



# REGIONAL TRENDS: EAST AND SOUTHEAST ASIA

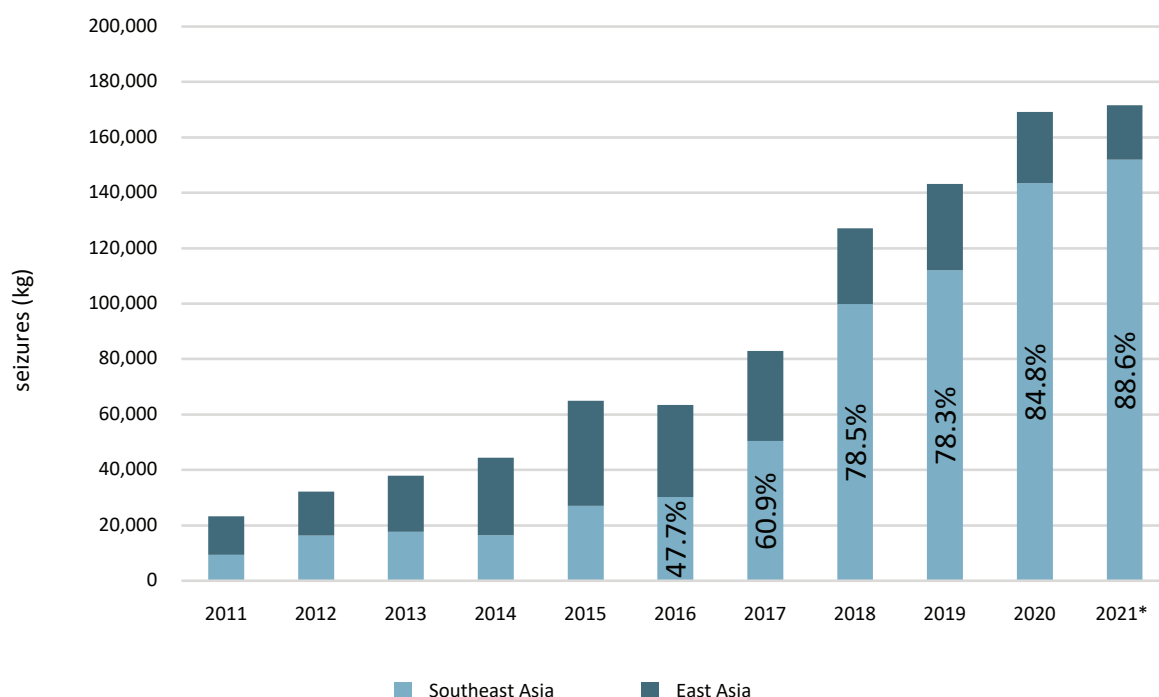
## Overview of the methamphetamine market

The methamphetamine market in East and Southeast Asia has continued to expand. Increasingly, organised crime groups in the region appear to have resorted to using non-controlled chemicals to manufacture methamphetamine and other synthetic drugs. Prices have decreased even further in several countries in the region, leading to increased affordability and accessibility to the drug.

## Methamphetamine supply continues at high levels in East and Southeast Asia

The supply of methamphetamine to the region, particularly from Shan State, Myanmar, as reflected in seizures showed remarkable continuity. Preliminary data for 2021 suggests that another record amount of methamphetamine was seized in East and Southeast Asia, reaching 171.5 tons. Southeast Asia, particularly the lower Mekong subregion (comprising Cambodia, Lao PDR, Myanmar, Thailand, and Viet Nam),<sup>1</sup> continues to account for an increasing proportion of methamphetamine seizures in the region amounting to nearly 89 per cent of total seizures reported in 2021.<sup>2</sup>

Figure 1. Seizures of methamphetamine in East and Southeast Asia, by region, 2011-2021



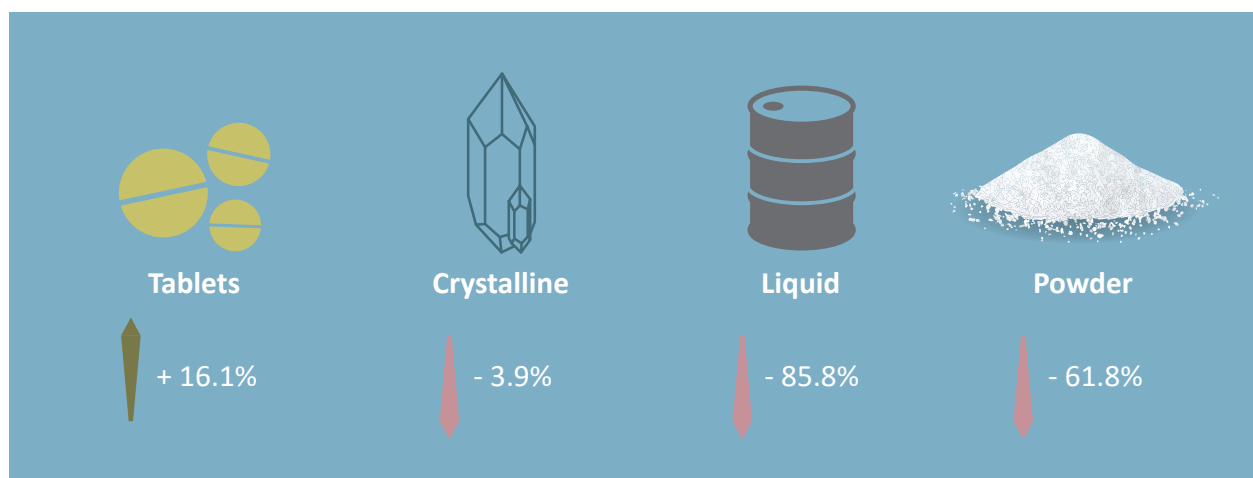
Sources: Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC, responses to the annual report questionnaire (ARQ); Official communication with national drug agencies in the region, February-May 2022.

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

1 Preliminary data for 2021 show that 127.6 tons of methamphetamine was seized in the lower Mekong subregion, accounting for 74.4 per cent of the total amount of methamphetamine seized in 2021.

