



Economic and Social Council

Distr.: General
30 December 2021

Original: English

Commission on Narcotic Drugs

Sixty-fifth session

Vienna, 14–18 March 2022

Item 6 of the provisional agenda*

Follow-up to the implementation at the national, regional and international levels of all commitments, as reflected in the Ministerial Declaration of 2019, to address and counter the world drug problem

World situation with regard to drug trafficking

Report of the Secretariat

Summary

The present report provides an overview of the latest trends in the illicit production of and trafficking in drugs worldwide. The statistics and analysis in the report are based on the latest information available to the United Nations Office on Drugs and Crime.

Global opium poppy cultivation rebounded in 2020, rising by 24 per cent compared with the previous year, although opium production remained stable, at 7,410 tons. Afghanistan continued to account for the largest area under illicit cultivation globally in 2020. Despite a decline in the area under opium poppy cultivation in the country, opium production for 2021 is estimated at 6,800 tons, or 8 per cent more than in 2020. The amount of heroin seized globally continued to increase in 2019, totalling about 96 tons. The area under coca bush cultivation decreased for the first time in years, falling by 5 per cent in 2019 to about 234,200 ha.

Cannabis herb continued to be produced and seized in almost all countries worldwide, while the production of cannabis resin remained confined to a few countries in South-West Asia and North Africa, the most prominent of which were Afghanistan and Morocco. In 2019, the amount of cannabis herb seized globally declined by 12 per cent compared with the previous year, falling to 3,779 tons, the lowest figure since 1998. In contrast, the amount of cannabis resin seized globally increased by 7 per cent, reaching 1,395 tons. Meanwhile, the quantities of amphetamine-type stimulants seized continued to increase, reaching a record high in 2019.

Rapid developments in digital interconnectivity brought about innovations in global drug supply chains operations. Digital communications platforms added a new dimension to drug distribution. While the online sale of traditional drugs such as heroin, amphetamine-type stimulants, cannabis and cocaine remained confined to anonymized

* [E/CN.7/2022/1](#).



platforms on the deep web, the clear web was used to sell products that supply the markets for those traditional drugs, in particular synthetic drugs.

Various dynamics emerged after the onset of the coronavirus disease (COVID-19) pandemic, with some drug markets experiencing no change and others quickly recovering after initial disruptions or undergoing opportunistic changes in routes and modi operandi.

I. Introduction

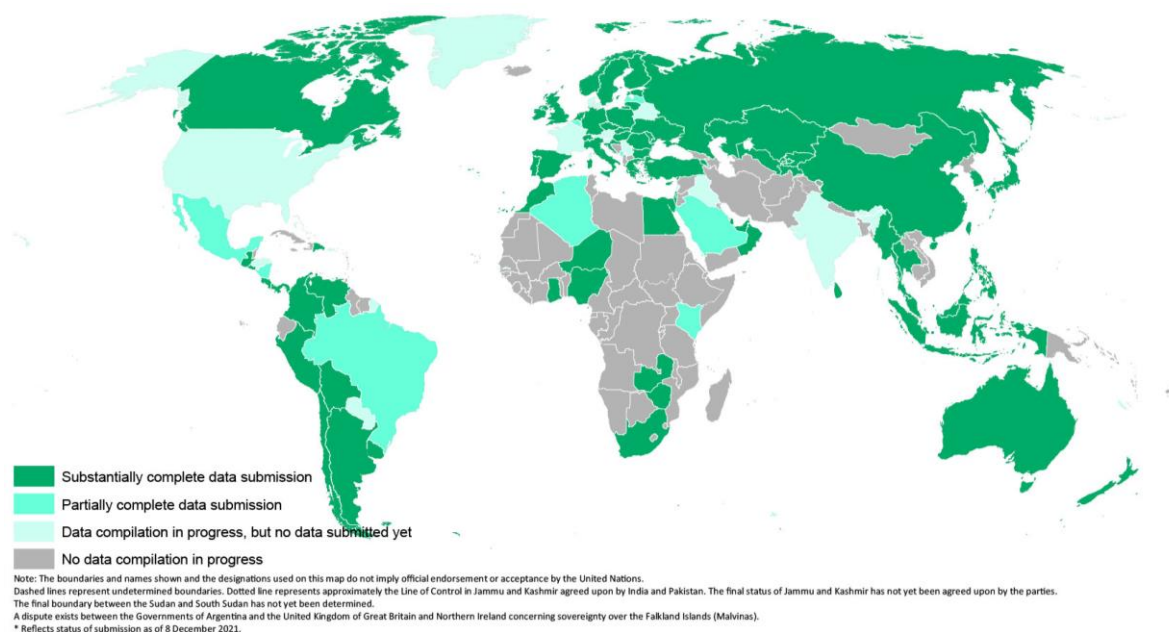
1. The present report provides an overview of developments in the illicit production of and trafficking in the main drugs at the global and regional levels. The analysis includes information available to the United Nations Office on Drugs and Crime (UNODC) up to 3 December 2021. Although global and regional estimates refer to 2019, which is the latest year for which a complete data set is available, updates based on 2020 data are provided where possible and relevant at the country level.

2. The principal sources of information on the illicit cultivation of drug crops and the production of plant-based drugs are the most recent UNODC illicit crop monitoring surveys, where available. In addition, replies by Governments to the annual report questionnaires provide the primary source of information on drug trafficking patterns and drug seizures.¹

3. As at 8 December 2021, 86 out of 200 States and territories had submitted the modules related to drug supply reduction (A07, A08, A09, A10, A11 and A12) of the annual report questionnaire to UNODC. All of those modules were substantially completed (90 per cent) by the Member States at the time of writing this report. Supplementary sources of information include official reports published by Governments and international organizations and the *World Drug Report*.

Figure I

Member States that completed their submission of annual report questionnaire drug supply data for 2020*



¹ All data are based on Member States' responses to the annual report questionnaire, unless specified otherwise. The global and regional estimates are based on the most recent data set published in the *World Drug Report 2021* (United Nations publication, 2021).

II. Global trends in illicit cultivation of drug crops and production of plant-based drugs

A. Cannabis production

4. In the past two decades, there have been rapid advances in cannabis plant cultivation techniques, in particular in Europe and North America, which are mainly focused on achieving a high delta-9-tetrahydrocannabinol content.

5. Outdoor cannabis cultivation continues to be more widespread at the global level than indoor cannabis cultivation, a situation that did not change between the periods 2010–2014 and 2015–2019. Overall, 89 countries reported outdoor cannabis cultivation and activities linked to outdoor cannabis cultivation in the period 2010–2019, while 65 countries reported indoor cultivation. Trends reported by Member States indicate that global cannabis cultivation expanded from 2010 to 2017, declined in 2018 and increased slightly in 2019.

6. Over the period 2012–2019, the increase in indoor cannabis cultivation was larger than the increase in outdoor cultivation.

B. Opium poppy cultivation

7. Opium production remains highly concentrated, with 97 per cent of estimated production over the period 2015–2019 coming from just three countries worldwide.²

8. The global area under opium poppy cultivation rebounded by 24 per cent in 2020, rising to 294,350 ha. This rise was primarily the result of an increase of 37 per cent, to 224,000 ha, in Afghanistan.³ The country, which is the largest opium producer in the world, accounted for an estimated 83 per cent of global opium production over the period 2015–2020.⁴

9. In 2019, 69 per cent of the global area under opium poppy cultivation was located in Afghanistan, 14 per cent in Myanmar and 9 per cent in Mexico. Together, those countries accounted for 92 per cent of global illicit cultivation of opium poppy that year.

10. Global opium production, which has shown a long-term upward trend, remained largely stable in 2020 compared with the previous year. Nonetheless, at 7,410 tons, it was almost 60 per cent higher than a decade earlier, despite it remaining 28 per cent below the peak reported in 2017 (10,240 tons). The stabilization of opium production in 2020 was the result of a decrease of 20 per cent in opium production in Myanmar⁵ and the stabilization of opium production in Afghanistan.⁶ New estimates for Afghanistan suggest that in 2021, the area under opium poppy cultivation was an estimated 177,000 ha, representing a reduction of 21 per cent, while opium production increased to 6,800 tons, or 8 per cent, more than in 2020, owing to a higher yield per hectare.⁷

11. Although the global area under opium poppy cultivation increased in 2020, it continued to decline in Myanmar, falling by 11 per cent, to 29,500 ha.⁸

² *World Drug Report 2021*, booklet 3, *Drug Market Trends: Cannabis, Opioids* (United Nations publication, 2021).

³ UNODC and Afghanistan, “Afghanistan opium survey 2020: cultivation and production – executive summary” (April 2021), and previous years.

⁴ *World Drug Report 2021*, booklet 3.

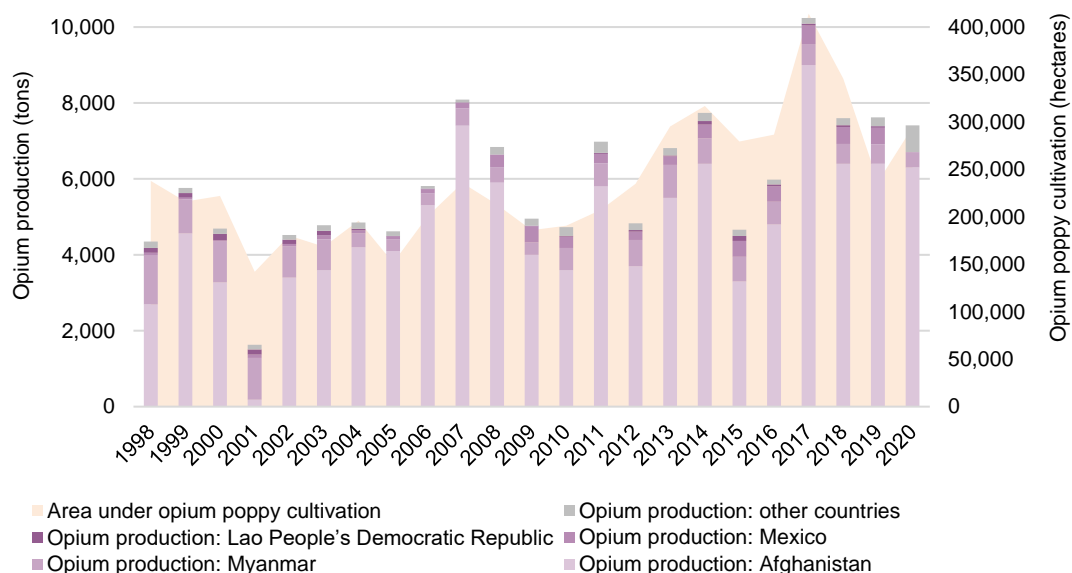
⁵ UNODC, *Myanmar Opium Survey 2020: Cultivation, Production, and Implications* (January 2021).

⁶ UNODC and Afghanistan, “Afghanistan opium survey 2020”.

⁷ UNODC, Research and Trend Analysis Branch, “Drug Situation in Afghanistan 2021: latest findings and emerging threats” (November 2021).

⁸ UNODC, *Myanmar Opium Survey 2020*.

Figure II
Global opium production and opium poppy cultivation, 1998–2020



Source: *World Drug Report 2021* (data based on UNODC and Afghanistan opium surveys and on responses to the annual report questionnaire).

