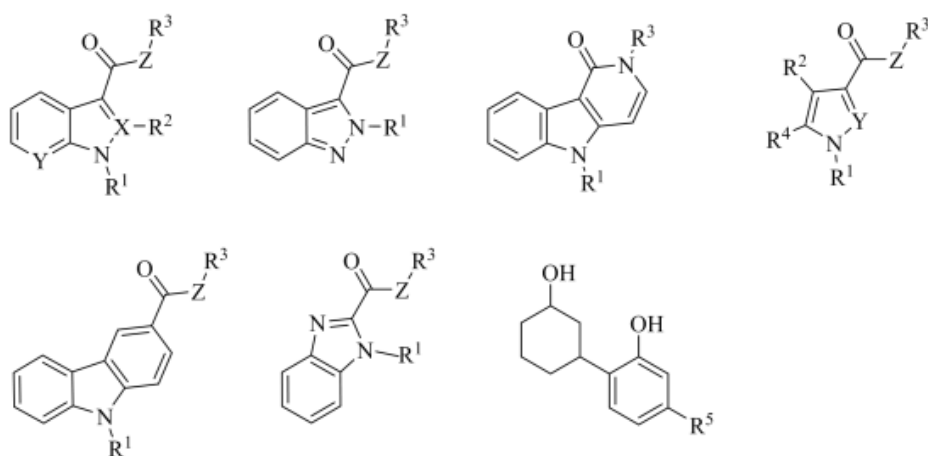
Figure 23. Newly reported NPS in East and Southeast Asia, by effect, up to December 2021*



Source: UNODC EWA on NPS.

Note: * Data are preliminary.

Figure 24. Structural backbones of synthetic cannabinoids covered by the generic class scheduling of synthetic cannabinoids in China, July 2021⁴²



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

Evolving nature of synthetic cannabinoids in the region

In July 2021, China implemented a class scheduling of synthetic cannabinoids based on common general structural backbones to curb the growing threat of this class of compounds in the country.⁵¹ Subsequently, several new synthetic cannabinoids with previously unencountered or not commonly encountered structural backbones emerged in China, which might not be covered under this legislation and were likely developed to circumvent these legal controls.⁵² These substances include ADB-FUBIATA, which is a methylene analogue of ADB-FUBICA, as well as analogues of MDA-19 (BZO-HEXOXIZID), such as BZO-POXIZID (MDA-19 pentyl

analogue) and 5F-BZO-POXIZID (5F-MDA-19).⁵³ The aforementioned new “OXIZID” class of synthetic cannabinoids were also found in Singapore, in addition to BZO-CHMOXIZID.⁵⁴ BZO-POXIZID was also identified in Indonesia for the first time in 2021.⁵⁵

MDMB-4en-PINACA was the most frequently identified NPS in 2020 in China and Viet Nam, and in Indonesia⁵⁶ and Singapore in 2021 by number of occurrences in drug samples analysed. ADB-BUTINACA, first identified in the region in 2020 in China and Singapore, is also of concern. Since its identification last year, it became the fourth and fifth most frequently identified NPS in Singapore and Malaysia respectively, while in China it was the most frequently identified synthetic cannabinoid in 2021.⁵⁷

Persistent supply of ketamine in East and Southeast Asia

The non-medical use of ketamine from clandestine manufacture remains of concern in the region. In 2021, the total amount of ketamine seized in East and Southeast Asia reached nearly 10.3 tons.

50 R¹ represents the C₃-C₈ alkyl group whether or not substituted, or heterocyclic group containing 1-3 hetero atoms whether or not substituted, or methyl or ethyl group substituted by heterocyclic group containing 1-3 hetero atoms whether or not substituted. R² represents the hydrogen atom or methyl group or no atom. R³ represents the C₆-C₁₀ aryl group whether or not substituted, or C₃-C₁₀ alkyl group whether or not substituted, or heterocyclic group containing 1-3 hetero atoms whether or not substituted, or methyl or ethyl group substituted by heterocyclic group containing 1-3 hetero atoms whether or not substituted. R⁴ represents the hydrogen atom, phenyl group whether or not substituted, benzyl group whether or not substituted. R⁵ represents the C₃-C₁₀ alkyl group whether or not substituted. X represents N or C. Y represents N or CH. Z represents O or NH or no other atom.