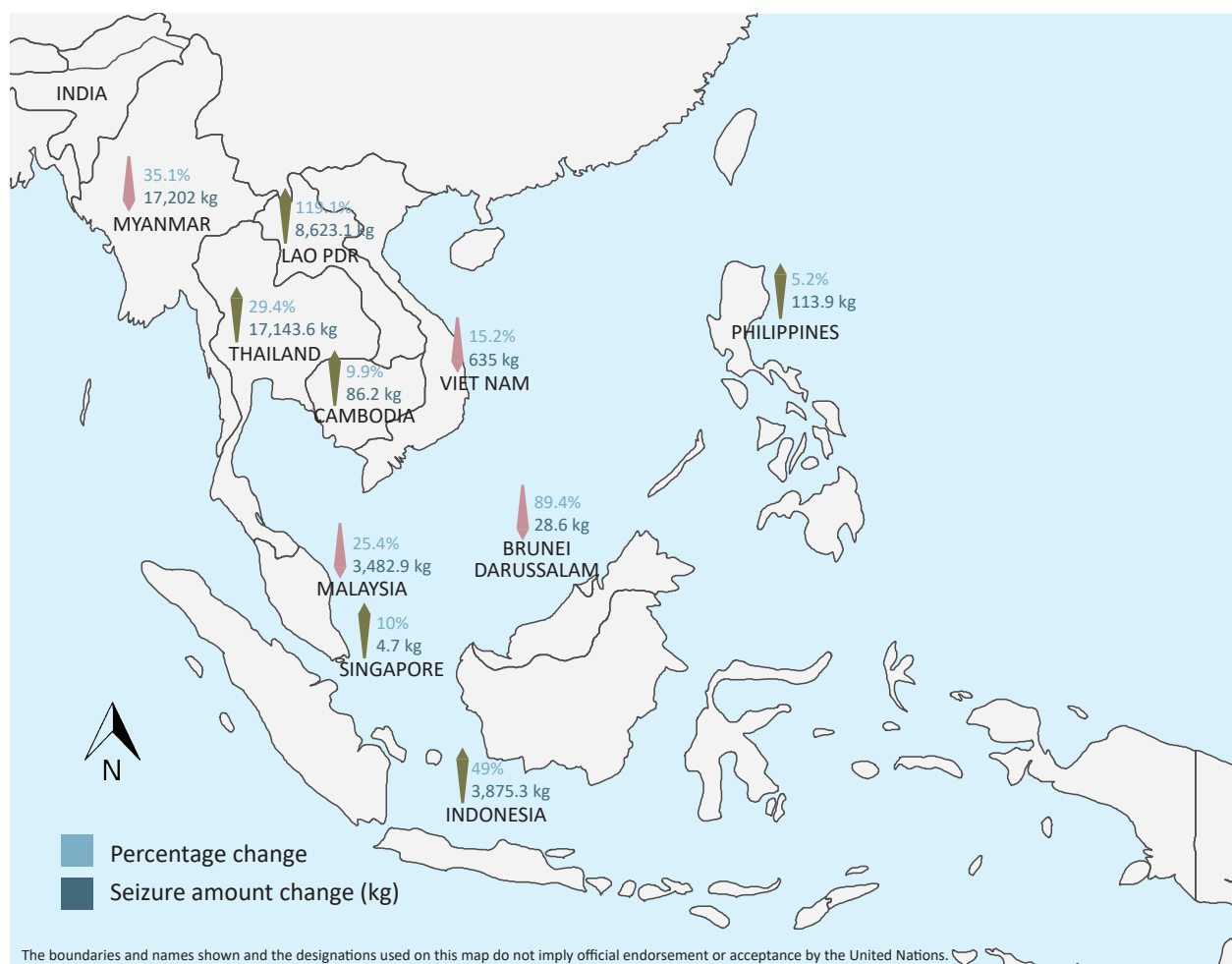
2 DAINAP.

**Figure 2. Change in seizure amounts of different forms of methamphetamine in East and Southeast Asia, by percentage, from 2020 to 2021\***

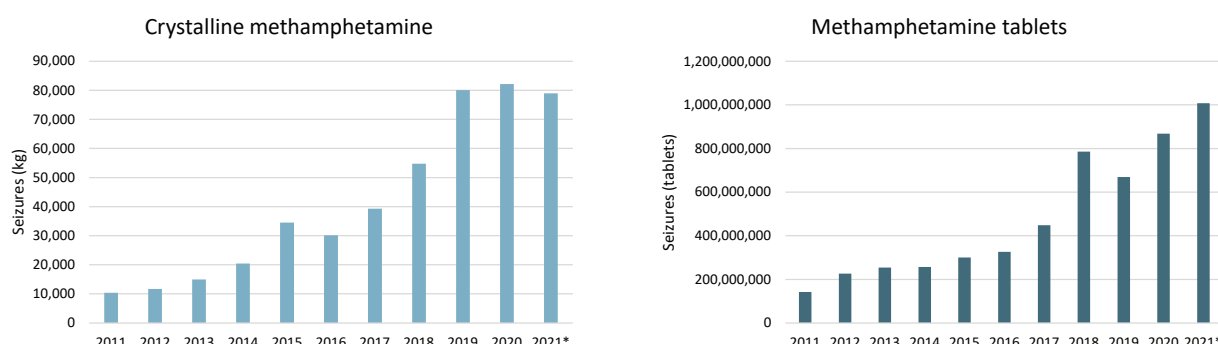


Sources: DAINAP; UNODC, responses to the ARQ; Official communication with national drug agencies in the region, February-May 2022.  
Note: \* Data are preliminary.

**Map 1. Change in methamphetamine seizure amounts in Southeast Asia, by percentage and weight, from 2020 to 2021\***



Sources: DAINAP; Official communication with national drug agencies in the region, February-May 2022.  
Note: \* Data are preliminary and include all forms of methamphetamine.

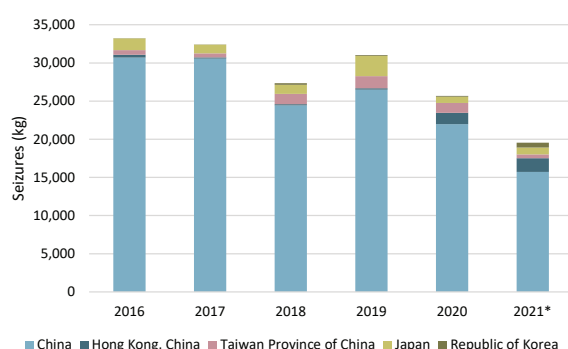
**Figure 3. Seizures of methamphetamine tablets and crystalline methamphetamine, 2011-2021**

Sources: DAINAP; UNODC, responses to the ARQ; Official communication with national drug agencies in the region, February-May 2022.

Note: \* Data are preliminary.

The increase in quantity of methamphetamine seized in 2021 was solely driven by the increase in methamphetamine tablet seizures, which reached over one billion tablets for the first time since the start of monitoring by the UNODC Global SMART Programme. While the amount of crystalline methamphetamine and methamphetamine powder seized decreased by 3.2 tons and 1.5 tons respectively, liquid methamphetamine seizures dropped from 6.4 tons in 2020 to only 908 kg in 2021.

