INTERNATIONAL NARCOTICS CONTROL BOARD

Precursors

and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances

2023

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The *Report of the International Narcotics Control Board for 2023* (E/INCB/2023/1) is supplemented by the following reports:

Narcotic Drugs: Estimated World Requirements for 2024—Statistics for 2022 (E/INCB/2023/2)

Psychotropic Substances: Statistics for 2022—Assessments of Annual Medical and Scientific Requirements for Substances in Schedules II, III and IV of the Convention on Psychotropic Substances of 1971 for 2024 (E/INCB/2023/3)

Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances: Report of the International Narcotics Control Board for 2023 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (E/INCB/2023/4)

The updated lists of substances under international control, comprising narcotic drugs, psychotropic substances and substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, are contained in the latest editions of the annexes to the statistical forms ("Yellow List", "Green List" and "Red List"), which are also issued by the Board.

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INTERNATIONAL NARCOTICS CONTROL BOARD

Precursors

and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances

Report of the International Narcotics Control Board for 2023 on the implementation of article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

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Foreword

Illicit drug markets are changing rapidly, with synthetic drugs now replacing plant-based drugs in terms of illicit manufacture, trafficking, marketing and consumption. The fentanyl crisis in North America, the trafficking in and misuse of tramadol in Africa, the high levels of methamphetamine consumption in South-East Asia, the increased availability and use of synthetic cathinones, and the trafficking in ketamine all serve as examples of this trend.

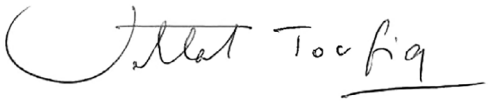
In this context, illicit drug manufacturers have considerably expanded their options for sourcing the chemicals they use. The system established under article 12 of the 1988 Convention was designed to monitor international trade and, as such, is a reactive one vis-à-vis the fast-changing pace of illicit drug manufacture today, as pre-precursors or custom-made precursors are increasingly being used to circumvent controls. In addition to seeking out opportunities to replace controlled precursors with non-controlled substitutes, the illicit drug industry is also exploiting loopholes in licit markets to recover precursors from non-controlled products that fall outside the scope of control of the 1988 Convention. In such an environment, innovative national and international approaches with a focus on systematic reporting of suspicious transactions, monitoring of drug manufacturing equipment and proactive cooperation with the private sector are needed to complement law enforcement interventions.

This report presents recent examples of such practical approaches, including INCB Operation Backup, and Operation Insight. The former supported an INCB assessment for the possible scheduling of chemicals used in the illicit manufacture of amphetamine-type stimulants. The latter was aimed at raising awareness about the vulnerabilities of free trade zones as they relate to the diversion of chemicals through such areas.

The report further reiterates the Board's call to Governments to continue to use the tools that have been developed to facilitate the exchange of information on both licit trade and illicit trafficking in internationally scheduled precursors, non-scheduled chemicals and equipment, such as the Precursors Incident Communication System (PICS), the Pre-Export Notification Online (PEN Online) system and the PEN Online Light system, to name but a few.

This year's thematic chapter presents cases of countries and territories experiencing conflict or unresolved territorial disputes where political instability and the absence of well-established State control and governance increase the risk of diversion of chemicals or illicit drug manufacture. I am confident that this information, together with the other updates contained in this report, will serve Governments to further inform their precursor control strategies at the national, regional and international levels.

Finally, I commend the efforts undertaken that contribute to ensuring the availability of controlled precursors for legitimate purposes in all regions of the world, while managing the risks of diversion. I thank all Governments that have worked with the Board in developing, supporting and maintaining the international precursor control system and its activities over the past decades.



Jallal Toufiq
President
International Narcotics Control Board

Preface

The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 requires the International Narcotics Control Board to report annually to the Commission on Narcotic Drugs on the implementation of article 12 of the Convention and requires the Commission to periodically review the adequacy and propriety of Tables I and II of the Convention.

In addition to its annual report and other technical publications on narcotic drugs and psychotropic substances, the Board has prepared its report on the implementation of article 12 of the 1988 Convention in accordance with the following provisions, contained in article 23 of the Convention:

1. The Board shall prepare an annual report on its work containing an analysis of the information at its disposal and, in appropriate cases, an account of the explanations, if any, given by or required of parties, together with any observations and recommendations which the Board desires to make. The Board may make such additional reports as it considers necessary. The reports shall be submitted to the Economic and Social Council through the Commission, which may make such comments as it sees fit.

2. The reports of the Board shall be communicated to the parties and subsequently published by the Secretary-General. The parties shall permit their unrestricted distribution.

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*The annexes are not included in the printed version of the present report but are available on the website of the International Narcotics Control Board (www.incb.org).

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Explanatory notes

The boundaries and names shown and the designations used on the maps in the present publication do not imply official endorsement or acceptance by the United Nations.

The designations employed and the presentation of the material in the present publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

Multiple government sources of data were used to generate the present report, including form D ("Annual information on substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances"); the Pre-Export Notification Online (PEN Online) system and the PEN Online Light system; the Precursors Incident Communication System (PICS); results achieved under Project Prism and Project Cohesion, which are the international operational initiatives regarding chemicals used in the illicit manufacture of, respectively, synthetic drugs, and cocaine and heroin; and official communications with competent national authorities and official national reports on the drug and precursor control situation.

Unless otherwise specified, data provided on form D are referred to by the calendar year to which they apply. The reporting period for data from the PEN Online and PEN Online Light systems and PICS is from 1 November 2022 to 1 November 2023, unless otherwise specified. Additional information was provided through regional and international partner organizations, as indicated in the report.

With regard to data on seizures, readers should bear in mind that reported seizures generally reflect the corresponding level of regulatory and law enforcement activity at that specific time. In addition, as seizures are often the result of law enforcement cooperation among several countries (e.g. through controlled deliveries), the occurrence of seizures and the volumes seized in a given country should not be misinterpreted or used as an overestimation in assessing that country's role in the overall situation of trafficking in precursors.

Reference to "tons" is to metric tons, unless otherwise stated.

The following abbreviations have been used in the present report:

AIBN	azobisisobutyronitrile
ANPP	4-anilino-*N*-phenethylpiperidine
4-AP	4-anilinopiperidine (*N*-phenyl-4-piperidinamine)
APAA	*alpha*-phenylacetoacetamide (2-phenylacetoacetamide)
APAAN	*alpha*-phenylacetoacetonitrile
1-boc-4-AP	1-boc-4-anilinopiperidine (*tert*-butyl 4-(phenylamino) piperidine-1-carboxylate)
DEPAPD	diethyl (phenylacetyl)propanedioate
EAPA	ethyl *alpha*-phenylacetoacetate (ethyl 3-oxo-2-phenylbutanoate)
FTZ	free trade zone (also known as a free zone or free port)
GBL	*gamma*-butyrolactone
GHB	*gamma*-hydroxybutyric acid
IMDPAM	isopropylidene (2-(3,4-methylenedioxyphenyl)acetyl)malonate

INCB	International Narcotics Control Board
IONICS	Project Ion Incident Communication System
LSD	lysergic acid diethylamide
MAMDPA	methyl 3-oxo-2-(3,4-methylenedioxyphenyl)butanoate
MAPA	methyl *alpha*-phenylacetoacetate (methyl 3-oxo-2-phenylbutanoate)
MDMA	3,4-methylenedioxymethamphetamine (commonly known as "ecstasy")
3,4-MDP-2-P	3,4-methylenedioxyphenyl-2-propanone
3,4-MDP-2-P methyl glycidate	methyl ester of 3,4-MDP-2-P methyl glycidic acid
3,4-MDP-2-P methyl glycidic acid	3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylic acid
3,4-MDP-2-P ethyl glycidate	ethyl ester of 3,4-MDP-2-P methyl glycidic acid
NPP	*N*-phenethyl-4-piperidone
P-2-P	1-phenyl-2-propanone
P-2-P ethyl glycidate	ethyl ester of P-2-P methyl glycidic acid
P-2-P methyl glycidate	methyl ester of P-2-P methyl glycidic acid
P-2-P methyl glycidic acid	2-methyl-3-phenyloxirane-2-carboxylic acid
PEN Online system	Pre-Export Notification Online system
PEN Online Light system	Pre-Export Notification Online Light system
PICS	Precursors Incident Communication System
UNODC	United Nations Office on Drugs and Crime
WCO	World Customs Organization

Summary

The use of non-scheduled chemicals, including designer precursors, as alternatives to controlled precursors in illicit drug manufacture, a practice that has been identified by the Board for several years, continued to be one of the key challenges in international precursor control. In June 2023, the Board took a decisive step towards addressing the issue by notifying the Secretary-General of two groups of closely related substances that in its opinion should be included in the tables of the United Nations Convention against Illicit Trafficking in Narcotic Drugs and Psychotropic Substances of 1988, in line with Commission on Narcotic Drugs resolution 65/3. After concluding the assessment process under article 12, paragraph 4, of the 1988 Convention, the Board recommended P-2-P methyl glycidic acid and eight of its esters, as well as the ethyl ester and six other esters of 3,4-MDP-2-P methyl glycidic acid, for international control. Seizures of the substances, which are precursors of amphetamine-type stimulants, increased sharply from the end of 2022, as evidenced by communications shared through PICS. The ethyl ester of P-2-P methyl glycidic acid, incidents involving which had hitherto not been communicated through PICS, made its appearance in a seizure in August 2023, that is, after the initiation of the scheduling process by the Board. Clearly, the transition of a substance from existing only in theory to existing in reality happens quickly in the dynamic world of illicit drug manufacture today, thereby validating the group approach adopted by the Board. In addition, on the basis of a proposal by the United States of America, the Board also recommended for inclusion in Table I of the 1988 Convention two precursors of fentanyl and fentanyl-related substances, namely, 4-piperidone and 1-boc-4-piperidone. In its assessment, the Board made use of the results of Operation Backup, an international operation targeting these substances that was conducted in October 2023.

The results of a survey conducted by the Board indicate a lack of sufficient controls over domestic manufacture, trade and distribution in a significant number of the countries that responded. The survey also revealed that even though more than three decades have passed since the entry into force of the 1988 Convention, about one quarter of the responding Governments have not yet placed all Table I and Table II substances under national control, pointing to a major regulatory gap.

Nevertheless, during the reporting period, Governments continued to strengthen their legislative provisions related to precursors. In addition to implementing the scheduling decisions of the Commission on Narcotic Drugs, some Governments extended the scope of controls over chemicals not under international control, including off-the-shelf chemicals and groups of closely related chemicals, such as derivatives and sometimes even analogues.

The quality and quantity of reporting by Governments under article 12 remained a cause for concern, with just 60 of the 191 States parties to the 1988 Convention having submitted form D by the deadline of 30 June 2023. The number had risen to 113 States parties by 1 November 2023, the cut-off date for the present report. Since timely reporting is critical for the Board to conduct an informed analysis of the global situation, it is imperative for Governments to fulfil their obligation under the 1988 Convention in this regard.

The Board's PEN Online system continued to provide an effective mechanism for monitoring trade in internationally controlled precursors, with the tool now being used by 169 countries. In addition, use of the analogous PEN Online Light system, another of the Board's initiatives to prevent non-scheduled chemicals from being used for illicit activity, expanded after its launch in October 2022.

With regard to trafficking in substances used in the illicit manufacture of amphetamine-type stimulants, global seizures of ephedrines, which at 6.7 tons were about 10 per cent higher than the seizures reported in 2021, have still exhibited a general decline over a 10-year period. Seizures of preparations of pseudoephedrine, which had increased continuously since 2018, declined slightly in 2021, but more countries than before reported such seizures. The year 2022 also saw a significant seizure of preparations containing pseudoephedrine in an FTZ, reflecting vulnerabilities that were also identified during

Operation Insight, conducted jointly by the Board, WCO and the UNODC-WCO Container Control Programme in 2023. The upward trend in seizures of preparations of pseudoephedrine reflects traffickers' attempts to exploit possible regulatory gaps related to such preparations and underscores the need for Governments to control the preparations in the same way as they control the substances they contain.

With respect to potassium permanganate, the key cocaine precursor, the amounts seized were lower than in 2021 but remained relatively high, at 122 tons. Compared with the amounts of potassium permanganate seized, seizures of its precursors remained low, and potassium permanganate typically continues to be diverted more than it is illicitly manufactured. The use of non-scheduled chemicals that improve the efficiency of cocaine manufacture, such as sodium metabisulfite and calcium chloride, continued to be noted. The Kingdom of the Netherlands was the only country outside South America to report notable seizures of sodium metabisulfite and calcium chloride, reflecting the existence of secondary extraction laboratories in Europe.

Seizures of the main heroin precursor, acetic anhydride, declined further to about 25,600 litres in 2022, the smallest quantity reported since 2005. The reasons for that significant decline in global seizures of acetic anhydride are not fully explained by the absence of seizure information from Afghanistan or by significantly smaller amounts being seized in neighbouring and other countries along the trafficking routes. Nor are they explained by the seizures of acetyl chloride, a possible substitute chemical. It therefore continues to be challenging to assess the magnitude of trafficking in acetic anhydride and demand for the substance for use in the illicit manufacture of heroin in Afghanistan.

Seizures of fentanyl precursors totalled some 680 kg (and an unknown quantity in solution) in 2022, an increase of at least 10 per cent compared with 2021. ANPP accounted for the bulk of such seizures, with the United States and Mexico being the predominant reporting countries. In contrast, seizures of 4-piperidone, which is not yet internationally controlled (but that has been recommended by the Board for international control), were predominantly made in Canada. In 2023, North America saw a surge in seizures of fentanyl precursors not under international control communicated through PICS. Precursors of other synthetic drugs, such as GHB, ketamine and new psychoactive substances, also continued to be seized. The available information suggests limited illicit manufacture of cathinones in parts of Europe.

The use of the Internet (the surface web) to facilitate trafficking in precursors continued to be noted in 2023. In response, the Board took steps to support Governments in this area by providing a training workshop on the investigation of suspicious postings on the Internet regarding precursors.

The present report also provides an account of the implications of conflict and unresolved territorial disputes for precursor control.

I. Introduction

1. The present report has been prepared by INCB pursuant to article 23 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. It provides an overview of action taken by Governments and by INCB since the publication of the Board's report on precursors for 2022[1] to prevent the diversion of chemicals and to implement the provisions of the 1988 Convention.

2. As in reports for previous years, substantive reporting begins in chapter II, which provides statistics and information on action taken by Governments and the Board in accordance with the provisions of article 12 of the 1988 Convention. This includes information on the utilization of the PEN Online and PEN Online Light systems. The latter has, since October 2022, enabled the sending of pre-export notifications for non-scheduled chemicals on a voluntary basis. The chapter also contains an overview of the operational activities carried out under Project Cohesion and Project Prism and of other initiatives related to precursor control.

3. Chapter III provides an overview of the licit trade in precursors and the latest major trends and developments in their trafficking and illicit use. The chapter also highlights the most relevant cases of suspicious and stopped shipments, diversion and attempted diversion, and seizures, as well as activities associated with illicit drug manufacture.

4. Chapter IV provides an account of the implications of conflict and unresolved territorial disputes for precursor control. The chapter forms part of the series of thematic chapters, introduced in 2011, that have addressed a particular precursor-related theme in greater depth in each report.

5. Chapter V summarizes key conclusions of the present report and provides recommendations to Governments on the way forward for effective international and domestic precursor control. Specific recommendations and conclusions are highlighted throughout the report as a basis for Governments to take the necessary action to prevent the diversion of and trafficking in precursor chemicals and their use in illicit manufacture.[2]

6. Annexes I to XI contain updated statistics and practical information intended to assist competent national authorities in carrying out their functions. The annexes are not included in the printed copies of the present report but are included in the digital version of the report, available on the INCB website.

II. Action taken by Governments and the International Narcotics Control Board

A. Scope of control

7. In June 2023, the Board notified the Secretary-General of its proposal to add two series of closely related precursors of amphetamine and methamphetamine and of "ecstasy"-type substances to the tables of the 1988 Convention. The proposal was made in response to a significant increase in seizures (see paras. 110–111 and paras. 127–128 below) of P-2-P methyl glycidic acid and its methyl ester ("BMK glycidate"), and of the ethyl ester of 3,4-MDP-2-P methyl glycidic acid ("PMK ethyl glycidate"), which are alternative precursors to P-2-P and 3,4-MDP-2-P, two precursors already under international control. The proposal to include a total of 16 substances in the notification was made in line with Commission on Narcotic Drugs resolution 65/3 of March 2022, in which the Commission recommended consideration be given during the scheduling process to derivatives and related chemicals which may readily be converted to or used in place of the substance being considered in illicit manufacture.

[1] *Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances: Report of the International Narcotics Control Board for 2022 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988* (E/INCB/2022/4).

[2] A compilation of the recommendations relating to international precursor control made by INCB in previous years is available on the Board's website (www.incb.org).

8. Furthermore, in July 2023, the Government of the United States of America proposed that two precursors of fentanyl and fentanyl-related substances, namely, 4-piperidone and 1-boc-4-piperidone, also be included in the tables of the 1988 Convention.

9. Pursuant to the procedure set out in article 12, paragraph 3, of the Convention, Governments were invited to submit their comments and supplementary information for each of the chemicals listed in the proposals to assist the Board in establishing assessments and making scheduling recommendations to the Commission on Narcotic Drugs at its sixty-seventh session. In November 2023, following analysis of the information received from Member States, INCB recommended the scheduling of all 18 substances in Table I of the 1988 Convention. The Commission on Narcotic Drugs is to vote on the proposals in March 2024.

B. Adherence to the 1988 Convention

10. After South Sudan deposited its instrument of accession on 20 October 2023,[3] as at 1 November 2023, the 1988 Convention had been ratified, acceded to or approved by 191 States and formally confirmed by the European Union (extent of competence: art. 12). Details on the status of accession are provided in annex I. To reduce the vulnerability of the States that have yet to become parties to the Convention to trafficking in precursors, **INCB urges the remaining States in Africa (Equatorial Guinea and Somalia) and Oceania (Kiribati, Papua New Guinea, Solomon Islands and Tuvalu) that have yet to become parties to the 1988 Convention to implement the provisions of article 12 and to become parties without further delay**.

C. Reporting to the Board pursuant to article 12 of the 1988 Convention

11. Under article 12, paragraph 12, of the 1988 Convention, Governments are required to submit annually to INCB information on substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances. The information is provided on a form, known as form D,[4] which is made available by INCB on its website. The information to be submitted includes: *(a)* the amounts seized of substances included in Tables I and II of the 1988 Convention and, when known, their origin; *(b)* any substance not included in Table I or Table II that is identified as having been used in the illicit manufacture of narcotic drugs or psychotropic substances; and *(c)* methods of diversion and illicit manufacture. That information is critical as it allows INCB to identify and analyse emerging trends in trafficking in precursors and the illicit manufacture of drugs (see chap. III). The deadline for submission of the data for 2022 was 30 June 2023.

12. By the deadline of 30 June 2023, only 60 States parties had submitted form D for 2022. The number had increased to 113 States parties by the cut-off date of 1 November 2023. The Federated States of Micronesia also submitted form D for 2021. Several States parties failed to submit data for 2022 altogether. Of those, 12 have not done so for the past five years, and 26 have not done so for the past 10 years (see table 1). Comprehensive information about the status of the submission of form D by individual Governments is included in annex II.

Table 1. States parties failing to report as required under article 12, paragraph 12, of the 1988 Convention, 2022

Africa		
Algeria	Eritrea[b]	Mauritania
Angola	Eswatini[b]	Namibia
Benin	Ethiopia[a]	Niger
Burkina Faso[b]	Gambia[a]	Sao Tome and Principe[b]
Burundi	Guinea[b]	Senegal
Cabo Verde	Guinea-Bissau[b]	Seychelles[a]
Cameroon	Kenya	Sudan
Central African Republic[b]	Lesotho[b]	Togo
Chad	Liberia[b]	Tunisia
Comoros[b]	Libya[b]	Uganda
Congo[b]	Madagascar	Zambia[a]
Côte d'Ivoire[a]	Malawi[b]	Zimbabwe
Djibouti[b]	Mali[a]	
Americas		
Antigua and Barbuda[b]	Cuba[b]	Peru
Bahamas[b]	Dominica	Saint Kitts and Nevis[b]
Barbados[a]	Grenada[b]	Saint Vincent and the Grenadines
Belize[a]	Guyana	Suriname
Brazil	Paraguay	

[3] In accordance with its article 29, paragraph 2, the Convention will enter into force for South Sudan on 18 January 2024.

[4] The latest version of form D is available on the INCB website in the six official languages of the United Nations. In an effort to streamline and expedite the reporting process and to minimize the potential for data entry errors, INCB requests the utilization of a spreadsheet form. Fifty-two States have used the spreadsheet version of form D for 2022.

Asia		
Afghanistan	Kazakhstan	Sri Lanka
Bangladesh[a]	Mongolia	Timor-Leste
Brunei Darussalam	Nepal	Turkmenistan
Cambodia[a]	Oman[a]	Yemen
Iran (Islamic Republic of)		
Europe		
Denmark	Greece	
Oceania		
Cook Islands[b]	Nauru[b]	Samoa[b]
Fiji[a]	Niue[b]	Tonga[b]
Marshall Islands[b]	Palau	Vanuatu[b]

Note: See also annex II.

[a] Government that failed to submit form D for any year during the past five years (2018–2022).

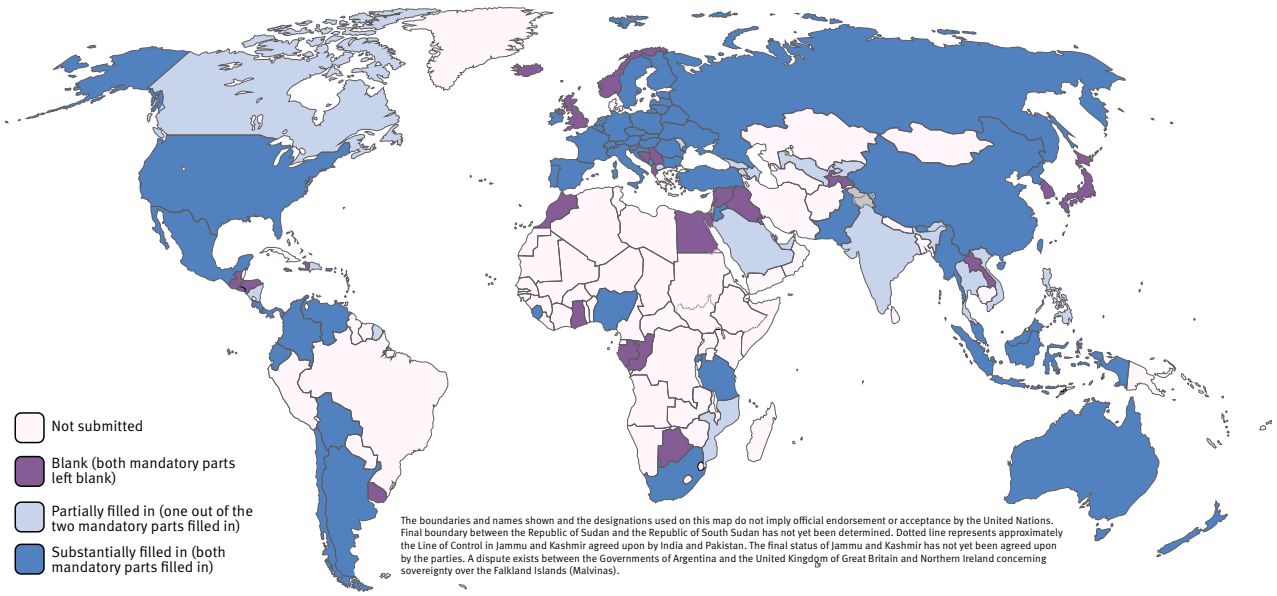
[b] Government that failed to submit form D for any year during the past 10 years (2013–2022).

13. As at 1 November 2023, 70 Governments had reported seizures of substances listed in Table I or Table II of the 1988 Convention on form D for 2022. Fifty-seven Governments had reported seizures of substances not included in Table I or Table II, and only 35 had supplied information concerning methods of diversion and illicit manufacture. Several Governments had submitted incomplete forms lacking details necessary for the Board to identify and analyse weaknesses in precursor control mechanisms, as well as emerging trends in trafficking in precursors and the illicit manufacture of drugs (see map 1). **The Board therefore urges Governments to make every effort to collect, consolidate and report complete information to the Board on time, as mandated in article 12, paragraph 12, of the 1988 Convention**.

D. Legislation and control measures

14. Establishing and strengthening appropriate national control measures constitutes the basis for effective monitoring of the movement of precursors both in international trade and domestic distribution. In accordance with Economic and Social Council resolution 1992/29, INCB collects information on the specific controls applied to the substances in Tables I and II of the 1988 Convention and maintains a directory of those requirements to assist Governments in monitoring trade in controlled chemicals. The Board also maintains a list of chemicals under national control in different countries. Both resources are available as part of the Board's information package on the control of precursors and can be accessed by competent national authorities on the Board's secure website. To ensure that the information is up to date at all times, **INCB encourages all Governments to inform it regularly of relevant changes to their national precursor legislation and requirements related to the legitimate trade in these substances.**

Map 1. Status of submissions by Governments of form D for 2022 containing information concerning seizures of substances listed in Table I or Table II of the 1988 Convention and seizures of substances not listed in Table I or Table II, as at 1 November 2023



15. The following changes in control measures have been brought to the attention of INCB since the publication of its report on precursors for 2022.

16. In Argentina, the Argentine Observatory on Chemical Precursors was created as an advisory body to the enforcement authority of the National Registry of Chemical Precursors through resolution No. 760/2022 of 8 November 2022 of the Ministry of Security. The Observatory is intended to strengthen the capacity of the Government of Argentina in the prevention and investigation of precursor trafficking, by consolidating and enhancing inter-agency coordination and through cooperation with relevant private sector entities.

17. In Viet Nam, Decree No. 57/2022/ND-CP, effective as of 25 August 2022, established a regulatory framework for the control of narcotic substances and their precursors. The new legislation contains the lists of narcotic substances and precursors subject to control, including those used as raw materials for the manufacture of veterinary drugs.

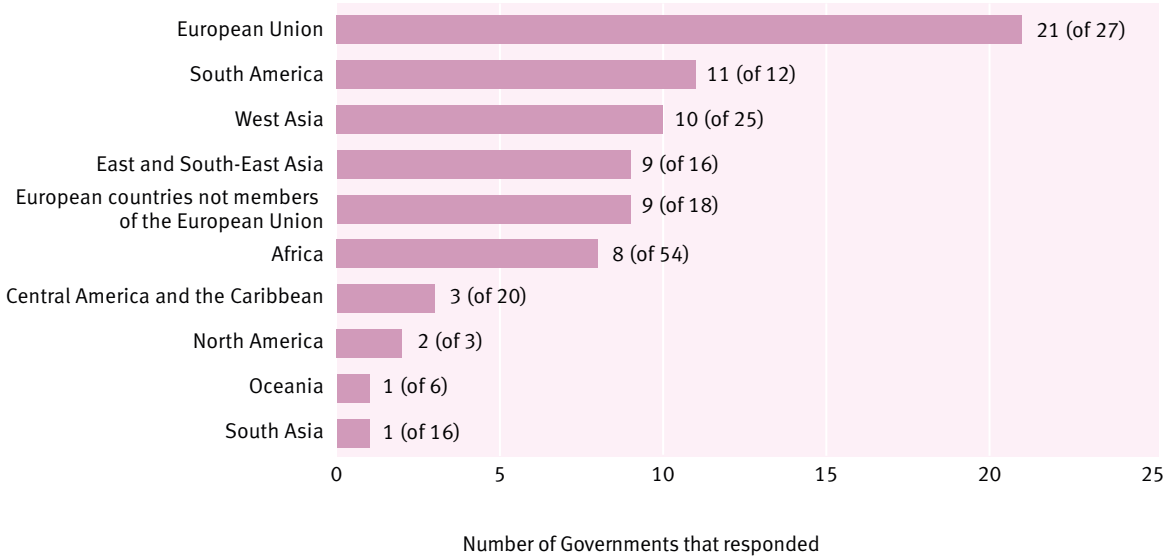
18. In India, the Narcotic Drugs and Psychotropic Substances (Regulation of Controlled Substances) Amendment Order, 2022, effective as of 26 October 2022, placed three precursors of fentanyl (4-AP, 1-boc-4-AP and norfentanyl), as well as APAAN, under national control. With this amendment, the export and import of the substances are now regulated; however no controls are yet in place in relation to their domestic manufacture and trade. In addition, the Central Bureau of Narcotics of India launched its unified portal on 11 April 2023. The portal will facilitate and simplify the processes for applicants (in industry) to obtain various licences, including import certificates, export authorizations, no objection certificates for narcotic drugs, psychotropic substances and precursors, manufacturing licences and narcotic drug quota allocations.

19. In New Zealand, the Misuse of Drugs (Classification and Presumption of Supply) Order 2022 came into force on 15 December 2022. Through the Order, seven fentanyl and five methamphetamine precursors were added to Schedule 4 of the Misuse of Drugs Act 1975. These chemicals included internationally controlled fentanyl precursors, as well as three fentanyl precursors that have not yet been placed under international control. They also included five chemicals used in the illicit manufacture of methamphetamine by the Nagai method (see para. 115 below).

20. Pursuant to European Commission Delegated Regulation (EU) 2023/196, the scheduling decisions of the Commission on Narcotic Drugs of March 2022 related to three fentanyl precursors (4-AP, 1-boc-4-AP and norfentanyl) were implemented at the level of the European Union on 20 February 2023. In addition, DEPAPD (a precursor of amphetamine and methamphetamine) and 3,4-MDP-2-P ethyl glycidate (a precursor of MDMA and related substances) were added as category 1 substances to the annexes of Regulation (EC) No 273/2004 of the European Parliament and of the Council and Council Regulation (EC) No 111/2005. Substances included in category 1 are subject to the strictest controls under the European Union precursor legislation.

21. In the Kingdom of the Netherlands, State Court Regulation No. 9472 on the designation of chemicals that can be used to manufacture controlled drugs and that have no known legitimate uses entered into force on 1 April 2023. Under article 4a, paragraph 1, of the Misuse of Chemicals Prevention Act, it is prohibited to import, export, transport

Figure 1. Governments that responded to the survey on national drug precursor legislation and domestic controls, by region



or possess the chemicals designated in that Regulation. The list of designated chemicals was compiled in coordination with the Netherlands Drug Precursors Expert Group formally established under Decision No. 9473. The initial list includes more than 100 substances that are precursors of various amphetamine-type stimulants and their traditional precursors, including P-2-P, 3,4-MDP-2-P, amphetamine, methamphetamine, MDMA and mephedrone. The entry into force of this decision and the establishment of the list of designated chemicals is a practical example of how to address the proliferation of designer precursors without creating an administrative burden for competent authorities and commercial operators.

22. The Egyptian Drug Authority amended the procedures for exporting precursor chemicals on 1 April 2023. If the authority of the importing country does not explicitly authorize a proposed shipment through the PEN Online system, the shipment is suspended.

23. The Government of Brazil placed three fentanyl precursors (4-AP, 1-boc-4-AP, and norfentanyl) under national control on 6 April 2023. All three substances have been under international control since November 2022.

24. Mexico amended its federal law on the control of chemical precursors, essential chemicals and machines for making capsules and tablets. The amendment came into force on 4 May 2023 and, among other things, established prison sentences of 10 to 15 years for the diversion or use of precursors in illicit drug manufacture, with additional charges if the person is a public servant. A central part of the reform is the creation of the Integrated System of Chemical Substances (SISUS), which is aimed at simplifying administrative procedures for operators to record any regulated transaction involving precursor chemicals within 24 hours following the transaction. The amendment also establishes a number of additional agencies that have a role in precursor and equipment control and diversion prevention.

25. The Government of the United States included 4-piperidone, a fentanyl pre-precursor, as a list I regulated chemical under the Controlled Substances Act on 12 May 2023. In line with Commission on Narcotic Drugs resolution 65/3, the scope of control extends to closely related derivatives, namely, acetals, amides and carbamates, as well as their salts, and any combination thereof, whenever their existence is possible. All transactions, regardless of size, involving 4-piperidone and its designated derivatives are regulated and are subject to control under the Act. The same provisions also apply to chemical mixtures containing any quantity of 4-piperidone or its designated derivatives. In addition, the halides of 4-AP, a fentanyl precursor that has been controlled in the United States since May 2020 and internationally since November 2022, were included as list I chemicals under the Controlled Substances Act effective 30 November 2023. The addition of halides to the prior listing of 4-AP subjects these analogues to the same regulatory provisions as the parent substance. Lastly, on 24 October 2023, the United States updated its Special Surveillance List of Chemicals, Products, Materials and Equipment Used in the Manufacture of Controlled Substances and Listed Chemicals.

26. In Canada, the Order Amending Schedule V to the Controlled Drugs and Substances Act and Regulations Amending the Precursor Control Regulations (Novel Fentanyl Precursors), by which analogues and derivatives of 4-AP were added to that Schedule, became permanent on 31 August 2023. The order had already been in place temporarily for the one-year period prior.

Survey on domestic controls and extent of utilization of the provisions of article 12, paragraph 8, of the 1988 Convention

27. With regard to international precursor control, it has been seen over many years that as a result of more effective control and monitoring, the diversion of precursors for illicit activities has evolved from being carried out through international trade to being essentially domestic in nature.

28. In order to assess the development of national normative and regulatory precursor control frameworks and voluntary controls on substances not scheduled internationally, the Board sent a comprehensive questionnaire to all Governments in June 2021. In March 2023, the Board sent a reminder soliciting responses from Member States. As at 1 November 2023, a total of 78 Governments[5] and the European Commission[6] had responded to the survey (see figure 1).

[5] Albania, Algeria, Andorra, Argentina, Austria, Azerbaijan, Belgium, Bolivia (Plurinational State of), Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Canada, Chile, China, Croatia, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Georgia, Germany, Ghana, Guatemala, Hungary, India, Iraq, Ireland, Italy, Japan, Kyrgyzstan, Latvia, Lebanon, Lithuania, Madagascar, Malaysia, Malta, Mexico, Moldova, Morocco, Myanmar, Netherlands (Kingdom of the), New Zealand, Nicaragua, Niger, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Thailand, Tunisia, Türkiye, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, Uruguay, Uzbekistan and Venezuela (Bolivarian Republic of).