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

52 Cayman Chemical and NPS Discovery at the Center for Forensic Science Research and Education (CFSRE), *New Systematic Naming for Synthetic Cannabinoid “MDA-19” and Its Related Analogues: BZO-HEXOXIZID, 5F-BZO-POXIZID, and BZO-POXIZID*, August 2021.

53 Liu C-M, Hua Z-D, Jia W, Li T. Identification of AD-18, 5F-MDA-19, and pentyl MDA-19 in seized materials after the class-wide ban of synthetic cannabinoids in China. *Drug Test Analysis*, 2021; 1-10. doi:10.1002/dta.3185.

54 Official communication with CNB, March 2022.

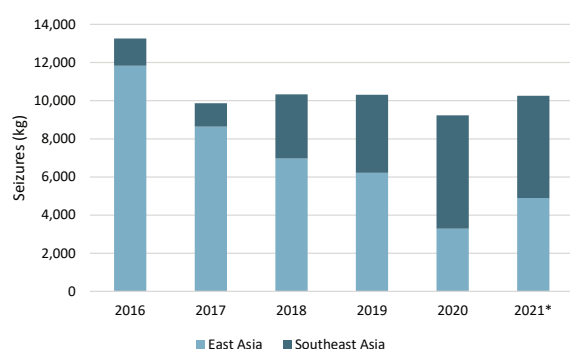
55 Official communication with BNN, April 2022.

56 In Indonesia, 794 of the 825 samples analysed were MDMB-4en-PINACA.

57 See the China, Malaysia, and Singapore country chapters for more information.

Though the total amount of ketamine seized in the region has remained stable over the past five years, the amount seized in Southeast Asia declined for the first time after a steady increase since 2017 (5.3 tons). This was in part due to declines in Malaysia, Myanmar, and Thailand, which in previous years accounted for a large proportion of ketamine seized in the subregion. These declines were offset by a significant increase in Cambodia, where 2.8 tons of the drug were seized, compared to only 112.5 kg seized in 2020.⁵⁸ In East Asia, while the amount of ketamine seized in China and Taiwan Province of China declined in 2021, Hong Kong, China, saw a significant increase of ketamine seized, reaching 3.2 tons, nearly sevenfold the amount seized the year prior.⁵⁹

Figure 25. Seizure amounts of ketamine in East and Southeast Asia, 2016-2021



Sources: DAINAP; UNODC, responses to the ARQ; Official communication with national drug agencies in the region, February-May 2022; Taiwan Ministry of Justice, “Drug Offenses” (accessed at <https://www.moj.gov.tw/2832/2833/2853/2854/2857/>).

Note: * Data are preliminary.

Geographical expansion of the illicit manufacture of ketamine

Ketamine continues to be manufactured in the Golden Triangle. However, Cambodia has been increasingly targeted for illicit synthetic drug production, not only for methamphetamine and “ecstasy”, but ketamine as well.

In December 2021, Cambodian authorities seized 1,420 kg of the drug, destined to Taiwan Province of China, in Sihanoukville. A series of follow-up investigations led to the dismantling of two large-scale illicit suspected ketamine manufacturing facilities and a chemical storage, including a

⁵⁸ Official communication with NACD, March 2022.

⁵⁹ Official communication with NNCC, March 2022.

clandestine ketamine laboratory in Kampong Speu province in the same month. A total of 61.7 tons of various substances, including 750 kg of ketamine (base form), 5.2 tons of ketamine waste as well as 13.2 tons of ethyl benzoate⁶⁰ were found.⁶¹ A further 149 tons of chemicals, most of which are not under international control, were seized in a chemical storage site in Phnom Penh in January 2022,⁶² including ammonia and activated carbon, which can be used in the manufacture of ketamine. Acetic anhydride, benzoic acid and cyclohexane were also found at the site, indicating that organized crime groups may have intended to produce not only ketamine but also other synthetic drugs in Cambodia.