In East Asia, the quantity of methamphetamine seized declined for the third year in a row, dropping from 25.7 tons in 2020 to 19.5 tons in 2021.<sup>3</sup> This was largely due to significant decreases in quantities of seizures in China and Taiwan Province of China, which were not compensated by increases in Japan, the Republic of Korea, and Hong Kong, China, in 2021.

**Figure 4. Seizures of methamphetamine in East Asia, by country or territory, 2016-2021\***

Sources: DAINAP; UNODC, responses to the ARQ; Official communication with the National Narcotics Control Commission (NNCC) of China, March 2022; 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 2021", February 2022.

3 At the time of writing, data on methamphetamine seizures in Japan for 2021 were preliminary and only include data reported by Japan Customs.

In Southeast Asia, the quantity of methamphetamine seized in 2021 increased from 143.5 tons to 152 tons, despite a drop in methamphetamine seizures in Myanmar, mainly due to increases in neighbouring Lao PDR and Thailand. In maritime Southeast Asia, a large increase in the amount of methamphetamine seized in Indonesia was almost compensated by a decrease in Malaysia, with other countries reporting only smaller changes in absolute terms.<sup>4</sup>

### Concentration of methamphetamine manufacture in the Golden Triangle and expansion to the lower Mekong subregion

Starting from 2015, illicit methamphetamine manufacture in East and Southeast Asia has become more and more concentrated in the lower Mekong, predominantly in Shan State, Myanmar. This development seems to continue as evidenced by information on methamphetamine trafficking cases and forensic profiles of methamphetamine reported from countries in the region, the dominance of crystalline methamphetamine in teabag packaging seized in the region, and continued seizure of controlled and non-controlled chemicals used in the illicit manufacture of methamphetamine in the country.<sup>5</sup>

At the same time, organised crime groups have increasingly targeted Cambodia for synthetic drug manufacture. Although only two clandestine laboratories were dismantled in Cambodia in 2021, at least one of the sites was an industrial-scale

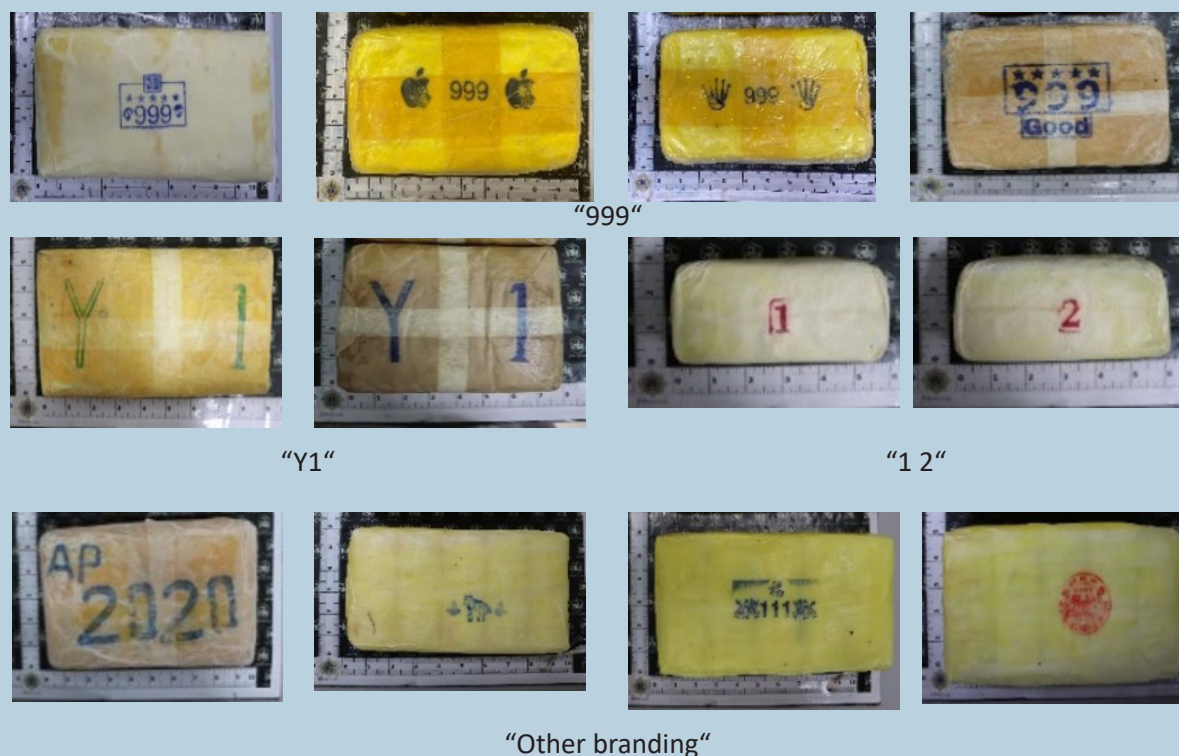
4 In the case of Malaysia, the drop was due to a decrease in the amount of liquid methamphetamine seized, which fell from nearly 6 tons in 2020 to 188.5 kg in 2021. If only considering the amount of crystalline methamphetamine and methamphetamine tablets seized in Malaysia in 2021, there was an increase of 29.5 per cent (2,288.5 kg) compared to 2020 figures. See the Malaysia country chapter for more information.

5 See the Myanmar country chapter for more information.

### Box story: Packaging of methamphetamine tablets originating from the Golden Triangle

The exterior of the packaging of methamphetamine tablets manufactured in the Golden Triangle shows a wide variety of branding marks.

**Figure 5. Branding on methamphetamine tablet packages found in Thailand**



Source: Office of the Narcotics Control Board (ONCB) of Thailand.

The most commonly detected branding on methamphetamine tablet packaging found in Thailand include “999”, “Y1” and “1” or “2”. In 2020, packaging marked with “999” accounted for the largest number of tablets seized (76 per cent), followed by “Y1” (20 per cent). However, in 2021, a larger variety of brandings was observed.

**Table 1. Proportion of different branding on methamphetamine tablet packaging seized in Thailand, 2020-2021**

Branding	2020	2021
“999”	76.2%	73.5%
“Y1”	20.0%	13.2%
“1” or “2”	0.5%	0.1%
Other branding	2.8%	13.0%
No logo	0.5%	0.3%

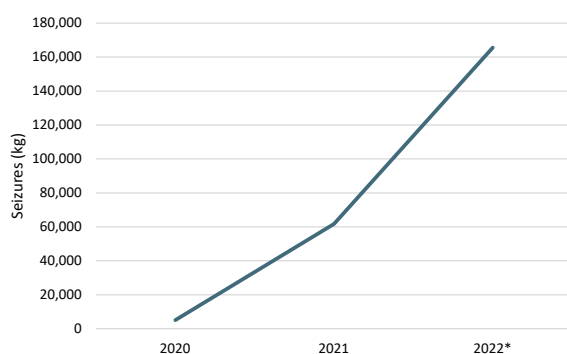
Source: Official communication with ONCB of Thailand, May 2022.