[6] In view of the fact that in the European Union, the legislation and measures decided by the European Commission are directly applicable in the 27 European Union member States through European Union regulations (on, for example, monitoring, scheduling and "catch-all" clauses), the response by the European Commission reflects, to a large extent, the situation in the 27 European Union member States, even though only 21 of them responded directly.

29. An analysis of the replies received shows that more than half of the respondents reported not having controls over the domestic manufacture of one or more of the substances listed in Table I or Table II of the 1988 Convention. About one quarter of the respondents reported not having controls over the domestic trade in and distribution of one or more of the substances included in Table I. Very few respondents reported not having controls over the domestic trade in and distribution of any of the 33 substances currently listed in Table I and Table II.

30. The survey also enquired about the existence of controls over end use. In this respect, about one fifth of the respondents reported that they had no controls over the end use of one or more of the substances listed in Table I of the 1988 Convention. Governments were also asked to report on the existence in their regulations of specific measures such as the registration of trading companies and end users, the reporting of domestic trade, the submission of end-use declarations and the reporting of suspicious orders. The majority of the replies received indicated that while some measures had been established in national legislation, others were voluntary in nature.

31. In view of the fact that many Governments have national controls in place over several internationally non-scheduled chemicals, the survey extended the same questions about domestic controls to other chemicals found to have been used in the illicit manufacture of drugs. More than three quarters of the responding Governments reported that they had placed internationally non-scheduled chemicals under national control. Those controls covered a broad range of substances, from one up to more than 70 chemicals listed in their individual national legislation. The Board is also aware that some countries generically extend the definitions of chemicals under control, for example, by including derivatives of listed chemicals and other substances closely related to them in the definitions.

32. Valuable responses were also received with regard to details of the control systems applied to the import and export of substances listed in the tables of the 1988 Convention, the status of the monitoring of international trade in chemicals that are not included in those tables but that are under national control in different countries, and the sanctions for non-compliance with national control measures. The use of both administrative and criminal sanctions were reported in that regard. Administrative sanctions ranged from simple notification to administrative pecuniary penalties and the revocation or permanent cancellation of the licence of the offending operator. Criminal sanctions ranged from confiscation, fines of up to several times the value of the seized consignment and terms of imprisonment of a few months up to several years. The punishment itself typically depended on the manner of commission and intent.

33. Respondents also elaborated on and provided practical examples of the specific information and level of detail that they would require to allow them to act on information, intelligence or evidence from counterparts or to launch investigations, especially with regard to chemicals not under control in their country.

34. Analysis of the replies received since 2021 has substantiated the Board's earlier assessment that there is a need to further enhance domestic controls over chemicals listed in Table I and Table II of the 1988 Convention. While controls over manufacture are applied by more than half of the responding Governments and domestic trade and distribution are reportedly controlled by about three quarters of all responding Governments, end use is more often not controlled. Domestic controls appear to be implemented more consistently for chemicals that are under national control but that are not listed in the tables of the 1988 Convention. The results of the survey have also revealed that the normative frameworks of about one quarter of the responding Governments do not yet provide for control at the national level of all of the substances in Table I and Table II of the 1988 Convention.

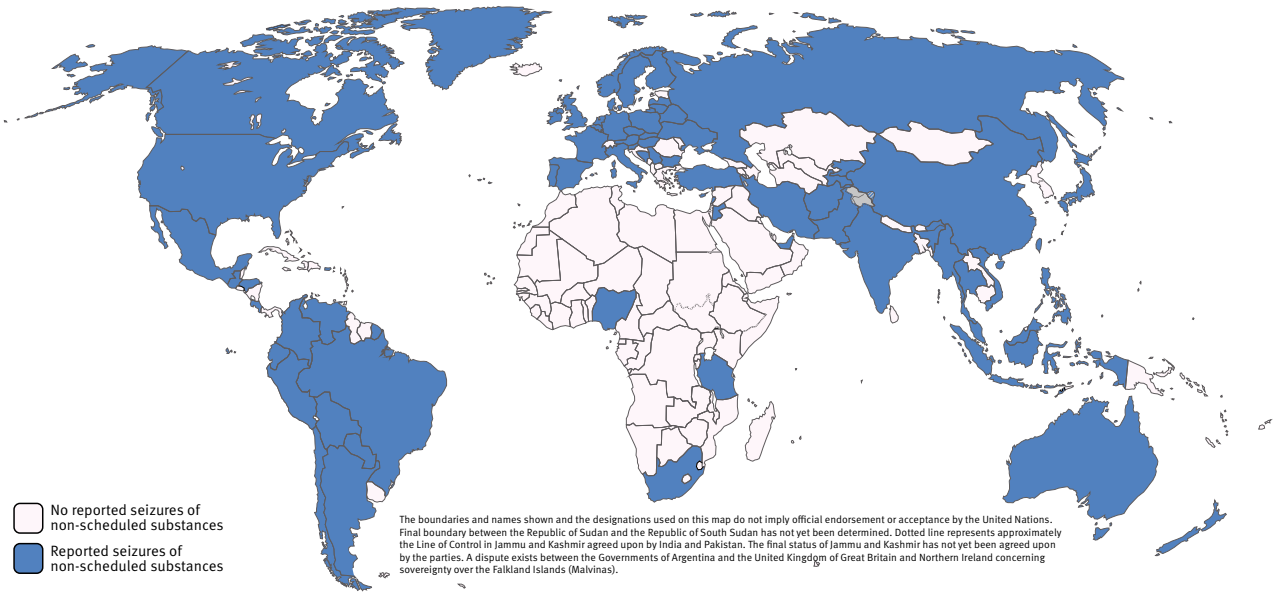
35. The information provided through the survey is crucial for the Board in updating its information package on the control of precursors, enhancing its dialogue with individual Governments and contributing to policy discussions on the international precursor control framework. **INCB commends all Governments that have provided these valuable insights into the scope and extent of their national legislation, including domestic controls over substances in both Table I and Table II of the 1988 Convention, as well as additional chemicals that are not included in Table I or Table II but that are under national control.**

Measures to address the proliferation of non-scheduled chemicals, including designer precursors

36. Incidents involving chemicals not listed in Table I or Table II of the 1988 Convention that can be used to illicitly manufacture, or substitute for, controlled precursors, continue to account for a large proportion of precursor seizures worldwide. A total of 70 Governments have now reported seizures of such substances (see map 2).

37. Following the adoption in March 2022 of Commission on Narcotic Drugs resolution 65/3, entitled "Intensifying

Map 2. Governments reporting seizures of substances not listed in Table I or Table II of the 1988 Convention on form D and through PICS, 2019–2023



efforts to address the diversion of non-scheduled chemicals frequently used in the illicit manufacture of drugs and the proliferation of designer precursors", more focus has been placed on groups of substances that are chemically related to controlled precursors and that may readily be converted to or substituted for those precursors. To support Governments in this regard, in 2022 INCB conducted a survey among Governments on the scope of national controls over chemically related precursors.

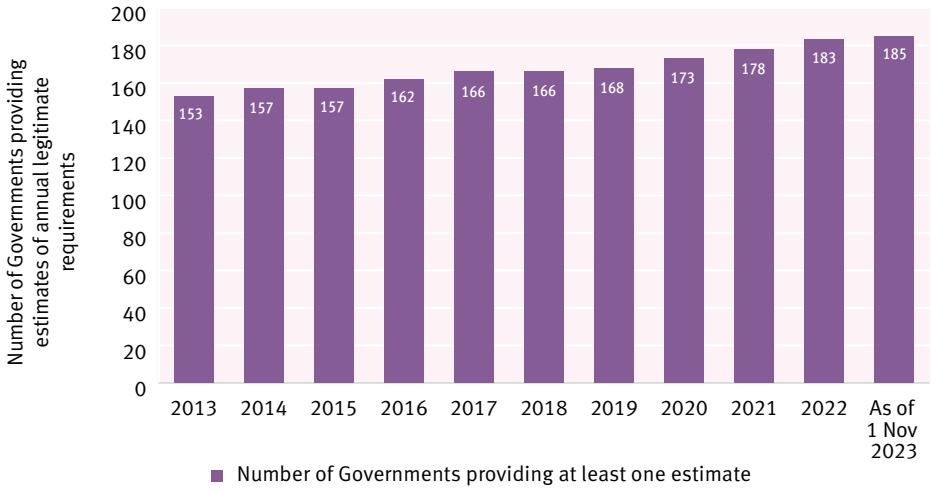
38. Survey results indicate that a number of countries already have precursor legislation that extends controls to certain derivatives, and sometimes analogues, of controlled precursors in a generic manner. For example, Argentina, Belarus, Canada, Egypt, Honduras, Liechtenstein, Malaysia, Mexico, Switzerland and the United States follow this approach in one way or another. Information available to INCB is included in the list of chemicals under national control in different countries, which is made available to Governments on the INCB secure website as part of the information package on the control of precursors. **The Board welcomes the application of the concept of group scheduling to precursors, that is, the scheduling of chemicals that are closely related to controlled precursors and that may readily be converted to or substituted for those precursors, pursuant to Commission on Narcotic Drugs resolution 65/3. Alternatively, or in addition, the Board encourages Governments to consider taking specific measures with regard to chemicals that do not currently have any recognized legitimate uses.**

39. The concept of derivatives of and other substances closely related to controlled precursors has been an integral part of the Board's limited international special surveillance list of non-scheduled substances since 2013, those derivatives and substances being included under the title "extended definitions". The list contains the different types of derivatives that can be converted into a controlled precursor by readily applicable means. INCB is now in the process of compiling the specific derivatives and chemical relatives of the substances in the tables of the 1988 Convention and the limited international special surveillance list for dissemination to all Governments in order to provide them with practical guidance in this regard.

40. The use of derivatives of controlled precursors as substitutes in illicit drug manufacture and the increase in seizures of some of them (see paras. 110–114 and 127 and 128 below) have also guided the Board's proposal for the international scheduling of a total of 16 precursors of amphetamine-type stimulants, namely, a series of esters of P-2-P methyl glycidic acid and of 3,4-MDP-2-P methyl glycidic acid (see para. 7 above).

41. Given the continued global use of non-scheduled chemicals, the Board remains convinced of the need to further promote and advance measures to address the proliferation of chemicals not included in Table I or Table II of the 1988 Convention, and to facilitate global cooperation on this matter. To that end, **INCB invites Governments to make extensive use of the INCB tools and resources on**

Figure 2. Number of Governments providing estimates of annual legitimate requirements, 2013–2023



non-scheduled chemicals and designer precursors, such as PEN Online Light, the limited international special surveillance list, and the part of the information package on the control of precursors that compiles the import and export authorization systems applied to chemicals under national but not international control. All tools and resources are presented in an interactive compendium available on the INCB website.

E. Submission of data on licit trade in, uses of and requirements for precursors

42. In accordance with Economic and Social Council resolution 1995/20, Governments provide data on their licit trade in, uses of and requirements for substances listed in Tables I and II of the 1988 Convention. Those data are provided on a voluntary and confidential basis and allow INCB to help Governments prevent diversion by cross-checking data from trading partners.

43. Although those data are provided on a voluntary basis, they were submitted by more Governments than the number that provided the mandatory data on seizures of precursors (see para. 13 above) and, in some cases, were more comprehensive. As at 1 November 2023, 105 Governments had submitted data on licit trade in substances in Table I or Table II of the 1988 Convention, and 91 Governments had furnished data on the licit uses of and/or requirements for one or more of those substances (see annex IV). **INCB commends those Governments that have provided comprehensive data on licit trade in substances in Table I and Table II of the 1988 Convention. The data are important to understand patterns of regular trade with a view to facilitating the identification of suspicious activity and preventing the diversion of those substances.**

F. Annual legitimate requirements for imports of precursors of amphetamine-type stimulants

44. With a view to providing exporting countries with an additional tool to monitor the amounts of selected amphetamine-type stimulant precursors involved in proposed shipments to importing countries, the Commission on Narcotic Drugs, in its resolution 49/3, requested Member States to provide to INCB estimates of their annual legitimate requirements for 3,4-MDP-2-P, pseudoephedrine, ephedrine and P-2-P and, to the extent possible, estimated requirements for preparations containing those substances that could be easily used or recovered by readily applicable means. Annual legitimate requirements for imports of precursors of amphetamine-type stimulants as reported by Governments are presented in annex V to the present report and are updated regularly on a dedicated page of the INCB website.[7]

45. Governments have continued to report their annual legitimate requirements for imports of precursors of amphetamine-type stimulants and their preparations to INCB, mostly on form D and, to a lesser extent, by means

[7] www.incb.org/incb/en/precursors/alrs.html.

of individual communications. As at 1 November 2023, 185 Governments had provided at least one estimate (see figure 2). The figure includes Governments of a number of territories and States that are not yet parties to the 1988 Convention. At the same time, a total of 16 States parties to the 1988 Convention had not yet provided any estimates to the Board; the majority of those are in Africa and Oceania.

46. The main objective of estimating such requirements is to provide the competent authorities of exporting countries with an indication of the amounts legitimately required by importing countries. The provision of annual legitimate requirements also facilitates the monitoring of individual shipments by drawing on and analysing established trade patterns. Since the publication of the Board's report on precursors for 2022, 105 countries and territories have reconfirmed or updated their estimates for at least one of the substances. However, some estimates provided to INCB date back several years and have not been updated. More than 48 Governments are in this category, some having missed the opportunity to update their submission for one year and others for several years.

47. In several countries, planned shipments of precursors of amphetamine-type stimulants pre-notified through the PEN Online system exceeded or were close to reaching the estimated annual requirements for the period concerned at the time of the pre-notification, prompting requests from INCB for clarification by the respective competent authorities. In contrast, several countries had indicated annual legitimate requirements that by far exceeded the amounts imported or pre-notified to them for import, suggesting unrealistically high estimated requirements. In some other cases, Governments indicated on form D the use of a substance or a number of substances for specific purposes; however, they did not provide any indication regarding the estimated amounts required. **INCB once again invites Governments to review the methodology used to estimate their annual legitimate requirements for individual precursors of amphetamine-type stimulants to reflect changing market conditions, and to provide updates to the Board, at any time throughout the year, on any necessary changes**.

48. In order to establish their estimates more accurately, Governments may refer to the *Guide on Estimating Requirements for Substances under International Control*, developed by INCB and the World Health Organization, as well as the recently updated document entitled "Issues that Governments may consider when determining annual legitimate requirements for ephedrine and pseudoephedrine". Both documents are available on the Board's website.

G. Pre-export notifications and utilization of the Pre-Export Notification Online and Pre-Export Notification Online Light systems

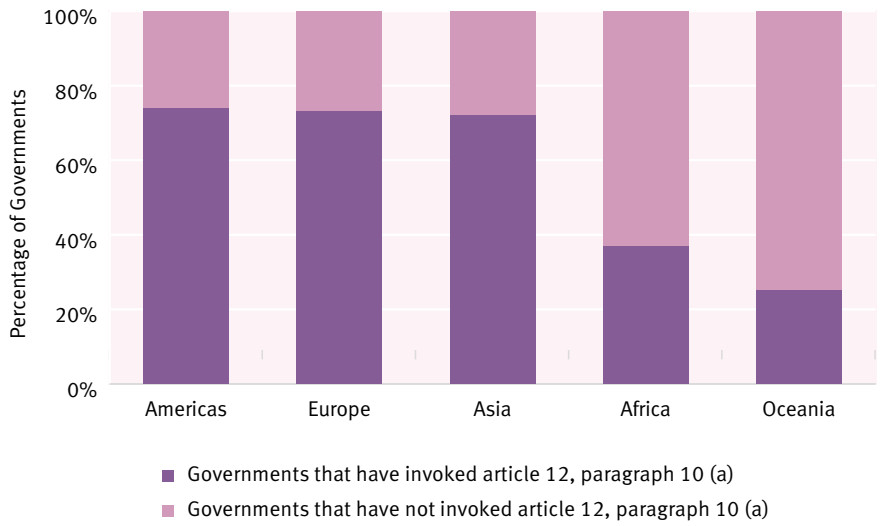
49. One of the most effective means of verifying the legitimacy of transactions and of detecting and preventing the diversion of precursors from international trade continues to be the exchange of information, through pre-export notifications, between Governments of exporting and importing countries and territories. A pre-export notification makes the competent authorities of an importing country aware of a planned shipment of precursors destined for their territory before the shipment leaves the exporting country, thus enabling them to provide feedback on the validity of a transaction and suspend or stop it in a timely manner, where necessary. Pursuant to article 12, paragraph 10 (a), of the 1988 Convention, Governments of importing countries can make it mandatory for exporting countries to inform them of planned exports of precursors prior to shipping. Although it is not a treaty-mandated requirement, Governments should also register with the Board's automated online system for the exchange of pre-export notifications, PEN Online, as it provides for the secure submission of such notifications in real time.

1. Pre-export notifications

50. As at 1 November 2023, 118 States and territories had formally requested to receive pre-export notifications (see annex VI). This figure includes the latest addition, the Government of Burkina Faso, which invoked article 12, paragraph 10 (a), for all substances in Tables I and II of the 1988 Convention. The Governments of Belarus and the United States amended their initial requests to now include all substances in Table I and all substances in Tables I and II, respectively. The Board welcomes adjustments by Governments to requests for pre-export notifications to reflect changes in national controls and **emphasizes the need for Governments to regularly review their import and export systems applicable to substances controlled under the 1988 Convention and to communicate any updates to INCB.**

51. Not all Governments make use of their right to be pre-notified of shipments of internationally controlled precursors destined for their territory. By region, the percentage of countries that have invoked article 12, paragraph 10 (a), are as follows: the Americas, 74 per cent; Europe, 73 per cent; Asia, 72 per cent; Africa, 37 per cent; and Oceania, 25 per cent (see figure 3). As illicit drug manufacture knows no borders, the Board remains concerned about some countries, in particular

Figure 3. Governments that have invoked article 12, paragraph 10 (a), of the 1988 Convention, by region, in descending order (as at 1 November 2023)



in Africa and Oceania, that remain vulnerable to traffickers' diversion attempts. Although the authorities of the majority of exporting countries issue pre-export notifications for all planned shipments of precursor chemicals, regardless of whether or not the importing country has invoked the article, several exporting countries may not issue such notifications, given the absence of a legal requirement to do so.

52. **The Board urges all remaining Governments, in particular those of countries in Africa and Oceania, to take the necessary steps to invoke the provisions of article 12, paragraph 10 (a), without further delay.** The forms to be used for formally requesting to be pre-notified of all shipments of substances included in Tables I and II of the 1988 Convention are available from INCB, including from its secure website.

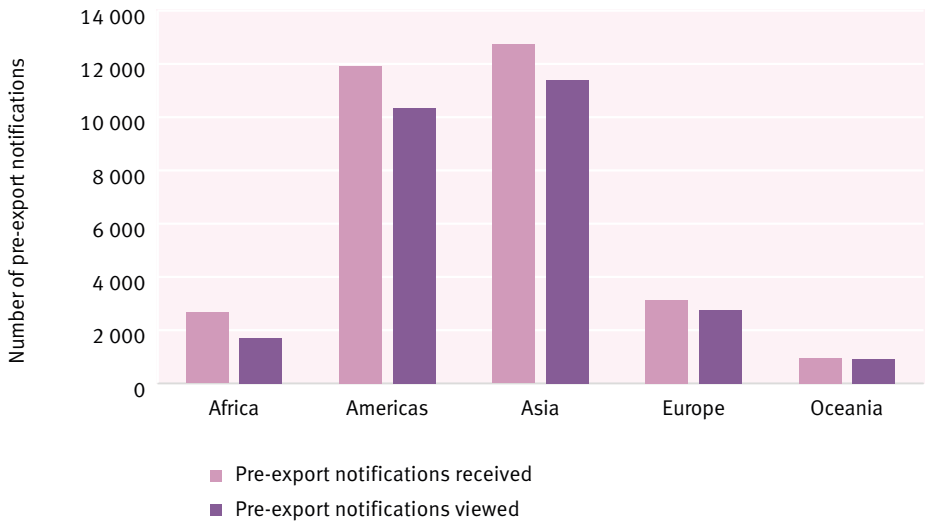
2. Pre-Export Notification Online system

53. Since the Board published its report on precursors for 2022, the Government of Antigua and Barbuda has been registered as a user of the PEN Online system, thus increasing the number of Governments with authorized access to this electronic tool to 169 countries and territories. The number of pre-export notifications communicated through the PEN Online system has slightly decreased compared with the previous reporting period, with an average of 2,700 notifications sent per month during the reporting year. During the reporting period, approximately 32,000 pre-export notifications were submitted by 62 exporting countries and territories through the PEN Online system. While the Board is pleased with the level of active utilization of the system by registered Governments, it is concerned that not all authorities registered with the PEN Online system view or regularly view pre-export notifications sent to them. Improvements in that regard could be made, in particular, by users in countries in Africa, where only about 64 per cent of pre-export notifications received are viewed (see figure 4).

54. Furthermore, registered authorities do not always notify the Board of any changes in their institutional structure and the new contact person or persons responsible for precursor control. This often results in officially requested pre-export notifications not being sent by exporting authorities or incoming notifications not being viewed by importing Governments. **Therefore, INCB strongly encourages Governments to inform the Board of any changes regarding users of the PEN Online system and reiterates its recommendation to Governments to make active use of the system in both sending pre-export notifications, if applicable, and viewing incoming notifications.**

55. Five per cent of pre-export notifications were objected to during the reporting year. Similar to previous years, many of those objections were raised for administrative reasons. Moreover, it has been noted that the "objection" and the "non-objection" functions continue to be used alternatively in the PEN Online system, causing an unnecessary administrative burden and delaying

Figure 4. Number of pre-export notifications received and viewed, by region, 1 November 2022–1 November 2023

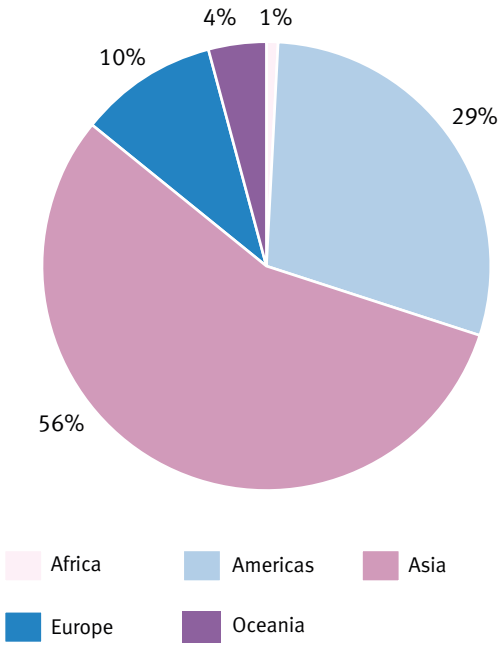


legitimate trade. This was the case for about 10 per cent of all pre-export notifications that were objected to and consequently authorized, or vice versa, by importing Governments during the reporting period. **The Board reiterates its recommendation that the authorities of importing countries use the online conversation tool available in the PEN Online system for the purposes of clarification with the exporting trading partner prior to conveying the importing authority's final decision, by means of the "objection" or "non-objection" function, as to whether a shipment is authorized or not. Detailed information about the individual functions of the PEN Online system can be found in the manual in the system. Exporting authorities are also encouraged to continue to include all relevant details, especially authorization numbers, where available, when submitting a pre-export notification in the PEN Online system.**

3. Pre-Export Notification Online Light system: sending pre-export notifications for non-scheduled chemicals on a voluntary basis

56. Since the launch of the PEN Online Light system in October 2022, 725 pre-export notifications have been submitted by 12 exporting Governments to 50 importing countries and territories. Most of those pre-export notifications have been sent to countries and territories in Asia and the Americas (see figure 5). The non-scheduled substances for which notifications are most frequently sent

Figure 5. Destination of pre-export notifications submitted through the PEN Online Light system, by region, 17 October 2022–1 November 2023



through the PEN Online Light system are GBL and acetic acid (glacial).

57. All users of the PEN Online system automatically have access to the PEN Online Light system. In addition, Governments can appoint authorities or agencies that control substances not listed in Tables I and II of the 1988 Convention as users of the PEN Online Light system exclusively. **The Board commends those Governments that already actively use the PEN Online Light system and encourages the authorities of other exporting countries and territories engaged in trade in internationally non-controlled substances to register for and utilize the system to submit pre-export notifications of planned shipments to importing Governments.**

H. Other activities and achievements in international precursor control

1. Project Prism and Project Cohesion

58. Project Prism and Project Cohesion are two international projects aimed at preventing the diversion of and trafficking in precursors of amphetamine-type stimulants and other synthetic drugs (Project Prism), and precursors of cocaine and heroin (Project Cohesion). The two projects serve as the framework for international cooperation on precursor trafficking and provide platforms for time-bound intelligence-gathering operations with a view to collecting information on potential gaps or weaknesses in international precursor control, new trafficking trends, modi operandi, the actual use of the target chemicals in the illicit manufacture of drugs and the ways in which those chemicals are diverted to clandestine laboratories.

59. The International Criminal Police Organization (INTERPOL), UNODC and WCO, as well as the regional entities the Inter-American Drug Abuse Control Commission of the Organization of American States (CICAD) and the European Commission, are active stakeholders of Project Prism and Project Cohesion and members of the INCB Precursors Task Force. **INCB would like to acknowledge the contributions of all international partners in advancing precursor control efforts worldwide.**

60. During the reporting period, INCB continued to serve as a focal point for the exchange of information on suspicious transactions in legitimate trade, trafficking trends, identified modi operandi and emerging non-scheduled chemicals, including through PICS, the INCB electronic platform dedicated to communicating information regarding precursor-related incidents (see sect. 2 below). During the reporting period, INCB issued three alerts under Project Prism. The first focused on a new method of concealment involving the smuggling of pseudoephedrine in powder form in candles; the second highlighted common characteristics of a series of shipments of methyl glycidic acid derivatives of P-2-P and 3,4-MDP-2-P; and the third related to the identification of a new designer precursor of MDMA and related "ecstasy"-type substances, namely, the sodium salt of IMDPAM. All past alerts are available to registered users of PICS.

Operation Insight

61. Operation Insight was conducted jointly by INCB, WCO and the UNODC-WCO Container Control Programme, and authorities of selected FTZs, under Project Prism in 2022 and 2023. The Operation, which targeted precursors of drugs and explosives, was aimed at raising awareness of the vulnerabilities of FTZs, in particular the opportunity they provided for traffickers to exploit the simplified procedures and regulatory exemptions conferred upon them to commit illicit activities, including those related to the diversion of and trafficking in precursors. Notably, while the 1988 Convention mandates that countries should apply measures to suppress trafficking in narcotic drugs, psychotropic substances and substances in Tables I and II of the Convention in FTZs that are no less stringent than those applied in other parts of their territories, there is often a misconception about the extraterritorial nature of FTZs, leading to reduced oversight by customs authorities of shipments entering and leaving them.

62. The interim results of the Operation confirmed a lack of consistency in the application of the territoriality aspect of FTZs, with half of the participating locations believing that the zones were outside customs territories. Divergent responses were received on the issue of the company approval process and the authorized economic operator concept in FTZs, with, in some cases, no involvement of customs authorities in the process being reported. Certain locations also reported a lack of authority of customs authorities to conduct audits, inspections (examinations) and investigations inside FTZs. While all locations reported access to the declaration of and data on shipments, disparity was noted in the quality of data. Half of the locations reported a lack of cooperation mechanisms with operators and companies in FTZs.

63. Although it was conducted in limited locations, the results of Operation Insight indicate the need for Governments to review the regulations and procedures applicable to FTZs in their territories and ensure that these areas are compliant with the revised Kyoto Convention on the Simplification and Harmonization of Customs

Procedures, as well as the provisions of article 18 of the 1988 Convention. The former gives customs authorities the right to carry out checks at any time on goods stored in an FTZ, and the latter establishes that measures applied in FTZs should not be any less stringent than those applied in other places, in order to suppress trafficking in narcotic drugs, psychotropic substances and substance in Tables I and II. **The Board, accordingly, encourages Governments to raise awareness among customs authorities and other authorities located in FTZs of the applicable measures pursuant to article 18 of the 1988 Convention and relevant provisions of the revised Kyoto Convention, as well as relevant INCB tools and resources on precursor control, with a view to applying measures in such areas that are no less stringent as those applied in other parts of their territories, in order to prevent trafficking in precursor chemicals.**

Operation Backup

64. In October 2023, the global, time-bound intelligence-gathering Operation Backup was conducted under Project Prism and targeted certain internationally non-scheduled precursors of amphetamine-type stimulants and of fentanyl and its analogues. Participants were requested to focus on the identification, interdiction, communication and potential investigation of shipments of target substances being transported using any mode, as well as suspicious postings on the Internet (the surface web) related to the target substances.

65. The amphetamine-type stimulant precursors targeted under the Operation were P-2-P methyl glycidic acid and several of its esters,[8] as well as several esters[9] of 3,4-MDP-2-P methyl glycidic acid. The fentanyl precursors targeted were 4-piperidone and 1-boc-4-piperidone. All the targeted precursors were considered for scheduling under the tables of the 1988 Convention, and the Operation was, accordingly, designed to support information-gathering to assist the Board's reviews of the substances. A total of 39 countries[10] and 3 international organizations[11] participated in the Operation.

As at 1 November 2023, 11 incidents occurring during the pre-operational and operational phases and involving P-2-P methyl glycidic acid and/or its esters, amounting to a total of 4.4 tons, had been communicated as part of the Operation. Notably, in the pre-operational phase, the ethyl ester of P-2-P methyl glycidic acid, incidents involving which had hitherto not been communicated, was reported seized in the Kingdom of the Netherlands (see also para. 131 below). Furthermore, 14 incidents involving targeted esters of 3,4-MDP-2-P methyl glycidic acid, amounting to a total of 8.7 tons, had been communicated in the same period, in addition to 9 incidents involving 1-boc-4-piperidone, amounting to more than 2.4 tons. No incidents involving 4-piperidone were communicated. **The Board thanks all the Governments and international and regional organizations that participated actively in Operation Backup, which provided useful input for the assessment of the scheduling of the three groups of substances in the tables of the 1988 Convention.**

Case meeting on trafficking in pharmaceutical preparations containing pseudoephedrine

66. From 2021 to 2023, the Board noted several seizures of pharmaceutical preparations containing pseudoephedrine originating in Egypt, and an increased number of suspicious orders for such preparations that were placed in Egypt by companies purportedly in Africa and Asia. In view of those developments, INCB organized a closed information-sharing meeting with the countries involved in follow-up investigations into the incidents, namely, Austria, Czechia, Egypt, Georgia, Jordan, Kenya, Libya, Lithuania, North Macedonia, Somalia and the United Arab Emirates. The meeting facilitated the exchange of information regarding the interim outcomes of regulatory and law enforcement investigations, including on modi operandi used by traffickers, and will assist in preventing future illicit activities. In addition, the Egyptian Drug Authority amended the procedures for exporting precursor chemicals in such a way that if the authority of the importing country does not explicitly authorize a proposed shipment through the PEN Online system, the shipment is not allowed to proceed.

2. Precursors Incident Communication System

67. PICS continued to play a decisive role in the global sharing of information on the emergence of new and designer precursors, trafficking trends and modi operandi. The system also continued to provide leads to national authorities to assist them in identifying links between seizures, initiating

[8] The methyl, ethyl, propyl, isopropyl, butyl, isobutyl, *sec*-butyl and *tert*-butyl esters.

[9] The ethyl, propyl, isopropyl, butyl, isobutyl, *sec*-butyl and *tert*-butyl esters.

[10] Australia, Bangladesh, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Chile, China, Costa Rica, Denmark, Ecuador, El Salvador, Gabon, Germany, Ghana, Honduras, Hong Kong, China, Hungary, India, Italy, Kenya, Luxembourg, Malta, Maldives, Mexico, Nigeria, Netherlands (Kingdom of the), Philippines, Portugal, South Africa, Spain, Suriname, Türkiye, United Arab Emirates, United Kingdom, United Republic of Tanzania, United States and Zambia.

[11] European Commission (European Anti-Fraud Office), CICAD and WCO.

backtracking investigations, conducting further seizures and preventing diversion attempts. It also provided useful information about cases of equipment used in illicit drug manufacture and, in one case, identified a common supplier of a misdeclared tablet press seized in a country in Africa and of a designer precursor of methamphetamine, P-2-P methyl glycidic acid, seized in a country in Europe.

68. The information shared through PICS also acts as an effective early warning system, giving users notice of rapid increases in incidents involving designer precursors of amphetamine-type stimulants, including recent cases involving P-2-P methyl glycidic acid and its methyl ester, and of the ethyl ester of 3,4-MDP-2-P methyl glycidic acid. In addition, it provided important supporting evidence for the Board's assessment of these substances for international control (see also para. 7).

69. As at 1 November 2023, PICS had over 600 registered users from 129 countries and territories, representing about 300 agencies in all regions.[12] Between 1 November 2022 and 1 November 2023, nearly 500 new precursor-related incidents were communicated through the system, an increase of about 50 per cent compared with the corresponding period of the previous year, bringing the total number of incidents communicated through PICS since its inception in 2012 to over 4,300. A total of 118 distinct substances were reported in the reporting period, only 19 of which are internationally controlled (13 are listed in Table I and 6 are listed in Table II of the 1988 Convention). The majority of the seizures communicated through PICS involved substances that are not internationally controlled but are included in the INCB limited international special surveillance list 37 substances); 46 are other non-scheduled substances and 16 are cutting agents, adulterants, diluents or excipients. The cases shared through PICS in this period confirm the predominant use of non-scheduled chemicals, some of which are designer precursors, in illicit drug manufacture (see also paras. 110 and 120).

70. During the reporting period, there were also 14 incidents involving different types of laboratory equipment. Information on seized laboratories and equipment can often provide fundamental insights and opportunities for deeper investigation and prosecution, both at the national and international levels. Unfortunately, operations all too often end with the seizure of the final product – illicit drugs – thereby depriving investigative and prosecuting authorities of the opportunity to carry out much-needed backtracking investigations into illicit manufacture.

[12] Governments that have not yet registered PICS focal points for their national authorities involved in precursor control may request an account by writing to incb.pics@un.org.

71. Over 130 incidents communicated through PICS in the reporting period occurred at airport (including air cargo), mail and parcel facilities, indicating an increasing reliance on the related modes of transport for trafficking in precursors. Over 75 other incidents occurred at illicit laboratories, indicating the direct use of these substances in illicit drug manufacture.