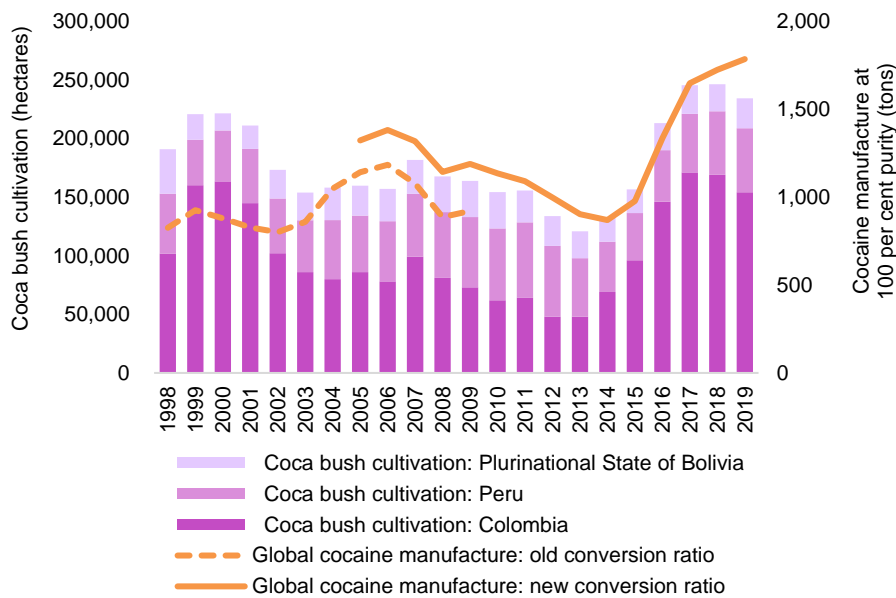
Note: Data for 2020 are preliminary.

C. Coca bush cultivation

12. Following a massive upward trend over the period 2013–2017, during which the area under coca bush cultivation more than doubled, the size of the area under coca bush cultivation stabilized in 2018 and then decreased – for the first time in years – by 5 per cent in 2019. This was mainly the result of a decrease reported by Colombia (9 per cent); the area under coca bush cultivation remained stable in Peru and increased by 10 per cent in the Plurinational State of Bolivia. In 2019, Colombia continued to account for the vast majority of the global area under coca bush cultivation (two thirds); Peru accounted for just under a quarter and the Plurinational State of Bolivia accounted for 11 per cent.⁹

⁹ *World Drug Report 2021*, booklet 4, *Drug Market Trends: Cocaine, Amphetamine-type Stimulants* (United Nations publication, 2021).

Figure III
Global coca bush cultivation and cocaine manufacture, 1998–2019



Source: *World Drug Report 2021* (data based on UNODC, coca bush cultivation surveys in Bolivia (Plurinational State of), Colombia and Peru in 2019 and previous years); and United States of America, Department of State, Bureau of International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report*, various years.

13. Despite a decrease of 9 per cent in the overall area under coca bush cultivation in Colombia from 2018 to 2019, the productive area under coca bush cultivation remained stable as previously sown fields became productive. At the same time, the concentration of coca bush cultivation in areas where yields were higher than in others meant that overall coca leaf yield continued to increase, from 4.7 tons per hectare in 2014 to 5.8 tons in 2018 and 5.9 tons in 2019. In 2020, the area under cultivation fell by 7 per cent, to 143,000 ha.¹⁰

14. Coca bush cultivation in Peru has undergone moderate year-on-year increases since 2015; it stabilized at 54,700 ha,¹¹ accounting for 23 per cent of global coca bush cultivation, in 2019.

15. The area under coca bush cultivation in the Plurinational State of Bolivia decreased by 6 per cent in 2018, grew by 10 per cent to reach 25,500 ha in 2019,¹² and further increased by 15 per cent to reach 29,400 ha in 2020.¹³

III. Global trends in drug seizures and drug trafficking

A. Cannabis

16. The numbers of seizures of cannabis herb and resin showed an upward trend over the first decade of the new millennium, albeit with annual fluctuations, followed in recent years by a more stable trend. From 2009 to 2019, the quantities of cannabis herb and resin seized globally fell by 35 per cent, largely because of a dramatic decline in the quantity of cannabis herb seized in North America, which may reflect shifting law enforcement priorities partly linked to the decriminalization and

¹⁰ UNODC and Colombia, *Colombia: Monitoreo de territorios afectados por cultivos ilícitos 2020* (July 2021).

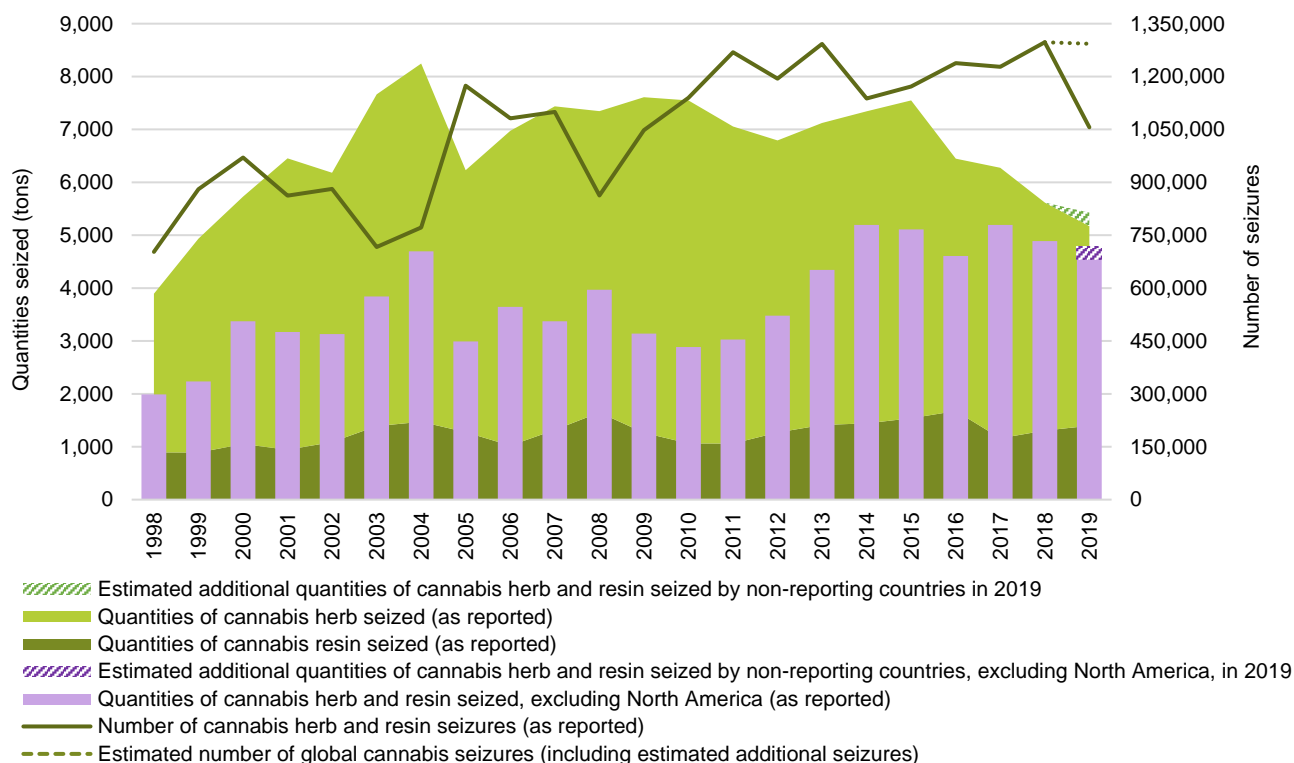
¹¹ Peru, Sistema de Información de Lucha contra las Drogas and others, “Monitoreo de la superficie cultivada con arbusto de hoja de coca en producción”, Report No. 3 (October 2021).

¹² UNODC and Plurinational State of Bolivia, *Estado Plurinacional de Bolivia: Monitoreo de Cultivos de Coca 2020* (August 2021), and previous years.

¹³ Ibid.

legalization of cannabis for non-medical use in some jurisdictions.¹⁴ Excluding North America, global seizures were 44 per cent higher in 2019 than in 2009. The quantities of cannabis herb and resin seized globally fell by 8 per cent to 5,174 tons in 2019, representing the fifth consecutive yearly decline. That decline was reported in all regions except Africa, and in all subregions except West and Central Africa, North Africa, the Caribbean, Central America and Eastern Europe. However, the decline may partly be the result of the failure by some countries to provide data in 2019.¹⁵

Figure IV

Global cannabis seizures: quantities and seizures, 1998–2019

Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: The estimates for 2019 are based on the assumption that the quantities of cannabis herb and resin seized and the number of cannabis herb and resin seizures remained unchanged in non-reporting countries in 2019 as compared with the previous year.

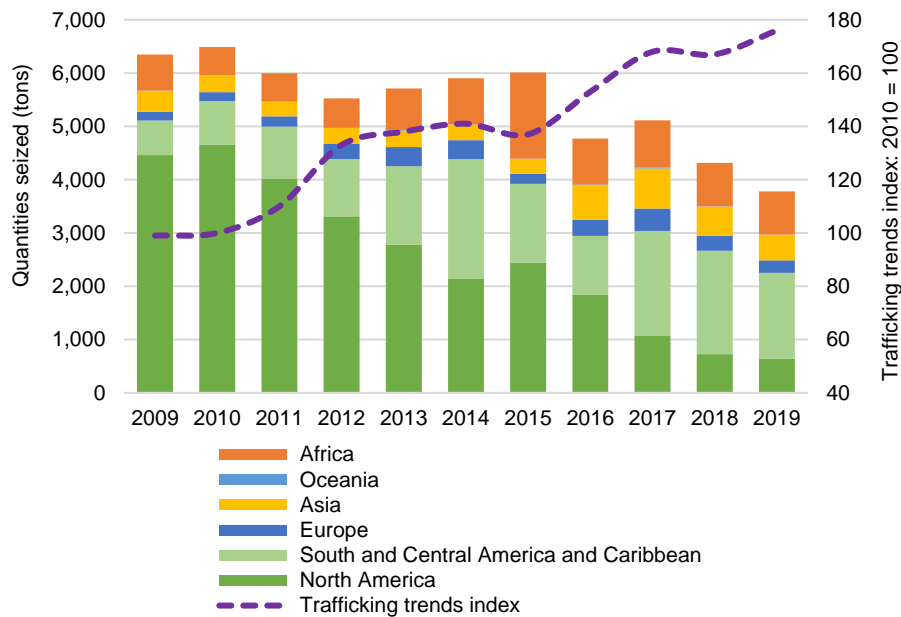
Cannabis herb

17. The global quantity of cannabis herb seized in 2019 decreased by 12 per cent compared with the previous year, falling to 3,779 tons, the lowest figure since 1998. The largest proportion of that amount was seized in the Americas (60 per cent of the global total), with South America accounting for 34 per cent of the global total and North America accounting for 17 per cent. In previous years, the largest proportion of cannabis herb seized was reported by countries in North America, which accounted for an average of 50 per cent of the global total over the period 2008–2018. The next largest proportions of global quantities seized in 2019 were in Africa (21 per cent) and Asia (13 per cent), followed by Europe (6 per cent).

¹⁴ United States, Government Accountability Office, Report to Congressional Requesters, *State Marijuana Legalization: DOJ Should Document Its Approach to Monitoring the Effects of Legalization*, GAO-16-1 (December 2015).

¹⁵ *World Drug Report 2021*, booklet 3.

Figure V
Global quantities of cannabis herb seized and reported trends in cannabis herb trafficking, 2009–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: The trafficking trends index is based on qualitative information on trends in cannabis herb trafficking reported by Member States.

18. The total quantity of cannabis herb seized worldwide in 2019 was 40 per cent lower than in 2009. The global decline was mainly driven by decreases in reported seized quantities in North America (total decrease of 86 per cent), with marked decreases reported by Canada (91 per cent), Mexico (90 per cent) and the United States of America (82 per cent).¹⁶

19. The quantity of cannabis herb seized in North America continued to fall and, in 2019, reached its lowest level since its peak in 2010.