Although there is limited information on linkages between the branding on methamphetamine tablet packaging and their specific origin, drug control authorities in the region have reported that the branding can be indicative of which organised crime group manufactured/tableted the drug.<sup>6</sup> The increase in “other” category in 2021 could indicate a larger number of different actors.

<sup>6</sup> Official communication with national drug agencies in the region, March-May 2022.

facility,<sup>7</sup> which was set up to produce ketamine and potentially other synthetic drugs.<sup>8</sup> In addition, the amount of precursors and non-controlled chemicals that can be used in illicit synthetic drug manufacture seized at warehouses and other sites in the country has grown exponentially over the past two years. In January 2022, 165 tons of chemicals were seized across three warehouses in Cambodia. These include controlled chemicals, such as acetic anhydride (2.7 tons), hydrochloric acid (29.1 tons), and toluene (32.4 tons), as well as non-controlled chemicals, such as cyclohexane (3.9 tons) along with other chemicals, which can be used in the illicit manufacture of synthetic drugs.<sup>9</sup>

**Figure 6. Amounts (kg) of controlled and non-controlled chemicals seized in Cambodia, 2020-2022**

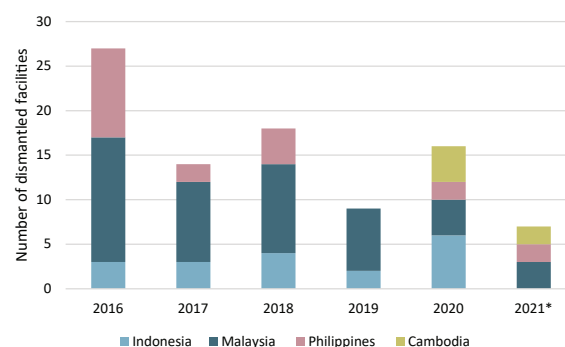


Source: Bilateral Meeting with Cambodian authorities, March 2022.  
Note: \* Data are preliminary and are up to January 2022.

Although the number of clandestine laboratories seized is not necessarily indicative of manufacturing trends, as the facilities vary significantly in size and potential manufacturing capacity, methamphetamine manufacture seems to have diminished in other Southeast Asian countries, which, however, continue to seize large quantities of methamphetamine. In Malaysia and the Philippines, the number of methamphetamine facilities has been declining since 2016, while in Indonesia, no illicit methamphetamine manufacturing facilities were dismantled in 2021.<sup>10</sup> Meanwhile, in China,

only 123 clandestine drug laboratories<sup>11</sup> were dismantled in 2021 compared to 449 in 2016.<sup>12</sup>

**Figure 7. Number of methamphetamine manufacturing and/or re-processing facilities dismantled in Cambodia, Indonesia, Malaysia, and the Philippines, 2016-2021\***



Source: DAINAP.

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.

### Emerging trafficking routes and diversified sources of methamphetamine

For the most part, trafficking routes in East and Southeast Asia did not change dramatically from 2020 to 2021, as organised crime groups adapted to COVID-19 mobility restrictions (see maps). Methods that gained traction following the onset of COVID-19, such as increased use of online methods, continued into 2021, and maritime trafficking routes along the Andaman Sea and through the Malacca Strait towards Malaysia, Indonesia, and beyond were still used in 2021.

### Intensification of trafficking through and to Lao PDR, especially for methamphetamine tablets

Lao PDR is one of the countries most impacted by methamphetamine trafficked out of Myanmar. The increased drug trafficking from Shan State, Myanmar through and to Lao PDR that was observed in 2020 further intensified in 2021, particularly for methamphetamine tablets. In 2021, Lao PDR seized a record 143 million tablets, a 669 per cent increase from the amount seized in 2020. This trend has continued into 2022, with a seizure of over 36 million tablets and 590 kg of crystalline methamphetamine in January.<sup>13</sup> These

7 Industrial-scale laboratories use equipment that is either custom-made or purchased from industrial processing sources and can yield 50 kg or more per typical manufacturing cycle.

8 Bilateral Meeting with Cambodian authorities, March 2022; Official communication with the National Authority for Combating Drugs (NACD) of Cambodia, March 2022.

9 Bilateral Meeting with Cambodian authorities, March 2022.

10 Official communication with the National Anti-Drugs Agency (NADA) of Malaysia, the Dangerous Drugs Board (DDB) of the Philippines, and the Narcotics Control Board (BNN) of Indonesia, March-April 2022.