72. During the reporting period, PICS further established its efficacy as an instrument not just for sharing incidents, but also for establishing linkages between different incidents, thereby providing a concrete basis for conducting follow-up investigations. INCB is also aware of cases in which PICS incidents have triggered active cooperation between PICS users on international trafficking incidents. **The Board commends all PICS users for sharing incidents involving precursors and/or equipment through the system. The Board also encourages Governments that are not currently sharing incidents through PICS on account of concerns about compromising live investigations to do so.** The security features of PICS guard against leakage of sensitive information by restricting access to information about company names, pictures and shipping documents.

3. Cooperation with industry

73. Cooperation with industry constitutes an invaluable addition to regulatory frameworks and is a key component of effective precursor control. It represents a proactive and flexible approach that significantly contributes to addressing persistent challenges, including the rapidly changing trends in trafficking, in particular of newly emerging designer precursors and other chemicals not under international control, as well as new methods and routes of diversion.

74. In 2022, for example, such cooperation led to the receipt by the competent authorities of Czechia of nearly 70 notifications from industry operators of suspicious transactions involving precursors and equipment. Follow-up investigations into those notifications led, in turn, to the identification of 250 methamphetamine laboratories in the country.

75. As reiterated by INCB in the past, one of the most important elements of successful industry cooperation is knowledge and understanding of the range of industries that deal with the chemicals used for illicit drug manufacture and thus might – often unknowingly – be targeted by traffickers. Beyond the chemical and pharmaceutical industry, there are other categories of industries involved in the manufacture and distribution of, and trade in, chemicals that could be used for the illicit manufacture of drugs. Those include, for example, large-scale producers of commodity chemicals, producers of active pharmaceutical ingredients, producers of fine and specialty chemicals, research and development service providers

and industries that might be approached for contract synthesis of chemicals. The presence of those industries, however, differs in each country. **The Board therefore encourages Governments to map their national industry landscape with the aim of raising awareness among industries that are likely to be susceptible to diversion.**

76. INCB resources and tools to help raise awareness and support Governments in establishing or further enhancing cooperation with industry are available on the Board's website.

4. Use of the Internet (the surface web) to facilitate trafficking in precursors

77. The misuse of the Internet to traffic precursor chemicals, as well as equipment used in the illicit manufacture of synthetic drugs, remains a pressing concern. Online e-commerce and social media platforms in various regions continue to be targeted by traffickers, who use such platforms to market a wide variety of substances to interested buyers around the world. The Board has highlighted this issue in its previous annual reports on precursors.[13]

78. During the reporting period, the use of online platforms to advertise supplies of a vast range of precursor chemicals, including designer precursors with no legitimate uses, continued. Such use has become more refined, with increased use of Chemical Abstracts Service registry numbers in place of, or in addition to, the name of the substance itself. Nevertheless, it is still possible to find suspicious Internet postings related to precursors, simply by searching by the name of the substance, one of its synonyms or its Chemical Abstracts Service registry number. The Board has advocated a two-pronged approach to address the issue, namely, partnerships with online trading platforms, business-to-business companies and Internet service providers to facilitate Governments' access to information, and the investigation of suspicious postings by the authorities. Such an approach has yielded results in the past.[14]

79. In order to strengthen the capacities of Governments in this regard, the Board organized a five-day training event on the investigation of suspicious Internet (surface web) postings related to precursor chemicals, in Vienna, in June 2023. The training was attended by 24 officials of regulatory and law enforcement agencies from 14 countries in Africa, Asia, Europe and North America, and was aimed at enabling participants to: *(a)* identify and investigate suspicious online postings, specifically those related to precursor chemicals; *(b)* safely monitor the Internet (the surface web); *(c)* request basic subscriber information; and *(d)* establish mutually beneficial relationships with online service providers. **The Board encourages Governments to continue to prioritize investigations into suspicious Internet postings related to precursors and to cooperate to that end. Governments are further encouraged to leverage domestic capabilities for cybercrime investigations and open-source intelligence tools that may not be readily available to regulatory and law enforcement officers who work in the area of precursor control.**

III. Extent of licit trade and latest trends in trafficking in precursors

80. The present chapter provides an overview of the major trends and developments in both licit trade and trafficking in precursor chemicals, by substance group, with a view to addressing gaps and weaknesses in precursor control mechanisms. It summarizes information on seizures and cases of diversion or attempted diversion from international trade, as well as activities associated with illicit drug manufacture. The chapter is based on information provided to the Board through various mechanisms, such as form D, the PEN Online and PEN Online Light systems, PICS, Project Prism and Project Cohesion, and through national reports and other official information from Governments. The analysis covers the period up to 1 November 2023.

81. A significant proportion of the present chapter presents information about substances not included in Table I or Table II of the 1988 Convention, which is reported to INCB pursuant to article 12, paragraph 12 (b), of the Convention. Governments also share such information through PICS. Data on non-scheduled chemicals are generally presented in dedicated subsections but may also be found in the sections providing details on trends with regard to substances in Table I and Table II of the 1988 Convention, especially in cases where the non-scheduled chemicals being discussed are part of a more complex development. **INCB once again wishes to thank Governments for the information received and to remind other Governments of their obligation under the 1988 Convention to submit form D annually in a timely manner. Likewise, Governments are encouraged**

[13] See also the Board's report on precursors for 2022 (E/INCB/2022/4), chap. IV.

[14] Ibid.

to share information about precursor incidents in the most comprehensive and action-oriented way possible through PICS. Without the sharing of such information, new trends in precursor trafficking and illicit drug manufacture cannot be identified and addressed at an early stage, limiting operational cooperation with other countries concerned.

A. Substances used in the illicit manufacture of amphetamine-type stimulants

1. Substances used in the illicit manufacture of amphetamines

(a) Ephedrine and pseudoephedrine

82. Ephedrine and pseudoephedrine both have legitimate medical applications. Ephedrine is used in the manufacture of bronchodilators (cough medicines), while pseudoephedrine is used in the manufacture of bronchodilators and nasal decongestants. Accordingly, both of these products are widely traded internationally. However, they are also used in the illicit manufacture of methamphetamine. The other way to manufacture methamphetamine is by using P-2-P, which can itself be manufactured from phenylacetic acid or a range of recently scheduled designer precursors, such as APAA, APAAN and MAPA (see also annex VIII), or as yet unscheduled chemicals.

Licit trade

83. Between 1 November 2022 and 1 November 2023, exporting countries sent 5,630 pre-export notifications through the PEN Online system for planned shipments of ephedrine and pseudoephedrine in bulk and in the form of pharmaceutical preparations. The notifications were for a total of approximately 1,180 tons of pseudoephedrine, which represents a slight decrease in trade compared with the previous reporting year, and almost 87 tons of ephedrine. The shipments originated in 41 exporting countries and territories and were destined for 179 importing countries and territories.

84. Table 2 below presents the 10 countries with the largest volume of proposed imports of ephedrine and pseudoephedrine, in all forms, ranked in terms of the volume notified through the PEN Online system, in the reporting period.

Table 2. The 10 countries with the largest proposed imports of ephedrine and pseudoephedrine, in all forms, by volume, 1 November 2022–1 November 2023

Ranking	*Ephedrine*	*Pseudoephedrine*
1	Republic of Korea	United States
2	Ghana	Türkiye[a]
3	Nigeria	Switzerland
4	Egypt	Egypt
5	Denmark	Saudi Arabia
6	Uganda	Republic of Korea
7	France	Indonesia
8	China, Hong Kong SAR	France
9	United States	Chile
10	Switzerland	Canada

[a] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.

Trafficking

85. Global seizures of ephedrines (i.e. ephedrine and pseudoephedrine) have declined drastically over the course of the last decade, from over 43 tons in 2013 to just 6.1 tons – the lowest ever reported – in 2021. There was a slight increase in 2022, with 36 countries reporting seizures of nearly 6.7 tons. The overall decline in seizures of ephedrines over the last decade is in stark contrast with the increase in global seizures of methamphetamine over that period (see figure 6) and is only partly explained by the increase in seizures of designer precursors of P-2-P (see also paras. 110 and 111).

86. In contrast with the overall declining trend in seizures of ephedrines, seizures of preparations containing pseudoephedrine have grown steadily since 2018.[15] This trend marginally reversed in 2022, with about 1.1 tons of preparations containing pseudoephedrine reported seized by 21 countries, the largest number of countries reporting such seizures in the last 10 years (see figure 7). Although less than the 1.4 tons of preparations containing pseudoephedrine seized in 2021, the seizure of 1.1 tons in 2022 is still over twice the quantity seized in 2018. The continued high level of reported seizures of preparations of pseudoephedrine and the increase in the number and

[15] INCB report on precursors for 2022 (E/INCB/2022/4), para. 64.

Figure 6. Seizures of ephedrine and pseudoephedrine, as reported by Governments on form D, and of methamphetamine, as reported on the United Nations Office on Drugs and Crime annual report questionnaire, 2013–2022

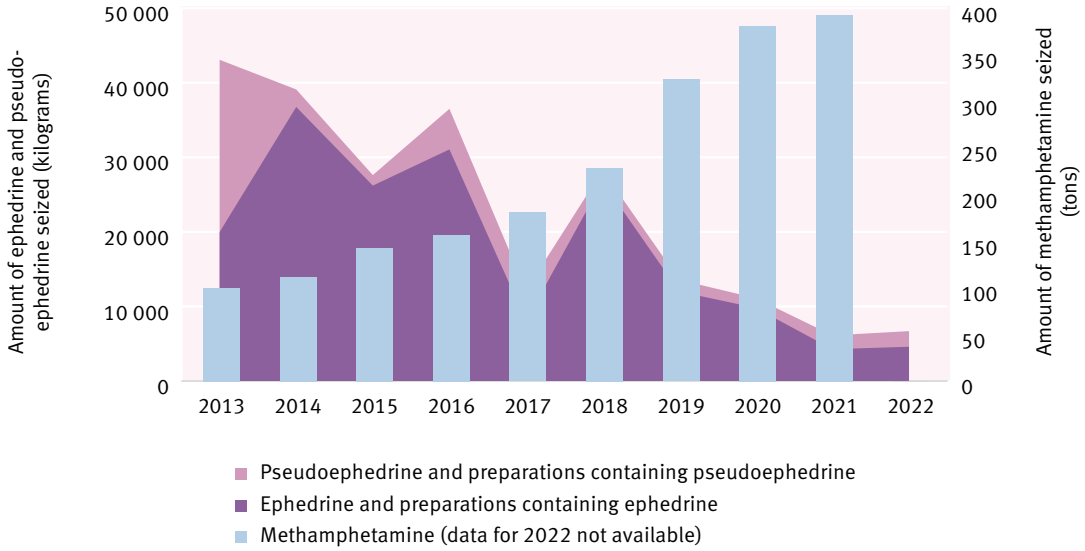
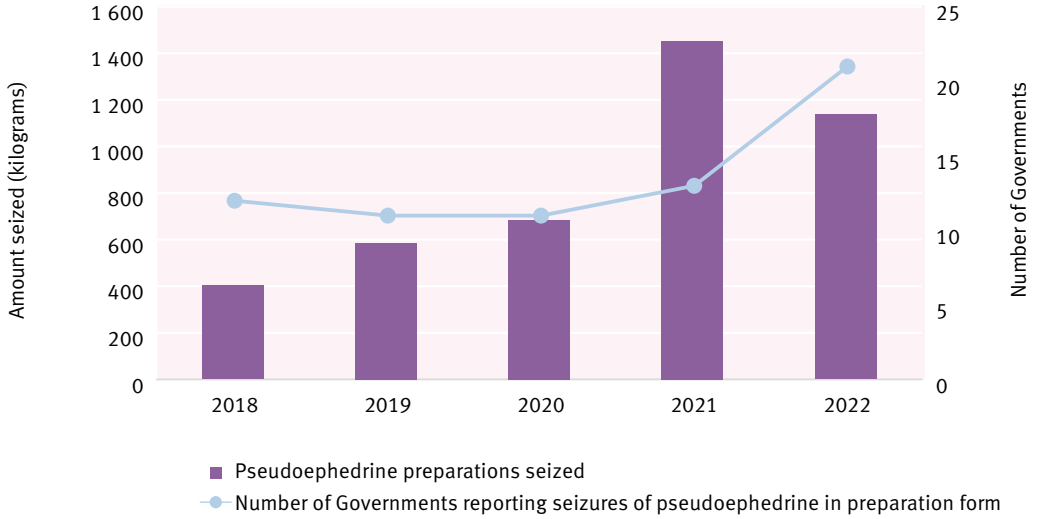


Figure 7. Seizures of pseudoephedrine preparations, as reported by Governments on form D, 2018–2022



geographical spread of countries reporting such seizures[16] points to the need for Governments to take concrete steps to address the misuse of such preparations for illicit purposes. **The Board, accordingly, reiterates the need for Governments to put in place adequate mechanisms to prevent the diversion of preparations containing chemicals listed in Tables I and II of the 1988 Convention, in particular those containing ephedrine and pseudoephedrine, and to control them in the same way as the substances themselves.**

87. Globally, China reported the largest seizures of ephedrine, totalling over 2.1 tons in the form of raw material and 1 ton in the form of preparations. The total of more than 3.1 tons accounted for nearly 70 per cent of global seizures of ephedrine. The country's seizures of ephedrines, which predominantly comprise ephedrine, have declined steeply since 2018, when nearly 26 tons were reported seized. That decline accounts for the global fall in seizures witnessed since that time. Furthermore, on the basis of the seizures

[16] In 2022, four countries (Argentina, Latvia, the United Arab Emirates and the United Republic of Tanzania) reported seizures of pharmaceutical preparations containing pseudoephedrine for the first time. The seizure in the United Arab Emirates and the earlier seizure by Austria in 2021 were destined for North Macedonia, a country that has never reported such seizures.

of propiophenone reported by China in recent years (see also para. 141), it appears that the ephedrine seized in the country is typically illicitly manufactured from propiophenone, and is not the result of the diversion of ephedrine from licit channels.

88. India reported the second highest amount of seizures of ephedrines globally in 2022, with seizures of over 1 ton of ephedrines, comprising 676 kg of ephedrine in 6 cases and 325 kg of pseudoephedrine in 25 cases. The entire quantity seized, which was in the form of raw material in all cases, originated within the country. The largest seizure was of 662 kg of ephedrine that had been illicitly manufactured in a clandestine factory in the north of India using domestically sourced propiophenone and tartaric acid.[17] The case points to the need for the Government of India to cooperate with the industries that manufacture non-scheduled chemicals that can be used to illicitly manufacture drugs or precursors. **Furthermore, given increasing reports of illicitly manufactured ephedrine, Governments are encouraged to forensically profile seized ephedrine to determine whether it has been illicitly manufactured or diverted from legitimate sources. Greater forensic profiling analysis of the methamphetamine end product would also serve the same purpose.**

89. Twenty-three seizures, involving a total of 152 kg of ephedrines, were made at mail, parcel and airport (including air cargo) facilities, with the shipments being intercepted at the point of being trafficked to other countries. As in the past, the majority of shipments (14) were destined for Australia (45 kg of ephedrine and 15 kg of pseudoephedrine), followed by New Zealand (six cases involving a total of 41 kg of pseudoephedrine), and the Philippines (one case involving 49 kg of pseudoephedrine). While no seizures of pharmaceutical preparations of either substance were reported by India in 2022, as at 1 November 2023, the country had communicated 16 incidents through PICS, 13 involving pseudoephedrine and 3 involving ephedrine. Two incidents involved nearly 7.9 million pseudoephedrine tablets. In both cases, the tablets were intended to be trafficked to other countries; 3.9 million tablets seized in the north-eastern part of the country were destined for Myanmar and another 3.9 million were being trafficked to South Sudan in a shipping container.

90. While information on the origin of the ephedrines seized in India (i.e. diversion or illicit manufacture) is mostly not available, the seizure trend appears to indicate that when ephedrine is seized in the form of raw material, it is illicitly manufactured, and that seizures of pharmaceutical preparations, whether of ephedrine or pseudoephedrine, represent diversion from licit trade. Furthermore, the route used to traffic ephedrine and pseudoephedrine in the form of raw material from India to Australia and, to a lesser extent, New Zealand, is well established and has been regularly reported in the past.[18] Trafficking in pseudoephedrine preparations to Myanmar for use in the illicit manufacture of methamphetamine in that country has also been noted in the past.[19] The Board has taken up these issues with the Government of India in order to better understand the origin of the products and diversion points, and awaits the Government's response. **The Board encourages all Governments to identify and address possible weaknesses in their regulatory systems that enable the diversion from licit trade of, in particular, pharmaceutical preparations containing pseudoephedrine.**

91. New Zealand reported the third highest amounts of ephedrines seized globally, with over 800 kg of the substances seized in 86 cases. Pseudoephedrine in the form of raw material accounted for the majority of seizures (27 cases involving a total of 482 kg, 452 kg of which originated in India). After a prolonged period of no seizures at the start of 2022, quantities of raw ephedrine and pseudoephedrine seized returned to previous levels later in the year. India was identified as the predominant source country. INCB is also aware of the conviction and sentencing of a businessman from Fiji in New Zealand in August 2023 for the alleged import of notable amounts of pseudoephedrine since 2017. Investigations are ongoing in Fiji.

92. Australia emerged as the country that reported the next highest seizures of ephedrines, with 443 kg of the substances seized. The majority – 384 kg – were preparations of pseudoephedrine, 300 kg of which related to 72 cases originating in India. Where the country of origin was known, Brunei Darussalam (17 kg in two cases) and Nepal (11 kg in one case) were the sources accounting for the next highest quantities. As at 1 November 2023, Australia had communicated eight incidents through PICS, five involving pseudoephedrine and three involving ephedrine, amounting to 332 kg. Again, the pseudoephedrine in two of the incidents originated in India; however, the largest seizure, made at a seaport, involved 240 kg of pseudoephedrine originating in Malaysia. India therefore continues to be a major source of ephedrines for Australia, although new points of origin such as Brunei Darussalam and Nepal have also been noted. **The Board encourages the Governments of Australia, India, Malaysia and New Zealand to jointly investigate both established and emerging routes used to traffic ephedrines to Oceania and dismantle the criminal networks involved**.

[17] INCB report on precursors for 2022 (E/INCB/2022/4), para. 75.

[18] Ibid., para. 104.

[19] Ibid., para. 72.

Use of pharmaceutical preparations containing ephedrine in illicit methamphetamine manufacture in Europe

In 2022, customs authorities in Czechia requested the Board's assistance in facilitating an investigation into seizures in their country of a pharmaceutical preparation containing ephedrine that had allegedly originated in Romania. Three seizures were made at land border crossings and on inland roads, involving a quantity of 50,000 tablets in two cases and 2 kg of ephedrine in the third. A fourth incident involved the seizure of the preparation in an illicit methamphetamine laboratory in Czechia. The preparation was not registered for medical use in the country and, accordingly, no Czech companies had been registered in relation to its trade and distribution. The Board contacted the authorities in Romania to seek confirmation of the purchase of the preparation by the Czech companies identified during investigations.

Subsequently, in 2023 an organized criminal group responsible for the manufacture and distribution of at least 4.7 tons of methamphetamine in Europe was dismantled by the authorities of Czechia, Poland, Romania and Slovakia with the support of the European Union Agency for Criminal Justice Cooperation and the European Union Agency for Law Enforcement Cooperation (Europol).[a] Sixteen suspects were arrested and over 3.3 million tablets containing ephedrine intended for the manufacture of methamphetamine were seized.

The methamphetamine was believed to have been illicitly manufactured in Czechia and Poland from pharmaceutical products manufactured by a Romanian pharmaceutical company. The tablets produced in Romania were shipped to companies without marketing authorizations in several countries in the European Union and re-routed to illicit laboratories.

Legal framework

Pharmaceutical preparations containing ephedrine and pseudoephedrine are not internationally controlled. However, the Board has encouraged the parties to the Convention to control ephedrine and pseudoephedrine in the form of pharmaceutical preparations in the same way as the substances themselves.[b] Under European Union regulations, the export of pharmaceutical preparations containing ephedrine or pseudoephedrine to countries that are not members of the European Union requires the submission of a pre-export notification, but that is not necessary for trade within the European Union.

In the case described above, Romania was not pre-notified of any shipments of the two substances through the PEN Online system after June 2020. This suggests that the ephedrine and pseudoephedrine required to manufacture the pharmaceutical preparations that were diverted into illicit channels were likely sourced from within the European Union.

In the absence of any pre-notifications of trade in precursors within the European Union, the understanding of changes in licit trade patterns involving Romania and other countries in the European Union remains limited. This also limits the ability of competent national authorities exporting precursors to countries in Europe to effectively verify the legitimacy of shipments.

[a] www.eurojust.europa.eu/news/crackdown-criminal-network-produced-and-distributed-methamphetamine-europe.
[b] www.incb.org/incb/en/precursors/precursors/recommendations/introduction.html.

93. In 2022, for the first time ever, the United Arab Emirates reported seizures of ephedrines, with a single case of 310 kg (2.58 million tablets) of pharmaceutical preparations of pseudoephedrine. The information shared by the country through PICS indicates that the seizure was of Decancit SR tablets and was made in Dubai. The shipment had originated in Egypt and was believed to be destined for North Macedonia via Jordan and the United Arab Emirates (the Jebel Ali FTZ). The consignment was wrongly declared in general terms as "human pharmaceutical products" and the Harmonized System code used was not the one related to pharmaceutical preparations of pseudoephedrine. The case was identified during the course of follow-up investigations into the seizure of 2.16 million tablets (259 kg) of Decancit SR made in Austria in December 2021, which had also originated in Egypt and been destined for North Macedonia via the United Arab Emirates.[20] The Board subsequently organized a closed information-sharing meeting (see para. 66) to discuss this and other cases involving preparations of pseudoephedrine. The case also provides evidence of the possible exploitation of FTZs for trafficking in precursors, the raison d'être of Operation Insight (see also paras. 61–63), indicating the need for Governments to review and, if necessary, strengthen the control measures put in place in such areas.

94. Myanmar reported seizures of 305 kg of pseudoephedrine in the form of pharmaceutical preparations, but no further details were provided. The Board is aware of one case that involved the seizure of 1.3 million pseudoephedrine tablets that originated in India. The reported precursor seizures, however, do not fit with the record quantity of 23 tons of crystal methamphetamine seized in Myanmar in 2022.[21] This may indicate a possible shift towards the use of non-scheduled chemicals in illicit methamphetamine manufacture, although information on trafficking in and the use of alternative chemicals in the region remains scarce (see also para. 119).

95. Seventeen countries in Europe reported seizures of ephedrine and pseudoephedrine on form D, a decline from

[20] INCB report on precursors for 2022 (E/INCB/2022/4), paras. 81 and 115.

[21] UNODC, Regional Office for Southeast Asia and the Pacific, *Synthetic Drugs in East and Southeast Asia: Latest Developments and Challenges* (Bangkok, 2023).

the 20 that did so in 2021. The total quantity reported seized was 357 kg, significantly less than the seizures of about one ton reported in each of the previous two years. The majority of the seizures (295 kg) were of pharmaceutical preparations containing ephedrine, with the largest quantities reported by Czechia (179 kg), Slovakia (51 kg) and Ireland (50 kg). The predominant trend in Europe in 2022 was towards preparations of ephedrine rather than pseudoephedrine (see also the box above). Through PICS, INCB is aware of a seizure of two tons of ephedrine at Rotterdam seaport in January 2023. The shipment, which originated in Afghanistan and transited Pakistan, had been misdeclared as talcum powder. Subsequent forensic analysis confirmed that the ephedrine seized was of natural origin, from the *Ephedra* plant, which grows wild in Afghanistan (see also para. 99).

96. Authorities in Czechia reported having dismantled 250 methamphetamine laboratories in 2022, which had been using pharmaceutical preparations containing 50 mg of ephedrine. By the end of 2022, another pharmaceutical preparation, which was not legally approved and had a higher pseudoephedrine content (120 mg), had been seized. In addition to 179 kg of pharmaceutical preparations of ephedrine seized in 20 cases, Czechia also seized 15 kg of ephedrine in the form of raw material (16 cases), 12 kg of pseudoephedrine preparations (54 cases) and 19 kg of pseudoephedrine raw material (14 cases). Slovakia reported the seizure of 51 kg of ephedrine preparations from a methamphetamine laboratory, as well as seizures of about 6 kg of pseudoephedrine preparations in over 100 cases involving methamphetamine laboratories.

97. Among other countries reporting seizures of ephedrines, Nigeria reported the seizure of 131 kg of ephedrine in the form of raw material in a single case. The consignment, concealed inside electrical appliances being shipped to the Democratic Republic of the Congo, was interdicted at Lagos airport. As at 1 November 2023, Nigeria had communicated five incidents involving a total of 127 kg of ephedrine through PICS. Three of these incidents occurred at airports and the shipments were destined for the Congo, South Africa and Zambia.

98. Türkiye reported two cases involving the seizure of a total of 41 kg of ephedrine in the form of raw material, the largest quantity reported by the country in the last 10 years. However, further details were not available.

99. Afghanistan, presently believed to be one of the major source countries for methamphetamine, has not submitted form D for the last two years, that is, for 2021 and 2022. The country last reported seizures of 440 kg of pseudoephedrine preparations in 2019. The last seizures of ephedrines in the country communicated through PICS date back to 2018. In the absence of official data and reports from the country, it is not possible to offer a conclusive analysis of the starting point of methamphetamine manufacture in the country. **The Board would urge the Governments effecting seizures of methamphetamine sourced from Afghanistan to conduct forensic profiling analysis of samples of the seized drugs in order to determine whether they have been manufactured using ephedrine from natural sources, that is, the *Ephedra* plant, or using pharmaceutical preparations containing ephedrines. This would further inform possible regulatory and enforcement action by the international community.**

100. In the Board's report on precursors for 2022, several instances were reported of seizures or shipments that were objected to and suspicious shipments of pharmaceutical preparations containing pseudoephedrine originating in Egypt and destined for countries in Africa, Europe and West Asia.[22] In response, an information-sharing meeting with the countries concerned was organized by the Board in June 2023 (see also para. 66). The Board notes with approval a series of measures, including regulatory changes, put in place by Egyptian authorities to secure international trade and prevent the diversion of precursors.

(b) Norephedrine and ephedra

Licit trade

101. Between 1 November 2022 and 1 November 2023, pre-notifications were processed through the PEN Online system by 13 exporting countries for 166 shipments of norephedrine to 32 importing countries, involving more than 27 tons of raw material and approximately 760 kg in the form of pharmaceutical preparations, which represents almost double the amount of preparations pre-notified in the previous year. Shipments amounting to 1 ton or more were pre-notified to the following importing countries, in descending order of the amounts shipped: United States, Denmark, Philippines, Myanmar and Mexico. Overall, international trade in norephedrine, a substance that can be used in the illicit manufacture of amphetamine, continued to remain at a low level compared with trade in other precursors of amphetamine-type stimulants. No shipments of ephedra were pre-notified.

Trafficking

102. The United States reported seizures of norephedrine, involving the small quantity of 1.1 kg, on form D for 2022. Australia was the only other country in the world to report seizures of the substance, having seized 80 grams of the substance in 15 cases. In the last five years, global seizures of

[22] INCB report on precursors for 2022 (E/INCB/2022/4), paras. 77, 78 and 88.

norephedrine have amounted to just 13 kg, with the United States accounting for 12 kg. Only six other countries have reported seizures of the substance, involving minor quantities, in the last five years, indicating the decreasing use of the substance for the illicit manufacture of amphetamine.

103. China was the only country that reported seizures of the *Ephedra* plant on form D for 2022, totalling 28 tons. This follows seizures of over 100 tons in both 2019 and 2020 and of nearly 30 tons in 2021. No further details of the seizures were provided.

(c) P-2-P, phenylacetic acid, APAAN, APAA and MAPA

104. Legitimate international trade in P-2-P is relatively small in scale and is limited to just a few countries, while phenylacetic acid is traded much more widely. Instances of the diversion of P-2-P from legitimate trade have been rare in recent years, and seizures often involve material that has been illicitly manufactured from one of its precursors. APAAN, APAA and MAPA are traded in very limited quantities or not at all. On the basis of available seizure data, the latter three substances have largely been replaced by as yet non-scheduled alternatives to P-2-P, namely, derivatives of P-2-P methyl glycidic acid (see figure 9 and subsect. (d) below).

Licit trade

105. Between 1 November 2022 and 1 November 2023, proposed international trade in P-2-P and phenylacetic acid remained at a level similar to that of previous years. Thirty-five proposed shipments of P-2-P, from five exporting countries to eight importing countries, and 731 proposed shipments of phenylacetic acid, from 17 exporting countries to 51 importing countries and territories, were pre-notified through the PEN Online system. There has been one pre-export notification for APAAN and two pre-export notifications for MAPA, involving only small amounts of the substances, since November 2022.

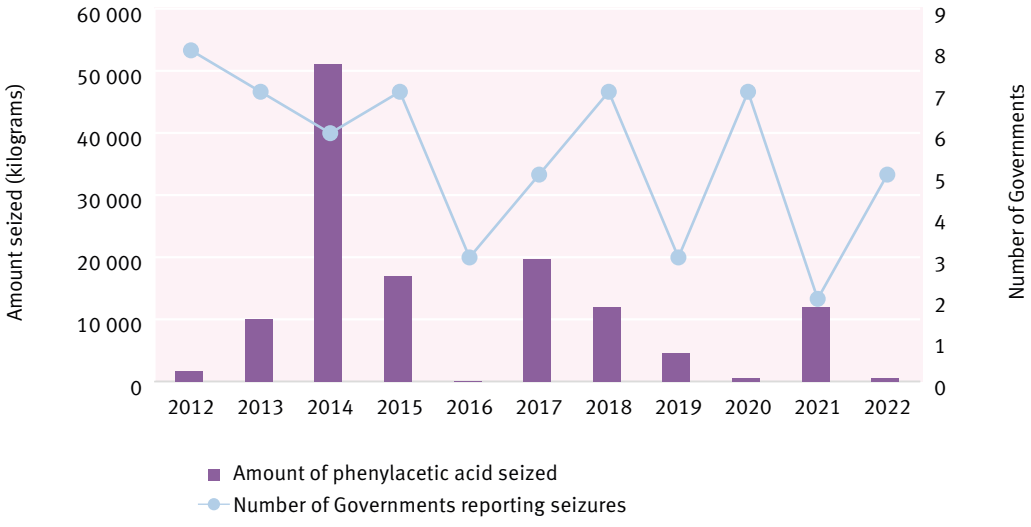
106. On form D, China reported that it had stopped two shipments of phenylacetic acid, amounting to a total of more than 36 tons. Unfortunately, no further details were provided.

Trafficking

107. For many years since the emergence of designer precursors, seizures of **P-2-P** have not been as a result of diversion from legitimate trade but rather an indication of the use of non-scheduled chemicals, including designer precursors, in the illicit manufacture of amphetamine and methamphetamine, with P-2-P being a chemical intermediate rather than the starting material. While most countries do not explicitly provide information about the origin of P-2-P on form D, namely, whether it was illicitly manufactured or diverted from legitimate channels, a significant share of P-2-P is reported as having been seized in clandestine laboratories, where it is encountered as a chemical intermediate. In 2022, 14 countries reported seizures of P-2-P amounting to a total of about 1,600 litres. The largest amount of the substance was seized in the Kingdom of the Netherlands (almost 850 litres), followed by Belgium (345 litres), Mexico (240 litres) and Poland (almost 140 litres).

108. With regard to **phenylacetic acid**, the amounts seized and the number of countries reporting seizures have fluctuated significantly over the years, with large seizures made in only a few countries (see figure 8). Seizures in 2022 amounted to about 600 kg, with the bulk having been seized

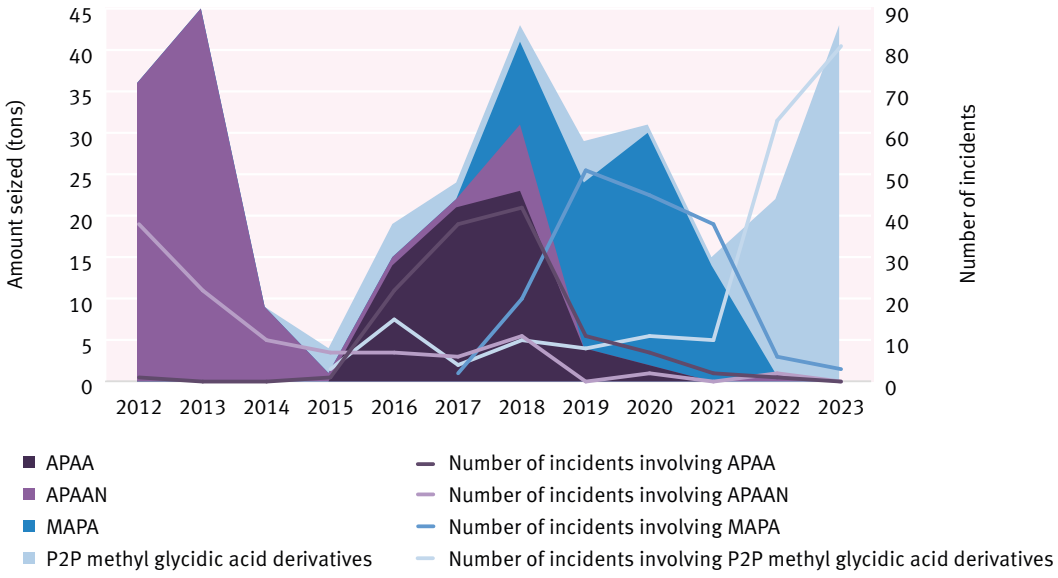
Figure 8. Seizures of phenylacetic acid, as reported by Governments on form D, and number of countries reporting seizures, 2012–2022



in Mexico. Similar to P-2-P, seized phenylacetic acid has nowadays often been illicitly manufactured rather than diverted from legitimate sources. This is especially the case in North America.

