INTERNATIONAL NARCOTICS CONTROL BOARD

2011

Precursors

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

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Narcotic Drugs: Estimated World Requirements for 2012 — Statistics for 2010 (E/INCB/2011/2)

Psychotropic Substances: Statistics for 2010 — Assessments of Annual Medical and Scientific Requirements for Substances in Schedules II, III and IV of the Convention on Psychotropic Substances of 1971 (E/INCB/2011/3)

Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances: Report of the International Narcotics Control Board for 2011 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (E/INCB/2011/4)

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.

Contacting the International Narcotics Control Board

The secretariat of the Board may be reached at the following address:

Vienna International Centre
Room E-1339
P.O. Box 500
1400 Vienna
Austria

In addition, the following may be used to contact the secretariat:

Telephone: (+43-1) 26060
Fax: (+43-1) 26060-5867 or 26060-5868
E-mail: secretariat@incb.org

The text of the present report is also available on the website of the Board (www.incb.org).

INTERNATIONAL NARCOTICS CONTROL BOARD

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Report of the
International Narcotics Control Board for 2011
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

This year's report of the International Narcotics Control Board on precursors is dedicated to the centennial of the first international drug control treaty, the International Opium Convention signed at The Hague in 1912, which created the foundation of international drug control. At the same time, the most recent drug control treaty, the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, is entering its third decade since coming into force. During that time, the international precursor control regime has resulted in many significant achievements and accomplishments. With the ongoing cooperation and support of the international community, it is clear that the regime will remain a vital component of efforts to counter illicit drug manufacture and trafficking in the decades to come.

For more than 20 years, the Board, with a mandate to monitor and assess the compliance of Governments with their obligations under article 12 of the 1988 Convention, has analysed and identified trends and patterns in trafficking in precursors, identified weaknesses in national and international control systems and provided Governments with constructive and targeted solutions.

In the 2011 report on precursors, the Board continues to present its analyses of the latest developments in global precursor chemical control and has also included a new thematic chapter which reviews the past 20 years of the precursor control regime. By reinforcing the use of its Pre-Export Notification (PEN) Online system and developing new international initiatives that build on the successes of Project Prism and Project Cohesion, the Board is confident that, over the next decade, it can continue to bring Governments together with the aim of preventing the diversion of precursors and investigating trafficking.

In 2011, this cooperation led to considerable achievements, highlighted by the 133 Governments that, over the past five years and pursuant to Commission on Narcotic Drugs resolution 49/3, have provided the Board with their annual legitimate requirements for precursor chemicals. Domestic and international efforts in 2011 led to more than 250 seizures of controlled chemicals, totalling more than 240 tons and thousands of litres, which would have been used in the illicit manufacture of drugs. This demonstrates how well these cooperative activities can work in practice. Nevertheless, challenges remain that will require concerted action by the international community. The sourcing of non-scheduled substances as substitutes for controlled precursors, the diversion of precursors from domestic distribution channels and the continuing vulnerability of less affluent Member States require both political will and the recognition that precursor control is a shared responsibility that requires the special attention of national drug control authorities.

Diversion of precursors is a problem for the international community; its solution can be addressed only at the international level. As such it is clear that only through joint efforts can effective solutions be found to curb this activity and those related to drug trafficking and organized crime. The last 20 years of chemical control have shown just what such cooperation can achieve.

Hamid **Ghodse**

President of the International Narcotics Control Board

Preface

The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 provides that the International Narcotics Control Board shall submit a report annually to the Commission on Narcotic Drugs on the implementation of article 12 of the Convention and that the Commission shall 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.

Contents

* Annexes VII-XI are not included in the printed copies of the present report but are available in the CD-ROM version of the report and online from the website of the International Narcotics Control Board (www.incb.org).

Figures

Explanatory notes

The boundaries and names shown and the designations used on the maps appearing in this publication do not imply official endorsement or acceptance by the United Nations. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Map designations employed and the presentation of the material in this 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, territories 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 the annual information provided on substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances (form D), notifications via the Board's Pre-Export Notification (PEN) Online system and other official communications with competent national authorities. Unless otherwise specified, form D data are reported by the calendar year, with a reporting cut-off date of 30 June of the following year. The reporting period for data from the PEN Online system is from 1 November 2010 to 31 October 2011. In cases in which PEN Online data are used for multiple years, calendar years are used. Additional information was also provided through international and regional organizations, as indicated in the report.