11 Disaggregated data by drug type is not available.

12 See the China country chapter for more information.

13 Official communication with the Lao National Commission for Drug Control and Supervision (LCDC), March 2022.

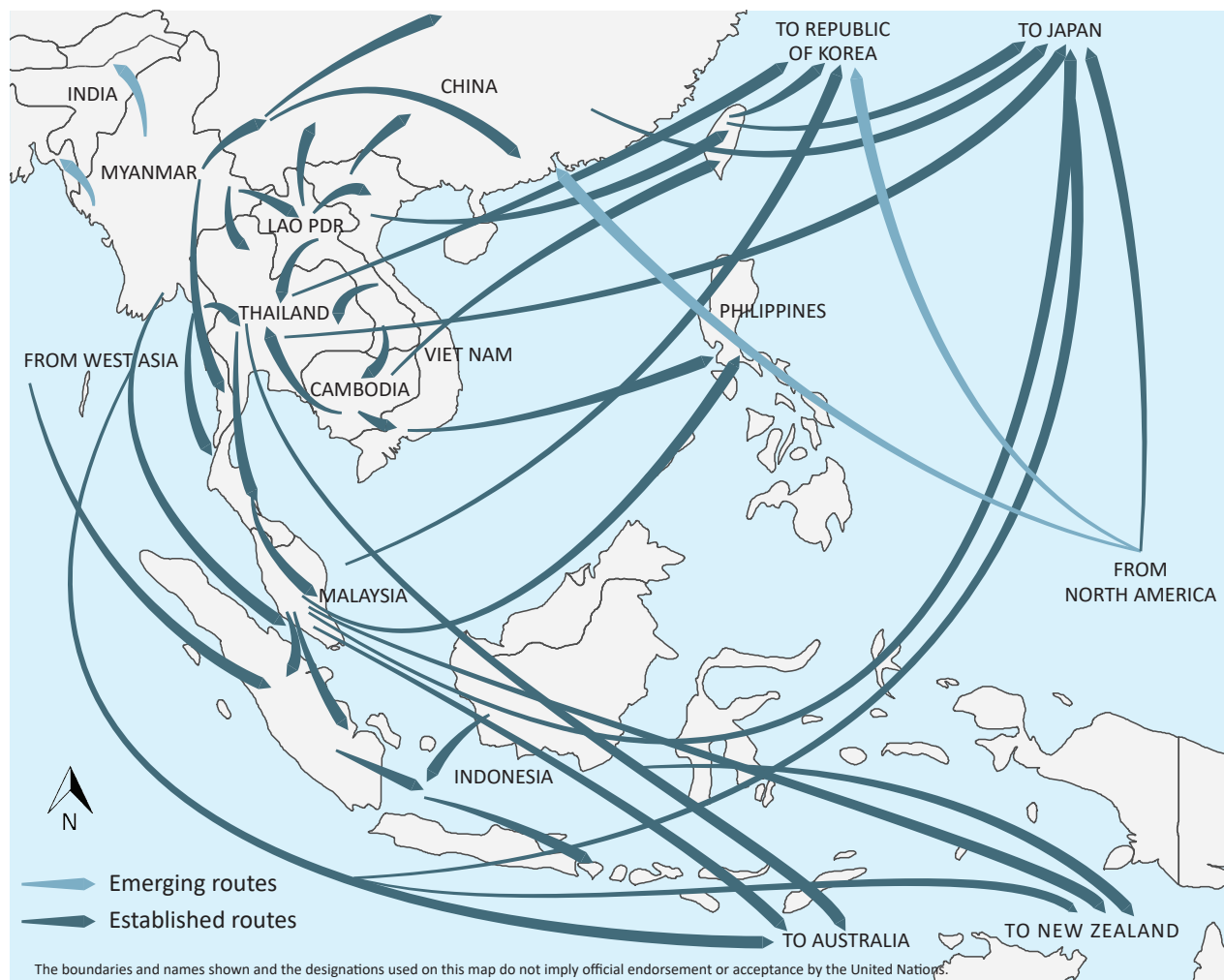
**Map 2. Methamphetamine tablet trafficking flows in the Mekong region, 2021**



Source: UNODC elaboration based on information presented at the Global SMART Programme Regional Workshop, November-December 2021.

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.



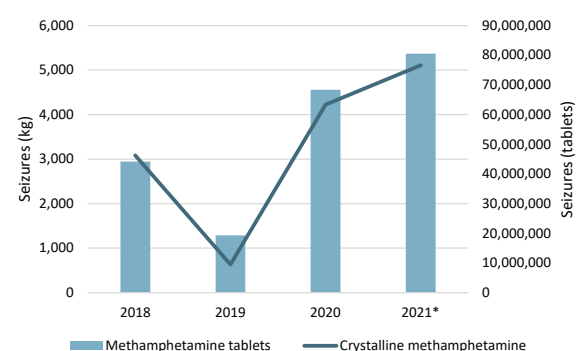
**Map 3. Crystalline methamphetamine trafficking flows in East and Southeast Asia, 2021**

Source: UNODC elaboration based on information presented at the Global SMART Programme Regional Workshop, November-December 2021.

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.

large seizures point towards organised crime groups increasingly diverting their trafficking operations through Lao PDR for further trafficking to destination countries. Drug control authorities in the region have indicated that organised crime groups have also targeted Lao PDR for tableting of the drug.<sup>14</sup>

Lao PDR authorities have reported that in addition to an increasing inflow of methamphetamine and other drugs from Myanmar, there has also been an increase in outflow through its border with Thailand.<sup>15</sup> This is further supported by rising seizures of methamphetamine and other drugs in the northeastern provinces of Thailand which are bordering Lao PDR.<sup>16</sup>

**Figure 8. Seizure amounts of methamphetamine in northeastern Thailand, 2018-2021**

Source: Official communication with ONCB of Thailand, May 2022.

Note: \* Data are preliminary.

Lao PDR has also been increasingly reported as the origin of parcel shipments of methamphetamine trafficked to New Zealand.<sup>17</sup>

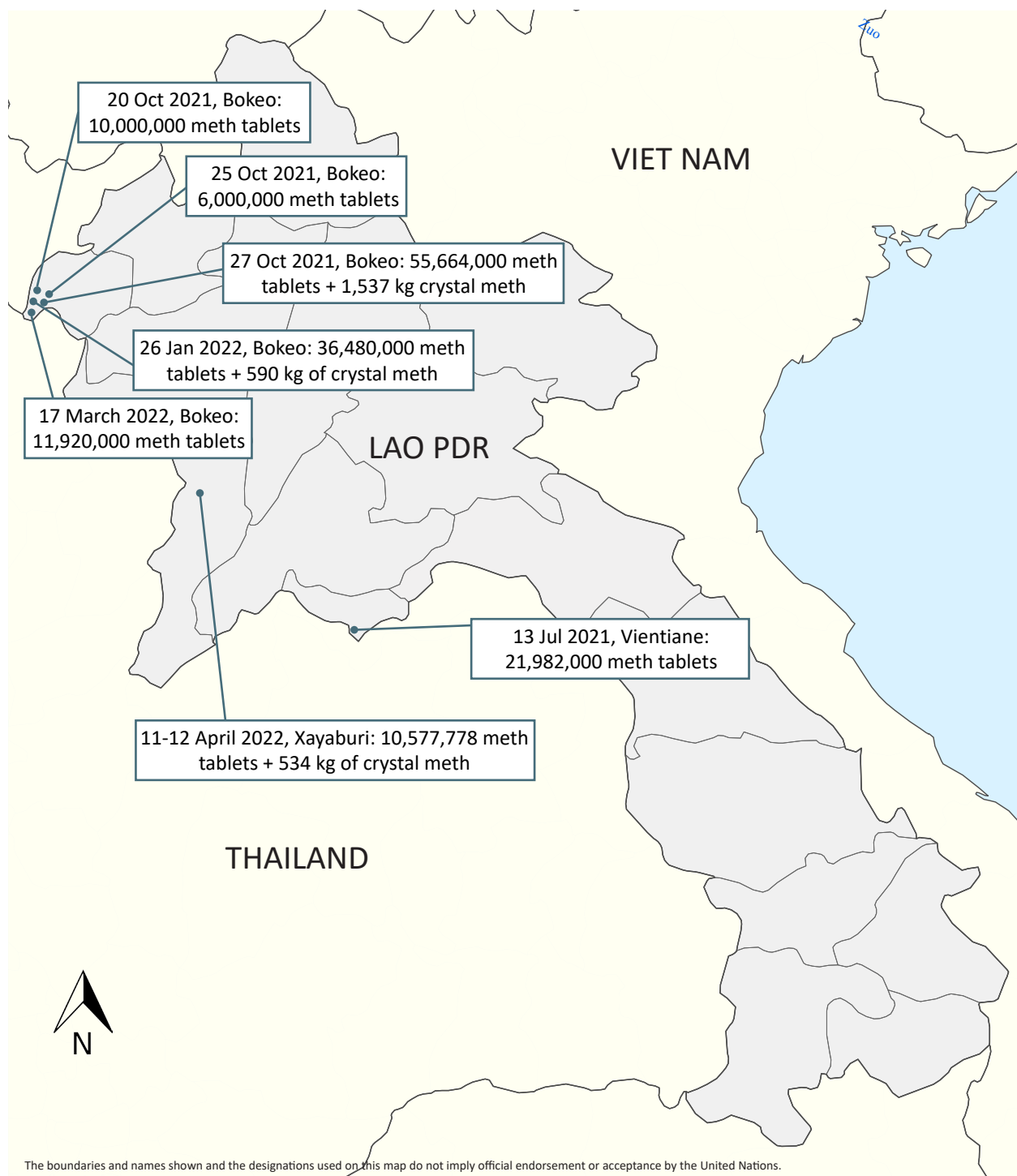
<sup>14</sup> Communication with drug control authorities in the Mekong subregion.