109. The seizure data for P-2-P and phenylacetic acid for 2022, when compared with the data for other amphetamine and methamphetamine precursors, confirm the continued declining importance to traffickers of the traditional, controlled precursors. Available data for MAPA, the amphetamine-type stimulant precursor most recently scheduled under the 1988 Convention, also confirm the tendency for seizures of a substance to decrease after the substance is placed under international control (see figure 9). In 2022, the Kingdom of the Netherlands was the only country to report seizures of notable amounts of **APAAN** (500 kg) and **MAPA** (nearly 350 kg). Total seizures of **APAA** amounted to less than 15 kg and were reported by four European countries. In the first 10 months of 2023, no seizures of APAA or APAAN were communicated through PICS; three seizures of MAPA communicated during the same period amounted to less than 30 kg. At the same time, there was an unprecedented increase in seizures of a particular series of alternative precursors, namely, P-2-P methyl glycidic acid derivatives, in terms of

Figure 9. Incidents involving APAAN, APAA, MAPA and P-2-P methyl glycidic acid derivatives communicated through PICS, 2012–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

Figure 10. Seizures of P-2-P methyl glycidic acid derivatives, as reported by Governments on form D, 2012–2022

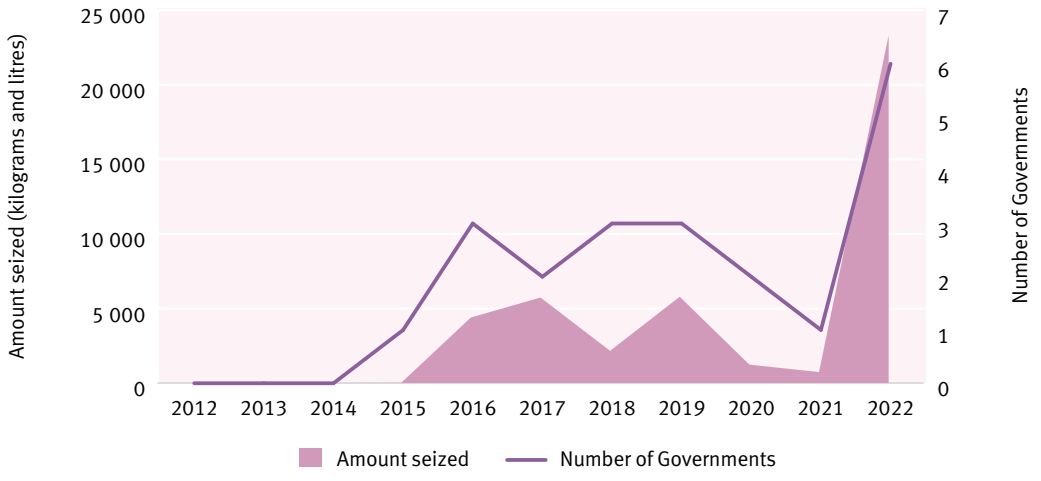
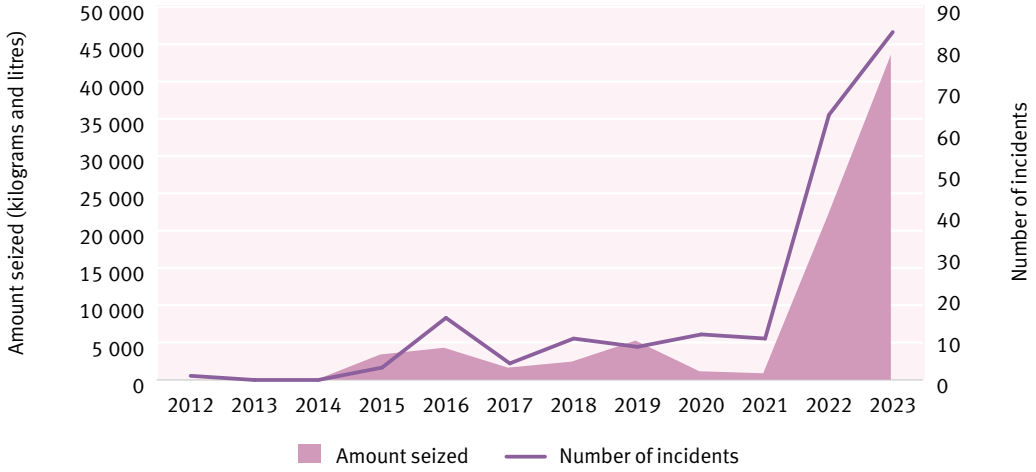


Figure 11. Incidents involving P-2-P methyl glycidic acid derivatives communicated through PICS, 2012–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

both the number of seizures and the amounts involved (see figure 11 and paras. 110 and 111 below).

(d) Use of non-scheduled chemicals and other trends in the illicit manufacture of amphetamine and methamphetamine

110. The most notable development in the reporting period was the increase in the number of seizures and amounts seized of **P-2-P methyl glycidic acid derivatives**, especially in Europe. A similar development, albeit with a wider geographical reach, was seen in relation to seizures of 3,4-MDP-2-P methyl glycidic acid derivatives, used in the illicit manufacture of MDMA and related "ecstasy"-type substances (see paras. 127 and 128 below).

111. The surge in seizures of P-2-P methyl glycidic acid derivatives is reflected in the data reported on form D for 2022 (see figure 10). However, it is more pronounced in the timelier communications made through PICS, which also provide a picture for the first 10 months of 2023 (see figure 11). The large majority of known incidents involving P-2-P methyl glycidic acid derivatives in 2022 and 2023 were communicated by countries in Europe, where the substances have been under control since December 2020. Most seizures were communicated by the Kingdom of the Netherlands (91), followed by the United Kingdom of Great Britain and Northern Ireland (29) and Germany (16). In September and October 2023, the United States and Australia, respectively, communicated incidents involving P-2-P methyl glycidic acid derivatives for the first time. The largest amounts were seized in the Kingdom of the Netherlands (more than 35 tons), followed by Hungary (almost 16 tons). The amounts of individual seizures ranged from less than 1 kg to more than 7.8 tons.

112. Where information about the origin of the substances was available, the country of origin was identified as China, including Hong Kong. In about 45 per cent of all incidents, shipments were misdeclared. About 30 per cent of seizures were made at airports and about 15 per cent in illicit laboratories. With 37 incidents involving more than 3.7 tons destined for the United Kingdom, about 30 per cent of which transited through Germany, and another 17 incidents involving more than 7.3 tons destined for the Kingdom of the Netherlands, about 30 per cent of which again transited through Germany, investigations in the three countries are ongoing. INCB has issued two Project Prism alerts on the commonalities between these incidents (see also para. 60 above).

113. As a result of increased attention by law enforcement authorities in the countries in which the majority of seizures of P-2-P methyl glycidic acid and its methyl ester have been made to date, there are now indications of an expansion of trafficking to more countries. For example, in January 2022, a controlled delivery between Türkiye and North Macedonia resulted in the seizure of more than 1 ton of P-2-P methyl glycidate. It is believed that the substance was destined for the Kingdom of the Netherlands.

114. In August 2023, the Kingdom of the Netherlands communicated the first incident involving **P-2-P ethyl glycidate** through PICS. The substance is one of the esters of P-2-P methyl glycidic acid that INCB proposed for international control in June 2023 (see para. 7 above), and its emergence provides further evidence supporting the Board's

call to address groups of substances that are closely related chemically. **The Board wishes to call the attention of Member States to the efficiency of extending control to entire groups of chemicals wherever possible, rather than controlling individual substances, which are often easily replaced by traffickers**.

115. In contrast to esters of P-2-P methyl glycidic acid, only a few seizures of other designer precursors of amphetamine and methamphetamine, such as **EAPA** and **DEPAPD**, were reported on form D for 2022. The most notable were two seizures of EAPA (315 litres) in Mexico for the first time. However, countries continued to report various common chemicals that are available off the shelf. These included:

(a) Benzaldehyde and nitroethane, associated with the nitrostyrene method of P-2-P manufacture;

(b) Iodine, hydriodic acid, red phosphorous, hypophosphorous acid and phosphorous acid, associated with the Nagai method of illicit methamphetamine manufacture;

(c) Benzyl chloride and sodium cyanide, or benzyl cyanide, used to manufacture P-2-P via APAAN or phenylacetic acid.

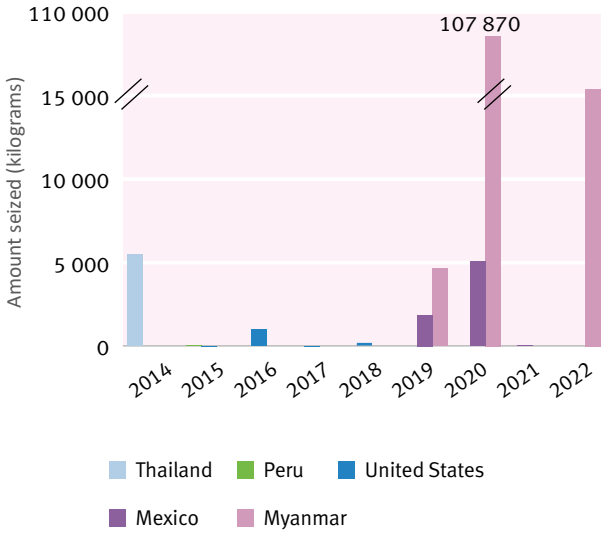
116. With a few notable exceptions, the amounts of the above-mentioned chemicals reported seized on form D for 2022 were indicative of smaller-scale illicit manufacturing operations. Seizures of chemicals associated with the nitrostyrene method were reported by eight European countries. The largest amounts were reported by the Russian Federation, where, compared with 2021, the amounts of **benzaldehyde** seized doubled to more than 2 tons in 2022, the second largest amount reported seized in the last five years. In addition, almost 1 ton of **nitroethane** was seized; both chemicals were alleged to have originated in China and transited through Ukraine.

117. With regard to chemicals associated with the Nagai method, the predominant ephedrine-based method for the illicit manufacture of methamphetamine in most parts of the world, including Africa, Europe, Oceania and West Asia, seizures were reported by 11 countries in 2022, of which 8 were in Europe. The chemical most frequently reported seized was **red phosphorous**, which has been controlled by the European Union since January 2021. Aggregated annual amounts reported seized ranged from less than 1 kg to about 80 kg.

118. Regarding the use of benzyl chloride and sodium cyanide via the intermediate benzyl cyanide for the illicit manufacture of phenylacetic acid and, subsequently, P-2-P, seizures of more than 4,300 litres of benzyl chloride, 1.45 tons of sodium cyanide and almost 5,700 litres of benzyl cyanide in Mexico confirm the continued use of this method in the country. This is also supported by forensic profiling analysis of samples of methamphetamine from Mexico seized at points of entry into the United States, which indicates the use of phenylacetic acid as the primary precursor of P-2-P.[23] Only two other countries reported seizures of the chemicals, with Myanmar reporting the largest seizures, amounting to about 15.4 tons of **sodium cyanide**, allegedly originating in China and Thailand.

119. The seizures in Myanmar are consistent with recurrent claims by government officials in East and South-East Asia of the use of the substance in illicit methamphetamine manufacture in that region. Thailand and Myanmar have, since 2014 and 2019, respectively reported significant amounts of sodium cyanide on form D (figure 12), yet these were mostly seized at borders, or the relevant circumstantial information was not provided. As a result, the Board is neither aware of any seizures of illicit laboratories in which sodium cyanide was used, nor of seizures of the other chemical required, namely, benzyl chloride, in the region. The overall picture with regard to the nature and sources of the chemicals used in the illicit manufacture of methamphetamine in South-East Asia therefore remains unclear. **INCB encourages the Governments concerned to continue gathering evidence of the actual use of sodium cyanide in illicit methamphetamine manufacture.** In addition, since sodium cyanide is traded and used for legitimate purposes, **the Board invites the Governments of countries that**

Figure 12. Seizures of sodium and potassium cyanide, as reported by Governments on form D, 2014–2022



[23] Seizures of more than 2.3 tons of lead acetate provide additional evidence of the illicit manufacture of P-2-P from phenylacetic acid in Mexico.

export sodium cyanide to use, on a voluntary basis, the Board's PEN Online Light system to notify the authorities of importing countries of any planned shipments of the chemical, with a view to establishing regular trade patterns and identifying any irregularities.

2. Substances used in the illicit manufacture of MDMA and its analogues

120. Of the internationally controlled precursors of MDMA (commonly known as "ecstasy") included in Table I of the 1988 Convention, only piperonal is widely traded in notable amounts. Instances of the diversion of any of these precursors from legitimate trade have been rare to none, as have seizures in recent years, with the exception of 3,4-MDP-2-P methyl glycidic acid derivatives. As with their P-2-P analogues (see paras. 110–113 above), the most notable development related to precursors of MDMA in the reporting period was the increase in the number of seizures and amounts seized of one particular, as yet non-controlled derivative of 3,4-MDP-2-P methyl glycidic acid, namely, its ethyl ester 3,4-MDP-2-P ethyl glycidate (see figure 13 and subsect. (c) below).

(a) 3,4-MDP-2-P, 3,4-MDP-2-P methyl glycidate, 3,4-MDP-2-P methyl glycidic acid and piperonal

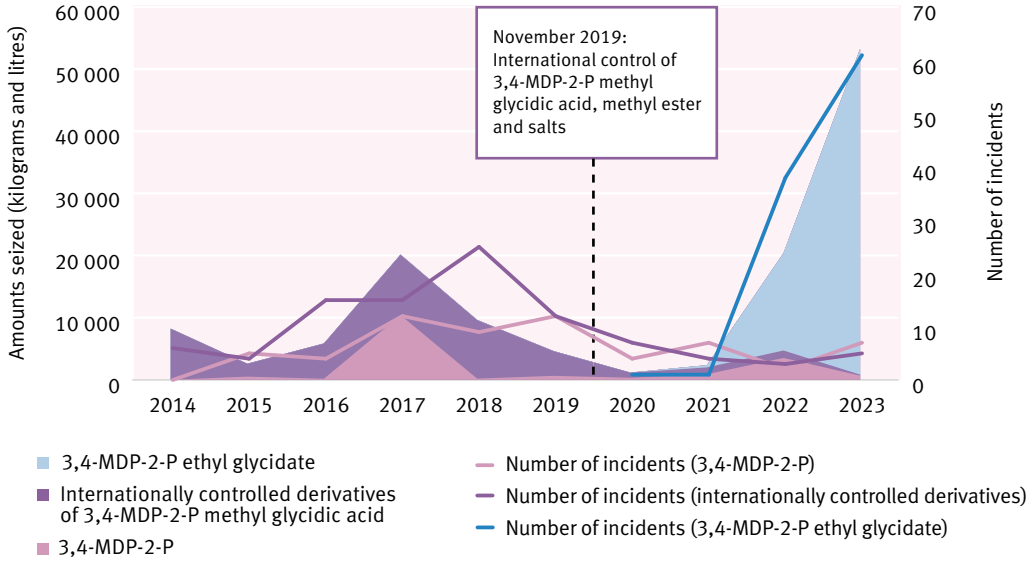
Licit trade

121. Between 1 November 2022 and 1 November 2023, 15 exporting countries and territories notified the authorities of 51 importing countries and territories of approximately 690 proposed exports of piperonal. The number of both exporting countries and importing countries in that period was about the same as in previous years. While there was one export of 3,4-MDP-2-P, involving a very small amount of the substance, pre-notified through the PEN Online system, no trade in the two designer precursors 3,4-MDP-2-P methyl glycidate and 3,4-MDP-2-P methyl glycidic acid was reported. On form D, China reported having stopped three shipments of piperonal, amounting to a total of 21 tons. Unfortunately, no further details were provided. **The Board wishes to remind all Governments of the importance of sharing operationally relevant information about shipments that were stopped because they were suspicious or were diversion attempts.**

Trafficking

122. Trafficking incidents involving **3,4-MDP-2-P** have been rare. Like P-2-P, seizures of 3,4-MDP-2-P are most typically made in clandestine laboratories where the substance is encountered as a chemical intermediate in the illicit manufacture of MDMA from one of its internationally non-scheduled precursors. In 2022, five countries reported seizures of 3,4-MDP-2-P. A seizure reported by Italy involved a record amount of about 3,500 litres of 3,4-MDP-2-P, the second largest amount reported seized in an individual incident in the last 10 years. The consignment was misdeclared and was part of a series of three controlled deliveries involving several non-scheduled amphetamine-type stimulant precursors from a particular Chinese company. Given that seizures of 3,4-MDP-2-P outside clandestine laboratories

Figure 13. Incidents involving 3,4-MDP-2-P and internationally controlled and non-controlled derivatives of 3,4-MDP-2-P methyl glycidic acid communicated through PICS, 2014–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

are very rare, **INCB reminds national authorities of the fact that 3,4-MDP-2-P may be identified incorrectly as the main component during the chemical analysis of some non-scheduled substitute chemicals, including salts of 3,4-MDP-2-P methyl glycidic acid, as a result of the seized substances decomposing during analysis (i.e. as analytical artefacts).**[24]

123. Seizures of internationally controlled **3,4-MDP-2-P methyl glycidic acid derivatives** amounted to a total of about 700 kg in 2022 and were reported by five countries, four of which were in Europe. This amount falls short of the more than 14.5 tons of 3,4-MDP-2-P ethyl glycidate, the as yet unscheduled derivative, seized. The almost complete replacement of 3,4-MDP-2-P methyl glycidic acid, its salts and methyl ester with the ethyl ester in a period of just two years is another illustration of the speed with which designer precursors evolve. This particular example has also been the trigger for INCB's proposal to the Secretary-General to initiate the scheduling process for a series of seven esters of 3,4-MDP-2-P methyl glycidic acid (see para. 7 above).

124. Incidents involving 3,4-MDP-2-P and internationally controlled derivatives of 3,4-MDP-2-P methyl glycidic acid continued to be communicated through PICS in 2023, with seizures of such substances totalling about 830 litres and 160 kg in the first 10 months of the year. However, those amounts are significantly lower than the amounts seen in the past, while at the same time, seizures of the internationally non-scheduled 3,4-MDP-2-P ethyl glycidate continued to increase (see figure 13 and paras. 127 and 128 below).

(b) Safrole, safrole-rich oils and isosafrole

Licit trade

125. Between 1 November 2022 and 1 November 2023, four exporting countries sent 21 pre-export notifications regarding safrole to the authorities of nine importing countries and territories through the PEN Online system, involving a total of approximately 50 litres. There were two pre-export notifications for safrole-rich oils totalling about 190 litres, a similar amount to that reported last year. Only one pre-export notification for isosafrole was sent, involving a very small amount of the substance.

Trafficking

126. Seizures of safrole, safrole-rich oils and isosafrole reported on form D or communicated through PICS confirm that the traditional, controlled precursors have become less relevant in illicit MDMA manufacture, with the emergence of designer precursors. Only two Governments reported seizures of safrole, safrole-rich oils and isosafrole on form D. This included seizures of 435 litres of safrole in the Kingdom of the Netherlands and of about 45 litres of isosafrole in the Russian Federation. In the first 10 months of 2023, only one incident involving a negligible quantity of safrole was communicated through PICS.

(c) Use of non-scheduled chemicals and other trends in the illicit manufacture of MDMA and its analogues

127. The single most notable development related to non-scheduled chemicals used in the illicit manufacture of MDMA is the increase in seizures of **3,4-MDP-2-P ethyl glycidate**, which is closely related to 3,4-MDP-2-P methyl glycidate and the corresponding acid, which have both been listed in Table I of the 1988 Convention since November 2019. The authorities of eight European countries reported seizures of more than 14.5 tons of the substance on form D in 2022, compared with just one country reporting seizures of 350 kg in 2021. Although they were not reported on form D or communicated through PICS, Canada and the United States provided information about 3,4-MDP-2-P ethyl glycidate seizures as part of the information-gathering process in support of the INCB assessment of the substance for possible international control. Specifically, Canada reported seizures of 641 kg in 2021, 8.1 tons in 2022 and 4.3 tons in the first nine months of 2023, with an observed shift in the mode of trafficking from predominantly air cargo to marine and highway ports of entry. The United States reported seizures of about 130 kg in 2022.

128. Incidents involving 3,4-MDP-2-P ethyl glycidate continued to be communicated through PICS in 2023 (see figure 13 above). A total of 85 per cent of the incidents occurred in Europe, 13 per cent in North America and 2 per cent in Oceania. Seizures in Europe often involved similar modi operandi that triggered bilateral and multilateral investigations among the countries concerned. China, including Hong Kong, was identified as the country of origin where such information was available. The amounts seized in the first 10 months of 2023 alone would have been sufficient to produce about 25 tons of MDMA.

129. Compared with 3,4-MDP-2-P ethyl glycidate, seizures of other alternative designer precursors of MDMA were negligible in 2022 and 2023. This included **MAMDPA**, the "ecstasy"-type analogue of MAPA that had emerged in mid-2021 and for which two countries in Europe, Belgium and Netherlands (Kingdom of the),

[24] INCB report on precursors for 2013 (E/INCB/2013/4), para.88.

reported combined seizures of less than 40 kg, while seizures in 2021 in the Kingdom of the Netherlands alone had amounted to almost 4.5 tons. It also included 450 kg of the sodium salt of **IMDPAM**, a new designer precursor seized in the Kingdom of the Netherlands in February 2023. Like most of the other designer precursors that have emerged recently, IMDPAM is included in the Board's limited international special surveillance list under the extended definitions. INCB issued an alert on the substance containing sufficient detail to allow Governments to carry out a risk analysis of shipments, thus helping to identify additional consignments with similar characteristics and enable countries of origin, transit and destination to cooperate on building cases to identify and prosecute those behind such trafficking.

3. Other trends in the illicit manufacture of amphetamine-type stimulants

130. A number of chemicals not included in the tables of the 1988 Convention but frequently reported on form D can be used in the illicit manufacture of different amphetamine-type stimulants, synthetic cathinones and other new psychoactive substances, and/or certain precursors, such as ephedrine and pseudoephedrine. They typically include a number of chemicals, solvents and reagents. Given their widespread legitimate applications, there is significant trade in these chemicals. Therefore, **the Board encourages Governments to be vigilant as to their possible diversion from both international trade and domestic distribution channels. The Board further encourages Governments to consider using the PEN Online Light system to notify the authorities of importing countries of planned shipments of these substances, thus aiding understanding of patterns of trade and possible vulnerabilities.**

Methylamine

131. Methylamine is required in the illicit manufacture of several amphetamine-type stimulants (e.g. methamphetamine and MDMA), synthetic cathinones, ketamine, and ephedrine and pseudoephedrine. It is also used widely for various legitimate industrial purposes, including in fine chemical synthesis and in the pharmaceutical industry.

132. In 2022, five countries reported seizures of methylamine, either as a solution or as the hydrochloride salt. With the exception of Mexico, all the countries were in Europe. The largest seizures were reported by the Kingdom of the Netherlands (almost 9 tons in 25 incidents, typically in illicit laboratories or warehouses). Mexico seized 1,600 litres in three incidents and Germany seized almost 1,200 litres in one incident, associated with the illicit manufacture of methamphetamine. There were no notable seizures of methylamine precursors, namely, ammonium chloride and formaldehyde, in 2022 (see also para. 168 below).

133. During the first 10 months of 2023, seizures totalling more than 10,800 litres of methylamine and 4.5 tons of methylamine hydrochloride were communicated through PICS. With the exception of one incident in Myanmar that involved the 4.5 tons of methylamine hydrochloride, all the seizures occurred in the Kingdom of the Netherlands, mostly in illicit laboratories or warehouses.

134. Given the widespread legitimate uses of methylamine, it is often diverted from domestic distribution channels or, within the European Union, from the internal market. Specific information about the origin is not frequently reported but when it is, Poland appears to be a source of common chemicals, including methylamine.

Hydrogen gas

135. Hydrogen gas can be used as a reducing agent in the illicit manufacture of several synthetic drugs. Seizures and thefts of gas cylinders containing the substance have regularly been reported on form D and since 2015, Germany has reported thefts of significant amounts from company premises. The amounts have consistently increased since 2018 and peaked in 2022, with about 33,000 litres stolen in 20 instances. German authorities reported that the stolen gas could have been used for the illicit manufacture of more than 49 tons of MDMA.

136. The Kingdom of the Netherlands has been identified as the key destination for the hydrogen gas stolen in Germany, and has accordingly and consistently reported significant seizures. In 2022, these amounted to about 6 tons.

137. Hydrogen gas thefts in Germany and seizures in the Kingdom of the Netherlands continued to be communicated through PICS in 2023. In the first 10 months of 2023, almost 10,000 litres of hydrogen gas were reported stolen in Germany, while seizures in the Kingdom of the Netherlands amounted to almost 7,800 litres, more than the amount reported seized in the whole of 2022.

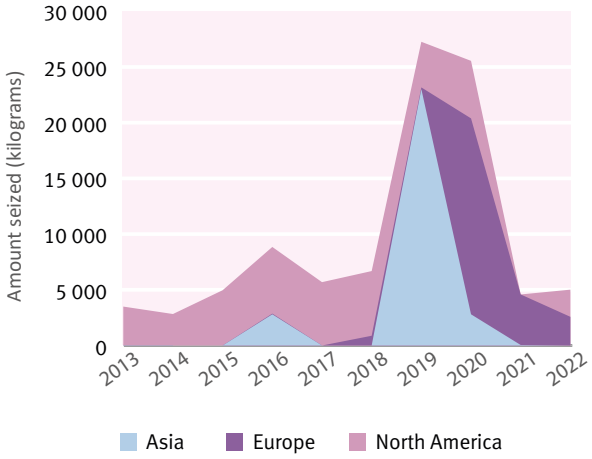
Tartaric acid

138. Tartaric acid is a separation agent that is used to increase the potency of methamphetamine manufactured using P-2-P-based methods. It is also used for similar purposes in the illicit manufacture of ephedrine from 2-bromopropiophenone, its precursor propiophenone, and other

pre-precursors.[25] Traditionally, tartaric acid is also associated with illicit heroin manufacture, namely, the extraction of morphine from opium. Given that tartaric acid is available off the shelf and has a variety of legitimate uses in different industries, **INCB encourages all Governments to be vigilant about the possible diversion of tartaric acid, including from domestic distribution channels.**

139. On form D for 2022, seizures of tartaric acid were only reported by Mexico (nearly 2.5 tons in five incidents), the Kingdom of the Netherlands (nearly 1.9 tons) and Germany (475 kg) (see figure 14). Through PICS, INCB is aware of additional seizures in North America (750 kg) and Europe (about 4.3 tons and 4,000 litres) in the first 10 months of 2023.

Figure 14. Seizures of tartaric acid reported by Governments on form D, by region, 2013–2022



AIBN, methyl thioglycolate, thioglycolic acid and dimyristyl peroxydicarbonate

140. While tartaric acid has long been associated with the process used to increase the potency of P-2-P-based methamphetamine, a further level of sophistication was observed in the Kingdom of the Netherlands in early 2020. The new method provides for the recycling of the previously discarded, less potent l-methamphetamine by-product that is produced when P-2-P-based methods are used.[26]

141. Before 2022, seizures of chemicals associated with this "recycling" process, including **AIBN, methyl thioglycolate, thioglycolic acid and dimyristyl peroxydicarbonate**, an alternative to AIBN, have been reported by Belgium and Netherlands (Kingdom of the). On form D for 2022, Mexico reported seizures of AIBN for the first time. The Kingdom of the Netherlands was the only other country to report such seizures in 2022. However, the combined amount of AIBN seized in the two countries was less than 85 kg. From open sources, INCB is aware of seizures of methyl thioglycolate made in Mexico since 2017.

142. Incidents involving chemicals associated with the process of enantiomeric enrichment and potency increase of P-2-P-based methamphetamine also continued to be communicated through PICS in the first 10 months of 2023, with seizures in the Kingdom of the Netherlands amounting to 100 kg of **AIBN**, 40 litres and 20 kg of **methyl thioglycolate**, and 20 kg of **dimyristyl peroxydicarbonate.**

The Board encourages Governments to share incidents involving non-scheduled substances that are identified as having been used in illicit drug manufacture through PICS or, as a minimum and pursuant to article 12, paragraph 12 (b), of the 1988 Convention, on form D, so as to help establish trends early and alert all Governments accordingly.

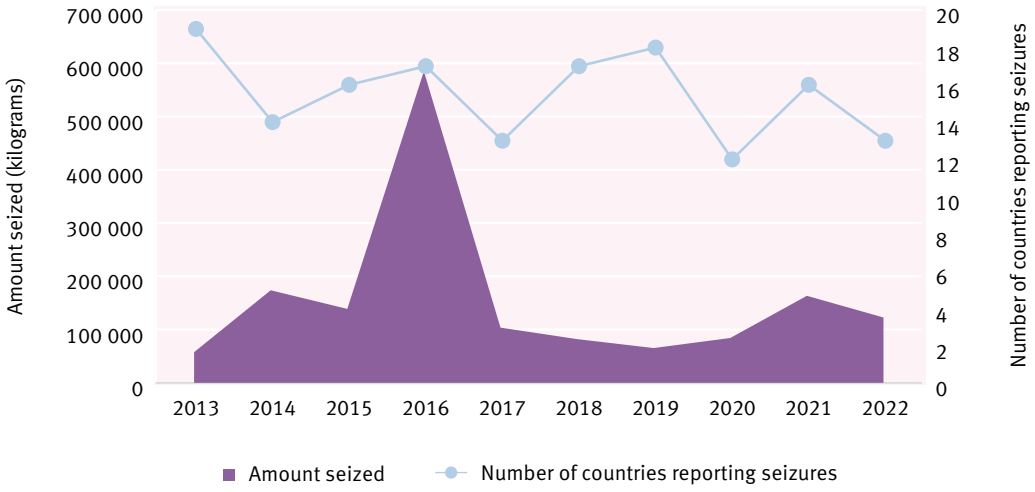
Cutting agents (adulterants and diluents) and tablet excipients

143. Seizures of cutting agents and tablet excipients continued to be reported. Analysis of them can provide valuable information for efforts to counter trafficking. In particular, countries in South-East Asia regularly report seizures of significant amounts of **caffeine**, a common ingredient in methamphetamine tablets, known as "yaba". The largest seizures in the last five years were reported by Myanmar, amounting to between 10 and 20 tons per year. In 2022, Myanmar and Thailand reported seizures amounting to more than 9 tons and 3 tons, respectively, with the substance seized in Thailand having been disguised in fertilizer bags. **INCB reminds Governments of the investigative value of monitoring cutting agents and tablet excipients and encourages them to consider taking action against cutting agents, in accordance with article 13 of the 1988 Convention.**

[25] INCB has been aware of such illicit manufacture in China for several years. In addition, INCB is aware of an incident involving the illicit manufacture of ephedrine from propiophenone, including with the use of tartaric acid, in India in July 2022. However, the quantities of the chemicals were not reported on form D for 2022 (see para. 90 above, and the Board's report on precursors for 2022 (E/INCB/2022/4, para. 115)).

[26] See the Board's report on precursors for 2020 (E/INCB/2020/4), paras. 112–114 and figure IX.

Figure 15. Seizures of potassium permanganate, as reported by Governments on form D, 2013–2022



B. Substances used in the illicit manufacture of cocaine

1. Potassium permanganate

144. Potassium permanganate is the principal oxidizing agent used in the illicit manufacture of cocaine, and most cocaine that is seized continues to be highly oxidized.[27]

Licit trade

145. Between 1 November 2022 and 1 November 2023, the authorities of 34 exporting countries and territories sent 1,806 pre-export notifications to 116 importing countries and territories relating to a total of approximately 35,000 tons of potassium permanganate, which represents about 24 per cent more trade in the substance compared with the previous reporting year. The main exporters were China, followed by India and the United States.

146. Imports of the substance by the three coca-producing countries in South America – Bolivia (Plurinational State of), Colombia and Peru – continued to account for a very limited proportion (less than 1 per cent) of the total global amount imported. Imports of the substance by other countries in South America decreased slightly to about 3 per cent, or about 1,035 tons, compared with the previous year. Of those countries, Brazil, Chile and Colombia had pre-notified exports of potassium permanganate, involving a total of 12.3 tons.

147. On form D for 2022, China and India reported having stopped exports of substantial quantities of potassium permanganate. China reported having stopped the export of a total of over 215 tons of the substance. India reported having stopped two exports involving a total of over 2 tons of potassium permanganate destined for two countries. Both shipments appear to have been stopped for administrative reasons, with no indication of a diversion attempt.

Trafficking

148. On form D for 2022, 13 countries and territories reported seizures of potassium permanganate amounting to more than 122 tons (see figure 15). As in previous years, Colombia reported the largest seizures, amounting to more than 117 tons (in 202 incidents). Although slightly smaller than in 2021 (when a total of more than 135 tons were seized in 307 incidents), seizures in Colombia accounted for around 96 per cent of all the amounts reported seized in 2022. The second largest seizures of the substance, amounting to over 2.5 tons, were reported by the Plurinational State of Bolivia. In the Andean region, Chile and Venezuela (Bolivarian Republic of) also reported seizures of the substance; however, the quantities were significantly smaller than in previous years.

149. Myanmar reported seizures of potassium permanganate for the first time, amounting to almost 1.3 tons and representing the third largest quantity reported seized in 2022. The origin of the substance was unknown. Countries in Europe also continued to report seizures of the substance. As in the past, very few details were provided to the Board, yet the available information suggests that the substance originated from within the country in which the seizure was made. In 2023, Germany reported having dismantled a cocaine extraction laboratory, the first such laboratory

[27] Continuing the trend identified in previous years, results from the Cocaine Signature Program of the United States Drug Enforcement Administration Special Testing and Research Laboratory indicate that less than 1 per cent of the cocaine samples examined, from seizures in 2022 in the United States, were moderately or not oxidized.

detected in the country. Spain also reported the seizure of a cocaine extraction laboratory that, according to the authorities, was one of the biggest cocaine extraction laboratories ever seized in Europe.

2. Use of non-scheduled chemicals and other trends in the illicit manufacture of cocaine

150. The illicit manufacture of cocaine has undergone notable changes since the 1988 Convention came into force, especially in relation to the sophistication and level of chemical knowledge employed to optimize the process. As a result, a range of non-scheduled chemicals are used in the processing of cocaine, substituting for or complementing traditional precursors. For example, there are a variety of common acids, bases and solvents that are used as alternatives to controlled acids, bases and solvents in the extraction of cocaine base from coca leaves and for the conversion of cocaine base into hydrochloride. Several of these internationally non-controlled chemicals have long been under national control, especially in countries in South America, and seizures are regularly reported. More countries than in the past reported on form D for 2022 that the origin of the chemicals was unknown; when information on the origin was provided, it indicated that the seized chemicals continued to be sourced domestically or from within the region.

Chemicals used to illicitly manufacture controlled precursors, or substitute for controlled precursors used in cocaine processing

151. With regard to precursors of potassium permanganate, the situation remained unchanged, with Colombia being the only country to report seizures of **manganese dioxide** (pyrolusite) and **potassium manganate** in 2022. The seizures involved amounts of more than 2.5 tons of each substance, in two and nine incidents, respectively. This ties in with information provided by the Colombian Drug Observatory, according to which 10 potassium permanganate laboratories were dismantled in 2022, compared with nine in 2021. In the first 10 months of 2023, six potassium permanganate laboratories were dismantled.[28] Compared with the amounts of potassium permanganate seized, the amounts of its precursors seized remained small, and the substance continues to be more typically diverted from domestic distribution channels than illicitly manufactured.