20. Despite marked declines, the United States, Paraguay and Colombia reported seizing the largest quantities of cannabis herb in 2019. Of the 10 countries worldwide that reported seizing the largest quantities of cannabis herb, seven were in the Americas. The countries that reported seizing the largest quantities of cannabis herb in 2019 in regions other than the Americas were India and Nigeria.¹⁷

Cannabis resin

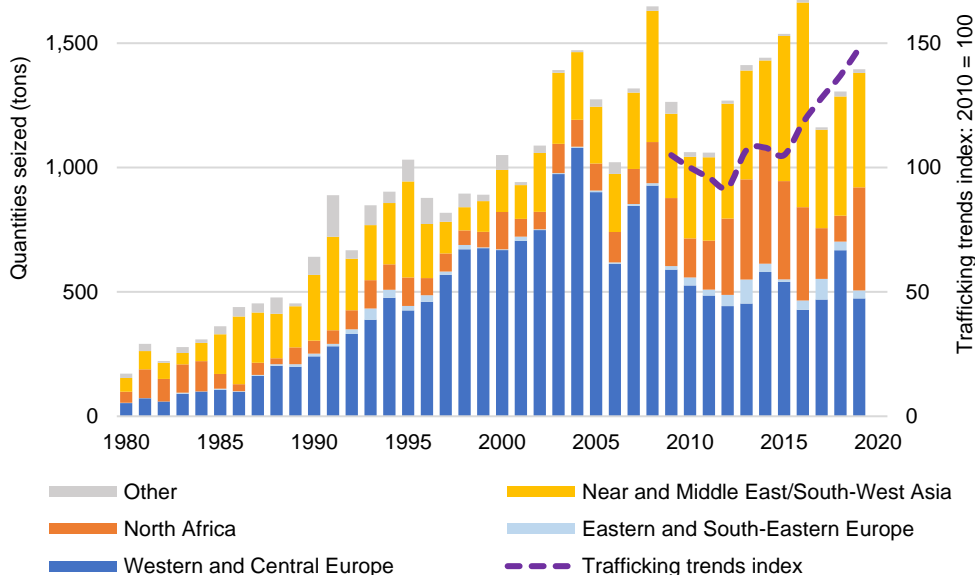
21. In contrast to the quantity of cannabis herb seized, the quantity of cannabis resin intercepted globally has shown a long-term upward trend, and qualitative information from Member States points to an increase in cannabis resin trafficking, especially since 2015.

22. Trafficking in cannabis resin continues to be more geographically concentrated than trafficking in cannabis herb. In 2019, more than one third of the quantity of cannabis resin seized globally was intercepted in Western and Central Europe (34 per cent), followed by the Near and Middle East and South-West Asia (33 per cent) and North Africa (30 per cent). Together, these regions accounted for almost 97 per cent of all cannabis resin seized worldwide in 2019.

¹⁶ Ibid.

¹⁷ Ibid.

Figure VI
Global quantities of cannabis resin seized and reported trends in cannabis resin trafficking, 1980–2019

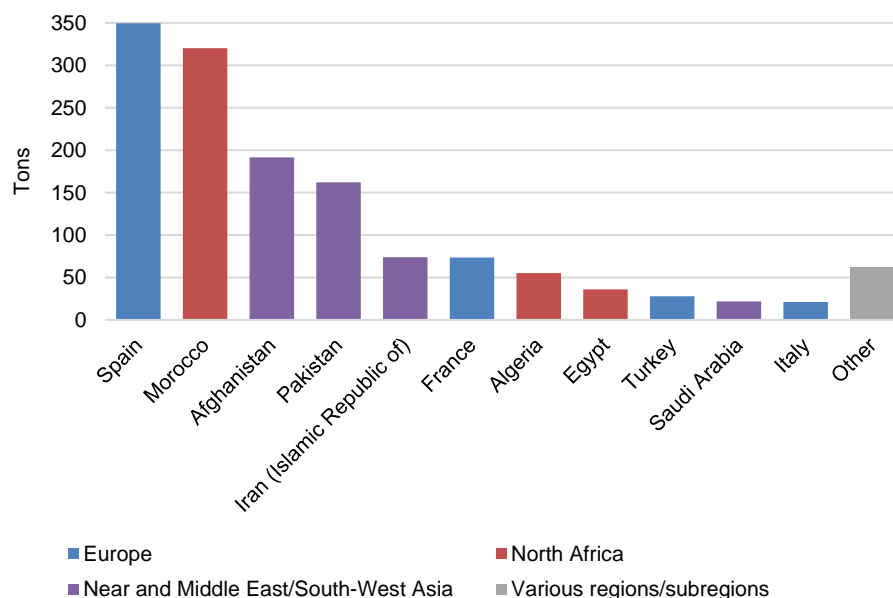


Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: The trafficking trends index is based on qualitative information on trends in cannabis resin trafficking reported by Member States.

23. In 2019, the largest quantities of cannabis resin were seized by Spain, followed by Morocco, Afghanistan, Pakistan and the Islamic Republic of Iran.¹⁸

Figure VII
Quantities of cannabis resin seized in countries reporting the largest total seizures, 2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

24. On the basis of global patterns of seizures and reports provided by Member States, it appears that cannabis resin from Morocco mainly supplies other markets in North Africa and Western and Central Europe. Most of the Moroccan cannabis resin

¹⁸ Ibid.

destined for countries in Europe is shipped to Spain and then onwards to France, the Netherlands and other countries in the region.¹⁹

25. Afghanistan seems to be the second most important source country of cannabis resin worldwide, accounting for 18 per cent of all mentions of the main “country of origin” in responses to the annual report questionnaire over the period 2015–2019.²⁰

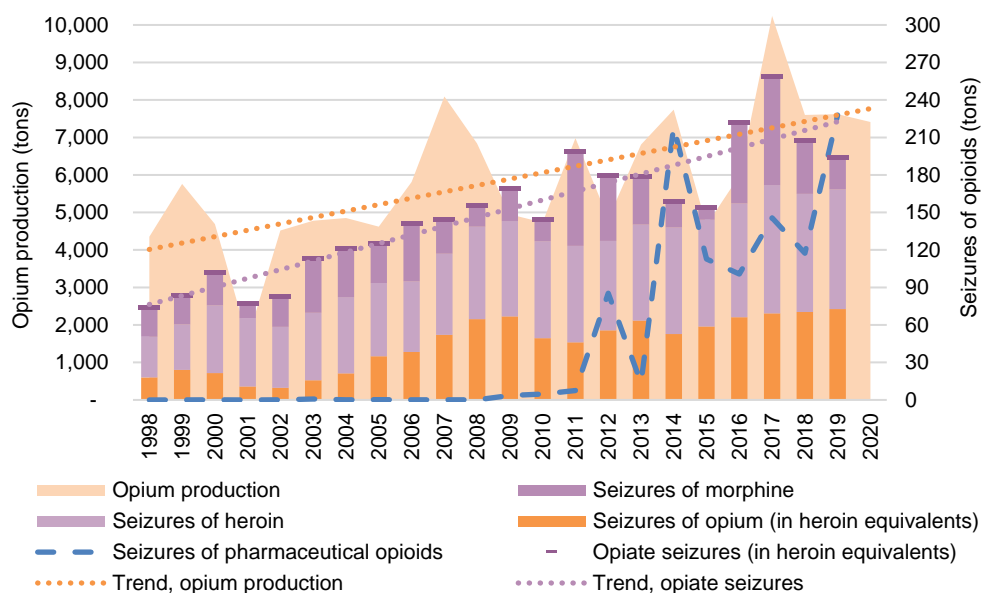
B. Opiates

Opium, illicit morphine and heroin

26. The quantities of both opium produced and opiates seized have shown an upward trend over the past two decades. Most opiate seizures are made in or close to the main opium production areas.

Figure VIII

Global opium production and quantities of opioids seized, 1998–2020



Source: *World Drug Report 2021* (data based on UNODC and Afghanistan opium surveys, responses to the annual report questionnaire and other government sources).

Note: A ratio of 10:1 was used to convert opium into heroin equivalents.

27. At the global level, the amount of opium and heroin seized remained relatively stable in 2019. The quantity of heroin seized stood at between 72 and 78 tons in the period 2008–2013. After having increased to 103 tons in 2017, it dropped again to 95 tons in 2018 and to 96 tons in 2019. The quantity of opium seized increased by 3 per cent compared with a year earlier. In terms of weight, opium continued to be the most intercepted opiate in 2019 (726 tons), followed by heroin (96 tons) and morphine (26 tons), although when expressed in heroin equivalents, heroin continued to dominate seizures of opiates. Despite an overall decline in the quantity of opiates seized globally in 2019 (7 per cent less than a year earlier, calculated in terms of heroin equivalents), it was still one of the fifth largest quantities ever reported. The reduction in the quantity of opiates intercepted in 2019 was mostly the result of smaller quantities of morphine being seized (41 per cent less than a year earlier).²¹ Opium and morphine seizures continued to be concentrated in a few countries, with just three countries accounting for almost 98 per cent of the total quantities of the two substances seized globally. In contrast, the three countries where most heroin was

¹⁹ Ibid.

²⁰ Ibid.

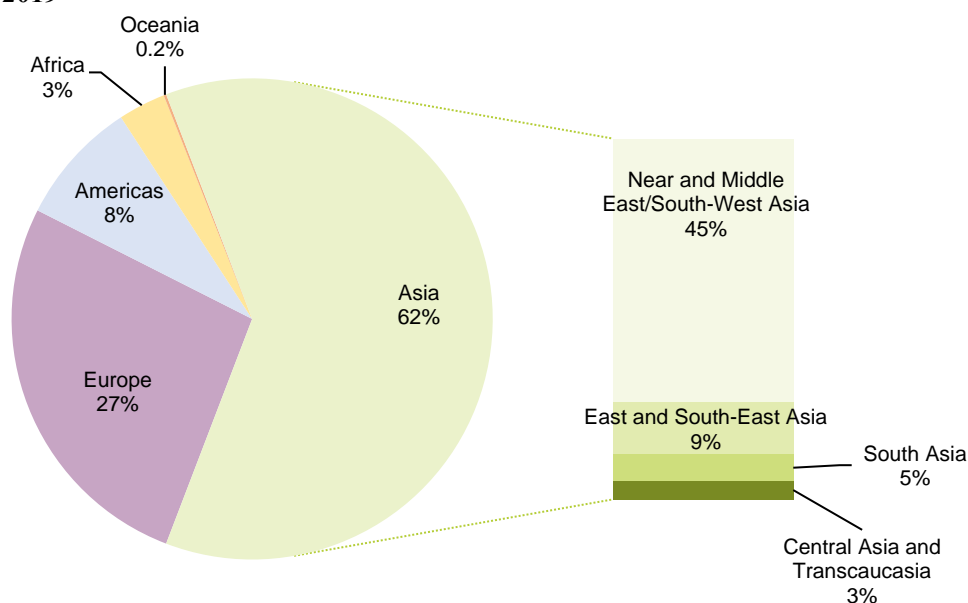
²¹ Ibid.

seized (Turkey, Islamic Republic of Iran and Pakistan) accounted for 48 per cent of the global total in 2019.

28. The majority of the quantities of opiates seized continued to be reported in Asia (most notably in South-West Asia), where more than 90 per cent of opium is produced and where 76 per cent of all opiates (opium, morphine and heroin) were reported seized worldwide (expressed in heroin equivalents) in 2019. The Islamic Republic of Iran reported the largest quantity of opiates (expressed in heroin equivalents) seized in 2019, accounting for more than half (52 per cent) of the global total, followed by Turkey (10 per cent), Pakistan (9 per cent), the United States (4 per cent), China (3 per cent) and Afghanistan (3 per cent).

Figure IX

Geographical distribution of quantities of heroin and morphine seized globally, 2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: Total of 121 tons of heroin and morphine seized in 2019.

29. The quantities of heroin and morphine seized in East and South-East Asia, accounting for 9 per cent of the global total in 2019, continued to decline, in parallel with ongoing declines in opium and heroin production in the subregion. A total of 59 per cent of heroin and morphine seized in the subregion was reported by China.

30. Outside Asia, the second largest quantities of heroin and morphine were seized in Europe in 2019, accounting for 27 per cent of the total; these quantities tripled from 2016 to 2019 to reach a record high of 32 tons. Although the quantities seized were still increasing in 2019, the rate of increase slowed, from 116 per cent in 2017 to 22 per cent in 2018 and 9 per cent in 2019.²²

31. In Europe, the largest increase in the quantities of heroin and morphine seized in 2019 was reported in South-Eastern Europe (66 per cent of all such amounts seized in the region), followed by Western and Central Europe (almost 28 per cent) and Eastern Europe (6.5 per cent). In South-Eastern Europe, Turkey seized the largest quantities of heroin and morphine (62 per cent of the European total). In Western and Central Europe, the largest quantities seized in 2019 were reported by Belgium, the Netherlands, France, Germany, the United Kingdom of Great Britain and Northern Ireland, Slovenia and Italy, while in Eastern Europe, the largest quantities seized were reported by Ukraine, Belarus and the Russian Federation.²³

²² Ibid.