<sup>15</sup> Official communication with LCDC, March 2022.

<sup>16</sup> 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.

<sup>17</sup> New Zealand Customs Service, "The Golden Triangle – Methamphetamine and Heroin Seizures", November 2021.

**Map 4. Significant seizures of methamphetamine in Lao PDR, 2021-2022**



Sources: Official communication with the Lao National Commission for Drug Control and Supervision (LCDC) of Lao PDR, March 2022.



### Hong Kong, China, and the Republic of Korea used as transit for methamphetamine from Mexico

Countries and territories in East Asia, particularly Hong Kong, China, remain an important transit location not only for drug shipments from Southeast Asia, but also for shipments from outside the region. Over the past two years, several large shipments of methamphetamine from Mexico have been seized in Hong Kong, China, e.g. in July (145 kg), September (230 kg), and October (180 kg) 2021.<sup>18</sup> A record amount of 700 kg of methamphetamine was seized in March 2022.<sup>19</sup> The Republic of Korea has also been targeted as a transit location for methamphetamine from Mexico. In July 2021, authorities seized a record amount of methamphetamine (402.8 kg) originating in Mexico and destined to Australia.<sup>20</sup>

### Emergence of crystalline methamphetamine trafficked from Myanmar to South Asia

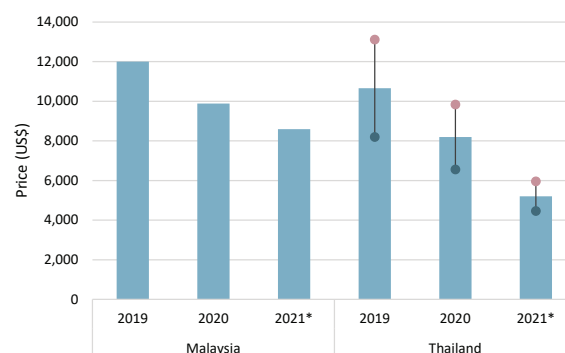
The integration of South Asia into the Southeast Asian methamphetamine market continued in 2021 and includes no longer only methamphetamine tablets,<sup>21</sup> but more and more also crystalline methamphetamine. A number of seizures of crystalline methamphetamine has been reported from India, including a seizure of 154 kg of the drug in December 2021 where one suspect from Myanmar was apprehended, as well as 10.5 kg in Nagaland and 12 kg in Guwahati in March 2022.<sup>22</sup> In Bangladesh, smaller-scale seizures were made,

including 1.5 kg in October, and three seizures of 1 kg each in November 2021. A total of 33.6 kg of crystalline methamphetamine has already been seized in 2022,<sup>23</sup> along with over 5.6 million methamphetamine tablets.<sup>24</sup>

### Continuously decreasing prices of methamphetamine in Southeast Asia

Available data on wholesale and retail prices for crystalline methamphetamine show further decrease in three out of four reporting countries, while methamphetamine tablet prices remained stable. Meanwhile, purity has remained high across all three countries. In the case of the Philippines, though the retail price has been stable for the past three years, the purity of crystalline methamphetamine increased in 2021.<sup>25</sup> These price drops have made high-purity crystalline methamphetamine even more affordable to drug users.

**Figure 9. Wholesale price of crystalline methamphetamine in Malaysia and Thailand, 2019-2021\* (US\$)**



Sources: Official communication with the National Anti-Drug Agency (NADA) of Malaysia, and ONCB of Thailand, March-May 2022.

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.

18 Hong Kong Customs press releases, July, September, and October 2021 (accessed at [https://www.customs.gov.hk/en/publication\\_press/press/index\\_id\\_3256.html](https://www.customs.gov.hk/en/publication_press/press/index_id_3256.html); [https://www.customs.gov.hk/en/publication\\_press/press/index\\_id\\_3296.html](https://www.customs.gov.hk/en/publication_press/press/index_id_3296.html); [https://www.customs.gov.hk/en/publication\\_press/press/index\\_id\\_3306.html](https://www.customs.gov.hk/en/publication_press/press/index_id_3306.html)).

19 Hong Kong Customs, "Hong Kong Customs makes record seizure of methamphetamine", press release, April 2022 (accessed at [https://www.customs.gov.hk/en/publication\\_press/press/index\\_id\\_3428.html](https://www.customs.gov.hk/en/publication_press/press/index_id_3428.html)).

20 Official communication with the Supreme Prosecutors' Office (SPO) of the Republic of Korea, March 2022.

21 For instance, see seizures reported by the Karimganj Police official Twitter account, November 2021 (accessed at <https://twitter.com/karimganjpolice/status/1460948185195560967>) and Dimapur Police official Twitter account, February 2022 (accessed at <https://twitter.com/dimapurpolice/status/1493954525681831938>).