152. In addition to potassium permanganate, several other chemicals needed in cocaine processing, including ammonia, hydrochloric acid and sulphuric acid, may also be illicitly manufactured. Colombia provides such information through its Drug Observatory. In addition, the country, as well as several others, provides information about seizures of relevant non-scheduled precursor chemicals on form D. In 2022, four countries reported seizures of **urea**, a widely used fertilizer that can also be used in cocaine processing and the illicit manufacture of ammonia for such processing. The amounts reported in 2022 fall short of those reported in the past, although reported seizures have fluctuated significantly over the years (see figure 16). Cumulatively, the countries having reported the largest seizures have been Colombia and Venezuela (Bolivarian Republic of).

Chemicals that help to improve the efficiency of the cocaine manufacturing process

153. With regard to chemicals that help to improve the efficiency of the cocaine manufacturing process, six countries reported seizures of **sodium metabisulfite**[29] and five countries reported seizures of **calcium chloride**.[30] The Kingdom of the Netherlands was the only country outside South America to report notable seizures of those chemicals, a reflection of the existence of secondary extraction laboratories, or cocaine "washing" laboratories, in that country and the related technology transfer from South America to Europe. The amounts of both substances seized in the Kingdom of the Netherlands were orders of magnitude smaller than in countries in South America.

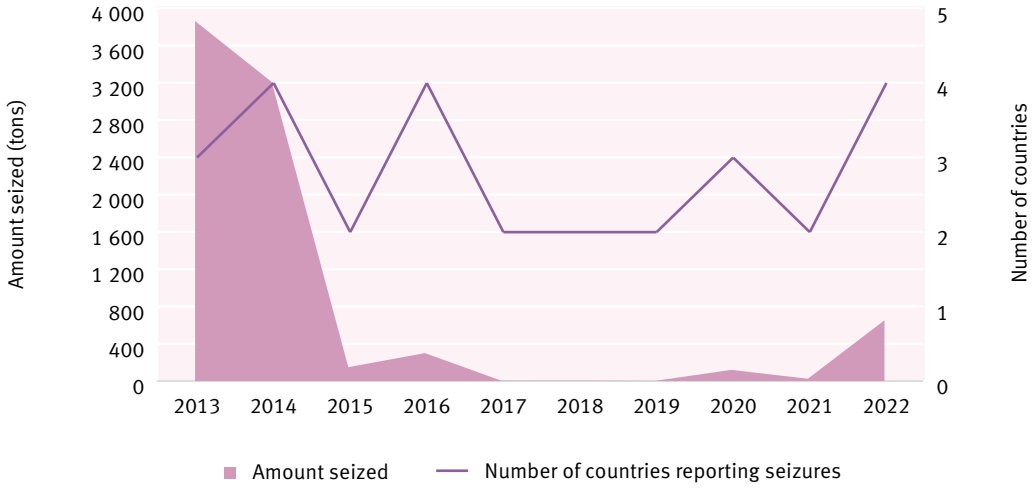
154. Unlike the information available for most other countries, where domestic diversion prevailed as a source, the chemicals seized in Chile were alleged to have originated in China and to be destined for the Plurinational State of Bolivia. Ecuador also reported stopped shipments involving notable amounts of calcium chloride destined for Colombia. To address the diversion of common chemicals with legitimate uses into illicit channels, and to overcome differences in controls applied to such chemicals in countries within a region and globally, **the Board encourages Governments to consider using the Board's recently launched PEN Online Light system to notify the authorities of importing countries of planned exports of calcium chloride and other chemicals used in the processing of cocaine, in particular when these chemicals are controlled domestically. This may aid understanding of trade patterns and address suspicious transactions before diversion occurs.**

[28] Colombian Drug Observatory (www.odc.gov.co/sidco/oferta/infraestructura-sustancias-quimicas) (in Spanish).

[29] Sodium metabisulfite is used to standardize the oxidation level of cocaine base sourced from multiple extraction laboratories prior to further processing.

[30] Calcium chloride is used as a drying agent for solvents, thus enabling them to be recycled and reducing the need for fresh solvents.

Figure 16. Seizures of urea, as reported by Governments on form D, 2013–2022



155. In terms of efficiency gains, a new trend that came to the Board's attention in 2022 was the use of **acetyl chloride** in the last step of the conversion of cocaine base to cocaine hydrochloride. Use of the chemical was said to increase both the yield and purity of cocaine hydrochloride. However, new evidence has emerged since then, and **the Board therefore reiterates its call for further research into the use of acetyl chloride in illicit cocaine manufacture and, when it is encountered in illicit settings, for investigations into the source of the chemical.**

C. Substances used in the illicit manufacture of heroin

1. Acetic anhydride

156. Acetic anhydride is one of the most widely traded substances in Table I of the 1988 Convention. It is used as an acetylating and dehydrating agent in the chemical and pharmaceutical industries for the manufacture of cellulose acetate, for textile sizing agents and cold bleaching activators, for polishing metals and for the production of brake fluids and dyes. It can also be used in the manufacture of explosives – a total of 11 countries have reported such use in the past. The substance is the key chemical in the illicit manufacture of heroin, and it is also required in the illicit manufacture of amphetamine and methamphetamine, namely, in instances where the manufacturing process starts with phenylacetic acid or phenylacetic acid derivatives (see annex VIII).

Licit trade

157. From 1 November 2022 to 1 November 2023, the authorities of 23 exporting countries and territories used the PEN Online system to submit 1,756 pre-export notifications for shipments of acetic anhydride. The shipments were destined for 85 importing countries and territories and involved a total of 1.2 billion litres of acetic anhydride, an increase of 9 per cent compared with the previous reporting period.

158. From 1 November 2022 to 1 November 2023, the competent national authorities of importing countries objected to a total of 69 of 1,756 shipments of acetic anhydride (3.9 per cent), mostly for administrative reasons. The objection rate was considerably lower than it was in the period 2018–2020, when approximately 7.6 per cent of proposed shipments were objected to. In recent years, a significant proportion of shipments that were objected to involved Mexico as the proposed export country.

Trafficking

159. On form D in 2022, 15 countries reported seizures of a total of 25,593 litres of acetic anhydride. This amount was the smallest since 2005, when 22,379 litres of acetic anhydride were seized worldwide (see figure 17).

160. The largest seizures of acetic anhydride in 2022 were reported by Türkiye (14,500 litres), followed by Pakistan (10,000 litres). Other countries that reported seizures of over 100 litres of acetic anhydride were China (571 litres) and India (308 litres).

161. The decrease in global seizures of acetic anhydride may not correlate with the developments concerning opium poppy cultivation in Afghanistan from 2021 to 2023. According to UNODC, in the cropping season of 2022 about 233,000 hectares were under opium poppy cultivation in Afghanistan, 56,000 hectares (32 per cent) more than in 2021, when the Taliban came to power in the country. [31]

[31] UNODC, "Opium cultivation in Afghanistan: latest findings and emerging threats" (2022), p. 4.

Figure 17. Seizures of acetic anhydride, as reported by Governments on form D, 2001–2022

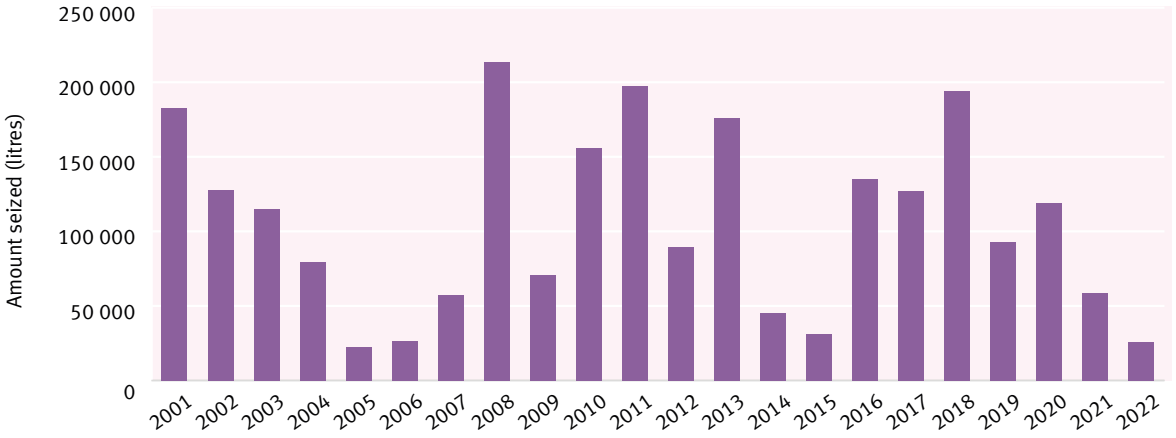
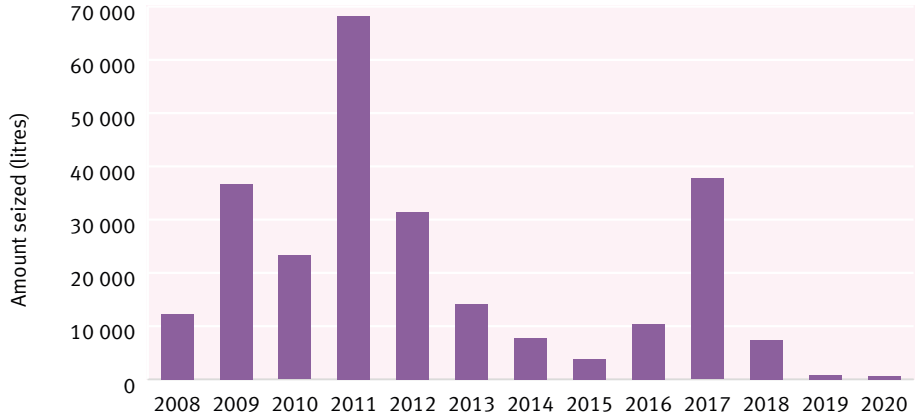


Figure 18. Seizures of acetic anhydride, as reported by the Government of Afghanistan on form D, 2008–2020



162. The opium harvest in Afghanistan in 2022 could be converted into some 240 to 290 tons of pure heroin. This would require between 240,000 and 725,000 litres of acetic anhydride.[32] However, given the absence of seizure information from Afghanistan since 2021, the magnitude of trafficking in acetic anhydride, as well as recent demand for the substance for use in the illicit manufacture of heroin, in the country is difficult to assess (see figure 18).

163. From 1 November 2022 to 1 November 2023, three countries communicated through PICS seizures of small amounts of acetic anhydride, namely, India (103 litres), Netherlands (Kingdom of the) (740 litres) and Pakistan (175 litres). In the Kingdom of the Netherlands, in one case, the acetic anhydride was seized from a warehouse together with non-scheduled chemicals that can be used in the illicit manufacture of amphetamine-type stimulants and new psychoactive substances, including the sodium salt of P-2-P methyl glycidic acid, 3,4-MDP-2P ethyl glycidate and 2-bromo-4'-methylpropiophenone (see para. 183 below).

2. Use of non-scheduled chemicals and other trends in the illicit manufacture of heroin

164. **Acetyl chloride** is a chemical known to be a possible substitute for acetic anhydride as an acetylating agent in the conversion of morphine to heroin. Acetyl chloride is therefore included in the INCB limited international special surveillance list and is also controlled in several countries, including Afghanistan, Iran (Islamic Republic of) and Pakistan.

165. In its previous reports, the Board expressed concern regarding the suspected partial replacement of acetic anhydride as an acetylating agent used in the illicit manufacture of heroin by acetyl chloride. From 2018 to 2021, acetyl chloride was seized in some countries in Asia and Europe

[32] INCB report on precursors for 2022 (E/INCB/2022/4), para. 167.

(Afghanistan, India, Iran (Islamic Republic of), Netherlands (Kingdom of the), Pakistan, Türkiye and the United Arab Emirates). In 2022 and 2023, seizures of acetyl chloride ceased, except for 12,500 litres of the substance seized in the Islamic Republic of Iran and less than one litre seized in Hong Kong, China.

166. Despite calls by expert groups, including those under the Paris Pact initiative, to undertake forensic profiling analysis of seized heroin samples with the aim of identifying the manufacturing methods to support operational activities, the conduct of such profiling analysis has not yet been reported. Therefore, the actual use of acetyl chloride as a substitute for acetic anhydride could not be confirmed.

167. **Glacial acetic acid** is a chemical that is included in the INCB limited international special surveillance list. In the past, it has been repeatedly reported as being used as a cover load or to otherwise conceal acetic anhydride. However, it may also be associated with the illicit manufacture of other drugs and precursors, including P-2-P and 3,4-MDP-2-P. On form D for 2022, the amounts of glacial acetic acid reported seized worldwide totalled less than 1,000 litres, including 840 litres of the substance seized in Germany.

168. **Ammonium chloride** is another non-scheduled chemical frequently associated with the illicit manufacture of heroin, in which it is used in the process of extracting morphine from opium. It is also required for the illicit manufacture of methylamine (see paras. 131–134 above). In 2022, three countries, namely, Belgium, Mexico and Netherlands (Kingdom of the), reported seizures of ammonium chloride, in small (kilogram) amounts, on form D.

D. Substances used in the illicit manufacture of other narcotic drugs and psychotropic substances

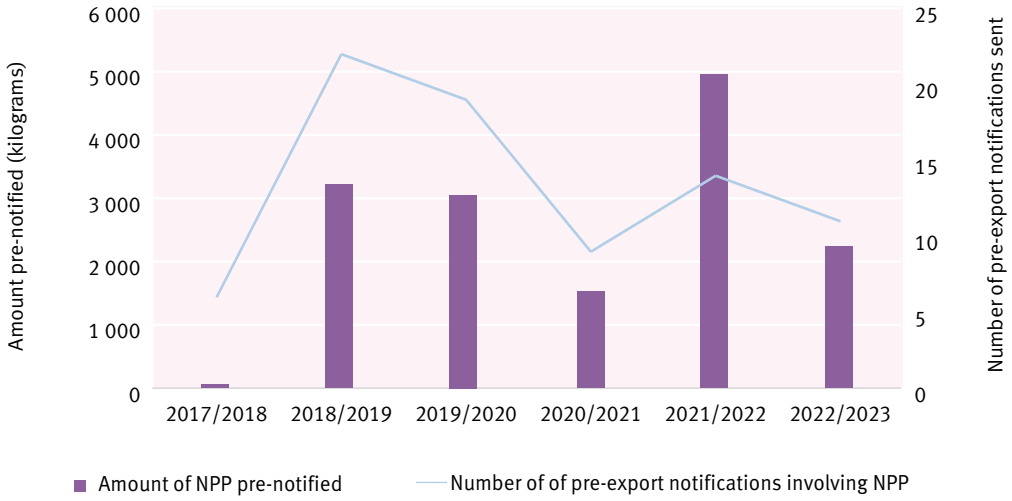
169. With the exception of precursors of fentanyl, fentanyl analogues and other synthetic opioids, there have been no notable developments related to precursors of other narcotic drugs and psychotropic substances. This applies to both licit trade in and seizures of precursors of methaqualone (i.e. acetyl anthranilic acid and *N*-acetylanthranilic acid) and of phencyclidine and other phencyclidine-type drugs (i.e. piperidine). With regard to precursors of LSD, as in the past, Australia was the only country to report notable seizures. In total, there were more than 400 individual seizures involving a total of about 200 grams of ergometrine, ergotamine and lysergic acid; the substances originated in 15 countries from all regions except Oceania.

Precursors of fentanyl, fentanyl analogues and other synthetic opioids, and alternative chemicals

Licit trade

170. Of the five fentanyl precursors now under international control, namely, NPP, ANPP, 4-AP, 1-boc-4-AP and norfentanyl, there is only notable trade in NPP, which is used as a starting material for the legitimate manufacture of fentanyl. Between 1 November 2022 and 1 November 2023, three exporting countries notified importing countries of 11 planned shipments, amounting to a total of more than 2.2 tons, through the PEN Online system (see figure 19). The

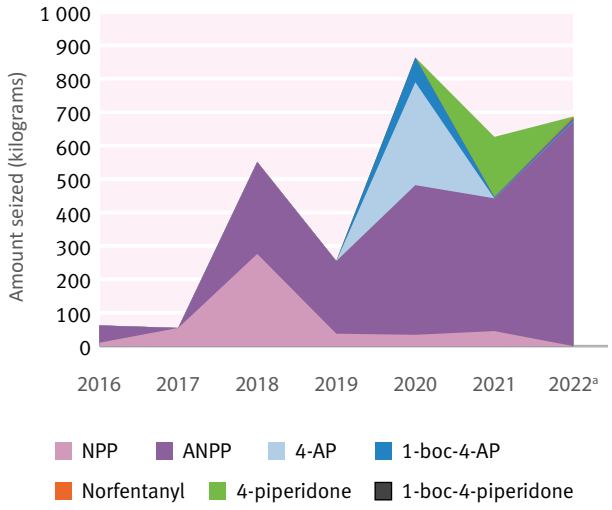
Figure 19. Proposed exports of NPP, pre-notified by exporting Governments through the PEN Online system, 2018–2022[a]



[a] Reporting periods are from 1 November of the first year to 1 November of the following year.

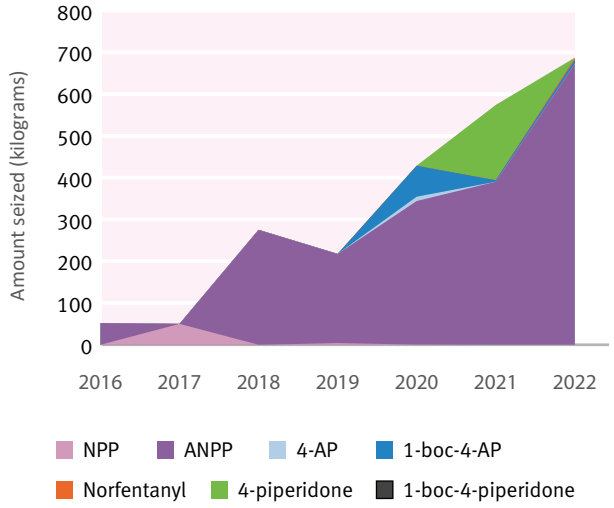
largest exporter was France, followed by India. The largest importer was the United States, followed by the United Kingdom, South Africa and the Russian Federation. All four countries have reported the legitimate manufacture of fentanyl to INCB. The quantities of 4-AP, ANPP and norfentanyl in shipments pre-notified during the reporting period were very small, consistent with amounts being used for limited research and laboratory analytical purposes; there were no proposed transactions involving 1-boc-4-AP.

Figure 20. Seizures of fentanyl precursors, as reported by Governments on form D, 2016–2022[a]



[a] Mexico reported a seizure of 855 litres of ANPP. As the concentration of the solution was not indicated, this amount could not be converted into a weight and is not reflected in the figure.

Figure 21. Seizures of fentanyl precursors, as reported by the United States on form D, 2016–2022



Trafficking

171. Mexico and the United States were the only countries that reported notable seizures of fentanyl precursors under international control on form D for 2022. In fact, since 2018, the amount of **ANPP** reported seized by the United States accounted for 75 per cent to 100 per cent of all seizures of the substance reported on form D (see figures 20 and 21). In addition, the United States was the only country to have consistently reported seizures of 1-boc-4-AP on form D for the past three years. In all cases where such information was provided by the United States, the amounts seized were reported to have been of domestic origin.

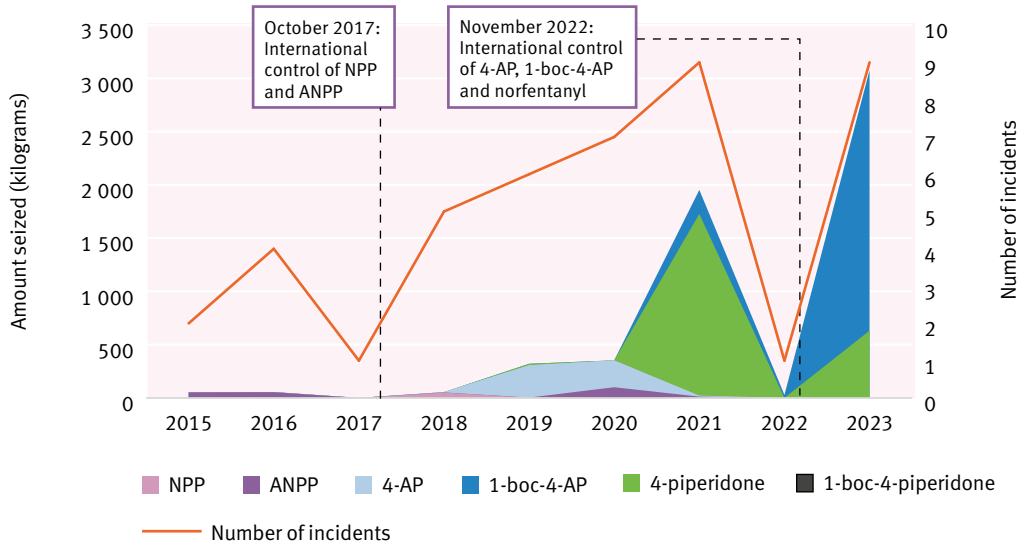
172. The United States also reported three incidents involving fentanyl laboratories in 2022. This was a major decline from the 28 incidents reported in 2021. Also in 2022, Mexico reported an unusual seizure of 855 litres of ANPP. This may have been a reaction mixture containing ANPP and hence an indication of an illicit laboratory. However, further details were not provided.

173. While no seizures of any fentanyl precursors under international control were communicated through PICS in 2023, there was an incident in Canada that involved more than 630 kg of **4-piperidone** in the form of its monohydrate hydrochloride salt (see figure 22). The seizure, which also involved large quantities of precursors of different drugs and was made in warehouses in several cities in British Columbia, was the result of an investigation following the interception at Vancouver International Airport of an air cargo container, the content of which had been misdeclared. Canada is also the country that has reported the largest seizure of 4-piperidone to date (1.5 tons), in August 2021. The substance is one of the fentanyl precursors that have been proposed for international control.

174. In the context of Operation Backup (see paras. 64 and 65 above), the United States communicated nine incidents involving a total of more than 2.4 tons of **1-boc-4-piperidone**, the other fentanyl precursor that was proposed for international control. Four of those incidents also involved the seizure of a total of about 660 kg of **2-phenethyl bromide**. The chemical, which is not under international control, is required together with other fentanyl precursors in a number of methods for the illicit manufacture of fentanyl. The majority of incidents occurred at mail and parcel facilities in Laredo, Texas.

175. While there is abundant media coverage, including official media releases from government authorities, of the smuggling of fentanyl precursors into countries in North America, the reports often lack actionable

Figure 22. Incidents communicated through PICS involving fentanyl precursors, 2015–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

details, including information about the specific chemical involved. As a result, such reports are neither reflected in the data available to INCB, nor do they allow timely investigation. **INCB therefore urges Governments to make greater efforts to communicate supporting evidence of trafficking in fentanyl precursors, including through the more active and timely use of PICS. It is only sufficiently detailed actionable information that enables the authorities of the countries concerned to launch backtracking investigations. INCB also requests Governments to respond to the Board's inquiries in a timely manner to assist the Board and the competent national authorities concerned in identifying and preventing cases of precursor trafficking using similar modi operandi in the future.**

176. Mexico and the United States reported seizures of precursors of fentanyl analogues on form D for 2022. Specifically, each country reported totals of about 10 kg of different precursors of *para*-fluorofentanyl. In addition, the United States communicated an incident through PICS that involved the masked derivative of a precursor of *para*-fluorofentanyl. The misdeclared shipment was seized at the international airport in Indianapolis. Given the overall scarcity of information on precursors of fentanyl and its analogues, the seizures in 2022 may suggest a diversification by traffickers into the illicit manufacture of more fentanyl end products.

E. Substances not listed in Table I or Table II of the 1988 Convention that are used in the illicit manufacture of other narcotic drugs and psychotropic substances or substances of abuse not under international control

1. Precursors of GHB

177. **GBL** is a chemical precursor of GHB and **1,4-butanediol** is a chemical precursor of GBL. Both substances may also be ingested directly, as they are metabolized into GHB in the body, that is, they are both prodrugs of GHB. Because of this, some countries control GBL as a precursor while others control it as a psychotropic substance. As a result, not all countries where GBL is encountered report seizures of the substance on form D. In 2022, Australia, the United States and seven countries in Europe reported seizures of GBL; the United States was the only country to report seizures of 1,4-butanediol. Following the launch of the PEN Online Light system in October 2022, the authorities of China started notifying importing countries of planned shipments of GBL as part of legitimate trade. In addition, China reported on form D that it had stopped 39 shipments involving a total of almost 575 tons of GBL in 2022.

178. GBL and 1,4-butanediol were also, among other substances, targets of the Board's Operation Knockout, which was aimed at identifying and dismantling illicit manufacturing operations, suspicious online marketing activities and distribution and redistribution points involving substances that had specifically been associated with reports of drug-facilitated sexual assault in the past. The Operation was conducted jointly under Project Ion, Project Prism and the Global Rapid Interdiction of Dangerous Substances (GRIDS) Programme between 20 November and 18 December 2022. Seizures during the operational period totalled 82 kg and 18 litres of GBL (in 61 incidents) and 46 kg and 200 litres of 1,4-butanediol (in 101 incidents). Those quantities were indicative of retail-level seizures of the substances for direct consumption rather than for use as a precursor chemical. The main consumer markets were in North America and Oceania; the main regions of origin were Europe and East Asia.

179. Seizures of GBL and 1,4-butanediol communicated through PICS in the first 10 months of 2023 amounted to a total of about 1,700 litres in nine incidents and more than 3,300 kg in two incidents, respectively. The largest amounts of both substances were communicated by Canada and were both seized as part of multi-precursor seizures involving amphetamine-type stimulants and fentanyl precursors. Given their dual nature, incidents involving both substances also continued to be communicated through IONICS, typically in retail-level quantities.

2. Precursors of ketamine

180. Although there have been major increases in seizures of ketamine in recent years, as well as increases in the size and sophistication of dismantled ketamine laboratories, information about the chemicals involved remains scarce. According to UNODC,[33] some of the largest operations, including illicit laboratory sites and storage locations, have been dismantled in South-East Asia, namely, Cambodia and Myanmar, resulting in the seizure of huge quantities of chemicals, in the range of several hundreds of tons. However, these chemicals were usually not specified. In cases where they were, they were mostly basic chemicals, solvents, acids and bases, but there was no information about the actual starting materials.

181. With only China reporting any seizures, in almost negligible amounts, of two of the primary ketamine precursors, **2-chlorophenyl cyclopentyl ketone** and **"hydroxylimine",**[34] in 2022, it is not possible to discern any trends in ketamine precursor trafficking. **The Board commends those Governments that voluntarily report seizures of specific ketamine precursors, their origin and, where available, related contextual information. Similarly, the Board commends those Governments that use forensic profiling analysis to determine whether seized ketamine was illicitly manufactured and from which chemicals. These efforts help provide the evidence to prevent illicit ketamine manufacture while protecting legitimate supply chains, thus ensuring the availability of ketamine and its precursors for legitimate purposes.**

3. Precursors of new psychoactive substances, including substances recently scheduled under the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol or the Convention on Psychotropic Substances of 1971

182. As in previous years, a number of countries, especially countries in Europe, reported seizures of precursors of new psychoactive substances and substances recently placed under international control on form D. Such reporting, together with information communicated through PICS, provides an indication of the geographical spread of the illicit manufacture of these substances. As in previous years, most of the seizures made in the reporting period involved precursors of synthetic cathinones.

183. On form D for 2022, the Russian Federation reported the largest seizures of more than 2,800 litres of **valerophenone**, a precursor of *alpha*-PVP, and about 840 kg of **2-bromo-4'-methylpropiophenone**, a precursor of mephedrone. The latter substance was also reported by four other countries in Europe, in amounts ranging from less than 1 kg (Hungary) to almost 350 kg (Ukraine). Netherlands (Kingdom of the) and Poland also reported seizures of **2-bromo-4'-chloropropiophenone**, a precursor of 4-CMC (clephedrone) and of other 4-chloro-substituted cathinone derivatives.

184. In the first 10 months of 2023, six incidents involving precursors of new psychoactive substances were communicated through PICS. They included four illicit laboratory incidents in the Kingdom of the Netherlands involving *alpha*-PVP, mephedrone and clephedrone precursors, at least one of which was also associated with certain steps of illicit ketamine manufacture. Available information suggests that there is limited illicit manufacture of cathinones in Europe, predominantly mephedrone and clephedrone in

[33] UNODC, Regional Office for Southeast Asia and the Pacific, *Synthetic Drugs in East and Southeast Asia.*

[34] "Hydroxylimine" is an informal term used to refer to the substance known chemically as 1-hydroxycyclopentyl (2-chlorophenyl)-ketone-*N*-methylimine.

Western and Central Europe and mephedrone and *alpha*-PVP in Eastern Europe. Such manufacture is also occasionally reported in Central Asian countries. However, while significant amounts of precursors are seized, their type is not usually specified. For example, INCB is aware of the dismantling of an alleged mephedrone laboratory in Kyrgyzstan in June 2023 involving the seizure of 2.2 tons of unspecified precursors and related laboratory equipment. The Board is also aware of illicit mephedrone manufacture in Taiwan Province of China.

IV. Implications of conflict and unresolved territorial disputes for precursor control

185. While no country is immune from attempts by traffickers to obtain chemicals for illicit purposes, territories whose legal status is unclear or contested or that, at any given time, are not effectively under the control of an internationally recognized Government present an increased risk of being targeted by illicit operators. The scenarios that give rise to vulnerabilities related to precursor control vary in nature and include political instability, conflict and unresolved territorial disputes in various forms, civil war or prolonged civil unrest and post-conflict situations (places in which such scenarios exist are referred to as countries of conflict or conflict areas), as well as the absence of a recognized competent national authority for any other reason. Vulnerabilities in a given country may change over time.

186. INCB has, on several occasions, expressed its concern about the increasing number of territories where conflict, unresolved territorial disputes or other circumstances hinder the exercise of effective governmental control, thus increasing the risk of such territories being exploited by illicit operators for the diversion of chemicals and/or the illicit manufacture of drugs.[35] The Board has also, in the past, expressed concern about significant amounts of precursors, in particular ephedrine and pseudoephedrine, being pre-notified through the PEN Online system for export to conflict areas and about the absence of, or unrealistically high, estimates of annual legitimate requirements for the substances on record with INCB, many of which have not been updated for several years. Governments' limited ability to interact with, and the Board's limited ability to respond to communications relating to, conflict areas add to the complexity of the issue.

187. The present chapter draws on observations made by the Board in the past 15 years. While there are more countries of conflict and situations of unresolved territorial disputes worldwide, the countries and territories discussed below illustrate concrete scenarios encountered by INCB. Most of them were addressed in the INCB report on precursors for the year in question. They were also the subject of several Project Cohesion and Project Prism alerts. While the specific circumstances in a country or territory may or may no longer prevail, the observations and lessons are applicable to similar situations in other conflict areas.

Import permits issued by entities other than the competent national authority

188. From 2016 to 2019, shipments of substantial amounts of pharmaceutical preparations containing pseudoephedrine were pre-notified to the **Kurdistan region of Iraq**, with the competent national authority in Iraq having objected to all shipments to that region.[36] In those cases, import permits were issued by the Ministry of Health in the Kurdistan region of Iraq. However, the designated competent authority for the national precursor control system was the Ministry of Health in Baghdad, and the agency in the Kurdistan region of Iraq was not empowered to authorize imports of precursors.

189. Diversion attempts involving the use of "import permits" issued by the Ministry of Health in the Kurdistan region of Iraq were also made between 2008 and 2013. At that time, the substance targeted by traffickers was acetic anhydride, and although the competent authority of Iraq, in cooperation with exporting countries, prevented the delivery of hundreds of tons of the substance, the lack of law enforcement investigations into the identity of the persons and companies responsible for placing suspicious orders for the substance meant that traffickers continued to attempt to obtain acetic anhydride through Iraqi companies for a number of years.

190. A similar instance occurred in Cyprus in 2016, when the authorities of an exporting country enquired with the

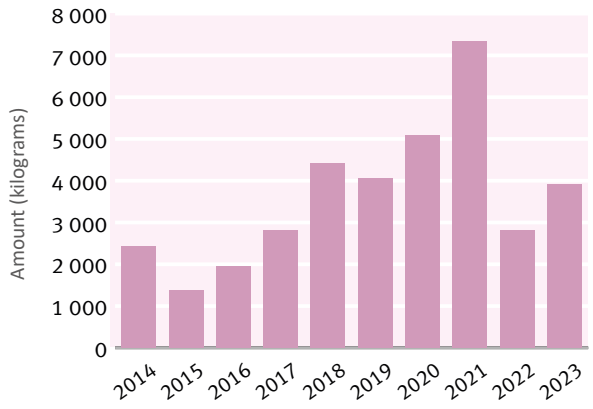
[35] INCB reports on precursors for 2016, 2017 and 2022 (E/INCB/2016/4, paras. 207–210; E/INCB/2017/4, paras. 49–54; and E/INCB/2022/4, para. 214).

[36] The situation was further compounded by the fact that pharmaceutical preparations containing ephedrine or pseudoephedrine are not as closely controlled as the raw materials they contain, and not all countries have been following the recommendations contained in various resolutions of the Commission on Narcotic Drugs and implemented legislation to treat preparations containing ephedrine and pseudoephedrine in the same manner as the precursors they contain.

competent authorities of Cyprus about the export of a shipment of 500 kg of pseudoephedrine to the **northern part of Cyprus** on the basis of an authorization issued by an entity there. The shipment was eventually stopped by the authorities of the exporting country on the grounds of their lack of recognition of the importing territory.

191. Another example is **Yemen**, a country affected by civil war since 2015. There was concern regarding the increasing amounts of ephedrines, in particular pseudoephedrine, both in the form of pharmaceutical preparations and raw material, that were proposed for import to Yemen since the beginning of the civil war (see figure 23), in combination with insufficient monitoring through the PEN Online system. In mid-2020, INCB was informed of the relocation of the office of the competent national authority of Yemen from Sana'a to Aden, accompanied by the nomination of a new focal point for matters related to the three international drug control conventions. In the two-year period before January 2021, when a new user of the PEN Online system was registered, competing interests between the new office in Aden and the office in Sana'a that had previously represented the competent national authority affected the authorization of proposed shipments of precursors through the PEN Online system. In view of the amounts pre-notified and difficulties in verifying the legitimacy of orders, INCB encouraged the authorities of exporting countries to be vigilant about pseudoephedrine shipments to Yemen, in order to prevent their diversion into illicit channels while ensuring that the supply of pseudoephedrine for legitimate purposes remained adequate.