Figure 26. Industrial-scale clandestine ketamine laboratory dismantled in Cambodia, December 2021



Source: NACD of Cambodia.

Aside from Cambodia, clandestine ketamine laboratories continue to be found in other countries in the region, notably Malaysia, with four ketamine laboratories dismantled in 2021.⁶³

Diversification of sources of ketamine

While the significant increase in ketamine seized in Cambodia was attributed to the illicit manufacture of the substance in the country, in the case of Hong Kong, China, this increase was due to the rising supply of the drug from West Asia. At least seventy

⁶⁰ Ethyl benzoate is a reagent commonly used in the synthesis of ketamine, but it also has licit uses. It is not internationally controlled.

⁶¹ NACD, List of Drugs and Chemicals Seized at the Production Site in Kampong Speu, December 2021.

⁶² Bilateral Meeting with Cambodian authorities, March 2022.

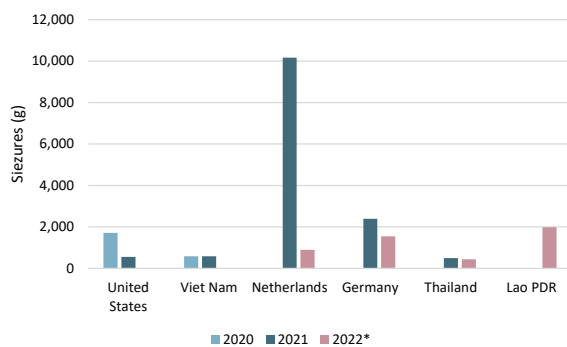
⁶³ Official communication with NADA, April 2022.

per cent (2.3 tons) of the ketamine seized in Hong Kong, China, in 2021 originated from Pakistan,⁶⁴ with two large shipments of the drug intercepted by authorities in February (682 kg)⁶⁵ and December (1,226 kg).⁶⁶

In the past few years, increasing quantities of the drug have been reported to be sourced from Europe, particularly the Netherlands and Germany, by authorities in Viet Nam and the Republic of Korea.⁶⁷ Lao PDR has also emerged as an embarkation point for ketamine to the Republic of Korea.⁶⁸

increased, other countries in the region reported stable or declining use. Expert perception on the use of ketamine in Malaysia and Thailand suggests a decrease in the use of the drug in 2021, while it remained stable in Singapore.⁶⁹ Meanwhile, the number of registered the drug users in China continued to decline, further dropping from 41,100 users in 2020 to 37,449 users in 2021.⁷⁰

Figure 27. Seizure amounts of ketamine in the Republic of Korea, by embarkation point, 2020-2022



Source: Official communication with the Korea Customs Service, March 2022.

Note: * Data are preliminary.

Continued non-medical use of ketamine

Except for Cambodia and Hong Kong, China, where use of ketamine, as indicated by expert perception and number of ketamine users respectively,

64 Based on seizures reported by Hong Kong Customs and the Hong Kong Police (accessed at <https://twitter.com/hkpoliceforce/status/1357640178618126344>; https://www.customs.gov.hk/en/publication_press/press/index_id_3221.html; https://www.customs.gov.hk/en/publication_press/press/index_id_3260.html; https://www.customs.gov.hk/en/publication_press/press/index_id_3280.html; https://www.customs.gov.hk/en/publication_press/press/index_id_3272.html; <https://twitter.com/hkpoliceforce/status/1474722802892693511>).

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

66 Hong Kong Police official Twitter account, December 2021 (accessed at <https://twitter.com/hkpoliceforce/status/1474722802892693511>).

67 SODC, "Latest situation on synthetic drugs and responses to the threats in Viet Nam", presented at the Global SMART Programme Regional Workshop, November-December 2021; Official communication with SPO, March 2022.

68 Official communication with the Korea Customs Service, March 2022.

69 See the Cambodia, China, Malaysia, Thailand, and Singapore country chapters for more information.

70 Official communication with NNCC, March 2022.