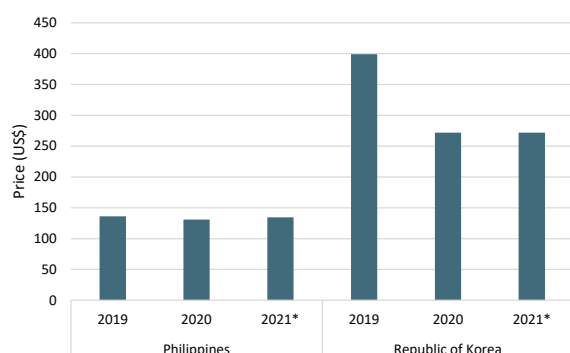
22 The Assam Rifles official Twitter account, December 2021 (accessed at [https://twitter.com/official\\_dgar/status/1468149150420066305](https://twitter.com/official_dgar/status/1468149150420066305)); the Nagaland Police official Facebook account, March 2022 (accessed at <https://www.facebook.com/346980418805829/posts/1687963614707496/>);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

23 As of April 2022.

24 Border Guard Bangladesh official Facebook account, October, November, and December 2021, and April 2022 (accessed at: [https://www.facebook.com/permalink.php?story\\_fbid=145533771486097&id=241407426232077](https://www.facebook.com/permalink.php?story_fbid=145533771486097&id=241407426232077); [https://www.facebook.com/permalink.php?story\\_fbid=1489042204801920&id=241407426232077](https://www.facebook.com/permalink.php?story_fbid=1489042204801920&id=241407426232077); [https://www.facebook.com/permalink.php?story\\_fbid=1491689214537219&id=241407426232077](https://www.facebook.com/permalink.php?story_fbid=1491689214537219&id=241407426232077); [https://www.facebook.com/permalink.php?story\\_fbid=1492928444413296&id=241407426232077](https://www.facebook.com/permalink.php?story_fbid=1492928444413296&id=241407426232077); <https://www.facebook.com/BorderGuardBangladeshNews/posts/363118152512946>).

25 Official communication with DDB, March 2022.

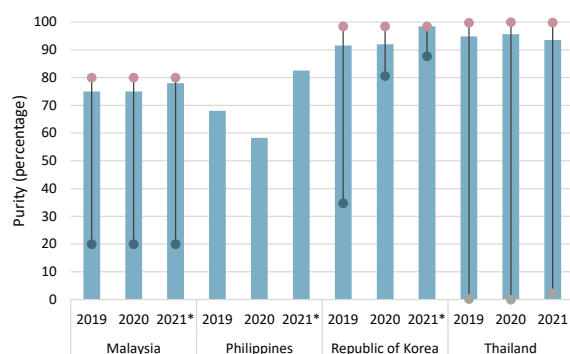
**Figure 10. Retail price of crystalline methamphetamine in the Philippines and the Republic of Korea, 2019-2021 (US\$)**



Sources: Official communication with the Dangerous Drugs Board (DDB) of the Philippines, and the Supreme Prosecutors' Office (SPO) of the Republic of Korea, March-April 2022.

Note: \* Data are preliminary.

**Figure 11. Purity of crystalline methamphetamine in Cambodia, Malaysia, and Thailand, 2019-2021\***



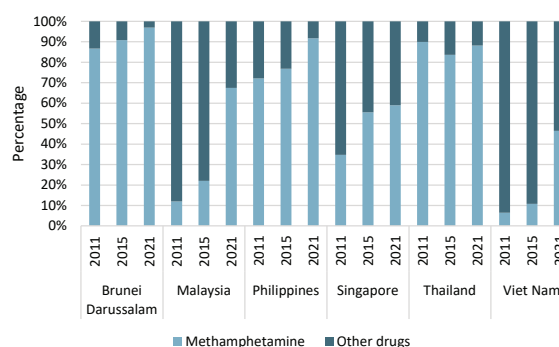
Sources: Official communication with NADA of Malaysia, DDB of the Philippines, SPO of the Republic of Korea, and ONCB of Thailand, March-May 2022.

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

## Drug demand indicators show methamphetamine is the most used drug in the region

Drug demand indicators<sup>26</sup> have shown that use of methamphetamine has increased in East and Southeast Asia over the past decade, with increasing proportions of users brought into formal contact with authorities for the use of methamphetamine or increasing treatment admissions for methamphetamine use.

**Figure 12. Proportion of methamphetamine users among all drug users as identified through various demand indicators in Brunei Darussalam, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam, 2011, 2015 and 2021**



Sources: Official communication with the Narcotics Control Bureau (NCB) of Brunei, NADA of Malaysia, DDB of the Philippines, the Central Narcotics Bureau (CNB) of Singapore, ONCB of Thailand, and the Standing Office on Drugs and Crime (SODC) of Viet Nam, February-May 2022.

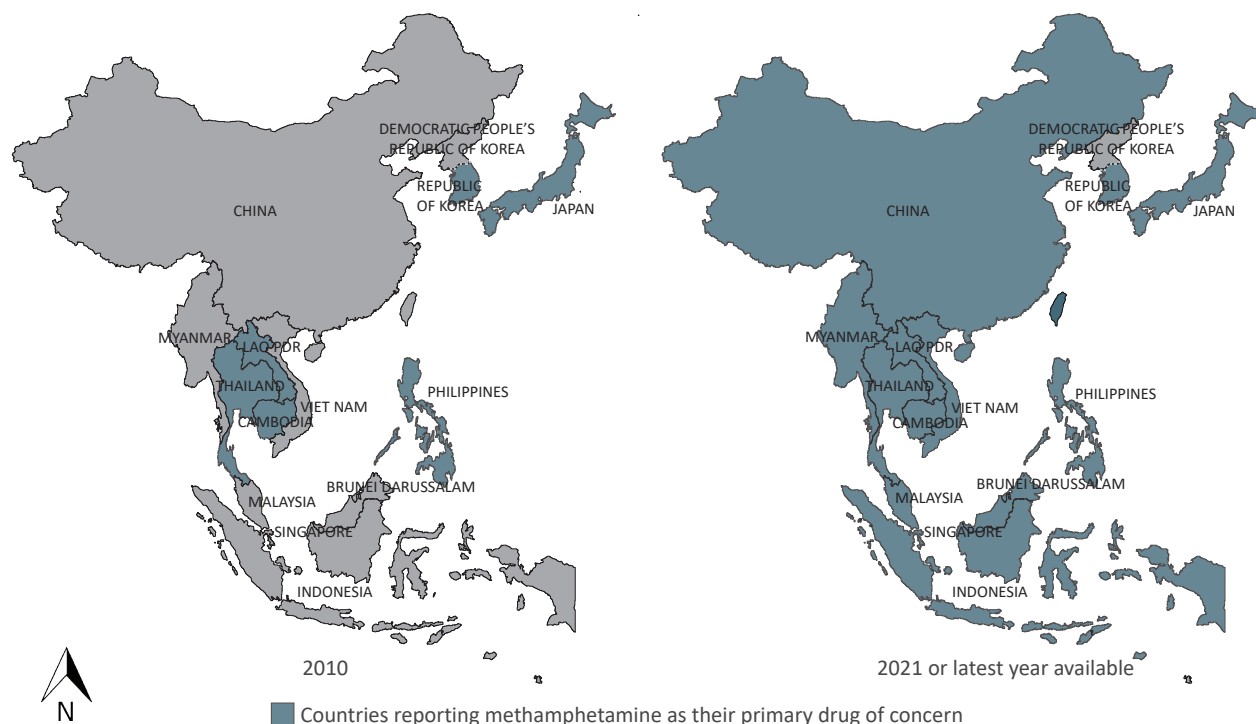
Note: Data for Brunei Darussalam and Singapore are based on the number of drug users brought into formal contact with authorities; the data for Malaysia, the Philippines, and Thailand are based on treatment; and the data for Viet Nam are based on registered drug users.