Figure 23. Proposed shipments of pseudoephedrine (raw material and preparations combined) to Yemen notified by exporting countries through the PEN Online system, 2014–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

Insufficient monitoring by importing countries and territories of legitimate trade

192. International trade in precursors outside the PEN Online system, which has become the central global system for the exchange of pre-export notifications pursuant to article 12, paragraph 10 (a), of the 1988 Convention, brings about a higher risk of diversion. This applies to countries of conflict as well as, more generally, any importing country not using the system, or not using it actively, to monitor incoming notifications. Of particular concern is the trade in pharmaceutical preparations containing scheduled precursors, especially ephedrine and pseudoephedrine, which INCB and the Commission on Narcotic Drugs have recommended be monitored in the same manner as the trade in the precursors that those preparations contain. Preparations containing ephedrine and pseudoephedrine are frequently used in the illicit manufacture of methamphetamine.

193. The authorities of a number of countries of conflict are registered to use the PEN Online system; however, they do not view incoming pre-export notifications on a regular basis. As a result, trade may proceed without oversight or assurance about a shipment's end purpose or destination. Some examples of which INCB is aware that illustrate different manifestations of the issue are provided below.

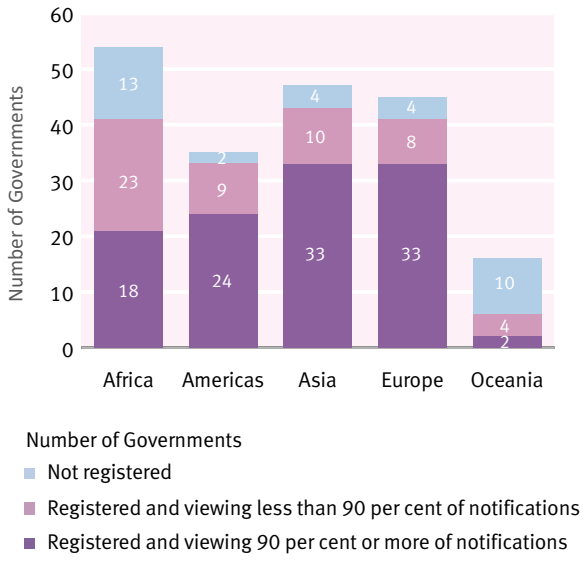
194. The political situation in **Libya** has led to a period of inactivity on the part of the authorities in relation to the monitoring of proposed shipments of precursors into the country. Over this period of three and a half years, 16 shipments of more than 100 kg each, amounting to a total of more than 2.8 tons of pseudoephedrine in the form of pharmaceutical preparations, were pre-notified through the PEN Online system. Given the lack of response by the Libyan authorities, including to the Board's enquiry, these shipments may have proceeded to the country without the authorities having been aware of them. In October 2022, the Libyan authorities resumed their active use of the PEN Online system and cooperation on suspicious transactions, and have objected to several proposed shipments, including four shipments of pseudoephedrine preparations.

195. In **Somalia**, the Ministry of Health and Human Services in Mogadishu is registered for and uses the PEN Online system, even though the country is not yet a party to the 1988 Convention. In July 2022, in response to an enquiry from INCB, shipments to Somalia of sizeable amounts of pharmaceutical preparations containing pseudoephedrine were stopped by the authorities of the exporting country. However, prior to that, shipments totalling nearly 1 ton of pseudoephedrine preparations appear to have proceeded on the basis of the absence of an objection by the Somalian

authorities through the PEN Online system and an import certificate that was later confirmed by the competent authority of Somalia as having been forged. Following that, the competent authority requested that, as a matter of general practice, a copy of the import permit be attached to any pre-export notification in order to enable it to verify the permit's authenticity. That practice has since been implemented by the exporting country concerned. The case illustrates the need for importing Governments to object to suspicious shipments in a timely manner or request more time to scrutinize them.

196. Insufficient use of the PEN Online system is a matter of concern with regard to many countries in Africa. In 2022, a total of 36, or two thirds, of all Governments on the continent were not registered or did not regularly view incoming pre-export notifications (see figure 24). This included a number of countries in West and Central Africa in which conflicts had recently (re)surged, such as **Burkina Faso, the Central African Republic, Chad, Gabon, Guinea, Mali** and **the Niger**.

Figure 24. Level of utilization of the PEN Online system, by region, 2022



Insufficient monitoring by exporting countries and territories of legitimate trade

197. The voluntary provision by importing countries of licit trade data on form D provides an indication of the role of other countries and territories as exporters of controlled precursors, even though those exports might not have been pre-notified through the PEN Online system and might not have been reported to INCB on form D.

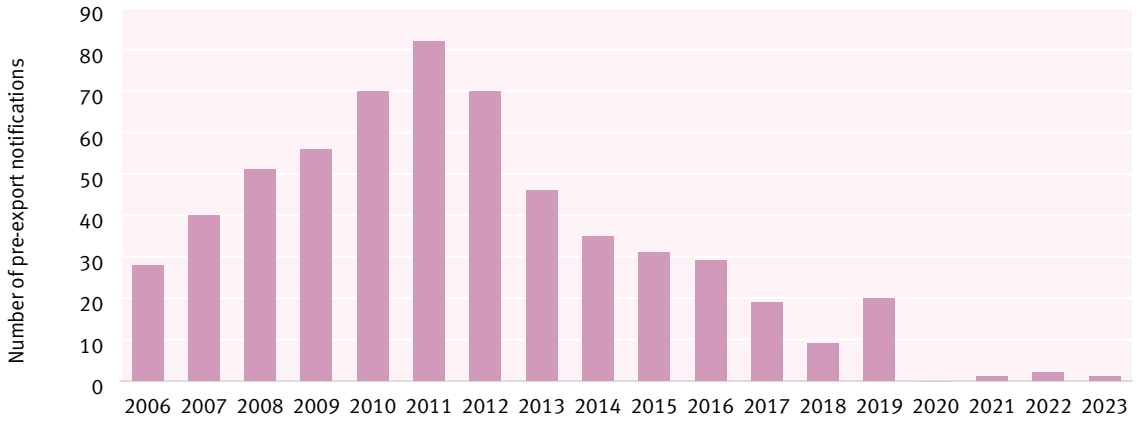
198. A specific scenario arises in relation to **Taiwan Province of China**. The voluntary provision by importing countries of licit trade data provides an indication of the province's role as a notable exporter of substances in Table I of the 1988 Convention. For example, the Province accounted for 10 per cent of the total quantity of norephedrine exports declared by importing countries on form D during the period 2018–2022. In that period, 14 countries reported imports of precursors from Taiwan Province of China on their form D. In addition, although Taiwan Province of China is not a registered user of the PEN Online system, more than 2,200 pre-export notifications (for various precursors) were sent to the Province by 16 exporting countries through the PEN Online system in the period from 1 January 2018 to 31 December 2022.[37] They would have reached the recipient selected by the exporting country's PEN Online system user by email.

199. Exports from Taiwan Province of China pose challenges to the authorities of importing countries, as shipments may reach them without prior notification, resulting in some cases in cancellation and rejection, with the shipment being returned. In addition, exports from Taiwan Province of China have supplied the pharmaceutical industry in the **Syrian Arab Republic**, including after the beginning of the conflict in March 2011. According to self-reported data on imports of pseudoephedrine into the Syrian Arab Republic, the major supplier of pseudoephedrine to the country was Taiwan Province of China, which had supplied, on average, 50 per cent of amounts reported during the period 2012–2016. The quantities of ephedrines pre-notified for export to the Syrian Arab Republic started to decline in 2013, as a result of increased awareness among exporting countries, INCB enquiries and a Project Prism special alert issued in September 2012. A series of measures taken by the Syrian authorities, including a temporary moratorium on the approval of pseudoephedrine imports in 2015, which was subsequently extended several times until the end of 2018,[38] also contributed to this decline. Consequently, shipments of only very small amounts of ephedrines have been pre-notified to the Syrian Arab Republic by the 169 countries and territories using the PEN Online system. In fact, the number of pre-export notifications for proposed shipments of precursors to the Syrian Arab Republic has fallen significantly since 2011, with no exports having been pre-notified through the system since 2019 (see figure 25).

[37] Data from the PEN Online system.

[38] INCB reports on precursors for 2015, 2016 and 2017 (E/INCB/2015/4, para. 71; E/INCB/2016/4, para. 30; and E/INCB/2017/4, para. 54). INCB is unaware of the status of the moratorium since the end of 2018.

Figure 25. Total number of pre-export notifications sent to the Syrian Arab Republic, per year, 2006–2023[a]



[a] The data for 2023 cover only the first 10 months of the year.

Countries of conflict and illicit drug manufacture

200. The diversion of precursors in or through conflict areas and illicit drug manufacture in areas outside governmental control may also contribute to the frequently noted discrepancies between the quantities of precursors reported seized and the quantities of the corresponding drugs seized (see figure 6 above).

201. In the past, INCB has led two international, time-limited initiatives aimed at shedding light on these discrepancies. One initiative, Operation EPIG, was conducted in 2013 and was aimed at addressing the concerns of the authorities of exporting countries and INCB about the final destination of ephedrine and pseudoephedrine shipped to or through conflict areas, in particular in North Africa and the Middle East. The other initiative, known as Operation Missing Links, was conducted from 2016 to 2017 and was aimed at closing intelligence gaps concerning the chemicals used in the illicit manufacture of the controlled drugs presumed to be present in fake "captagon" tablets.

202. Operation Missing Links resulted in first-time seizures and evidence of the use of designer precursors in illicit "captagon" manufacture in the Middle East. Specifically, forensic profiling analysis confirmed the use of APAAN as the starting material in the illicit manufacture of the amphetamine in fake "captagon" tablets. In addition, a total of more than three tons of alternative designer precursors, namely, P-2-P methyl glycidic acid sodium salt and methyl ester,[39] were seized at Beirut airport in 2016 and communicated through PICS. In 2021, forensic profiling analysis of "captagon" tablets seized in Lebanon confirmed the use of P-2-P methyl glycidate in the illicit manufacture of the amphetamine found in those tablets. Operation EPIG revealed unsystematic use of the international pre-export notification system in relation to countries in the two target regions, which made it difficult to ensure an unbroken chain of monitoring of international trade in precursors, especially in ephedrine and pseudoephedrine and pharmaceutical preparations containing them.

203. INCB has noted discrepancies between the supply (availability) of drug end products and seizures of the precursors of those drugs in a number of its reports on precursors in the past. Those discrepancies related to almost all drugs and precursors, in different regions, and included the lack of information about the nature and sources of chemicals feeding the illicit manufacture of methamphetamine in Afghanistan and Myanmar, and the illicit manufacture of amphetamine for fake "captagon" production in West Asia. Long-standing conflicts and political instability in these countries and regions complicate implementation of the necessary action.

204. In **Afghanistan**, there has been some evidence in the past of the use of pharmaceutical preparations containing ephedrine or pseudoephedrine in the illicit manufacture of methamphetamine. In 2015, when such evidence started to surface, the Government took measures to identify the extent of domestic diversions and identify sources and modi operandi. With the first reports of seizures of the *Ephedra* plant, which grows wild in the mountains of Afghanistan and can be used as a methamphetamine precursor, having emerged in 2018, a layer of complexity was added to efforts to address illicit methamphetamine

[39] The substances have been recommended for scheduling under the 1988 Convention (see para. 7).

manufacture in the country. However, while Afghanistan acted in compliance with reporting obligations under the 1988 Convention and was an active user of the PEN Online system in the past, the information gap regarding the precursor situation in the country has grown since the seizure of power by the Taliban in August 2021.

205. The special regions[40] in **Myanmar** are autonomous territories that are reportedly virtually inaccessible to the competent authorities in the country and are alleged to enable a range of illicit activity, most notably illicit drug manufacture. There are only a limited number of proposed shipments to Myanmar of internationally controlled precursors that, if diverted, may be used for illicit methamphetamine manufacture. Seizures reported by Myanmar concern mostly common, non-scheduled chemicals and rarely include any key precursors, or pre-precursors, of methamphetamine. The majority of chemicals, whether they are internationally controlled or not, appear to be smuggled into the country or diverted in the special regions. With regard to chemicals not under international control, since November 2022, China and Thailand have pre-notified a total of 69 shipments through the Board's new PEN Online Light system,[41] of which 45 were objected to by the authorities of Myanmar. The objections mostly concerned shipments of common acids, such as glacial acetic acid, and bases, such as caustic soda and sodium carbonate and bicarbonate. **INCB commends all Governments that use the PEN Online Light system and encourages them to consider pre-notifying not only shipments of chemicals controlled in the exporting country but also those known to be diverted in importing countries**.

206. Illicit drug manufacture may also be fed by the diversion of precursors from domestic distribution channels and their subsequent use within the country in which they were diverted, thus, through the funds generated, perpetuating conflicts there. INCB has noted this situation in South America in relation to potassium permanganate, and has encouraged Governments to review their domestic control mechanisms and devise strategies to address the situation.[42]

A call for action

207. The Board continues to be concerned about flows of precursors in countries affected by conflict, unresolved territorial disputes or other circumstances that hinder the exercise of effective control. INCB also recognizes that trade in precursors destined for countries of conflict presents a number of challenges for exporting countries, leaving them in a difficult position when deciding whether or not a proposed export can proceed. As a general rule, the authorities of Governments wishing to export to conflict areas should be guided by health and humanitarian considerations, as well as by the international recognition of such territories, as expressed in the resolutions and pronouncements of the General Assembly and the Security Council, as applicable. While INCB may be able to facilitate communication regarding the authorization of imports and exports of precursor chemicals, the final decision on whether to authorize an export rests with the authorities of the exporting country.

208. **Conflicts and unresolved territorial disputes increase the risk of diversion of chemicals and provide a conducive environment for illicit drug manufacture and smuggling of precursor chemicals, thus contributing to the perpetuation of conflict by fuelling an illicit economy. To address this, all Governments of the countries concerned and their international trading partners need to scrutinize the potential modi operandi of criminal networks more carefully to determine how traffickers are obtaining chemicals and moving them to sites of illicit manufacture.** This includes increased efforts to share actionable information related to suspicious transit shipments and seizures of precursors en route to countries of conflict, whether they involve chemicals under international control or those not controlled internationally. Actionable information includes relevant shipping papers, customs documents and invoices, which should be shared in a more systematic and timely manner, preferably through PICS, to support backtracking investigations. In addition, concerted international efforts are required to generate scientific evidence of the actual precursors used in illicit drug manufacture, for example, from forensic profiling analyses of the drug end products seized elsewhere but linked to conflict areas as the origin.

209. **INCB commends all efforts that contribute to ensuring the availability of controlled precursors for legitimate purposes in all regions of the world, irrespective of a country's situation or a territory's status, while managing the risk of diversion. INCB further invites all Governments to work with the Board to devise appropriate ways and means of monitoring trade pursuant to article 12 of the 1988 Convention and handling pre-export notifications with a view to enabling the trade in chemicals to and from high-risk areas in a regulated manner.**

[40] Formerly known as self-administered divisions.

[41] The PEN Online Light system is a platform for the exchange of information about planned international shipments involving drug precursor chemicals that are not under international control. Use of the system is voluntary.

[42] INCB report on precursors for 2020 (E/INCB/2020/4), para. 136.

V. Conclusions and recommendations

210. The present chapter contains broad conclusions and provides recommendations to Governments with a view to preventing trafficking in precursors and strengthening the functioning of the precursor control system at the national, regional and international levels. Specific recommendations and conclusions are also incorporated in the preceding chapters of the report, presented in bold text.

211. Once again, during the reporting period, many of the Board's earlier observations were confirmed, such as the significance of trafficking in non-scheduled alternative chemicals compared with the traditional, controlled precursors, including some of the recently scheduled precursors. It also confirmed the continued significance of the diversion of pharmaceutical preparations containing ephedrines, in particular pseudoephedrine.

212. Global efforts and cooperation continue to be critical to address the diversion of non-scheduled chemicals frequently used in the illicit manufacture of drugs and the proliferation of designer precursors, as recommended in Commission on Narcotic Drugs resolution 65/3. This includes the application of the concept of group scheduling both at the domestic level, as has already been done by a number of countries, and at the international level, as reflected in the proposal by INCB for the initiation of the scheduling process for two series of chemically related P-2-P and 3,4-MDP-2-P methyl glycidic acid derivatives. It also includes the engagement of an extended range of industries that manufacture, trade in or deal in one way or another with the non-scheduled chemicals concerned and are not registered as precursor operators, as well as international cooperation to investigate trafficking cases involving these chemicals, which may be controlled differently in different countries or not controlled at all. Such international cooperation will also require enhanced awareness among judges and prosecutors of precursor control, the dual use of chemicals and the specificities of non-scheduled chemicals and designer precursors, so as to ensure the successful conclusion of criminal cases that act as a sufficient deterrent to organized criminal groups. **The Board commends those Governments that have already made progress in this regard, and encourages all other Governments to revisit the Board's guidance materials and relevant resolutions, compiled on the INCB website, to make full use of all available tools, including the limited international special surveillance list, and to continue to cooperate with each other and the Board in order to deny traffickers access to the chemicals and equipment needed for illicit drug and precursor manufacture.**

213. To support Governments in securing international trade in chemicals that are not controlled internationally but that have been found to be trafficked for use in illicit drug manufacture, the Board launched the PEN Online Light system in October 2022. Of the 169 users of the PEN Online system that have automatically been granted access to the PEN Online Light system, 25 are using the system actively to pre-notify planned shipments and/or acknowledge them. During the reporting period, the system already helped to stop significant amounts of GBL from being shipped to countries not aware of such trade or not having authorized particular imports for other reasons. **INCB commends all efforts that contribute to preventing chemicals not in Table I or Table II of the 1988 Convention from reaching illicit laboratories. This includes alerting importing countries of planned exports of such chemicals to their territory, so that action may be taken by an importing Government prior to the arrival of an unwanted/unauthorized shipment, thus preventing its possible diversion. The PEN Online Light system provides a simple, easy-to-use, global platform for the exchange of such information in a systematic manner. INCB encourages all Governments to make use of the PEN Online Light system and consider registering additional users from relevant agencies and ministries in charge of the non-scheduled chemicals concerned for access to the system exclusively.**

214. Cooperation with industry remains a key pillar of effective and sustainable strategies to prevent precursors and other chemicals from being diverted into illicit channels. The Board has, over the years, supported Governments in their efforts to establish and implement such cooperation mechanisms and has, to this end, developed and disseminated a number of normative and operational tools and resources and also made them available on the INCB website. They include a set of guidance materials on a voluntary code of practice for the chemical industry, the limited international special surveillance list, a compilation of various national practices related to public-private partnerships in the area of drug precursors and non-scheduled chemicals, and a global review of categories of industries involved in the manufacture and distribution of and trade in chemicals used in the illicit manufacture of drugs, which highlights the fact that beyond the chemical and pharmaceutical industry, other categories of industry might – often unknowingly – be targeted by traffickers to obtain chemicals for illicit drug manufacture. These resources are also aimed at providing guidance to Governments in mapping their national industry landscapes. **The Board encourages Governments to map their national industry landscape with the aim of aiding understanding of which categories are available in their territories and raising awareness among all industries concerned. Furthermore, the Board recommends that**

Governments make greater use of the available INCB resources and materials developed for this purpose.

215. During the reporting period, seizures of pharmaceutical preparations for illicit methamphetamine manufacture remained high. More countries than before reported seizures of such preparations, with several countries reporting them for the very first time. In addition, a major criminal network in Europe that had relied on pharmaceutical preparations of ephedrine and pseudoephedrine for the manufacture of and trafficking in methamphetamine in the region was disrupted. This follows the trend noted in 2021, when several suspicious shipments of preparations of pseudoephedrine were notified through the PEN Online system. These developments underscore the need for continued vigilance and monitoring, including the closing of any regulatory loopholes that may exist, in relation to preparations of ephedrine and pseudoephedrine, even though such preparations are not under international control. The estimation by a country of its annual legitimate requirements of such preparations for import and the systematic pre-notification of importing countries of such shipments by exporting countries would go a long way in preventing such preparations from falling into the hands of criminal networks. **The Board, accordingly, urges Governments to control pharmaceutical preparations containing ephedrine and pseudoephedrine in the same way as they control the substances themselves, to use the PEN Online system to pre-notify exports, to make realistic and justified estimates of the annual legitimate requirements for imports of such substances and communicate changes in a timely manner to the Board for global dissemination.**

216. During the reporting period, PICS continued to be an effective tool for sharing information on trafficking incidents and suspicious shipments related to precursors and equipment. In one case, PICS was used successfully to identify a common supplier of a tableting machine to a country in Africa and of a designer precursor of an amphetamine-type stimulant to a country in Europe. PICS also provided useful information to support the Board's assessment regarding the international scheduling of certain amphetamine-type stimulant precursors. The merits of the sharing by Governments of incidents through PICS, therefore, cannot be overemphasized. However, the Board has noted the reluctance of Governments, at times, to share cases through PICS in order not to compromise ongoing investigations. The Board would like to assure Governments that there are several features in PICS that are aimed precisely at preventing the leakage of sensitive information to ensure that investigations are not affected. **The Board, accordingly, encourages Governments to expand the use of PICS for sharing more incidents related to precursors and equipment on a real-time basis. The sharing of incidents through PICS also enables the identification of similar shipments from the same supplier to other countries or the use of the same modi operandi, thereby preventing future trafficking attempts.**

217. FTZs have been extremely successful in providing for faster and hassle-free international trade, and in promoting trade and industry through simplified and reduced taxation. However, the relatively favourable regulatory regime that contributes to the success of such zones also makes them vulnerable to trafficking in drugs and precursor chemicals. The revised Kyoto Convention, which is aimed at facilitating trade by harmonizing and simplifying customs procedures and practices, duly enables customs authorities to examine goods in FTZs. The United Nations drug control conventions advocate for a regime in such zones that is no less stringent than the regime in place in other parts of a country. In fact, because of the propensity of FTZs to be used for illicit purposes, it would be justifiable to use even stricter control measures than are envisaged in the conventions in such zones. During the reporting period, evidence was provided that FTZs are actually being exploited for trafficking in precursors, with the seizure of a substantial amount of pharmaceutical preparations containing pseudoephedrine being linked to one such zone. In order to advance knowledge regarding FTZs and raise awareness among Governments about the need for proper oversight, the Board conducted Operation Insight jointly with WCO and the UNODC-WCO Container Control Programme. The results of the Operation revealed the need for Governments to focus their attention on FTZs with regard to trafficking in precursors. **The Board, accordingly, encourages Governments to ensure that the regulations and procedures put in place for FTZs are no less stringent than those applied in other parts of their territory in order to prevent trafficking in narcotic drugs, psychotropic substances and precursor chemicals. The Board also encourages Governments to make use of the WCO guidance regarding customs procedures to be adopted in such zones.**

218. The use of the Internet (the surface web) for trafficking in precursors and equipment continued to be noted during the reporting period. Suspicious online postings became more refined, with wider use of Chemical Abstracts Service registry numbers as opposed to simply the names of the substances, as was the case in previous years. The Board initiated capacity-building measures to support Governments in investigating suspicious postings relating to precursors and equipment on the Internet, and in developing voluntary cooperation measures with online trading platforms. **The Board encourages Governments to make monitoring and investigation of the Internet an inherent part of their activities related to the regulation and enforcement of precursor control mechanisms. The Board also**

encourages greater international cooperation, given the cross-border nature of most cybercrime investigations. The Board further encourages Governments to bring experts on cybercrime and open-source intelligence tools that are available in most countries together with enforcement officers involved in investigating cases of precursors and equipment, so that they can mutually benefit from each other's experience.

219. Conflict and unresolved territorial disputes increase the risk of diversion of chemicals and provide a conducive environment for trafficking in chemicals. Trade in precursors destined for countries of conflict presents a number of challenges for exporting countries, leaving them in a difficult position when deciding whether or not a proposed export can proceed. **INCB commends all efforts that contribute to ensuring the availability of controlled precursors for legitimate purposes in all regions of the world, irrespective of a country's situation or a territory's status, while managing risks of diversion. INCB further invites all Governments to work with the Board to devise appropriate ways and means of monitoring trade pursuant to article 12 of the 1988 Convention and handling pre-export notifications with a view to enabling trade in chemicals to and from high-risk areas in a regulated manner**.

220. Over the years, INCB has reiterated the importance of accurate, complete and timely reporting by Governments as mandated by article 12, paragraph 12, of the 1988 Convention. Such information is critical, as it allows INCB to analyse and identify emerging trends in trafficking in precursors and the illicit manufacture of drugs. Despite the mandatory requirements established by the 1988 Convention, challenges remain in relation to the quantity and quality of the data. Only 60 State parties had submitted form D for 2022 by the due date of 30 June 2023. The number then increased to 113 by the cut-off date of 1 November 2023. In many instances, however, the information submitted was incomplete, lacking details necessary for the Board to analyse and identify weaknesses in precursor control mechanisms and emerging trends in trafficking in precursors and the illicit manufacture of drugs. **The Board therefore urges Governments to make every effort to collect, consolidate and report complete information as mandated pursuant to article 12, paragraph 12, of the 1988 Convention by the deadline. The Board stands ready to assist Governments in meeting their reporting requirements and other aspects of the implementation of the provisions of the 1988 Conventions as they relate to precursors.**

Glossary

The following terms and definitions are frequently used in INCB reports on precursors:

chemical intermediate	A chemical generated during a multi-step synthesis process that is normally not isolated but immediately consumed in the next synthesis step. Stable chemical intermediates can be isolated and have been encountered as purpose-made substitute chemicals for controlled precursors
designer precursor	A close chemical relative of a controlled precursor that is purpose-made to circumvent controls and usually does not have any recognized legitimate use
diversion	The transfer of substances from licit to illicit channels
forensic profiling analysis	In-depth laboratory analysis to trace any by-products generated during illicit manufacture, with a view to, inter alia, identifying the precursors used in such manufacture
immediate precursor	A precursor that is generally only one reaction step away from the end product
industrial-scale laboratory	A laboratory for the manufacture of synthetic drugs in which oversized equipment and/or glassware that is either custom-made or purchased from industrial processing sources and/or that uses serial reactions is used and in which significant amounts of drugs are produced in very short periods of time, the amount being limited only by the need for access to precursors and other essential chemicals in adequate quantities and for the logistics and workers to handle large amounts of drugs and chemicals
limited international special surveillance list of non-scheduled substances	A list prepared, pursuant to Economic and Social Council resolution 1996/29, and regularly updated by INCB that includes substitute and alternative chemicals, as well as groups of common derivatives and other related substances that can be converted into one of the scheduled precursors by readily applicable means, and for which substantial information exists on their use in illicit drug manufacture
pharmaceutical preparation	A preparation for therapeutic (human or veterinary) use in its finished dosage form that contains precursors present in such a way that they can be used or recovered by readily applicable means; such preparations may be presented in their retail packaging or in bulk
precursor	In general, a starting material used to manufacture a narcotic drug, a psychotropic substance or another precursor; sometimes used to refer exclusively to the substances in Table I and Table II of the 1988 Convention
pre-precursor	A precursor of a precursor
seizure	The act of prohibiting the transfer, conversion, disposition or movement of property or assuming custody of or control over property on the basis of an order issued by a court or competent authority; it may be temporary or permanent (i.e. confiscation); different national legal systems may use different terms
stopped shipment	A shipment permanently withheld, either because reasonable grounds exist to believe that it may constitute an attempted diversion, or as a result of administrative problems or because of other grounds for concern or suspicion
suspicious order (or suspicious transaction)	An order (or transaction) of questionable, dishonest or unusual character or condition, for which there is reason to believe that a chemical that is being ordered, imported or exported or is transiting a country or territory is destined for use in the illicit manufacture of narcotic drugs or psychotropic substances

Annex I

Parties and non-parties to the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, by region, as at 1 November 2023

Note: The date on which the instrument of ratification or accession was deposited is indicated in parentheses.

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
AFRICA	Algeria (9 May 1995)	Eritrea (30 January 2002)	Equatorial Guinea
	Angola (26 October 2005)	Eswatini (8 October 1995)	Somalia
	Benin (23 May 1997)	Ethiopia (11 October 1994)	
	Botswana (13 August 1996)	Gabon (10 July 2006)	
	Burkina Faso (2 June 1992)	Gambia (23 April 1996)	
	Burundi (18 February 1993)	Ghana (10 April 1990)	
	Cabo Verde (8 May 1995)	Guinea (27 December 1990)	
	Cameroon (28 October 1991)	Guinea-Bissau (27 October 1995)	
	Central African Republic (15 October 2001)	Kenya (19 October 1992)	
	Chad (9 June 1995)	Lesotho (28 March 1995)	
	Comoros (1 March 2000)	Liberia (16 September 2005)	
	Congo (3 March 2004)	Libya (22 July 1996)	
	Côte d'Ivoire (25 November 1991)	Madagascar (12 March 1991)	
	Democratic Republic of the Congo (28 October 2005)	Malawi (12 October 1995)	
	Djibouti (22 February 2001)	Mali (31 October 1995)	
	Egypt (15 March 1991)	Mauritania (1 July 1993)	

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
	Mauritius (6 March 2001)	Sierra Leone (6 June 1994)	
	Morocco (28 October 1992)	South Africa (14 December 1998)	
	Mozambique (8 June 1998)	South Sudan (20 October 2023)	
	Namibia (6 March 2009)	Sudan (19 November 1993)	
	Niger (10 November 1992)	Togo (1 August 1990)	
	Nigeria (1 November 1989)	Tunisia (20 September 1990)	
	Rwanda (13 May 2002)	Uganda (20 August 1990)	
	Sao Tome and Principe (20 June 1996)	United Republic of Tanzania (17 April 1996)	
	Senegal (27 November 1989)	Zambia (28 May 1993)	
	Seychelles (27 February 1992)	Zimbabwe (30 July 1993)	
Regional total 54	**52**		**2**
AMERICAS	Antigua and Barbuda (5 April 1993)	Dominica (30 June 1993)	
	Argentina (10 June 1993)	Dominican Republic (21 September 1993)	
	Bahamas (30 January 1989)	Ecuador (23 March 1990)	
	Barbados (15 October 1992)	El Salvador (21 May 1993)	
	Belize (24 July 1996)	Grenada (10 December 1990)	
	Bolivia (Plurinational State of) (20 August 1990)	Guatemala (28 February 1991)	
	Brazil (17 July 1991)	Guyana (19 March 1993)	
	Canada (5 July 1990)	Haiti (18 September 1995)	
	Chile (13 March 1990)	Honduras (11 December 1991)	
	Colombia (10 June 1994)	Jamaica (29 December 1995)	
	Costa Rica (8 February 1991)	Mexico (11 April 1990)	
	Cuba (12 June 1996)	Nicaragua (4 May 1990)	

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
	Panama (13 January 1994)	Suriname (28 October 1992)	
	Paraguay (23 August 1990)	Trinidad and Tobago (17 February 1995)	
	Peru (16 January 1992)	United States of America (20 February 1990)	
	Saint Kitts and Nevis (19 April 1995)	Uruguay (10 March 1995)	
	Saint Lucia (21 August 1995)	Venezuela (Bolivarian Republic of) (16 July 1991)	
	Saint Vincent and the Grenadines (17 May 1994)		
Regional total 35	**35**		**0**
ASIA	Afghanistan (14 February 1992)	Israel (20 March 2002)	
	Armenia (13 September 1993)	Japan (12 June 1992)	
	Azerbaijan (22 September 1993)	Jordan (16 April 1990)	
	Bahrain (7 February 1990)	Kazakhstan (29 April 1997)	
	Bangladesh (11 October 1990)	Kuwait (3 November 2000)	
	Bhutan (27 August 1990)	Kyrgyzstan (7 October 1994)	
	Brunei Darussalam (12 November 1993)	Lao People's Democratic Republic (1 October 2004)	
	Cambodia (2 April 2005)	Lebanon (11 March 1996)	
	China (25 October 1989)	Malaysia (11 May 1993)	
	Democratic People's Republic of Korea (19 March 2007)	Maldives (7 September 2000)	
	Georgia (8 January 1998)	Mongolia (25 June 2003)	
	India (27 March 1990)	Myanmar (11 June 1991)	
	Indonesia (23 February 1999)	Nepal (24 July 1991)	
	Iran (Islamic Republic of) (7 December 1992)	Oman (15 March 1991)	
	Iraq (22 July 1998)	Pakistan (25 October 1991)	

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
	Philippines (7 June 1996)	Thailand (3 May 2002)	
	Qatar (4 May 1990)	Timor-Leste (3 June 2014)	
	Republic of Korea (28 December 1998)	Türkiye[a] (2 April 1996)	
	Saudi Arabia (9 January 1992)	Turkmenistan (21 February 1996)	
	Singapore (23 October 1997)	United Arab Emirates (12 April 1990)	
	Sri Lanka (6 June 1991)	Uzbekistan (24 August 1995)	
	State of Palestine (29 December 2017)	Viet Nam (4 November 1997)	
	Syrian Arab Republic (3 September 1991)	Yemen (25 March 1996)	
	Tajikistan (6 May 1996)		
Regional total 47	**47**		**0**
EUROPE	Albania (27 July 2001)	France[b] (31 December 1990)	
	Andorra (23 July 1999)	Germany[b] (30 November 1993)	
	Austria[b] (11 July 1997)	Greece[b] (28 January 1992)	
	Belarus (15 October 1990)	Holy See (25 January 2012)	
	Belgium[b] (25 October 1995)	Hungary[b] (15 November 1996)	
	Bosnia and Herzegovina (1 September 1993)	Iceland (2 September 1997)	
	Bulgaria[b] (24 September 1992)	Ireland[b] (3 September 1996)	
	Croatia[b] (26 July 1993)	Italy[b] (31 December 1990)	
	Cyprus[b] (25 May 1990)	Latvia[b] (25 February 1994)	
	Czechia[b] (30 December 1993)	Liechtenstein (9 March 2007)	
	Denmark[b] (19 December 1991)	Lithuania[b] (8 June 1998)	
	Estonia[b] (12 July 2000)	Luxembourg[b] (29 April 1992)	
	Finland[b] (15 February 1994)	Malta[b] (28 February 1996)	

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
	Monaco (23 April 1991)	San Marino (10 October 2000)	
	Montenegro (3 June 2006)	Serbia (3 January 1991)	
	Netherlands (Kingdom of the)[b, c] (8 September 1993)	Slovakia[b] (28 May 1993)	
	North Macedonia (13 October 1993)	Slovenia[b] (6 July 1992)	
	Norway (14 November 1994)	Spain[b] (13 August 1990)	
	Poland[b] (26 May 1994)	Sweden[b] (22 July 1991)	
	Portugal[b] (3 December 1991)	Switzerland (14 September 2005)	
	Republic of Moldova (15 February 1995)	United Kingdom of Great Britain and Northern Ireland[d] (28 June 1991)	
	Romania[b] (21 January 1993)	Ukraine (28 August 1991)	
	Russian Federation (17 December 1990)	European Union[e] (31 December 1990)	
Regional total 46	**46**		**0**
OCEANIA	Australia (16 November 1992)	New Zealand (16 December 1998)	Kiribati
	Cook Islands (22 February 2005)	Niue (16 July 2012)	Papua New Guinea
	Fiji (25 March 1993)	Palau (14 August 2019)	Solomon Islands
	Marshall Islands (5 November 2010)	Samoa (19 August 2005)	Tuvalu
	Micronesia (Federated States of) (6 July 2004)	Tonga (29 April 1996)	
	Nauru (12 July 2012)	Vanuatu (26 January 2006)	
Regional total 16	**12**		**4**
World total 198	**192**		**6**

[a] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.
[b] State member of the European Union.
[c] Since 3 March 2023, "Netherlands (Kingdom of the)" has replaced "Netherlands (the)" as the short name used in the United Nations.
[d] The United Kingdom ceased to be a member of the European Union on 31 January 2020.
[e] Extent of competence: article 12.