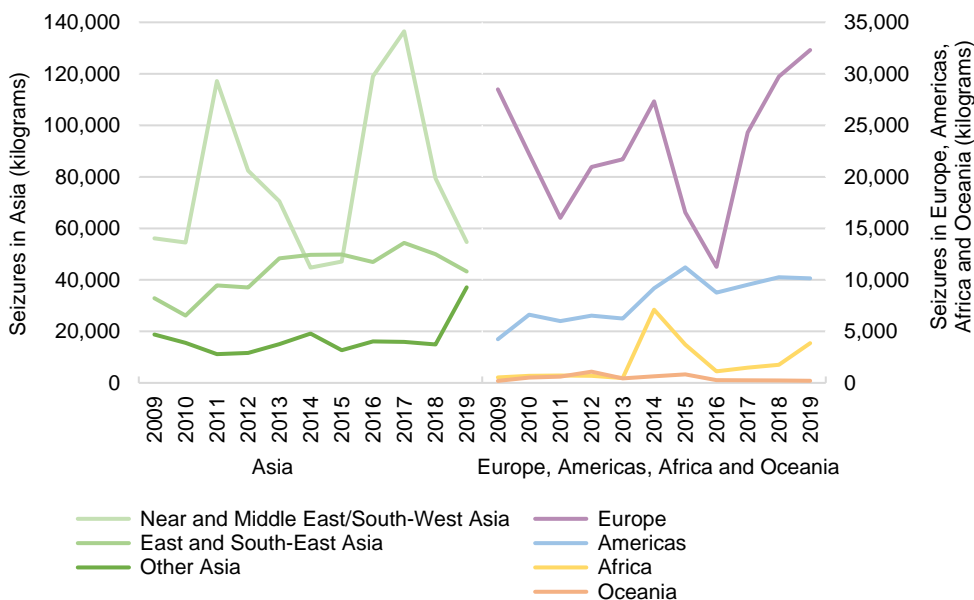
²³ Ibid.

32. The quantities of heroin and morphine seized in the Americas (92 per cent of which was concentrated in North America) remained stable in 2019 compared with the previous year, at about 10 tons, accounting for 8 per cent of global seizures. Seizures made in the United States alone accounted for 83 per cent of the total quantity seized in the region that year. This was followed, in descending order of quantities seized, by Mexico (the country where most opium is produced in the region), Ecuador, Colombia, Canada and Guatemala.

33. At close to 4 tons, the quantities of heroin and morphine seized in Africa accounted for about 3 per cent of global seizures in 2019. This was double the quantities seized a year earlier and represented a sevenfold increase compared with the amounts seized in 2009. More than 99 per cent of the quantities seized were in the form of heroin. In 2019, most of the heroin and morphine seized in Africa was reported in North Africa (91 per cent of the total quantity seized in the region), most notably Egypt, accounting for 83 per cent of all heroin and morphine seized in Africa in 2019, and Southern Africa (6 per cent of the regional total, in particular Mozambique). The largest quantity of heroin seized in East Africa (1 per cent of the regional total) was reported by Kenya.

34. In 2019, the quantities of heroin and morphine seized in Oceania decreased for the fourth year in a row, reaching their lowest levels since 2009. Australia accounted for more than 99 per cent of all the heroin and morphine seized in the region.

Figure X
Quantities of heroin and morphine seized, by region, 2009–2019

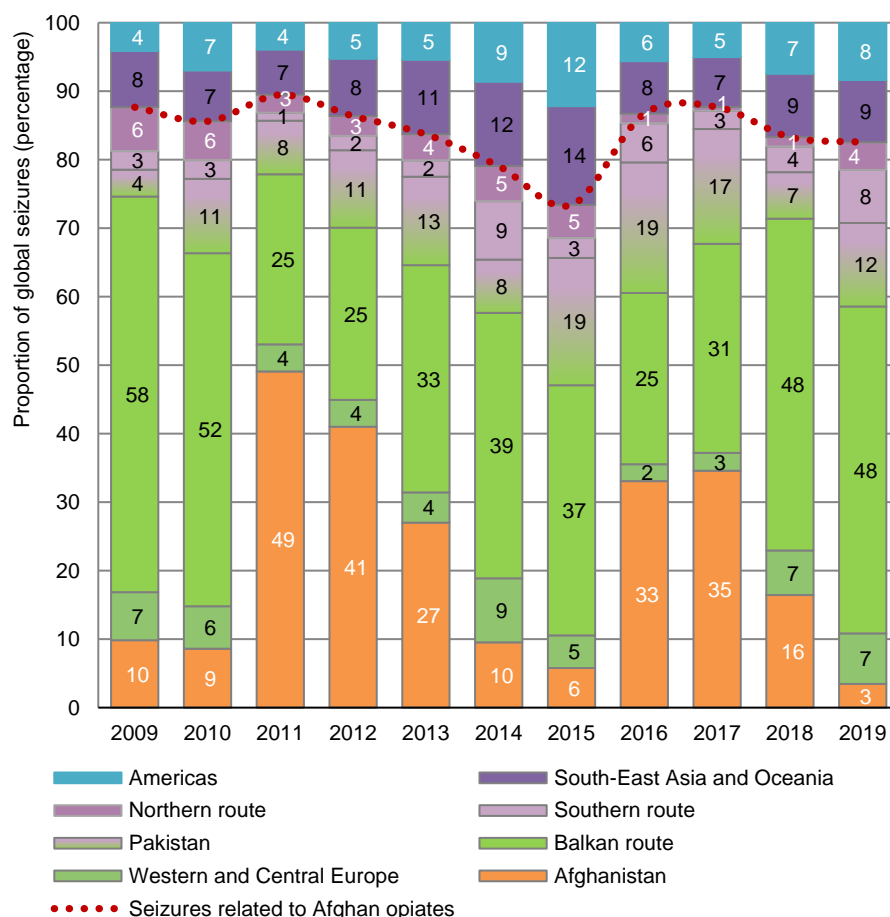


Source: World Drug Report 2021 (data based on responses to the annual report questionnaire).

35. The Balkan route remains the world’s single largest heroin trafficking route. Excluding seizures made in Afghanistan, countries along the Balkan route accounted for 50 per cent of the total quantities of heroin and morphine seized globally in 2019. For example, the Islamic Republic of Iran seized 36 tons, Turkey seized 20 tons and Balkan countries seized 1 ton, with a further 7 per cent reported by countries in Western and Central Europe, a significant proportion of which was trafficked along the Balkan route.

36. Trafficking in heroin along the northern route may have increased in 2019, as indicated by an increase in seizures along that route in recent years, from 1 ton in 2017 to 4.5 tons in 2019. However, the proportion of the quantities of heroin and morphine seized along the northern route remained very low, at 4 per cent of the global total in 2019. Seizures of heroin and morphine reported by countries along the southern route (excluding Pakistan) rose from 2.7 tons in 2015 to 9.4 tons in 2019.

Figure XI
Distribution of global quantities of heroin and morphine seized, by main trafficking routes, 2009–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: The Balkan route includes the Islamic Republic of Iran, half of Transcaucasia and South-Eastern Europe; the southern route includes South Asia, Gulf countries and other countries in the Near and Middle East and Africa; and the northern route includes Central Asia, Eastern Europe and half of Transcaucasia. Heroin seized in Transcaucasia was attributed partly to the Balkan route and partly to the northern route as it may be trafficked along both routes.

37. Heroin from East and South-East Asia continues to supply markets in the subregion and Oceania. The quantities of opiates reportedly seized by countries in East and South-East Asia and Oceania fell from 13.3 tons in 2015 to 11 tons in 2019. That decrease occurred in parallel with a reduction of more than 20 per cent in opium production in Myanmar over the period 2015–2019²⁴ and points to a possible fall in heroin trafficking in that part of the world.

38. The Americas continue to be supplied by key production areas in Latin America, principally Mexico and, to a far lesser extent, Colombia and Guatemala. Most of the heroin supplied to the United States and the still small heroin markets of South America originates in those countries. In contrast, Canada receives the majority of its heroin from South-West Asia.²⁵

²⁴ UNODC, *Myanmar Opium Survey 2020*.

²⁵ UNODC, Drugs Monitoring Platform. Available at <https://dmp.unodc.org/node/1180709>.

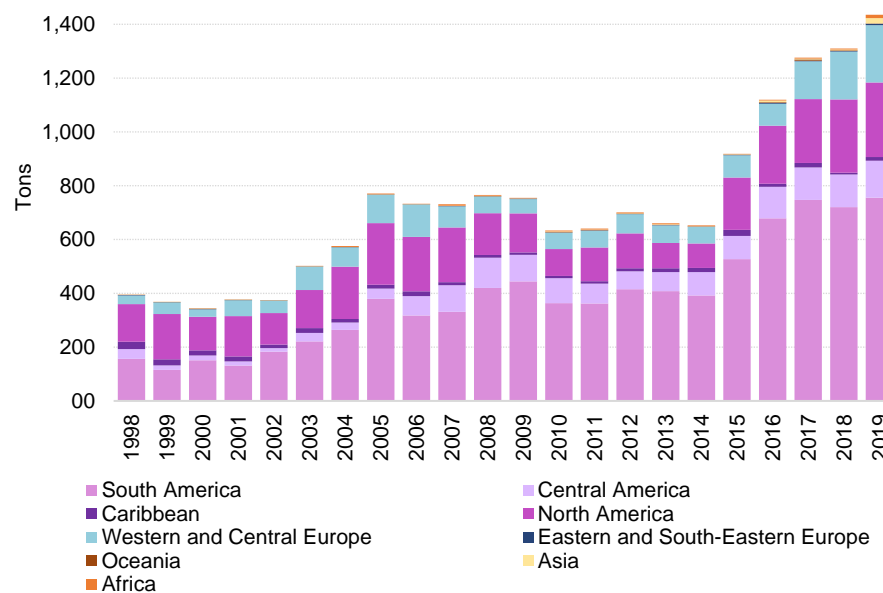
C. Cocaine

39. In 2019, global quantities of cocaine seized reached record levels compared with the preceding year, increasing by 9.6 per cent to 1,436 tons (of varying purities). The 90 per cent increase in the quantities of cocaine seized from 2009 to 2019 is likely a reflection of various factors, including an increase in cocaine manufacture, cocaine trafficking and the efficiency of law enforcement.

40. The majority of the cocaine seized globally continues to be seized in the Americas, which accounted for 83 per cent of the global quantity seized in 2019, the majority being seized in South America. The total quantity of cocaine seized in South America increased by 5 per cent to a record high of 755 tons from 2018 to 2019, with most countries in the subregion reporting increases.

Figure XII

Global quantities of cocaine seized, by region, 1998–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: Includes seizures of cocaine hydrochloride, coca paste and base and “crack” cocaine.

41. Quantities of cocaine seized increased in all subregions in the Americas. In 2019, the quantity of cocaine seized in North America rose by 2 per cent to a record high of 277 tons. The United States continued to account for the vast majority (94 per cent) of the cocaine seized in North America.

42. In Central America, the quantity of cocaine seized rose by 19 per cent to 144 tons in 2019. In the Caribbean subregion, the amount more than doubled in 2019 to reach 14 tons (1 per cent of the global total).

43. In 2019, Europe continued to account for the largest quantity of cocaine seized outside the Americas. The total quantity of cocaine seized in the region in 2019 increased by more than 20 per cent to a record high of 218 tons. The largest quantities intercepted in the region were reported by countries in Western and Central Europe, in particular Belgium (5 per cent of the global total), the Netherlands and Spain (3 per cent each) and France and Portugal (1 per cent each). Western and Central Europe accounted for slightly more than 97 per cent of all the cocaine seized in Europe in 2019.

44. The increase in the amount of cocaine seized in Europe was observed in each of the subregions: a 20 per cent increase to 213 tons in Western and Central Europe; a 64 per cent increase to 3.8 tons in South-Eastern Europe; and an even larger increase in Eastern Europe, from 50 kg in 2018 to 1.4 tons in 2019.