Methamphetamine has also been identified as the primary drug of concern in all reporting countries in the region.<sup>27</sup>

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

27 DAINAP.

**Map 5. Countries in East and Southeast Asia reporting methamphetamine as their primary drug of concern, 2010 and 2021\***



Source: DAINAP.

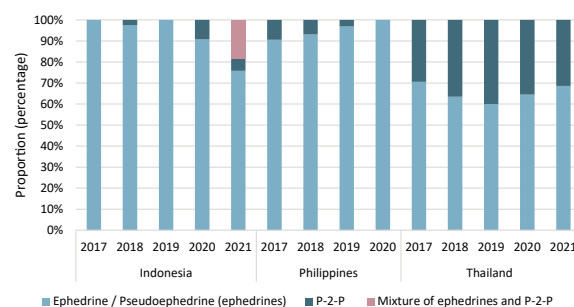
Note: \* Or latest year available.

### Forensic profiles of methamphetamine seized in East and Southeast Asia

In 2021, ephedrine and pseudoephedrine (ephedrines) remained the primary precursors used to manufacture methamphetamine in East and Southeast Asia. To a much lesser extent, methamphetamine synthesized using P-2-P-based manufacturing methods also continue to be present in the region, in particular in samples analysed in Thailand. Information on the specific synthesis routes is only available from Indonesia. In 2021, for the first time, samples containing methamphetamine manufactured using both ephedrines and P-2-P-based synthesis methods were detected in Indonesia. Of the 33 samples analysed in 2021, five were manufactured using a mix of the Emde and Leuckart methods, while one sample was a mixture of the Emde and reductive amination methods.<sup>28</sup>

<sup>28</sup> The Emde method uses ephedrines as its primary precursor, whereas both the Leuckart and reductive amination methods use P-2-P.

**Figure 13. Proportion of crystalline methamphetamine samples analysed in Indonesia, the Philippines, and Thailand, by main precursor, 2017-2021\***



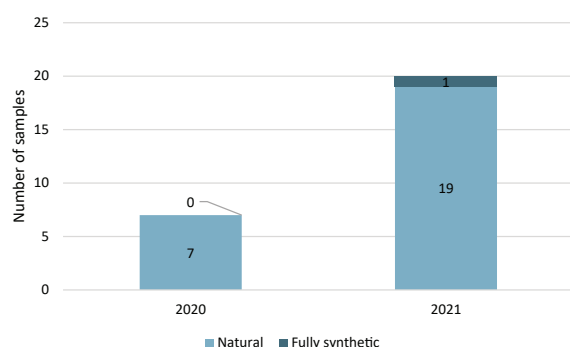
Sources: Official communication with the National Narcotics Board (BNN) of Indonesia, the Philippines Drug Enforcement Agency (PDEA) of the Philippines, and ONCB of Thailand, May 2022.

Note: \* Or latest year available. Data reported as "unknown" were not included.

In the case of methamphetamine shipments originating from West Asia which were seized by Indonesia in 2020 and 2021, chemical analysis of the seized methamphetamine pointed to ephedra plant material as the main source of ephedrine used in its synthesis.<sup>29</sup>

<sup>29</sup> Official communication with BNN, March 2022.

**Figure 14. Synthesis routes of ephedrine in methamphetamine samples seized from West Asia in Indonesia, 2020-2021**



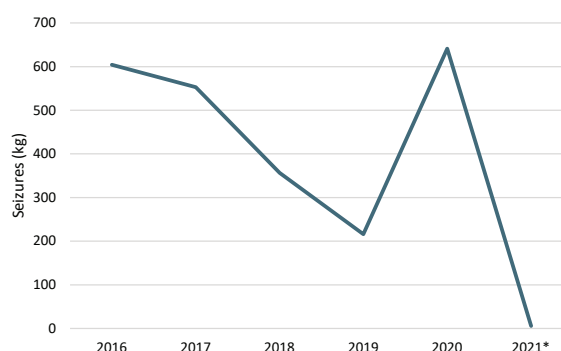
Source: Official communication with BNN of Indonesia, April 2022.

### Increases in use of non-controlled chemicals

In recent years, compared to the large and increasing amounts of methamphetamine seized in the region, only negligible amounts of ephedrine and pseudoephedrine have been seized in Southeast Asia. In 2021, based on preliminary data, only 6 kg of ephedrine were seized and no seizures of P-2-P were reported from Southeast Asia.

A probable reason for this mismatch is the use of non-controlled chemicals<sup>30</sup> for the illicit manufacture of ephedrine, pseudoephedrine and P-2-P. In 2021 and up to the first quarter of 2022, law enforcement authorities in the region seized a variety of non-controlled chemicals which can be used in the illicit manufacture of controlled substances either at or en route to suspected manufacturing areas. These chemicals include 4-Methylpropionophenone, ammonium nitrate, bromine, dichloromethane, ethyl acetate, hydrogen peroxide, methyl acetate, and nitric acid among others.

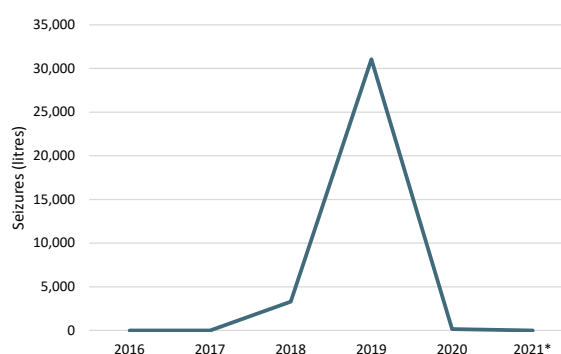
**Figure 15. Seizure amounts of ephedrine and pseudoephedrine (raw material) in Southeast Asia, 2016-2021**



Source: DAINAP.

Note: \* Data are preliminary.

**Figure 16. Seizure amounts of P-2-P in Southeast Asia, 2016-2021**



Source: DAINAP.

Note: \* Data are preliminary.

<sup>30</sup> Non-controlled chemicals refer to substances not listed in Table I and Table II of the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.