Annex II

Submission of information by Governments, pursuant to article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, on form D for the years 2018–2022

Notes: The names of non-metropolitan territories and special administrative regions are in italics.
A blank signifies that form D was not received.
"X" signifies that a completed form D (or equivalent report) was submitted (including forms in which all fields contained "nil", "0", "none", etc.).
Entries for parties to the 1988 Convention (and for the years that they have been parties) are shaded.

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
Afghanistan	X	X	X		
Albania	X	X		X	X
Algeria	X	X			
Andorra		X	X	X	X
Angola	X	X			
Anguilla[a]					
Antigua and Barbuda					
Argentina	X	X	X	X	X
Armenia	X	X	X	X	X
Aruba[a]					
Ascension					
Australia		X	X	X	X
Austria[b]	X	X	X	X	X
Azerbaijan	X	X	X	X	X
Bahamas					
Bahrain	X	X	X	X	X
Bangladesh					
Barbados					
Belarus	X	X		X	X
Belgium[b]	X	X	X	X	X
Belize					
Benin	X			X	
Bermuda[a]					
Bhutan	X	X	X	X	X
Bolivia (Plurinational State of)	X	X	X	X	X
Bosnia and Herzegovina	X	X	X	X	X
Botswana		X	X	X	X
Brazil	X	X	X		
British Virgin Islands[a]					

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
Brunei Darussalam	X	X	X	X	
Bulgaria[b]	X	X	X	X	X
Burkina Faso					
Burundi		X			
Cabo Verde	X				
Cambodia					
Cameroon		X	X	X	
Canada	X	X	X	X	X
Cayman Islands[a]					
Central African Republic					
Chad		X			
Chile	X	X	X	X	X
China	X	X	X	X	X
China, Hong Kong SAR	X	X	X		X
China, Macao SAR	X				
Christmas Island[a, c]					
Cocos (Keeling) Islands[a, c]					
Colombia	X	X	X	X	X
Comoros					
Congo					
Cook Islands					
Costa Rica	X	X	X	X	X
Côte d'Ivoire					
Croatia[b]	X	X	X	X	X
Cuba					
Curaçao		X	X		
Cyprus[b]	X	X	X	X	X
Czechia	X	X	X	X	X
Democratic People's Republic of Korea	X		X	X	X
Democratic Republic of the Congo	X	X	X	X	X
Denmark[b]	X	X	X	X	
Djibouti					
Dominica	X	X	X		
Dominican Republic	X	X	X	X	X
Ecuador	X	X	X	X	X
Egypt	X	X	X	X	X
El Salvador	X	X	X	X	X
Equatorial Guinea					
Eritrea					
Estonia[b]	X	X	X	X	X
Eswatini[d]					
Ethiopia					
Falkland Islands (Malvinas)					
Fiji					
Finland[b]	X	X	X	X	X

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
France[b]	X	X	X	X	X
French Polynesia[a]					
Gabon	X	X	X	X	X
Gambia					
Georgia	X	X	X	X	X
Germany[b]	X	X	X	X	X
Ghana		X	X	X	X
Gibraltar					
Greece[b]	X	X		X	
Grenada					
Guatemala	X	X	X	X	X
Guinea					
Guinea-Bissau					
Guyana	X	X		X	
Haiti	X		X	X	X
Holy See					X
Honduras	X	X	X	X	X
Hungary[b]	X	X	X	X	X
Iceland		X	X	X	X
India	X	X	X	X	X
Indonesia	X	X	X		X
Iran (Islamic Republic of)	X	X	X	X	
Iraq		X	X	X	X
Ireland[b]	X	X	X	X	X
Israel	X	X	X	X	X
Italy[b]	X	X	X	X	X
Jamaica	X	X	X	X	X
Japan	X	X	X	X	X
Jordan	X	X	X	X	X
Kazakhstan	X	X	X	X	
Kenya				X	
Kiribati					
Kuwait				X	X
Kyrgyzstan	X	X	X	X	X
Lao People's Democratic Republic	X	X	X	X	X
Latvia[b]	X	X	X	X	X
Lebanon	X	X	X	X	X
Lesotho					
Liberia					
Libya					
Liechtenstein[e]					
Lithuania[b]	X	X	X	X	X
Luxembourg[b]		X	X	X	X
Madagascar	X	X	X	X	
Malawi					

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
Malaysia	X	X	X	X	X
Maldives		X	X		X
Mali					
Malta[b]	X	X	X	X	X
Marshall Islands					
Mauritania	X				
Mauritius	X	X	X	X	X
Mexico	X	X	X	X	X
Micronesia (Federated States of)			X	X	X
Monaco	X	X	X	X	X
Mongolia				X	
Montenegro	X	X	X	X	X
Montserrat[a]	X				
Morocco	X	X	X	X	X
Mozambique	X	X	X	X	X
Myanmar	X	X	X	X	X
Namibia		X		X	
Nauru					
Nepal			X		
Netherlands (Kingdom of the)[b, f]	X	X	X	X	X
New Caledonia[a]					
New Zealand	X	X	X	X	X
Nicaragua	X	X	X	X	X
Niger			X		
Nigeria	X	X	X	X	X
Niue					
Norfolk Island[a, c]		X			
North Macedonia[g]	X		X	X	X
Norway	X	X	X	X	X
Oman					
Pakistan	X	X		X	X
Palau					
Panama	X	X	X	X	X
Papua New Guinea					
Paraguay		X	X	X	
Peru	X	X	X	X	
Philippines	X	X	X	X	X
Poland[b]	X	X	X	X	X
Portugal[b]	X	X	X	X	X
Qatar	X	X	X	X	X
Republic of Korea	X	X		X	X
Republic of Moldova	X		X	X	X
Romania[b]	X	X	X	X	X
Russian Federation	X	X	X	X	X
Rwanda		X	X		X

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
Saint Helena					
Saint Kitts and Nevis					
Saint Lucia	X	X	X	X	X
Saint Vincent and the Grenadines	X	X	X		
Samoa					
San Marino	X			X	X
Sao Tome and Principe					
Saudi Arabia	X	X	X	X	X
Senegal	X				
Serbia	X	X	X	X	X
Seychelles					
Sierra Leone	X	X	X	X	X
Singapore	X	X	X	X	X
Sint Maarten					
Slovakia[b]	X	X	X	X	X
Slovenia[b]	X	X	X	X	X
Solomon Islands					
Somalia					
South Africa	X	X	X	X	X
South Sudan	X				
Spain[b]	X	X	X	X	X
Sri Lanka	X			X	
Sudan	X	X	X	X	
Suriname	X	X	X		
Sweden[b]	X	X	X	X	X
Switzerland	X	X	X	X	X
Syrian Arab Republic	X	X	X	X	X
Tajikistan	X	X	X	X	X
Thailand	X	X	X	X	X
Timor-Leste		X			
Togo				X	
Tonga					
Trinidad and Tobago	X	X	X	X	X
Tristan da Cunha					
Tunisia	X	X	X		
Türkiye[h]	X	X	X	X	X
Turkmenistan				X	
Turks and Caicos Islands[a]					
Tuvalu					
Uganda	X	X	X	X	
Ukraine	X	X	X	X	X
United Arab Emirates	X	X	X	X	X
United Kingdom of Great Britain and Northern Ireland[i]	X	X	X	X	X
United Republic of Tanzania	X	X	X	X	X

Country or territory	*2018*	*2019*	*2020*	*2021*	*2022*
United States of America	X	X	X	X	X
Uruguay	X	X	X	X	X
Uzbekistan	X	X	X	X	X
Vanuatu					
Venezuela (Bolivarian Republic of)	X	X	X	X	X
Viet Nam	X	X			X
Wallis and Futuna Islands[a]					
Yemen	X	X	X		
Zambia					
Zimbabwe	X	X	X	X	
Total number of Governments that submitted form D	**129**	**134**	**126**	**126**	**113**
Total number of Governments requested to provide information	**213**	**213**	**213**	**213**	**213**

[a] Territorial application of the 1988 Convention has been confirmed by the authorities concerned.
[b] State member of the European Union.
[c] Information was provided by Australia.
[d] Since 19 April 2018, "Eswatini" has replaced "Swaziland" as the short name used in the United Nations.
[e] Liechtenstein did not furnish form D separately as its data are included in the report of Switzerland.
[f] Since 3 March 2023, "Netherlands (Kingdom of the)" has replaced "Netherlands (the)" as the short name used in the United Nations.
[g] Since 14 February 2019, "North Macedonia" has replaced "the former Yugoslav Republic of Macedonia" as the short name used in the United Nations.
[h] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.
[i] The United Kingdom ceased to be a member of the European Union on 31 January 2020.

Annex III

Seizures of substances in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, as reported to the International Narcotics Control Board, 2018–2022

1. Tables A and B show information on seizures of the substances included in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, furnished to the International Narcotics Control Board (INCB) by Governments in accordance with article 12, paragraph 12, of the Convention. **To enhance user-friendliness, tables A and B have not been included in the present report but are available in spreadsheet format on the INCB website, in the section on the annual reports on precursors.**

Annex IV

Submission of information by Governments on licit trade in, legitimate uses of and requirements for substances in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 for the years 2018–2022

Notes: The names of non-metropolitan territories and special administrative regions are in italics.
A blank signifies that no information was provided.
"X" signifies that a completed form D (or equivalent report) was submitted (including forms in which all fields contained "nil", "0", "none", etc.).

Country or territory	*2018*		*2019*		*2020*		*2021*		*2022*	
	Trade	*Uses and/or require-ments*	*Trade*	*Uses and/or require-ments*	*Trade*	*Uses and/or require-ments*	*Trade*	*Uses and/or require-ments*	*Trade*	*Uses and/or require-ments*
Afghanistan	X	X	X		X	X				
Albania	X	X	X	X			X	X	X	X
Algeria	X		X	X						
Andorra			X	X	X	X				
Angola	X		X							
Anguilla										
Antigua and Barbuda										
Argentina	X	X	X	X	X	X	X	X	X	X
Armenia	X		X		X	X	X		X	X
Aruba										
Ascension										
Australia			X	X	X	X	X		X	X
Austria[a]	X	X	X	X	X	X	X	X	X	X
Azerbaijan	X	X	X	X			X	X	X	X
Bahamas										
Bahrain	X	X	X	X	X	X	X	X	X	X
Bangladesh										
Barbados										
Belarus		X	X	X			X	X	X	X
Belgium[a]	X	X	X	X	X	X	X	X	X	X
Belize										
Benin	X	X					X	X		
Bermuda										
Bhutan	X	X	X	X	X	X	X	X	X	X

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Bolivia (Plurinational State of)	X	X	X	X	X	X	X	X	X	X
Bosnia and Herzegovina	X	X	X	X	X	X			X	
Botswana					X	X	X	X	X	X
Brazil	X	X	X	X	X	X				
British Virgin Islands										
Brunei Darussalam	X	X	X	X	X		X	X		
Bulgaria[a]	X	X	X	X	X	X	X	X	X	X
Burkina Faso										
Burundi			X	X						
Cabo Verde	X	X								
Cambodia										
Cameroon			X		X		X			
Canada	X	X	X	X	X	X	X	X	X	X
Cayman Islands										
Central African Republic										
Chad										
Chile	X	X	X	X	X	X	X	X	X	X
China	X	X	X	X	X	X	X	X	X	X
China, Hong Kong SAR	X	X	X	X	X	X			X	X
China, Macao SAR	X	X								
Christmas Island										
Cocos (Keeling) Islands										
Colombia	X	X	X	X	X	X	X	X	X	X
Comoros										
Congo										
Cook Islands										
Costa Rica	X	X	X	X	X	X	X	X	X	X
Côte d'Ivoire										
Croatia[a]	X	X	X	X	X		X	X	X	X
Cuba										
Curaçao			X	X	X	X				
Cyprus	X	X	X	X	X	X	X	X	X	X
Czechia[a]	X	X	X	X	X	X	X	X	X	X
Democratic People's Republic of Korea		X				X		X	X	X

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Democratic Republic of the Congo	X	X	X	X	X		X	X	X	
Denmark[a]	X	X	X		X		X	X		
Djibouti										
Dominica										
Dominican Republic	X	X	X	X	X	X	X	X	X	X
Ecuador	X	X	X	X	X	X	X	X	X	X
Egypt	X	X	X	X	X	X	X	X	X	X
El Salvador	X	X	X	X	X	X	X	X	X	X
Equatorial Guinea										
Eritrea										
Estonia[a]			X	X	X		X		X	
Eswatini[b]										
Ethiopia										
Falkland Islands (Malvinas)										
Fiji										
Finland[a]	X	X	X	X	X	X	X		X	X
France[a]	X	X	X	X	X	X	X	X	X	X
French Polynesia										
Gabon	X		X		X	X	X		X	
Gambia										
Georgia	X	X	X	X	X	X	X	X	X	X
Germany[a]	X	X	X	X	X	X	X	X	X	X
Ghana			X	X	X	X	X	X	X	X
Gibraltar										
Greece[a]	X	X	X				X			
Grenada										
Guatemala	X	X	X	X	X	X	X	X	X	X
Guinea										
Guinea-Bissau										
Guyana		X		X			X	X		
Haiti	X				X	X	X	X	X	X
Holy See									X	
Honduras	X	X	X	X	X	X	X	X	X	
Hungary[a]	X	X	X	X	X	X	X	X	X	X
Iceland			X	X	X	X	X	X	X	X
India	X	X	X	X	X	X	X	X	X	X
Indonesia	X		X		X	X				
Iran (Islamic Republic of)	X	X	X	X	X	X	X	X		

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Iraq					X	X	X	X	X	X
Ireland[a]	X	X	X	X	X	X	X	X	X	X
Israel	X	X	X	X	X	X	X	X	X	X
Italy[a]	X	X	X	X	X	X	X	X	X	X
Jamaica	X	X	X	X	X	X	X	X	X	X
Japan	X	X	X	X	X	X	X	X	X	X
Jordan	X	X	X	X	X	X	X	X	X	X
Kazakhstan	X	X	X	X	X	X	X	X		
Kenya							X	X		
Kiribati										
Kuwait							X	X	X	X
Kyrgyzstan	X	X	X	X	X	X	X	X	X	X
Lao People's Democratic Republic	X	X	X	X	X	X	X	X	X	X
Latvia[a]	X	X	X	X	X	X	X	X	X	X
Lebanon	X	X	X	X	X	X	X	X	X	X
Lesotho										
Liberia										
Libya										
Liechtenstein[c]										
Lithuania[a]	X	X	X	X	X	X	X	X	X	X
Luxembourg[a]			X	X						
Madagascar	X	X	X	X	X	X	X	X		
Malawi										
Malaysia	X	X	X	X	X	X	X	X	X	X
Maldives			X	X	X	X			X	X
Mali										
Malta[a]		X	X	X	X	X	X	X	X	X
Marshall Islands										
Mauritania										
Mauritius	X	X	X	X	X	X	X	X	X	X
Mexico	X	X	X	X	X	X		X		
Micronesia (Federated States of)					X	X	X	X	X	X
Monaco	X	X	X	X	X	X	X	X	X	X
Mongolia							X	X		
Montenegro	X	X	X	X	X	X	X	X	X	X
Montserrat	X	X								
Morocco	X	X	X	X	X	X	X	X	X	X
Mozambique							X			
Myanmar	X	X	X	X	X	X	X	X	X	X
Namibia										

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Nauru										
Nepal					X					
Netherlands (Kingdom of the)[a,d]	X	X	X	X	X	X	X		X	
New Caledonia										
New Zealand	X	X	X	X	X	X	X	X	X	
Nicaragua	X		X	X	X	X	X	X	X	X
Niger										
Nigeria	X		X	X	X	X	X	X	X	X
Niue										
Norfolk Island[e]										
North Macedonia[f]	X	X			X		X		X	
Norway	X	X	X	X	X	X	X	X	X	X
Oman										
Pakistan	X	X	X	X	X	X	X	X	X	X
Palau										
Panama	X		X	X	X	X	X	X	X	X
Papua New Guinea										
Paraguay			X	X	X	X				
Peru	X	X	X	X	X	X	X	X		
Philippines	X	X	X	X	X	X	X	X	X	X
Poland[a]	X	X	X	X	X	X	X	X	X	X
Portugal[a]	X	X	X	X	X	X	X	X	X	X
Qatar	X	X	X	X	X	X	X		X	
Republic of Korea	X	X	X	X			X	X	X	X
Republic of Moldova	X	X					X			
Romania[a]	X	X	X	X	X	X	X	X	X	X
Russian Federation	X	X	X	X	X	X	X	X	X	X
Rwanda			X	X	X	X			X	X
Saint Helena										
Saint Kitts and Nevis	X		X	X	X	X	X	X		
Saint Lucia	X	X	X	X	X	X			X	X
Saint Vincent and the Grenadines										
Samoa							X	X		
San Marino									X	X
Sao Tome and Principe	X	X	X	X	X		X	X		
Saudi Arabia	X	X					X	X	X	
Senegal	X	X	X	X	X	X	X	X		

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Serbia									X	X
Seychelles		X	X	X	X	X	X	X		
Sierra Leone			X		X		X		X	
Singapore									X	
Sint Maarten	X	X	X	X	X	X	X	X		
Slovakia[a]	X	X	X	X	X	X	X	X	X	X
Slovenia[a]									X	X
Solomon Islands										
Somalia	X	X	X	X	X	X	X	X		
South Africa	X	X							X	X
South Sudan	X	X	X		X	X	X	X		
Spain[a]	X	X					X	X		
Sri Lanka	X	X	X	X	X	X	X	X		
Sudan	X	X								
Suriname	X	X	X	X	X		X	X		
Sweden[a]	X	X	X	X	X	X	X	X	X	X
Switzerland	X	X	X				X	X	X	X
Syrian Arab Republic	X	X	X			X	X	X	X	X
Tajikistan	X	X	X	X	X	X	X	X	X	X
Thailand			X	X					X	X
Timor-Leste							X	X		
Togo										
Tonga	X	X	X	X	X	X	X	X		
Trinidad and Tobago									X	X
Tristan da Cunha	X	X	X	X	X	X				
Tunisia	X	X	X	X			X	X		
Türkiye[g]							X	X	X	X
Turkmenistan										
Turks and Caicos Islands										
Tuvalu	X	X	X	X	X	X	X	X		
Uganda	X	X	X	X	X	X	X	X		
Ukraine	X	X	X	X	X	X	X		X	X
United Arab Emirates	X	X	X		X	X	X	X	X	X
United Kingdom of Great Britain and Northern Ireland[h]	X	X	X	X	X	X	X	X	X	X
United Republic of Tanzania	X		X	X	X	X	X	X	X	X
United States of America	X	X	X	X	X	X	X	X	X	X

Country or territory	2018		2019		2020		2021		2022	
	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments	Trade	Uses and/or require-ments
Uruguay	X	X	X	X	X	X	X	X	X	X
Uzbekistan	X	X	X	X	X	X	X	X	X	
Vanuatu										
Venezuela (Bolivarian Republic of)	X	X	X	X	X		X	X	X	X
Viet Nam	X	X	X	X					X	
Wallis and Futuna Islands										
Yemen	X	X	X		X	X				
Zambia										
Zimbabwe			X	X	X	X				
Total number of Governments that submitted information on form D	**117**	**111**	**118**	**106**	**116**	**106**	**118**	**107**	**106**	**91**
Total number of Governments requested to provide information	**213**	**213**	**213**	**213**	**213**	**213**	**213**	**213**	**213**	**213**

[a] State member of the European Union.
[b] Since 19 April 2018, "Eswatini" has replaced "Swaziland" as the short name used in the United Nations.
[c] The Government of Switzerland includes on form D licit trade data for Liechtenstein.
[d] Since 3 March 2023, "Netherlands (Kingdom of the)" has replaced "Netherlands (the)" as the short name used in the United Nations.
[e] The information was provided by Australia.
[f] Since 14 February 2019, "North Macedonia" has replaced "the former Yugoslav Republic of Macedonia" as the short name used in the United Nations.
[g] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.
[h] The United Kingdom ceased to be a member of the European Union on 31 January 2020.

Annex V

Annual legitimate requirements for ephedrine, pseudoephedrine, 3,4-methylenedioxyphenyl-2-propanone and 1-phenyl-2-propanone; substances frequently used in the manufacture of amphetamine-type stimulants

1. In its resolution 49/3, entitled "Strengthening systems for the control of precursor chemicals used in the manufacture of synthetic drugs", the Commission on Narcotic Drugs:

(a) Requested Member States to provide to the International Narcotics Control Board (INCB) annual estimates of their legitimate requirements for 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), pseudoephedrine, ephedrine and 1-phenyl-2-propanone (P-2-P) and, to the extent possible, estimated requirements for imports of preparations containing those substances that could be easily used or recovered by readily applicable means;

(b) Requested the Board to provide those estimates to Member States in such a manner as to ensure that such information was used only for drug control purposes;

(c) Invited Member States to report to the Board on the feasibility and usefulness of preparing, reporting and using estimates of legitimate requirements for the precursor chemicals and preparations referred to above in preventing diversion.

2. Pursuant to that resolution, the Board formally invited Governments to prepare estimates of their legitimate requirements for those substances. Those estimates, as reported by Governments, were published for the first time in March 2007.

3. The Board has prepared a table reflecting the latest data reported by Governments on those four precursor chemicals (and their preparations, as relevant). It is expected that those data will provide the competent authorities of exporting countries with at least an indication of the legitimate requirements of importing countries, thus preventing diversion attempts.

4. **To enhance user-friendliness, the table has not been included in the present report but is available in spreadsheet format on the INCB website, in the section on the annual reports on precursors. The data are current as at 1 November 2023.**

5. Governments are invited to review their requirements as published, amend them as necessary and inform the Board of any required change. Regular updates of the table will be available throughout the year on the Board's website, in the section on precursors (see the section on annual legitimate requirements under the "Tools and Kits" menu).

Annex VI

Governments that have requested pre-export notifications pursuant to article 12, paragraph 10 (a), of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

1. Governments of all exporting countries and territories are reminded that it is an obligation to provide pre-export notifications to Governments that have requested them pursuant to article 12, paragraph 10 (a), of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, which provides that:

> "upon request to the Secretary-General by the interested Party, each Party from whose territory a substance in Table I is to be exported shall ensure that, prior to such export, the following information is supplied by its competent authorities to the competent authorities of the importing country:
>
> "(i) Name and address of the exporter and importer and, when available, the consignee;
> "(ii) Name of the substance in Table I;
> "(iii) Quantity of the substance to be exported;
> "(iv) Expected point of entry and expected date of dispatch;
> "(v) Any other information which is mutually agreed upon by the Parties."

2. Governments that have requested pre-export notifications are listed in the table below in alphabetical order, followed by the substance (or substances) for which pre-export notifications were requested, and the date of notification of the request transmitted by the Secretary-General to Governments.

3. The information is current as at 1 November 2023.

Notifying Government	*Substances for which pre-export notifications have been requested*	*Date of communication to Governments by the Secretary-General*
Afghanistan[a]	All substances included in Tables I and II	13 July 2010
Algeria[a]	All substances included in Tables I and II	10 October 2013
Antigua and Barbuda[a]	All substances included in Tables I and II	5 May 2000
Argentina	All substances included in Table I	19 November 1999
Armenia[a]	All substances included in Tables I and II[b, c]	4 July 2013
Australia[a]	All substances included in Tables I and II	12 February 2010
Austria	All substances included in Table I	19 May 2000[d]
Azerbaijan[a]	All substances included in Tables I and II	21 January 2011
Bangladesh[a]	All substances included in Tables I and II	12 May 2015
Barbados[a]	All substances included in Tables I and II[b, c]	24 October 2013
Belarus	All substances in Table I	12 October 2000 and 28 February 2023
Belgium	All substances included in Table I	19 May 2000[d]
Benin[a]	All substances included in Tables I and II	4 February 2000
Bhutan[a]	All substances included in Tables I and II	6 July 2018

Notifying Government	*Substances for which pre-export notifications have been requested*	*Date of communication to Governments by the Secretary-General*
Bolivia (Plurinational State of)[a]	Acetic anhydride, acetone, ethyl ether, hydrochloric acid, potassium permanganate and sulphuric acid	12 November 2001
Brazil[a]	All substances included in Tables I and II	15 October 1999 and 15 December 1999
Bulgaria	All substances included in Table I	19 May 2000[d]
Burkina Faso[a]	All substances included in Tables I and II	28 April 2023
Canada[a]	All substances included in Tables I and II	31 October 2005
Cayman Islands[a]	All substances included in Tables I and II	7 September 1998
Chile[a]	All substances included in Tables I and II	19 October 2012
China	Acetic anhydride	20 October 2000
China, Hong Kong SAR[a]	All substances included in Tables I and II	28 December 2012
China, Macao SAR[a]	All substances included in Tables I and II	28 December 2012
Colombia[a]	All substances included in Tables I and II	14 October 1998
Costa Rica[a]	All substances included in Tables I and II	27 September 1999
Côte d'Ivoire[a]	All substances included in Tables I and II	26 June 2013
Croatia	All substances included in Table I	19 May 2000[d]
Cyprus	All substances included in Table I	19 May 2000[d]
Czechia	All substances included in Table I	19 May 2000[d]
Denmark	All substances included in Table I	19 May 2000[d]
Dominican Republic[a]	All substances included in Tables I and II	11 September 2002
Ecuador[a]	All substances included in Tables I and II	1 August 1996
Egypt[a]	All substances included in Table I, and acetone	3 December 2004
El Salvador[a]	All substances included in Tables I and II	29 July 2010
Estonia	All substances included in Table I	19 May 2000[d]
Ethiopia[a]	All substances included in Tables I and II	17 December 1999
European Union (on behalf of all its member States)[e]	All substances included in Table I	19 May 2000[d]
Finland	All substances included in Table I	19 May 2000[d]
France	All substances included in Table I	19 May 2000[d]
Georgia[a]	All substances included in Tables I and II	7 September 2016
Germany	All substances included in Table I	19 May 2000[d]
Ghana[a]	All substances included in Tables I and II	26 February 2010
Greece	All substances included in Table I	19 May 2000[d]
Haiti[a]	All substances included in Tables I and II	20 June 2002
Honduras	Acetic anhydride, *N*-acetylanthranilic acid, 4-anilino-*N*-phenethylpiperidine (ANPP), ephedrine, ergometrine, ergotamine, isosafrole, lysergic acid, 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), norephedrine, *N*-phenethyl-4-piperidone (NPP), phenylacetic acid, *alpha*-phenylacetoacetonitrile (APAAN), 1-phenyl-2-propanone (P-2-P), piperonal, potassium permanganate, pseudoephedrine and safrole	18 June 2020
Hungary	All substances included in Table I	19 May 2000[d]
Iceland[a]	All substances included in Tables I and II	11 May 2021
India[a]	All substances included in Tables I and II	23 March 2000

Notifying Government	*Substances for which pre-export notifications have been requested*	*Date of communication to Governments by the Secretary-General*
Indonesia[a]	Acetic anhydride, *N*-acetylanthranilic acid, anthranilic acid, ephedrine, ergometrine, ergotamine, isosafrole, 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), phenylacetic acid, 1-phenyl-2-propanone (P-2-P), piperonal, pseudoephedrine and safrole	18 February 2000
Iraq[a]	All substances included in Tables I and II[b, c]	31 July 2013
Ireland	All substances included in Table I	19 May 2000[d]
Italy	All substances included in Table I	19 May 2000[d]
Jamaica	All substances included in Table I[b, c]	4 July 2013
Japan	All substances included in Table I	17 December 1999
Jordan[a]	All substances included in Tables I and II	15 December 1999
Kazakhstan[a]	All substances included in Tables I and II	15 August 2003
Kenya[a]	All substances included in Tables I and II[b, c]	10 October 2013
Kyrgyzstan[a]	All substances included in Tables I and II[b, c]	21 October 2013
Latvia	All substances included in Table I	19 May 2000[d]
Lebanon[a]	All substances included in Tables I and II	14 June 2002
Libya[a]	All substances included in Tables I and II[b, c]	21 August 2013
Lithuania	All substances included in Table I	19 May 2000[d]
Luxembourg	All substances included in Table I	19 May 2000[d]
Madagascar[a]	All substances included in Tables I and II	31 March 2003
Malaysia[a]	All substances included in Table I[b] and II	21 August 1998 and 22 September 2021
Maldives[a]	All substances included in Tables I and II	6 April 2005
Malta	All substances included in Table I	19 May 2000[d]
Mexico[a]	All substances included in Tables I and II	6 April 2005
Micronesia (Federated States of)[a]	All substances included in Tables I and II[b, c]	11 February 2014
Myanmar[a]	All substances included in Tables I and II	4 November 2016
Netherlands (Kingdom of the)[f]	All substances included in Table I	19 May 2000[d]
New Zealand[a]	All substances included in Tables I and II[b, c]	3 April 2014
Nicaragua[a]	All substances included in Tables I and II	8 January 2014
Nigeria[a]	All substances included in Tables I and II	28 February 2000
Norway[a]	All substances included in Table I,[c] and anthranilic acid, ethyl ether and piperidine	17 December 2013
Oman[a]	All substances included in Tables I and II	16 April 2007
Pakistan[a]	All substances included in Tables I and II	12 November 2001 and 6 March 2013
Panama	Ephedrine, ergometrine, ergotamine, norephedrine, pseudoephedrine	14 August 2013
Paraguay[a]	All substances included in Tables I and II	3 February 2000
Peru[a]	Acetic anhydride, acetone, ephedrine, ergometrine, ergotamine, ethyl ether, hydrochloric acid, lysergic acid, methyl ethyl ketone, norephedrine, potassium permanganate, pseudoephedrine, sulphuric acid and toluene	27 September 1999
Philippines[a]	All substances included in Tables I and II	16 April 1999
Poland	All substances included in Table I	19 May 2000[d]
Portugal	All substances included in Table I	19 May 2000[d]

Notifying Government	*Substances for which pre-export notifications have been requested*	*Date of communication to Governments by the Secretary-General*
Qatar[a]	All substances included in Tables I and II[b, c]	16 July 2013
Republic of Korea[a]	All substances included in Table I, and acetone	3 June 2008
Republic of Moldova[a]	All substances included in Tables I and II[b, c]	29 December 1998 and 8 November 2013
Romania	All substances included in Table I	19 May 2000[d]
Russian Federation[a]	Acetic anhydride, ephedrine, ergometrine, ergotamine, 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), norephedrine, phenylacetic acid, 1-phenyl-2-propanone (P-2-P), potassium permanganate, pseudoephedrine and all substances included in Table II	21 February 2000
Saint Vincent and the Grenadines[a]	All substances included in Tables I and II[b, c]	16 July 2013
Saudi Arabia[a]	All substances included in Tables I and II	18 October 1998
Sierra Leone[a]	All substances included in Tables I and II[b, c]	5 July 2013
Singapore	All substances included in Table I	5 May 2000
Slovakia	All substances included in Table I	19 May 2000[d]
Slovenia	All substances included in Table I	19 May 2000[d]
South Africa[a]	All substances included in Table I, and anthranilic acid	11 August 1999
Spain	All substances included in Table I	19 May 2000[d]
Sri Lanka	All substances included in Table I	19 November 1999
Sudan[a]	All substances included in Tables I and II	6 May 2015
Sweden	All substances included in Table I	19 May 2000[d]
Switzerland	All substances included in Table I	25 March 2013
Syrian Arab Republic[a]	All substances included in Tables I and II	24 October 2013
Tajikistan[a]	All substances included in Tables I and II	7 February 2000
Thailand[a]	All substances included in Table I (except potassium permanganate), and anthranilic acid[b]	18 October 2010
Togo[a]	All substances included in Tables I and II	6 August 2013
Tonga[a]	All substances included in Tables I and II[b, c]	4 July 2013
Trinidad and Tobago[a]	All substances included in Tables I and II[b, c]	15 August 2013
Tunisia[a]	Acetic anhydride, *N*-acetylanthranilic acid, 4-anilino-*N*-phenethylpiperidine (ANPP), ephedrine, ergometrine, ergotamine, isosafrole, lysergic acid, 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), norephedrine, *N*-phenethyl-4-piperidone (NPP), phenylacetic acid, *alpha*-phenylacetoacetonitrile (APAAN), 1-phenyl-2-propanone (P-2-P), piperonal, potassium permanganate, pseudoephedrine, safrole and all substances included in Table II	22 June 2020
Türkiye[a, g]	All substances included in Tables I and II	2 November 1995
Uganda[a]	All substances included in Tables I and II[b, c]	6 May 2014
United Arab Emirates[a]	All substances included in Tables I[b] and II	26 September 1995
United Kingdom of Great Britain and Northern Ireland[h]	All substances included in Table I	19 May 2000
United Republic of Tanzania[a]	All substances included in Tables I and II	10 December 2002
United States of America[a]	All substances included in Tables I and II	2 June 1995, 19 January 2001 and 2 August 2023
Uruguay[a]	All substances included in Tables I and II	30 December 2015

Notifying Government	*Substances for which pre-export notifications have been requested*	*Date of communication to Governments by the Secretary-General*
Venezuela (Bolivarian Republic of)[a]	All substances included in Tables I and II	27 March 2000
Yemen[a]	All substances included in Tables I and II	6 May 2014
Zambia[a]	All substances included in Tables I and II	22 June 2022
Zimbabwe[a]	All substances included in Tables I and II[b, c]	4 July 2013

Note: The names of territories are in italics.