45. The relatively small cocaine market in Asia may be expanding. In 2019, for the second year in a row, countries in Asia reported the third largest quantities of cocaine seized after the Americas and Europe. A total of 19 tons of cocaine were seized, which represented a record high and 1.3 per cent of the global total.²⁶

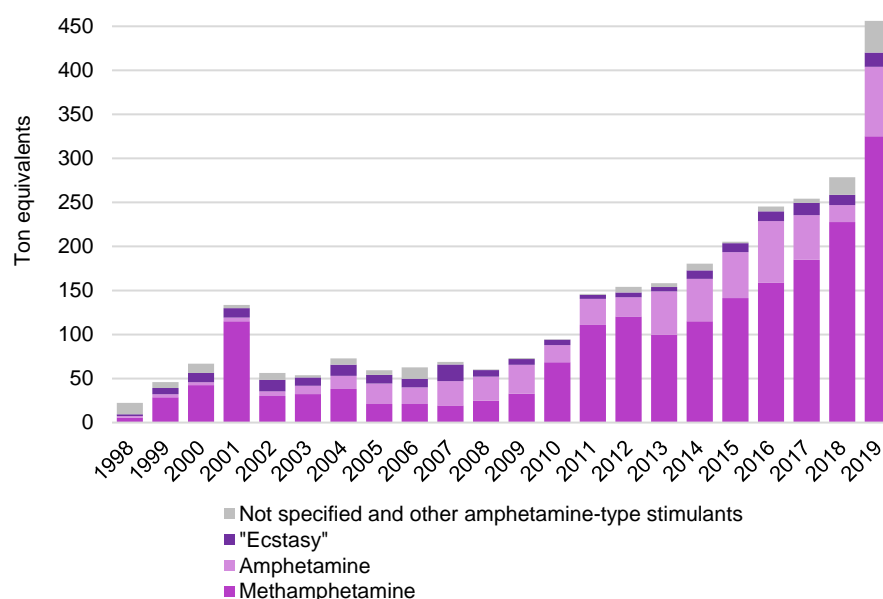
46. The quantity of cocaine seized in Africa nearly quadrupled from 2018 to 2019, to reach a record high of almost 13 tons (0.9 per cent of the global total). Of this amount, about 11.1 tons were reported by countries in West and Central Africa.

D. Amphetamine-type stimulants

47. The manufacture of amphetamine-type stimulants continues to be dominated by methamphetamine at the global level.²⁷ In the period 2015–2019, methamphetamine accounted for 72 per cent of the total amount of amphetamine-type stimulants seized globally, followed by amphetamine (19 per cent) and “ecstasy” (4 per cent). Other stimulants, including synthetic new psychoactive substances such as mephedrone, methylenedioxypyrovalerone and methylone, accounted for the remainder (0.5 per cent of the total).²⁸

Figure XIII

Global quantities of amphetamine-type stimulants seized, 1998–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

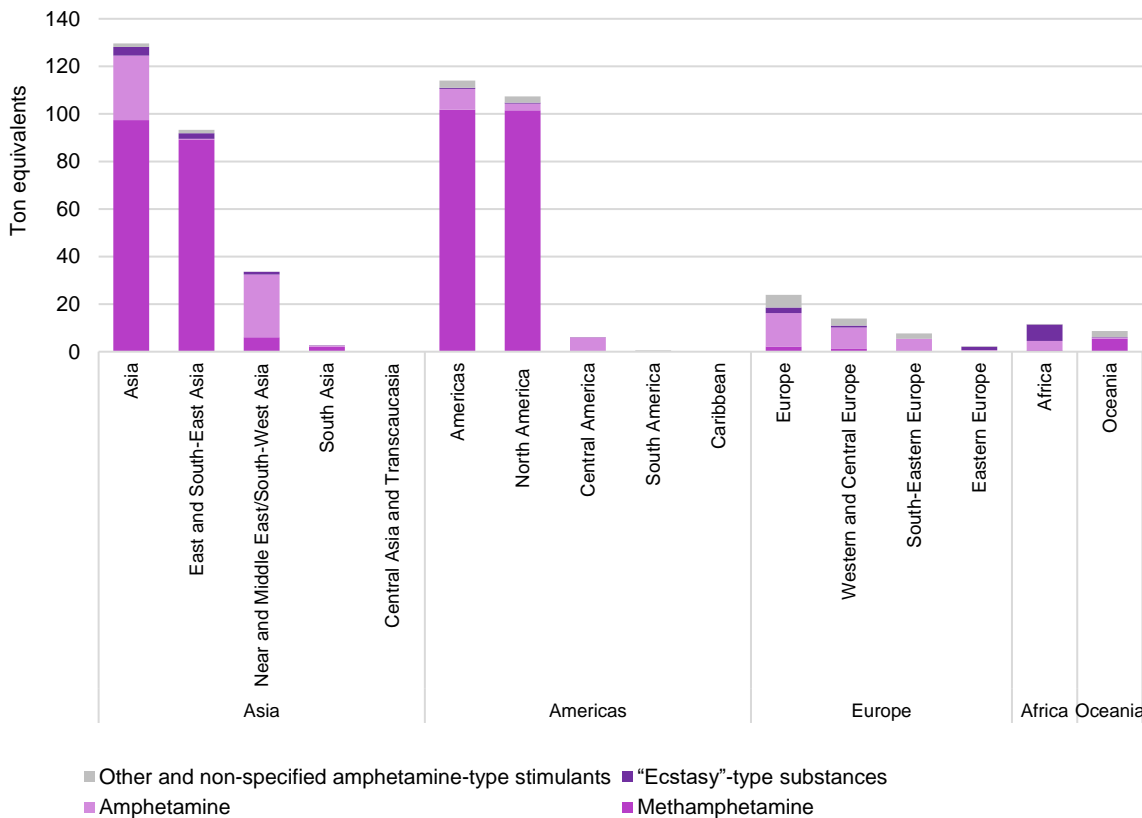
48. While the number of countries and territories reporting seizures of amphetamine and “ecstasy” has remained relatively stable over time (92 and 101 countries and territories, respectively, in the period 2015–2019), the number of countries and territories reporting seizures of methamphetamine rose from 79 in the period 2005–2009 to 111 in the period 2015–2019, suggesting a significant increase in the geographical spread of methamphetamine trafficking at the global level.

²⁶ *World Drug Report 2021*, booklet 4.

²⁷ *Ibid.*

²⁸ *Ibid.*

Figure XIV
Average annual quantities of amphetamine-type stimulants seized, by region and subregion, 2015–2019



Source: World Drug Report 2021 (data based on responses to the annual report questionnaire).

49. Despite this geographical spread, about half of the global quantities of the three main amphetamine-type stimulants were seized in just three countries: the United States, Thailand and Mexico in the case of methamphetamine (47 per cent of all methamphetamine seized in the period 2015–2019); Saudi Arabia, Guatemala and Turkey in the case of amphetamine (45 per cent); and the United States, Australia and Turkey in the case of “ecstasy” (54 per cent).²⁹

Methamphetamine

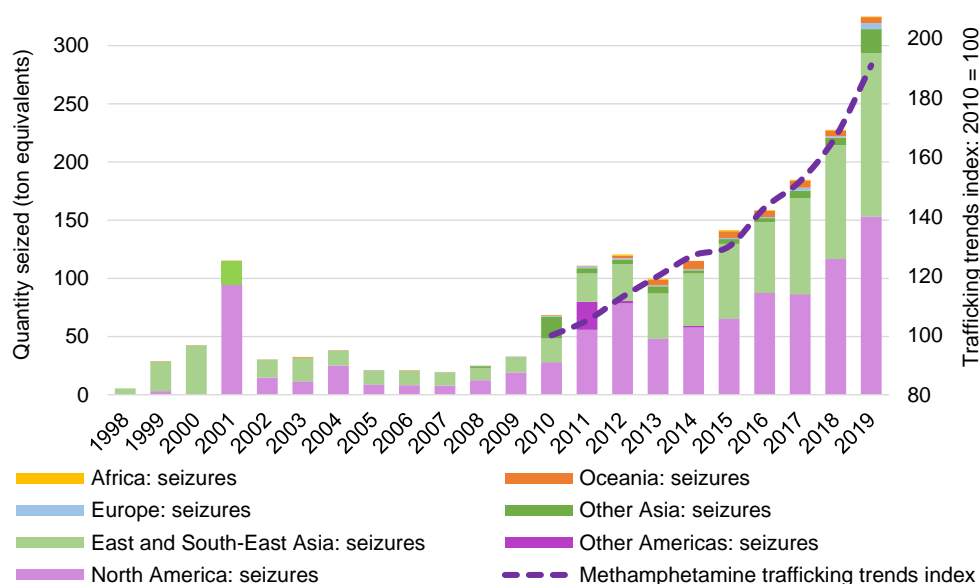
50. Global methamphetamine markets, dominated by North America and East and South-East Asia, continue to expand. Several indicators, including qualitative information on trends in methamphetamine trafficking and data on prices, drug treatment facilities and prevalence of use based on population surveys, suggest that, particularly since 2009, the global methamphetamine market has been expanding in the two largest markets, namely, South-East Asia and North America.³⁰

51. Methamphetamine continues to be seized primarily in North America and in East and South-East Asia, which accounted for 49 per cent and 43 per cent, respectively, of the global quantity of methamphetamine seized in the period 2015–2019. The largest quantities of methamphetamine seized worldwide in 2019 were seized in the United States, followed, in descending order, by Thailand, Mexico, China and Myanmar.

²⁹ Ibid.

³⁰ Ibid.

Figure XV
Global quantities of methamphetamine seized and reported trends in methamphetamine trafficking, 1998–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

Note: The trafficking trends index is based on qualitative information on trends in methamphetamine trafficking reported by Member States.

52. The quantities of methamphetamine seized in East and South-East Asia increased twelvefold over the period 2009–2019, to 141 tons.³¹ Every year during that period, the largest quantities of methamphetamine seized in the subregion were reported by China, except in 2018 and 2019, when the largest quantities were seized by Thailand. In 2019, Thailand accounted for 38 per cent of the total seized in the subregion, followed by China (18 per cent), Myanmar (14 per cent) and Indonesia (13 per cent).

53. The amount seized in the Near and Middle East and South-West Asia increased by almost 160 per cent in 2019 compared with a year earlier, to 16 tons of methamphetamine, representing a more than twentyfold increase since 2009. The Islamic Republic of Iran accounted for 84 per cent of all quantities of methamphetamine seized (13.6 tons) in the Near and Middle East and South-West Asia in 2019. The largest increase in recent years, however, was reported by Afghanistan, where the amounts seized rose from 182 kg in 2018³² to 1,251 kg in 2019,³³ exceeding the amounts reported seized by Pakistan (870 kg in 2019); this trend is likely a reflection of the increasing manufacture of the drug in Afghanistan.

54. The quantities of methamphetamine seized in Oceania showed a marked increase over the period 2009–2014, but remained stable, at 5 to 6 tons, over the period 2015–2019.³⁴

55. In Europe, the quantity of methamphetamine seized, although still comparatively limited, grew fourfold from 2018 to 2019 and more than sevenfold from 2009 to 2019, to reach more than 5 tons in 2019. Europe accounted for about 1 per cent of the global quantity of methamphetamine seized in the period 2015–2019, with Western and Central Europe accounting for nearly two thirds of the quantities seized in the region.³⁵

³¹ Ibid.

³² Ibid.

³³ E/INCB/2020/1.

³⁴ *World Drug Report 2021*, booklet 4.

³⁵ Ibid.

Amphetamine

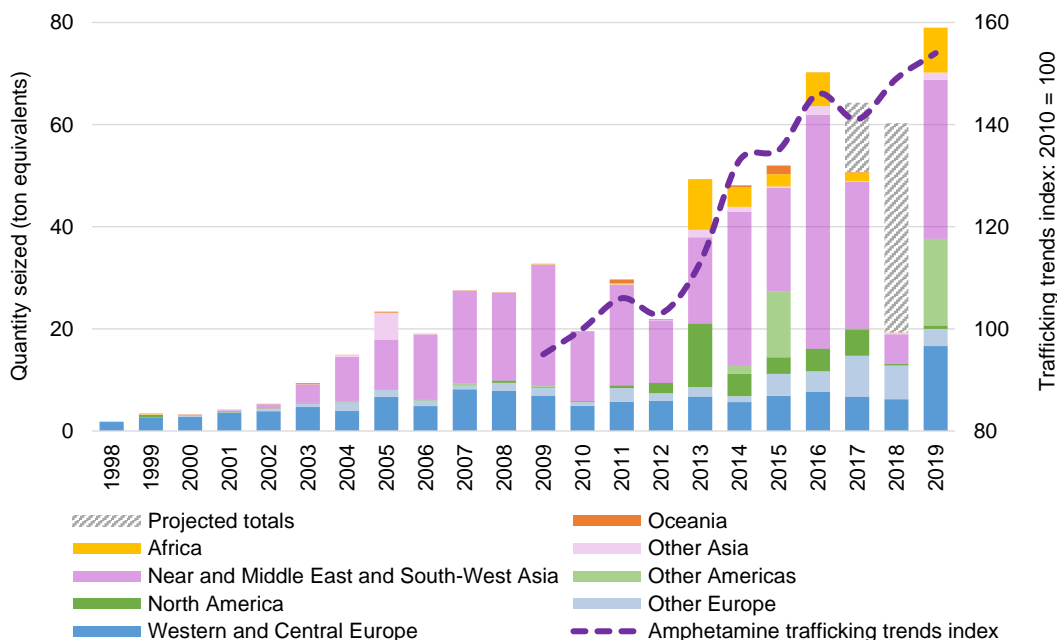
56. Despite annual fluctuations, the quantities of amphetamine seized globally have increased markedly over the past two decades, reaching a record high of 79 tons in 2019. Trafficking trends reported by Member States (an average of 20 countries per year in the period 2010–2019) also suggest an increase in amphetamine trafficking over the past decade.³⁶

57. In the period 2015–2019, the Near and Middle East and South-West Asia and Europe (mostly Western and Central Europe) accounted for three quarters of the global quantity of amphetamine seized, at 49 per cent and 26 per cent, respectively.³⁷

58. In Europe, reported quantities of amphetamines seized increased in 2019. The Near and Middle East and South-West Asia continued to account for most of the amphetamine seized globally in 2019. The total amount seized that year was 31.2 tons, representing 39 per cent of global total seizures. The largest quantities of amphetamine tablets were seized in the Near and Middle East and South-West Asia in the period 2015–2019 and were reported by Saudi Arabia, Jordan, the United Arab Emirates, Pakistan, the Syrian Arab Republic and Lebanon. In 2019, Saudi Arabia seized almost 146 million amphetamine tablets, Jordan seized 23 million, Kuwait and Lebanon seized 4 million each and Iraq seized more than 600,000.³⁸

59. Amphetamine (“captagon”) tablets were also trafficked from the Near and Middle East to Libya via Egypt. In December 2020, for example, Egyptian authorities seized 8 million “captagon” tablets in a container in Port Said that was en route to Libya. The container had originated in Beirut and the “captagon” tablets also appeared to have originated in Lebanon.³⁹

Figure XVI
Global quantities of amphetamine seized and reported trends in amphetamine trafficking, 1998–2019



Source: World Drug Report 2021 (data based on responses to the annual report questionnaire).

Note: Projected totals are estimated on the assumption that there was no change in the quantities of amphetamine seized by countries not reporting to UNODC in 2017 or 2018. The trafficking trends index is based on qualitative information on trends in amphetamine trafficking reported by Member States.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

³⁹ UNODC, Drugs Monitoring Platform.

“Ecstasy”-type substances

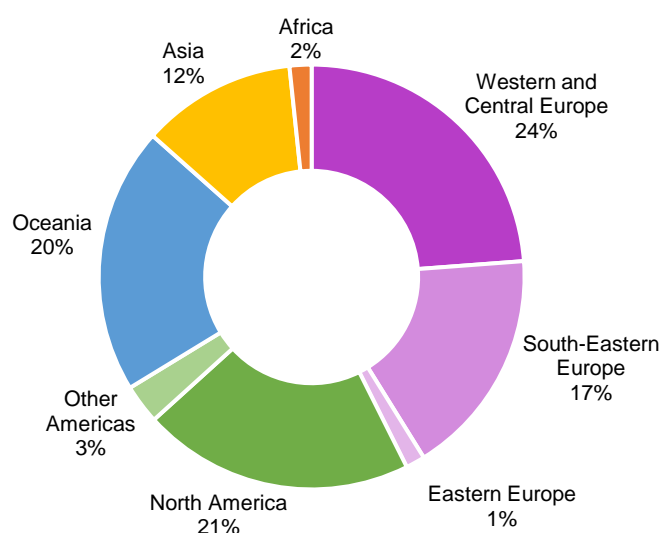
60. Several indicators, including the number of “ecstasy” laboratories dismantled, number of seizures, quantities of “ecstasy” seized and reported trends in trafficking, suggested a clear upward trend in the supply of the drug from 2011 to 2019, although this trend appears to have reversed in 2020 as a consequence of the restrictions imposed in response to the COVID-19 pandemic.^{40,41}

61. The quantity of “ecstasy” seized globally almost quadrupled after a low in 2011, to reach 16 tons in 2019, the second-highest level ever reported. There has been a marked increase in the quantity of “ecstasy” seized in almost all regions since 2011. In Europe, seizures of “ecstasy” increased fourfold in 2019 to reach 7 tons.

62. Overall, 101 countries reported seizures of “ecstasy” in the period 2015–2019, up from 71 countries in the period 1995–1999. This change suggests a geographical expansion of trafficking in “ecstasy” over the past two decades. Analysis of individual seizures shows substantial levels of “ecstasy” trafficking in Europe, South-East Asia, the Americas and Australia.⁴²

Figure XVII

Regional distribution of the global quantity of “ecstasy” seized, 2015–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

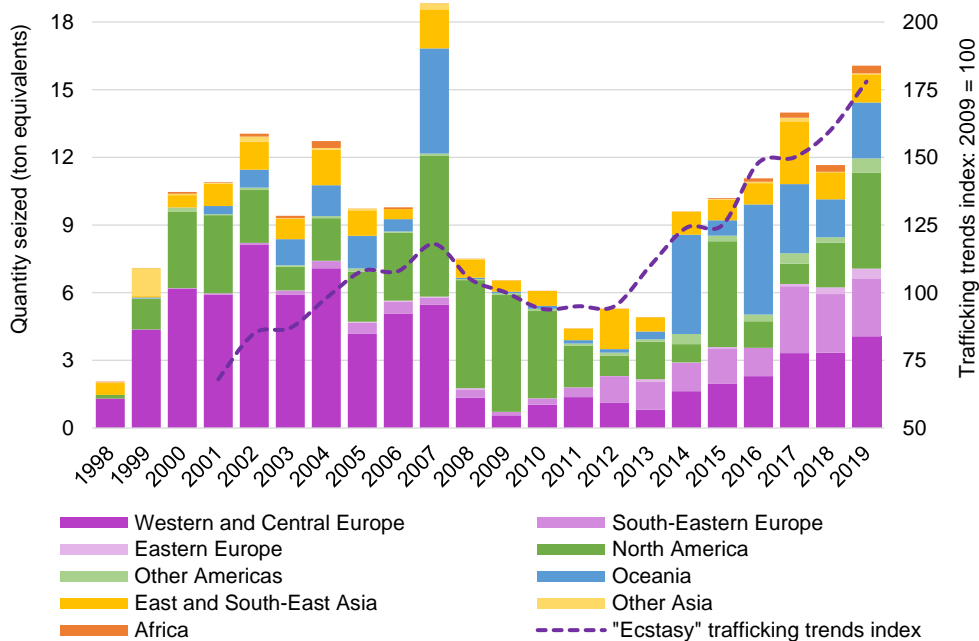
63. In contrast to many other drugs, where one country often continues to dominate global seizures over a prolonged period, the situation seems to change quite frequently in the case of “ecstasy”. For example, the largest quantities of “ecstasy” seized were reported by Australia in 2014, 2016 and 2017, by Turkey in 2018 and by the United States in 2015 and 2019. European countries still dominate “ecstasy” seizures, however. Of the 15 countries reporting seizing the largest quantities of “ecstasy” in 2019, nine were in Europe.

⁴⁰ UNODC, Drugs Monitoring Platform.

⁴¹ Global Drug Survey, GDS COVID-19 special edition: key findings report, “Global Drug Survey special edition on COVID-19”.

⁴² UNODC, Drugs Monitoring Platform.

Figure XVIII
Global quantities of “ecstasy” seized and reported trends in “ecstasy” trafficking, 1998–2019



Source: World Drug Report 2021 (data based on responses to the annual report questionnaire).

Note: The trafficking trends index is based on qualitative information on trends in “ecstasy” trafficking reported by Member States.

E. New psychoactive substances

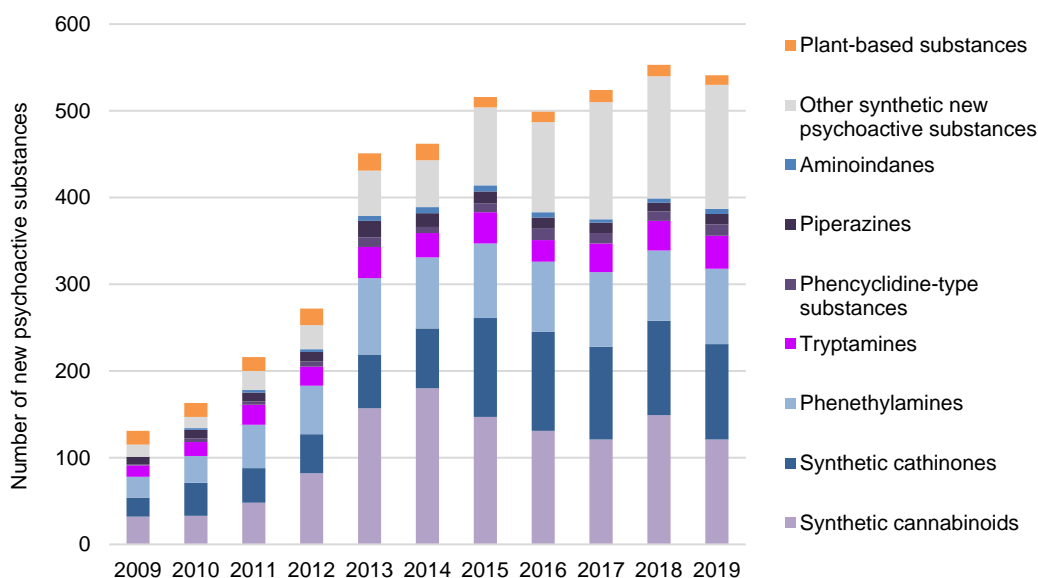
64. The number of new psychoactive substances identified by national authorities and forensic laboratories in 126 countries reached a total of 1,047 in December 2020⁴³ – triple the number of substances under international control. It should be noted, however, that many new psychoactive substances emerge only for a short period of time before disappearing from the market.

65. Following a rapid expansion between 2009 and 2015, the number of new substances reaching the drug markets in individual countries each year has stabilized. In 2019, although 541 different new psychoactive substances were identified and reported by Member States, many of those substances had in fact come onto the global market in previous years, with just 71 being identified for the first time at the global level in 2019, down from a peak of 163 substances in 2013.⁴⁴

⁴³ UNODC early warning advisory on new psychoactive substances.

⁴⁴ UNODC, “Regional diversity and the impact of scheduling on NPS trends”, Global SMART Update, vol. 25 (April 2021).