[a] The Secretary-General has informed all Governments of the request of the notifying Government to receive a pre-export notification for some or all substances listed in Table II of the 1988 Convention as well.

[b] The Government requested to also receive pre-export notifications for pharmaceutical preparations containing ephedrine and pseudoephedrine.

[c] The Governments requested to also receive pre-export notifications for safrole-rich oils.

[d] On 19 May 2000, the Secretary-General communicated to Governments the request by the European Commission on behalf of the States members of the European Union to receive pre-export notifications for the indicated substances.

[e] Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

[f] Since 3 March 2023, "Netherlands (Kingdom of the)" has replaced "Netherlands (the)" as the short name used in the United Nations.

[g] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.

[h] The United Kingdom ceased to be a member of the European Union on 31 January 2020.

Annex VII

Substances in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

Table I	*Table II*
Acetic anhydride	Acetone
N-Acetylanthranilic acid	Anthranilic acid
4-Anilino-*N*-phenethylpiperidine (ANPP)[a]	Ethyl ether
tert-Butyl 4-(phenylamino)piperidine-1-carboxylate (1-boc-4-AP)[b]	Hydrochloric acid[e]
Ephedrine	Methyl ethyl ketone
Ergometrine	Piperidine
Ergotamine	Sulphuric acid[e]
Isosafrole	Toluene
Lysergic acid	
3,4-MDP-2-P methyl glycidate (“PMK glycidate”)[c]	
3,4-MDP-2-P methyl glycidic acid (“PMK glycidic acid”)[c]	
3,4-Methylenedioxyphenyl-2-propanone (3,4-MDP-2-P)	
Methyl *alpha*-phenylacetoacetate (MAPA)[d]	
Norephedrine	
Norfentanyl[b]	
N-Phenethyl-4-piperidone (NPP)[a]	
Phenylacetic acid	
alpha-Phenylacetoacetamide (APAA)[c]	
alpha-Phenylacetoacetonitrile (APAAN)	
N-Phenyl-4-piperidinamine (4-AP)[b]	
1-Phenyl-2-propanone (P-2-P)	
Piperonal	
Potassium permanganate	
Pseudoephedrine	
Safrole	
The salts of the substances listed in this Table, whenever the existence of such salts is possible	The salts of the substances listed in this Table, whenever the existence of such salts is possible

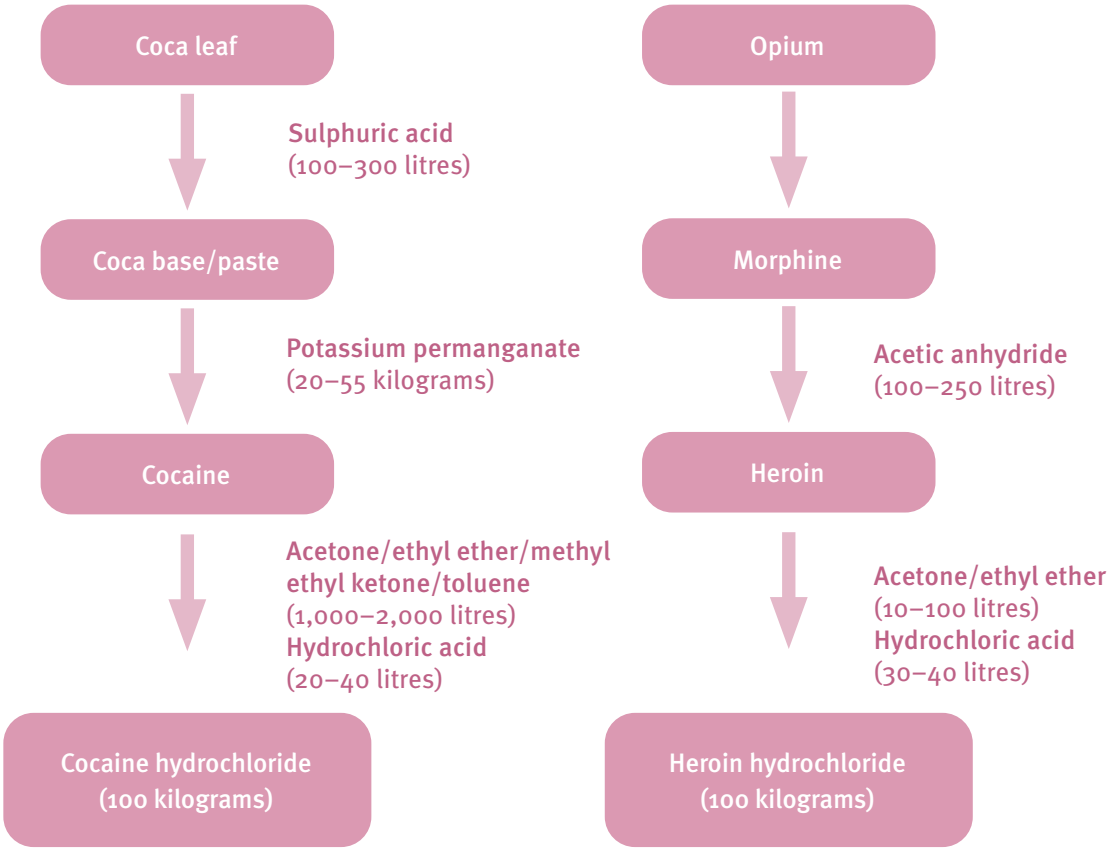
[a] Included in Table I, effective 18 October 2017.
[b] Included in Table I, effective 23 November 2022.
[c] Included in Table I, effective 19 November 2019.
[d] Included in Table I, effective 3 November 2020.
[e] The salts of hydrochloric acid and sulphuric acid are specifically excluded from Table II.

Annex VIII

Use of scheduled substances in the illicit manufacture of narcotic drugs and psychotropic substances

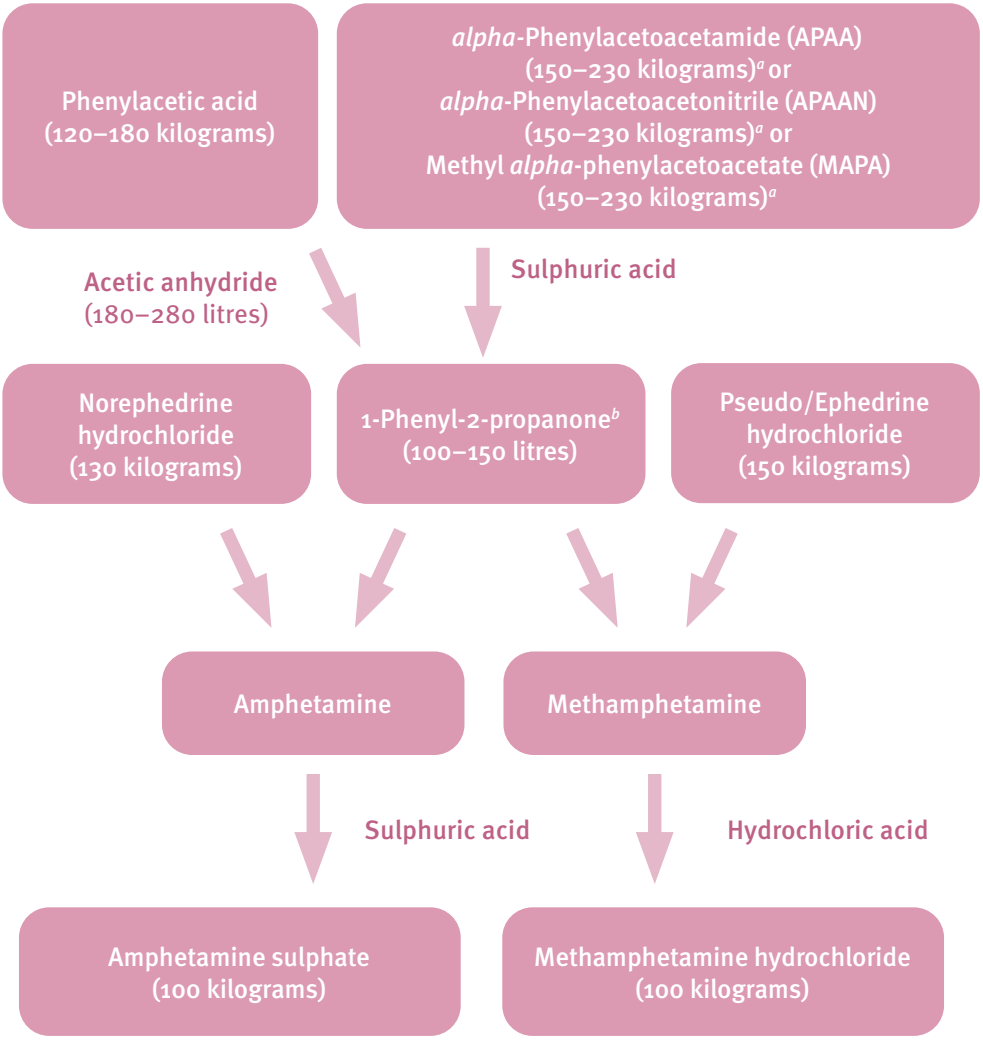
Figures I–VI below depict the use of scheduled substances in the illicit manufacture of narcotic drugs and psychotropic substances. The approximate quantities provided are based on common manufacturing methods. Other manufacturing methods using scheduled substances – or even non-scheduled substances instead of or in addition to scheduled substances – may also be encountered, depending on the geographical location.

Figure I. Illicit manufacture of cocaine and heroin: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 100 kilograms of cocaine or heroin hydrochloride



Note: The extraction of cocaine from coca leaf and the purification of coca paste and the crude base products of cocaine and heroin require solvents, acids and bases. A wide range of such chemicals are used at all stages of drug manufacture.

Figure II. Illicit manufacture of amphetamine and methamphetamine: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 100 kilograms of amphetamine sulphate and methamphetamine hydrochloride

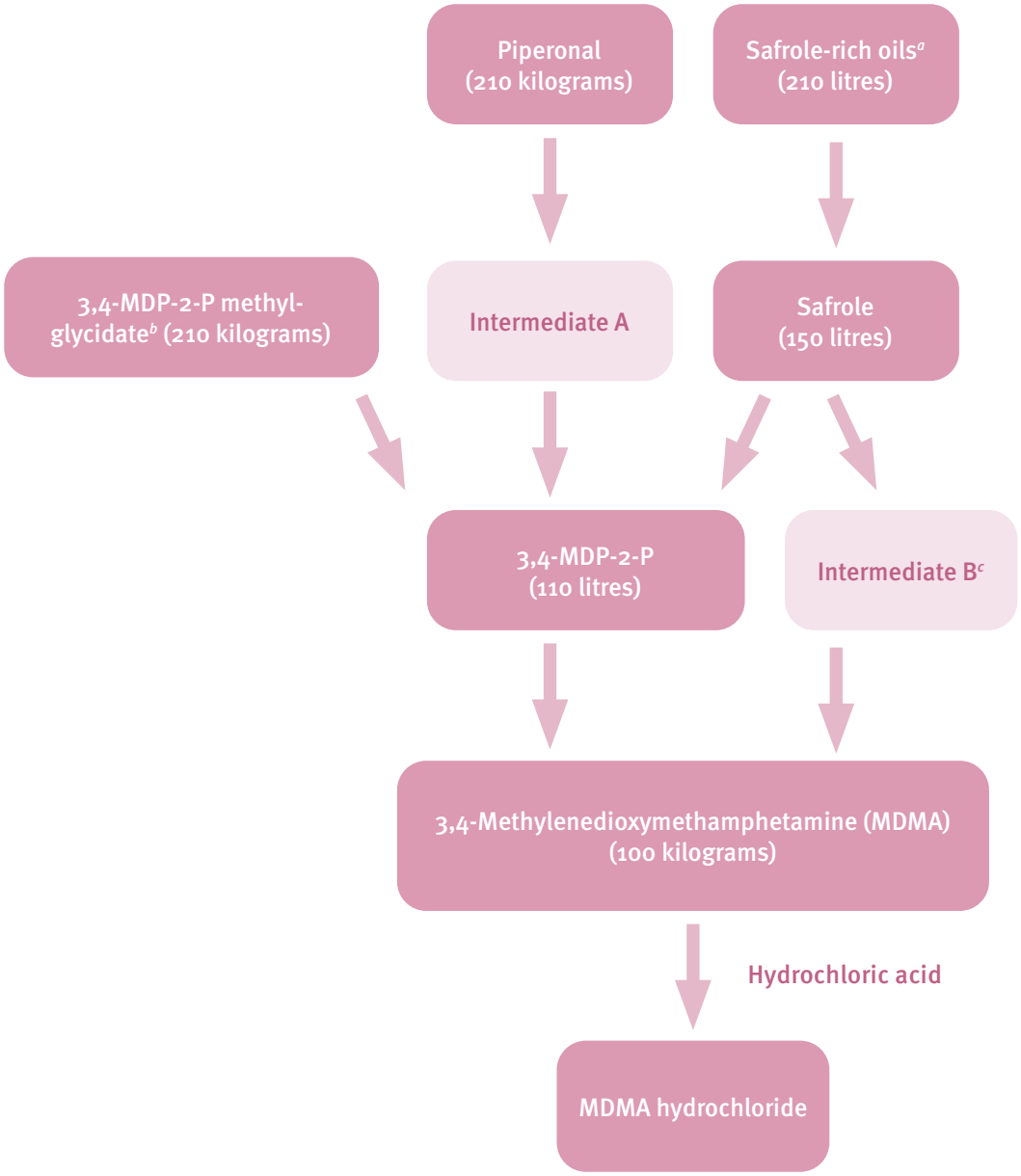


Note: Methcathinone, a less commonly encountered amphetamine-type stimulant, can be manufactured from pseudo/ephedrine hydrochloride, requiring the same approximate quantities as methamphetamine to yield 100 kilograms of hydrochloride salt.

[a]The weight range reflects the fact that APAA, APAAN and MAPA are purpose-made designer precursors without recognized legitimate uses and are therefore often impure (street-level quality).

[b]Methods based on 1-phenyl-2-propanone result in racemic *d,l*-meth/amphetamine, while methods based on ephedrine, pseudoephedrine or norephedrine result in *d*-meth/amphetamine. In a subsequent step, racemic *d,l*-meth/amphetamine can be – and actually is – separated in illicit laboratories to also produce *d*-meth/amphetamine.

Figure III. Illicit manufacture of 3,4-methylenedioxymethamphetamine (MDMA) and related drugs: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 100 kilograms of MDMA



Note: Isosafrole, another precursor of MDMA under international control, is not included in this scheme, as it is not commonly encountered as a starting material; it is an intermediate in a modification of methods for manufacturing MDMA from safrole, requiring approximately 300 litres of safrole to manufacture 100 kilograms of MDMA.

[a] Assuming the safrole-rich oils have a safrole content of 75 per cent or higher.

[b] Refers, for the purpose of this scheme, to the methyl ester and salts of 3,4-MDP-2-P methyl glycidic acid (i.e. purpose-made designer precursors without recognized legitimate uses that are therefore often impure (street-level quality)).

[c] The manufacture of 100 kilograms of MDMA via intermediate B would require 200 litres of safrole.

Figure IV. Illicit manufacture of methaqualone and phencyclidine: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 100 kilograms of methaqualone and phencyclidine

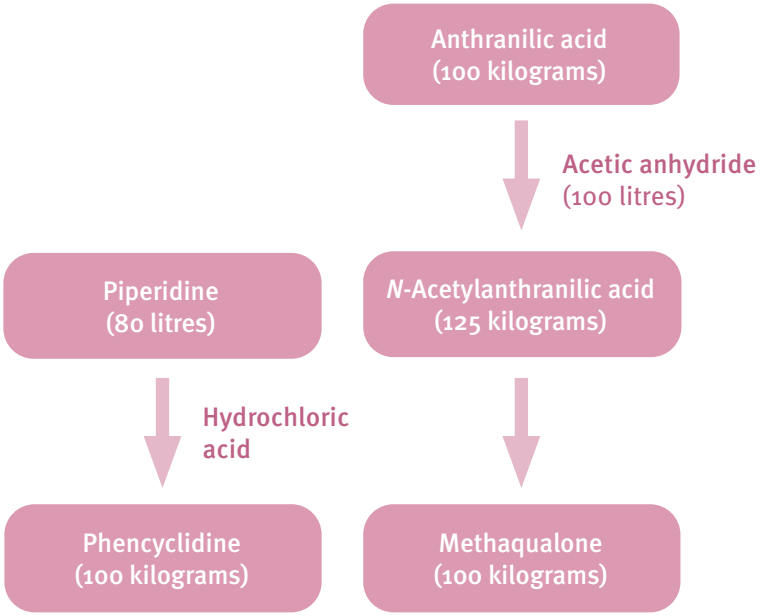


Figure V. Illicit manufacture of lysergic acid diethylamide (LSD): scheduled substances and the approximate quantities thereof required for the illicit manufacture of 1 kilogram of LSD

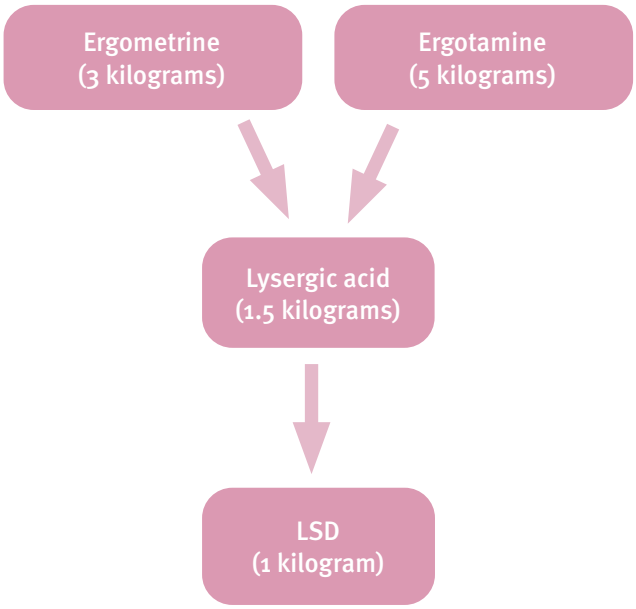
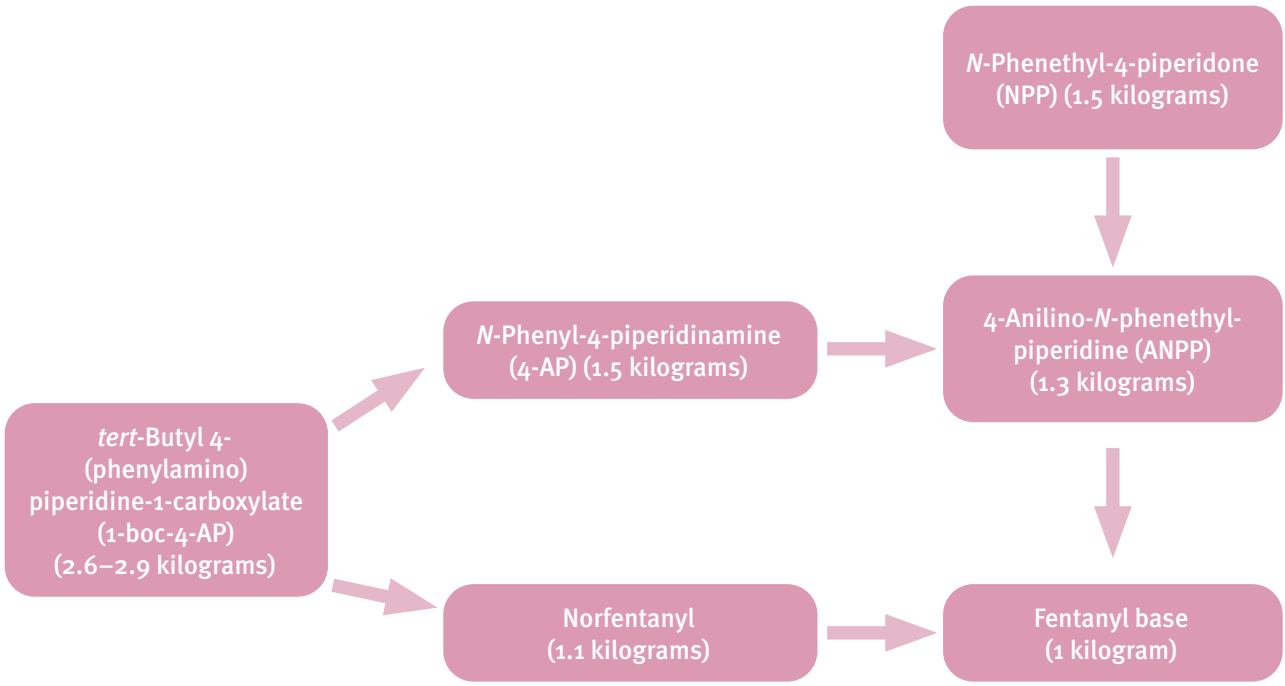


Figure VI. Illicit manufacture of fentanyl: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 1 kilogram of fentanyl



Annex IX

Licit uses of the substances in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

Knowledge of the most common licit uses of substances in Tables I and II of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, including the processes and end products in which the substances may be used, is essential for the verification of the legitimacy of orders or shipments. The most common licit uses of those substances reported to the International Narcotics Control Board are as follows:

Substance	*Licit uses*
Acetic anhydride	Acetylating and dehydrating agent used in the chemical and pharmaceutical industries for the manufacture of cellulose acetate, for textile sizing agents and cold bleaching activators, for polishing metals and for the production of brake fluids, dyes and explosives
Acetone	As a common solvent and intermediate for a variety of substances in the chemical and pharmaceutical industries, including plastics, paints, lubricants, varnishes and cosmetics; also used in the manufacture of other solvents, such as chloroform
N-Acetylanthranilic acid	Used in the manufacture of pharmaceuticals, plastics and fine chemicals
4-Anilino-*N*-phenethylpiperidine (ANPP)	Used in the pharmaceutical industry for the manufacture of fentanyl
tert-Butyl 4-(phenylamino)piperidine-1-carboxylate (1-boc-4-AP)	None, except in small amounts for research, development and laboratory analytical purposes
Anthranilic acid	Chemical intermediate used in the manufacture of dyes, pharmaceuticals and perfumes; also used in the preparation of bird and insect repellents
Ephedrine	Used in the manufacture of bronchodilators (cough medicines)
Ergometrine	Used in the treatment of migraine and as an oxytocic in obstetrics
Ergotamine	Used in the treatment of migraine and as an oxytocic in obstetrics
Ethyl ether	Commonly used solvent in chemical laboratories and in the chemical and pharmaceutical industries; mainly used as an extractant for fats, oils, waxes and resins; also used for the manufacture of munitions, plastics and perfumes and, in medicine, as a general anaesthetic
Hydrochloric acid	Used in the production of chlorides and hydrochlorides, for the neutralization of basic systems and as a catalyst and solvent in organic synthesis
Isosafrole	Used in the manufacture of piperonal; to modify “oriental perfumes”; to strengthen soap perfumes; in small quantities, together with methyl salicylate, in root beer and sarsaparilla flavours; and as a pesticide
Lysergic acid	Used in organic synthesis
Methyl *alpha*-phenylacetoacetate (MAPA)	None, except in small amounts for research, development and laboratory analytical purposes
3,4-Methylenedioxyphenyl-2-propanone	Used in the manufacture of piperonal and other perfume components
3,4-MDP-2-P methyl glycidate	None, except in small amounts for research, development and laboratory analytical purposes
3,4-MDP-2-P methyl glycidic acid	None, except in small amounts for research, development and laboratory analytical purposes
Methyl ethyl ketone	Common solvent; used in the manufacture of coatings, solvents, degreasing agents, lacquers, resins and smokeless powders

Substance	*Licit uses*
Norephedrine	Used in the manufacture of nasal decongestants and appetite suppressants
Norfentanyl	None, except in small amounts for research, development and laboratory analytical purposes (norfentanyl is a chemical intermediate in legitimate fentanyl manufacture but the extent of its use as a starting material is not known)
N-Phenethyl-4-piperidone (NPP)	Used in the pharmaceutical industry, mainly for the manufacture of fentanyl and carfentanil
Phenylacetic acid	Used in the chemical and pharmaceutical industries for the manufacture of phenylacetate esters, amphetamine and some derivatives; also used for the synthesis of penicillins and in fragrance applications and cleaning solutions
alpha-Phenyl-acetoacetamide (APAA)	None, except in small amounts for research, development and laboratory analytical purposes
alpha-Phenyl-acetoacetonitrile (APAAN)	None, except in small amounts for research, development and laboratory analytical purposes
N-Phenyl-4-piperidinamine (4-AP)	May be used as a building block in the manufacture of pharmaceutical substances, including fentanyl, but the extent of its use for legitimate manufacture is not known
1-Phenyl-2-propanone (P-2-P)	Used in the chemical and pharmaceutical industries for the manufacture of amphetamine, methamphetamine and some derivatives; also used for the synthesis of propylhexedrine
Piperidine	Commonly used solvent and reagent in chemical laboratories and in the chemical and pharmaceutical industries; also used in the manufacture of rubber products and plastics
Piperonal	Used in perfumery, in cherry and vanilla flavours, in organic synthesis and as a component of mosquito repellent
Potassium permanganate	Important reagent in analytical and synthetic organic chemistry; used in bleaching applications, disinfectants, and antibacterial and antifungal agents, and in water purification
Pseudoephedrine	Used in the manufacture of bronchodilators and nasal decongestants
Safrole	Used in perfumery, for example, in the manufacture of piperonal, and for denaturing fats in soap manufacture
Sulphuric acid	Used in the production of sulphates; as an acidic oxidizer; as a dehydrating and purifying agent; for the neutralization of alkaline solutions; as a catalyst in organic synthesis; in the manufacture of fertilizers, explosives, dyestuffs and paper; and as a component of drain and metal cleaners, anti-rust compounds and automobile battery fluids
Toluene	Industrial solvent; used in the manufacture of explosives, dyes, coatings and other organic substances and as a gasoline additive

Annex X

Treaty provisions for the control of substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances

1. Article 2, paragraph 8, of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol provides that parties shall use their best endeavours to apply to substances which do not fall under the Convention, but which may be used in the illicit manufacture of drugs, such measures of supervision as may be practicable.

2. Article 2, paragraph 9, of the Convention on Psychotropic Substances of 1971 provides that parties shall use their best endeavours to apply to substances which do not fall under the Convention, but which may be used in the illicit manufacture of psychotropic substances, such measures of supervision as may be practicable.

3. Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 contains provisions for the following:

(a) General obligation for parties to take measures to prevent diversion of the substances in Tables I and II of the Convention and to cooperate with each other to that end (para. 1);

(b) Mechanism for amending the scope of control (paras. 2–7);

(c) Requirement to take appropriate measures to monitor manufacture and distribution, to which end parties may control persons and enterprises, control establishments and premises under licence, require permits for manufacture or distribution of substances in Tables I and II and prevent accumulation of such substances (para. 8);

(d) Obligation to monitor international trade in order to identify suspicious transactions, to provide for seizures, to notify the authorities of the parties concerned in case of suspicious transactions, to require proper labelling and documentation and to ensure maintenance of such documents for at least two years (para. 9);

(e) Mechanism for advance notice of exports of substances in Table I, upon request (para. 10);

(f) Confidentiality of information (para. 11);

(g) Reporting by parties to the International Narcotics Control Board (para. 12);

(h) Report of the Board to the Commission on Narcotic Drugs (para. 13);

(i) Non-applicability of the provisions of article 12 to certain preparations (para. 14).

Annex XI

Regional groupings

Reference is made throughout the present report to various geographical regions, which are defined as follows:

Africa: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia and Zimbabwe;

Central America and the Caribbean: Antigua and Barbuda, Bahamas, Barbados, Belize, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago;

North America: Canada, Mexico and United States of America;

South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of);

East and South-East Asia: Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste and Viet Nam;

South Asia: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka;

West Asia: Afghanistan, Armenia, Azerbaijan, Bahrain, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, Tajikistan, Türkiye,[a] Turkmenistan, United Arab Emirates, Uzbekistan and Yemen;

Europe:

Eastern Europe: Belarus, Republic of Moldova, Russian Federation and Ukraine;

South-Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Romania and Serbia;

Western and Central Europe: Andorra, Austria, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Holy See, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands (Kingdom of the),[b] Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom of Great Britain and Northern Ireland;

Oceania: Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

[a] Since 31 May 2022, "Türkiye" has replaced "Turkey" as the short name used in the United Nations.
[b] Since 3 March 2023, "Netherlands (Kingdom of the)" has replaced "Netherlands (the)" as the short name used in the United Nations.

About the International Narcotics Control Board

The International Narcotics Control Board (INCB) is an independent and quasi-judicial control organ, established by treaty, for monitoring the implementation of the international drug control treaties. It had predecessors under the former drug control treaties as far back as the time of the League of Nations.

Composition

INCB consists of 13 members who are elected by the Economic and Social Council and who serve in their personal capacity, not as government representatives. Three members with medical, pharmacological or pharmaceutical experience are elected from a list of persons nominated by the World Health Organization (WHO) and 10 members are elected from a list of persons nominated by Governments. Members of the Board are persons who, by their competence, impartiality and disinterestedness, command general confidence. The Council, in consultation with INCB, makes all arrangements necessary to ensure the full technical independence of the Board in carrying out its functions. INCB has a secretariat that assists it in the exercise of its treaty-related functions. The INCB secretariat is an administrative entity of the United Nations Office on Drugs and Crime, but it reports solely to the Board on matters of substance. INCB closely collaborates with the Office in the framework of arrangements approved by the Council in its resolution 1991/48. INCB also cooperates with other international bodies concerned with drug control, including not only the Council and its Commission on Narcotic Drugs, but also the relevant specialized agencies of the United Nations, particularly WHO. It also cooperates with bodies outside the United Nations system, especially the International Criminal Police Organization (INTERPOL) and the World Customs Organization.

Functions

The functions of INCB are laid down in the following treaties: Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol; Convention on Psychotropic Substances of 1971; and United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. Broadly speaking, INCB deals with the following:

(a) As regards the licit manufacture of, trade in and use of drugs, INCB endeavours, in cooperation with Governments, to ensure that adequate supplies of drugs are available for medical and scientific uses and that the diversion of drugs from licit sources to illicit channels does not occur. INCB also monitors Governments' control over chemicals used in the illicit manufacture of drugs and assists them in preventing the diversion of those chemicals into the illicit traffic;

(b) As regards the illicit manufacture of, trafficking in and use of drugs, INCB identifies weaknesses in national and international control systems and contributes to correcting such situations. INCB is also responsible for assessing chemicals used in the illicit manufacture of drugs, in order to determine whether they should be placed under international control.

In the discharge of its responsibilities, INCB:

(a) Administers a system of estimates for narcotic drugs and a voluntary assessment system for psychotropic substances and monitors licit activities involving drugs through a statistical returns system, with a view to assisting Governments in achieving, inter alia, a balance between supply and demand;

(b) Monitors and promotes measures taken by Governments to prevent the diversion of substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances and assesses such substances to determine whether there is a need for changes in the scope of control of Tables I and II of the 1988 Convention;

(c) Analyses information provided by Governments, United Nations bodies, specialized agencies or other competent international organizations, with a view to ensuring that the provisions of the international drug control treaties are adequately carried out by Governments, and recommends remedial measures;

(d) Maintains a permanent dialogue with Governments to assist them in complying with their obligations under the international drug control treaties and, to that end, recommends, where appropriate, technical or financial assistance to be provided.

INCB is called upon to ask for explanations in the event of apparent violations of the treaties, to propose appropriate remedial measures to Governments that are not fully applying the provisions of the treaties or are encountering difficulties in applying them and, where necessary, to assist Governments in overcoming such difficulties. If, however, INCB notes that the measures necessary to remedy a serious

situation have not been taken, it may call the matter to the attention of the parties concerned, the Commission on Narcotic Drugs and the Economic and Social Council. As a last resort, the treaties empower INCB to recommend to parties that they stop importing drugs from a defaulting country, exporting drugs to it or both. In all cases, INCB acts in close cooperation with Governments.

INCB assists national administrations in meeting their obligations under the conventions. To that end, it proposes and participates in regional training seminars and programmes for drug control administrators.

Reports

The international drug control treaties require INCB to prepare an annual report on its work. The annual report contains an analysis of the drug control situation worldwide so that Governments are kept aware of existing and potential situations that may endanger the objectives of the international drug control treaties. INCB draws the attention of Governments to gaps and weaknesses in national control and in treaty compliance; it also makes suggestions and recommendations for improvements at both the national and international levels. The annual report is based on information provided by Governments to INCB, United Nations entities and other organizations. It also uses information provided through other international organizations, such as INTERPOL and the World Customs Organization, as well as regional organizations.

The annual report of INCB is supplemented by detailed technical reports. They contain data on the licit movement of narcotic drugs and psychotropic substances required for medical and scientific purposes, together with an analysis of those data by INCB. Those data are required for the proper functioning of the system of control over the licit movement of narcotic drugs and psychotropic substances, including preventing their diversion to illicit channels. Moreover, under the provisions of article 12 of the 1988 Convention, INCB reports annually to the Commission on Narcotic Drugs on the implementation of that article. That report, which gives an account of the results of the monitoring of precursors and of the chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, is also published as a supplement to the annual report.

INTERNATIONAL NARCOTICS CONTROL BOARD

The International Narcotics Control Board (INCB) is the independent monitoring body for the implementation of United Nations international drug control conventions. It was established in 1968 in accordance with the Single Convention on Narcotic Drugs, 1961. It had predecessors under the former drug control treaties as far back as the time of the League of Nations.

Based on its activities, INCB publishes an annual report that is submitted to the United Nations Economic and Social Council through the Commission on Narcotic Drugs. The report provides a comprehensive survey of the drug control situation in various parts of the world. As an impartial body, INCB tries to identify and predict dangerous trends and suggests necessary measures to be taken.

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