Figure XIX
New psychoactive substances identified in Member States, by substance group, 2009–2019

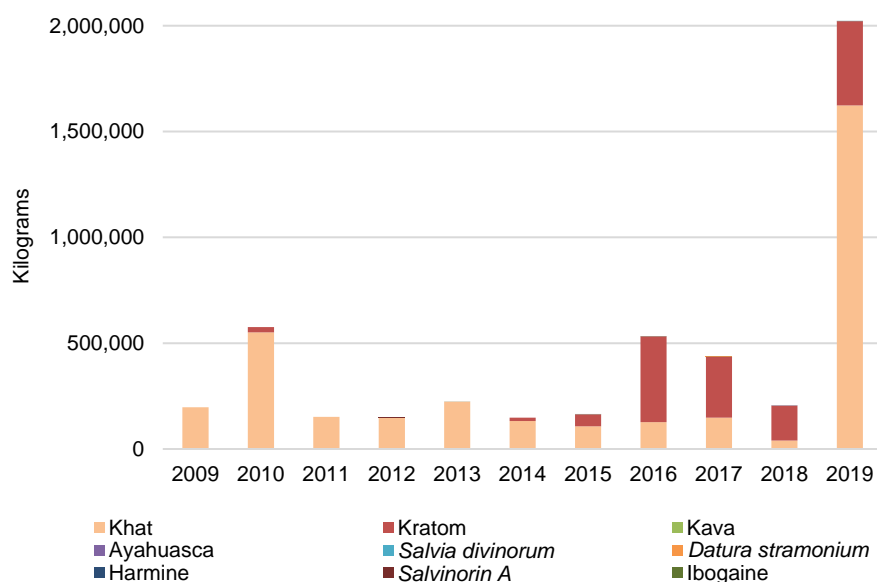


Source: *World Drug Report 2021* (data based on UNODC early warning advisory on new psychoactive substances).

66. Seizure data suggest ongoing shifts in new psychoactive substance markets, both in terms of the most commonly seized substances and the countries where seizures are made. Trends in the seizure of new psychoactive substances show a marked increase in the quantities seized after 2000 and a sharp decrease over the period 2015–2019, with only the quantities of phenethylamines and synthetic opioids seized showing a significant increase over the period 2015–2019.

67. The largest quantities of plant-based new psychoactive substances seized in 2019 were mainly khat (countries in the Arabian Peninsula, followed by countries in North America, Europe and Africa), followed by kratom (mostly in Malaysia, followed by Thailand).

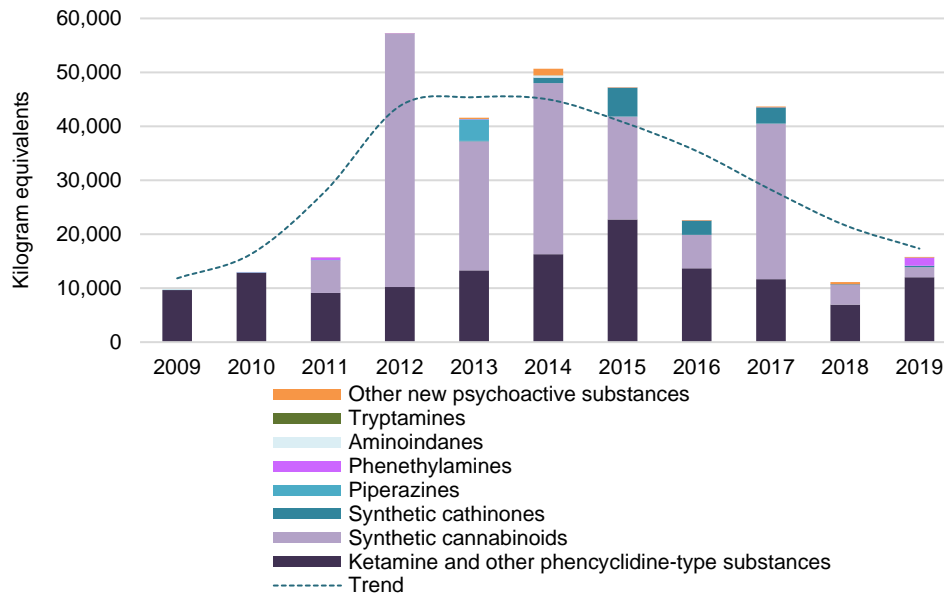
Figure XX
Global quantities of plant-based new psychoactive substances seized, 2009–2019



Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

68. While the largest decreases in the quantities seized were reported for synthetic new psychoactive substances, over the years there has been a geographical expansion of trafficking in such substances, with the number of countries reporting seizures rising from 21 in 2009 to about 50 after 2016. The centre of the global market for new psychoactive substance seems to have shifted from North America and Western and Central Europe, where it first emerged, to other regions.

Figure XXI

Global quantities of synthetic new psychoactive substances seized, 2009–2019

Source: *World Drug Report 2021* (data based on responses to the annual report questionnaire).

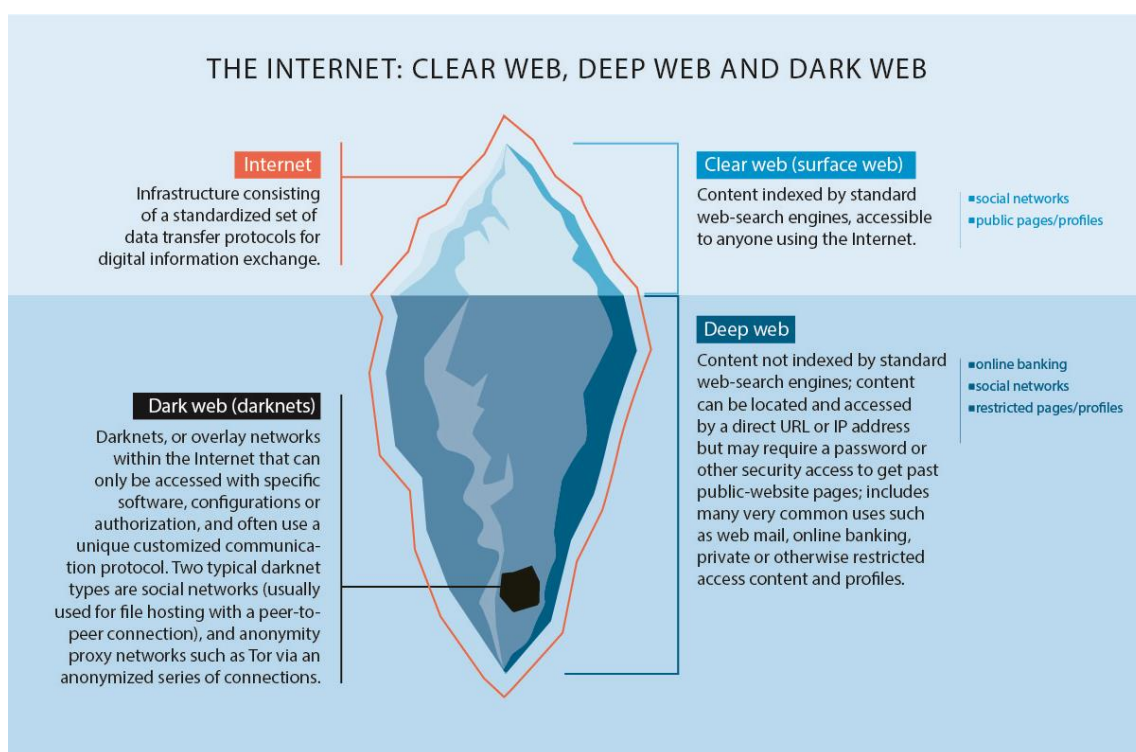
F. Drug trafficking over the Internet

69. Controlled drugs and new psychoactive substances can be marketed and sold on the Internet at different levels: on the clear web, sometimes using encrypted communications tools; on certain social media applications; and on darknets, which form part of the deep web.

70. While the online sale of traditional drugs such as heroin, amphetamine-type stimulants, cannabis and cocaine remains confined to anonymized platforms on the deep web, the clear web is used to sell products that supply the market of these traditional drugs, in particular synthetic drugs. Today, several vendors, operating alone or through well-established online commercial platforms, openly sell substances that supply the synthetic drug market, including precursors, pre-precursors, new psychoactive substances and controlled substances.⁴⁵

⁴⁵ *World Drug Report 2021*, booklet 2, *Global Overview: Drug Demand, Drug Supply* (United Nations publication, 2021).

Figure XXII
Internet: the clear web, deep web and dark web



Source: World Drug Report 2021, booklet 2, *Global Overview: Drug Demand, Drug Supply* (United Nations publications, 2021).

71. Analysis of over 1,000 listings on the clear web for the sale of substances supplying synthetic drug markets from January 2019 to March 2021 showed that interactions between buyers and sellers were concentrated on e-commerce websites, online chemical marketplaces and social media platforms.⁴⁶

72. Recent trends suggest that drug-related sales activity on the clear web may continue to transform and evolve in response to law enforcement and policy action. The use of alternative, less visible clear web platforms may become increasingly common in the near future.⁴⁷

Drug trafficking over the dark web

73. The characteristics of and opportunities and challenges relating to drug trafficking over the dark web on darknets have changed little over the years. The anonymity offered by specific software (such as Tor (The Onion Router), the wide selection of drugs on offer, the dark web's global reach and the use of cryptocurrencies have remained largely the same.

74. The number of marketplaces on the Tor network increased from one in 2011 to 118 in 2019. At the same time, cryptocurrencies and anonymous communication applications have boosted the use of both darknets and the dark web in general, while contributing to the illicit trade in commodities and services, in particular drugs, although there has also been a large increase in the number and variety of products for sale.⁴⁸

75. More than 100 darknet market platforms have emerged over the past decade, but many of them, including the largest, last for only a short period of time, partly as a result of law enforcement action, exit scams by the owners and "voluntary

⁴⁶ Michael Lohmuller, Nicole Cook and Logan Pauley, "Lethal exchange: synthetic drug networks in the digital era" (Washington, D.C., Center for Advanced Defense Studies, 2020).

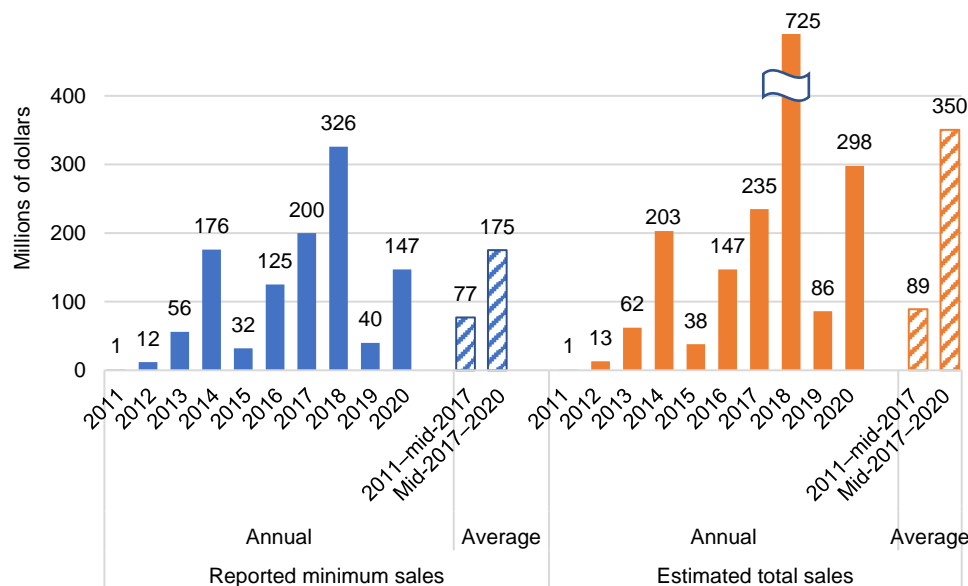
⁴⁷ Ibid.

⁴⁸ *World Drug Report 2021*, booklet 2.

shutdowns”.⁴⁹ Despite this high volatility, analysis of 19 major darknet markets that were predominantly selling drugs and operating between 2011 and 2020⁵⁰ suggests that there was an overall upward trend in darknet sales over the period 2011–2020, except in 2019, when there was a decline.

76. Sales on these major darknet markets appear to have remained modest in comparison with overall illicit drug sales. During the period 2017–2020, darknet sales amounted to an average of \$350 million per year, about 90 per cent, or \$315 million, of which was related to drugs, that is, about 0.2 per cent of combined estimated illicit annual retail drug sales in the United States and the European Union.⁵¹

Figure XXIII
Darknet sales on major marketplaces where drugs are sold: reported minimum sales and estimated total sales, 2011–2020



Source: *World Drug Report 2021* (data based on analyses and estimates and data from Hikari Labs).

Note: Based on data from 19 major darknet markets (Agora, AlphaBay, Berlusconi Market, Black Market Reloaded, Cannazon, Dark Market, Dream Market, Empire, Evolution, Hydra, Hydra Market, Pandora, Silk Road and Silk Road 2, TradeRoute, Valhalla, Versus, Wallstreet and Whitehouse).

77. Cannabis accounts for the largest share of drug transactions carried out on the 19 major darknet markets analysed over the period 2011–2020, and that share has been increasing. After cannabis, the substances that account for the largest shares are synthetic stimulants, “ecstasy” and cocaine. Opioids sold on the dark web include oxycodone, hydromorphone, hydrocodone, codeine, buprenorphine, methadone, tramadol, tapentadol, fentanyl and heroin.⁵²

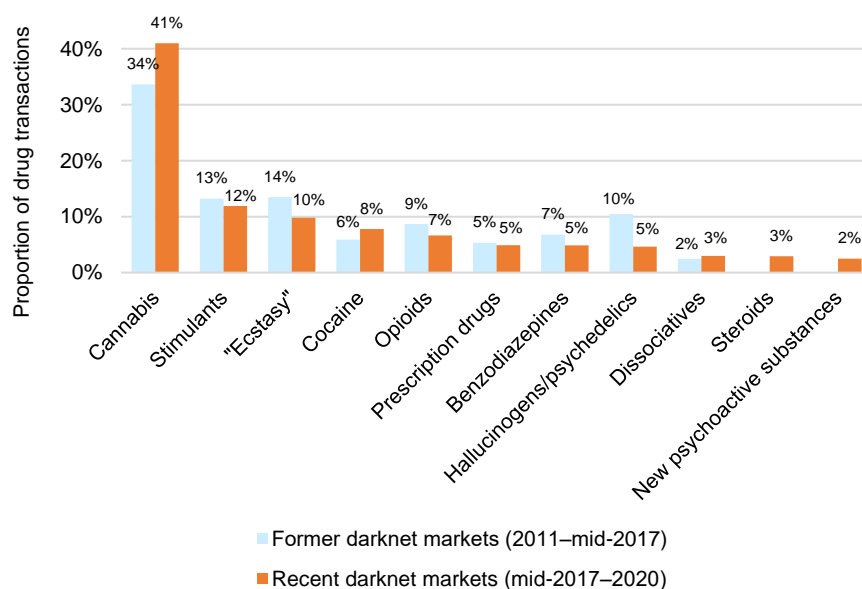
⁴⁹ Ibid.

⁵⁰ UNODC analysis, based on original data from Hikari Labs.

⁵¹ UNODC estimates, based on Gregory Midgette and others, *What America’s Users Spend on Illegal Drugs, 2006–2016* (Santa Monica, California, RAND Corporation, 2019); European Monitoring Centre for Drugs and Drug Addiction and European Union Agency for Law Enforcement Cooperation, *EU Drug Markets Report 2019* (Luxembourg, Publications Office of the European Union, 2019); and UNODC calculations, based on original data from Hikari Labs.

⁵² UNODC analysis, based on original data from Hikari Labs.

Figure XXIV
Distribution of drug transactions on 19 major darknet markets, by drug, 2011–mid-2017 and mid-2017–2020



Source: *World Drug Report 2021* (data based on analyses and estimates and data from Hikari Labs).

Note: The markets analysed from 2011 to mid-2017 were (listed by dates of operation, from oldest to most recent): Silk Road, Silk Road 2, Pandora, Hydra, Black Market Reloaded, Agora, Evolution and AlphaBay. The markets analysed from mid-2017 to 2020 were (listed by dates of operation, from oldest to most recent): Berlusconi Market, TradeRoute, Valhalla, Wallstreet, Dream Market, Cannazon, Empire, Dark Market, Hydra Market, Versus and Whitehouse.

G. Impact of COVID-19

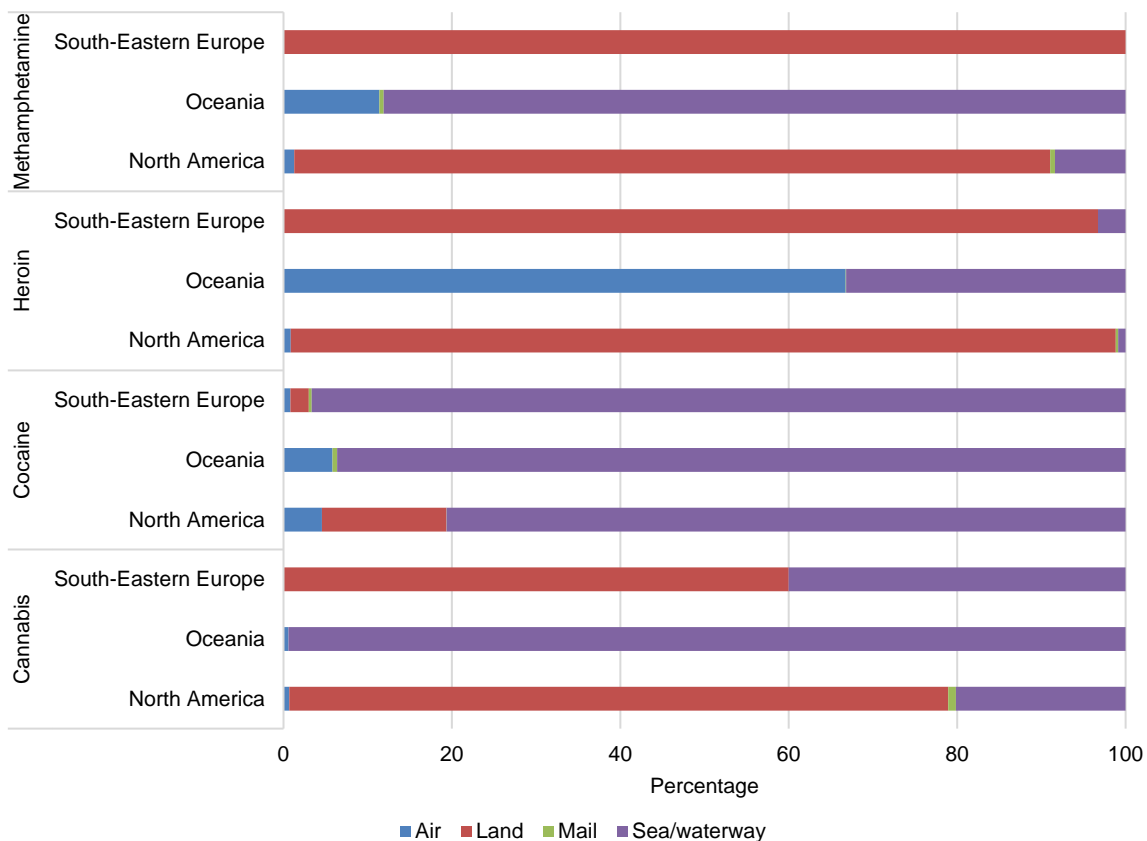
78. Data and qualitative information available to UNODC as at the first quarter of 2021 revealed that various dynamics emerged after the onset of the COVID-19 pandemic, with some drug markets experiencing no change and others quickly recovering after initial disruptions or undergoing opportunistic changes in routes and modi operandi.⁵³

79. Opiate and coca leaf production and synthetic drug manufacture remained virtually unaffected in 2020, but the supply chain for cocaine-related products was disrupted in the early stages of the pandemic, when buyers in Colombia and Peru were unable to access areas of coca production. However, production recovered soon after COVID-19-related restrictions were eased.

80. Overall, drug markets have largely proved to be resilient to COVID-19-related changes. Drug trafficking may have slowed significantly during initial lockdown periods but resumed at the same or even increased levels soon after restrictions were lifted. In many regions, by early 2021, drug trafficking appeared to be continuing at the same pace, or even at an increased pace, as before the COVID-19 pandemic. Seizures of drugs trafficked by air and land were most affected by the disruptions; there was a lesser impact on maritime routes.

⁵³ *World Drug Report 2021*, booklet 5, *COVID-19 and Drugs: Impact Outlook* (United Nations publications, 2021).

Figure XXV
Distribution of seized quantities of cocaine, heroin and methamphetamine, by mode of transportation, in selected countries and regions prior to the COVID-19 pandemic, averages for the period 2016–2019



Source: *World Drug Report 2021* (data based on the UNODC Drugs Monitoring Platform).
 Note: Subregions were selected on the basis of availability of data. The category of “cocaine” includes cocaine base, cocaine hydrochloride, coca paste, cocaine salts and seizures classified as cocaine-type substances. The category of “cannabis” includes cannabis herb, cannabis resin and cannabis-type substances. The present figure is based on information from significant individual seizures, which constitutes an opportunistically determined subset of all relevant seizures.

81. Different drug markets were affected by the initial disruptions in different ways. While heroin trafficking continued largely unabated, cocaine trafficking slowed in Latin America during the second quarter of 2020, which was possibly related to supply shocks. In Europe, large seizures of cocaine in that period indicate that trafficking was not disrupted at any point, which might be the result of the momentum of the supply chain, as existing drug inventories in the chain could continue to be trafficked.

82. During the COVID-19 pandemic, an increase in the size of intercepted shipments of cocaine and heroin was observed in several regions (for example, heroin in South-West Asia, cocaine in Europe and various substances in North America), possibly indicating a global trend towards trafficking in larger drug shipments. This trend may be related to the COVID-19 crisis, as it is possibly a response to the need to clear inventories or to a reduction in opportunities for drug trafficking organizations; however, it is difficult to determine from the available data whether the trend was concurrent to or caused by COVID-19.

83. Throughout 2020, a trend towards the increased use of maritime and waterway routes and private aircraft was observed, while trafficking in small quantities of drugs by commercial air transport decreased.

84. At the retail level, people who sold drugs to users quickly adapted and used novel ways to distribute them. In many countries, during periods of mobility

restrictions, drug traffickers seized opportunities provided by the COVID-19 pandemic to continue to distribute drugs under different circumstances, for example, through food delivery services or concealed in personal protective equipment.

85. Given the high volatility of darknet market sites, it is challenging to determine the impact of the COVID-19 pandemic on drug trafficking through the dark web. Some analyses suggest that purchases of small quantities of cannabis have increased while purchases of large quantities have decreased. Other studies suggest there have been no changes in drug sales over the dark web, or that such sales have fallen. There seems to be greater consensus regarding an increase in the delivery of drugs by mail, suggesting that the pandemic may have accelerated an ongoing trend towards more remote or contactless modes of buying drugs. What is also clear is the expansion on the dark web, in 2020, of Hydra Market— a marketplace targeting Russian-speaking customers – although this expansion may not be related to the pandemic itself.

IV. Conclusions

86. The cultivation and production of cannabis affects all regions. In 2019, the quantities of cannabis herb seized globally fell by 12 per cent and the quantities of cannabis resin seized increased by 7 per cent.

87. Global opium poppy cultivation rebounded in 2020, rising by 24 per cent compared with the previous year to reach 294,350 ha. Global seizures of opium and illicit morphine remain concentrated in Afghanistan and neighbouring countries, while heroin seizures cover a wider geographical area. The amount of heroin seized globally, which had followed an increasing trend between 2014 and 2017, remained stable in 2019, at about 96 tons.

88. For the first time in years, the total area under coca bush cultivation decreased by 5 per cent to about 234,200 ha in 2019. The amount of cocaine seized globally continued to increase, reaching 1,436 tons in 2019, an increase of 9.6 per cent compared with the previous year.

89. The amount of amphetamine-type stimulants seized reached the highest levels ever, reported at 456 tons in 2019. Global methamphetamine markets, dominated by North America and East and South-East Asia, continued to expand. The amounts of amphetamine and “ecstasy”-type substances seized also reached all-time highs.

90. Opiate and coca leaf production and synthetic drug manufacture was virtually unaffected by the COVID-19 pandemic in 2020. Following a brief disruption in the supply chain for cocaine-related products, production recovered soon after movement restrictions relating to the pandemic were eased.