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

The following abbreviations have been used in the present report:

APAAN	*alpha*-phenylacetoacetonitrile (also known as 1-cyano-P-2-P)
GBL	*gamma*-butyrolactone
GHB	*gamma*-hydroxybutyric acid
3,4-MDP-2-P	3,4-methylenedioxyphenyl-2-propanone
P-1-P	1-phenyl-1-propanone (also known as propiophenone or ethyl phenyl ketone)
P-2-P	1-phenyl-2-propanone
PEN Online system	Pre-Export Notification Online system
UNODC	United Nations Office on Drugs and Crime

Summary

As the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 enters its third decade since coming into force, the international precursor control regime has resulted in many significant achievements and accomplishments and continues to enjoy almost universal support. With the accession of the Marshall Islands to the Convention in November 2010, only 11 States remain non-parties to the Convention.

The Board notes that Governments continue to engage proactively and support efforts to prevent chemical diversion by strengthening their legislation above and beyond the minimum outlined under the 1988 Convention and subsequent resolutions of the Commission on Narcotic Drugs. During the reporting period, the Board observed that, in addition to the rescheduling of phenylacetic acid from Table II to Table I of the Convention, many countries, such as El Salvador, Guatemala and Nicaragua, had expanded their control measures to include phenylacetic acid derivatives. Canada broadened its legislation to the point of prohibiting anyone from knowingly possessing, producing or transferring anything that might be used for the illicit manufacture of methamphetamine or 3,4-methylenedioxymethamphetamine (MDMA, commonly known as "ecstasy").

Since the launch of the Board's Pre-Export Notification (PEN) Online system in 2006, the number of registered users has grown to 126. Pre-export notifications sent via the PEN Online portal have increased to more than 20,000 annually, sent to 169 countries and territories. Despite the PEN Online system being recognized as a cornerstone of the monitoring of international trade in scheduled chemicals and the prevention of diversion, the Board remains concerned that countries in several regions still do not use the system consistently. The Board also remains concerned about rapidly increasing or unusually high estimates of annual legitimate requirements for certain amphetamine-type stimulant precursors, especially in West Asian countries.

As at 31 October 2011, a total of 132 Governments had submitted form D for 2010, which comprises the basis of the Board's analysis of global trends and emerging threats in chemical control. Nevertheless, less than half of Governments submit form D, which is mandatory under the Convention, by the deadline of 30 June each year. Several middle-income and many low-income countries fail to report at all.

As a result of stronger controls and the rescheduling of substances, traffickers have been forced to seek non-scheduled chemicals for the illicit manufacture of drugs. Building on the successes of previous initiatives under Project Prism and Project Cohesion, Operation PAAD (Phenylacetic Acid and its Derivatives) was launched in March 2011. An example of international cooperation, Operation PAAD generated important strategic and operational information on the unprecedented amounts and specific types of non-scheduled phenylacetic acid derivatives used in the manufacture of methamphetamine, their source and destination countries, trafficking routes and modi operandi. As reliance upon those substances in some countries in Latin America has increased, fewer large seizures involving ephedrine and pseudoephedrine have been noted in that region. At the same time, pharmaceutical preparations containing those two substances appear to be playing a greater role in the illicit manufacture of methamphetamine in parts of South-East Asia.

The diversion of acetic anhydride from domestic distribution channels, with subsequent cross-border smuggling, has become the most common method of obtaining that chemical for use in illicit heroin manufacture. In addition, potassium permanganate is increasingly being sourced from illicit manufacture or substituted altogether. While these criminal activities are outside international trade, each

Government has a shared responsibility to ensure that chemicals from its domestic channels are not diverted into illicit use.

Over the course of 2010, domestic and international efforts led to seizures that prevented over 240 tons and millions of litres of controlled chemicals from being used in the illicit manufacture of substances. The Board also noted an increase in stopped shipments, which demonstrates that preventive action can be more effective when Governments communicate in real time. Many of the stopped shipments noted in the present report were destined for developing countries, in many cases in Africa, illustrating the need for greater technical cooperation in chemical control in many of the world's low-income countries.

Twenty years of international precursor control have demonstrated that the control system is effective. Future mechanisms to counter modern-day diversion must be increasingly flexible. Governments, in greater partnership with industry, will need to more quickly identify suspicious orders and thus prevent diversion. Legislation must be more flexible to allow for the investigation and prosecution of incidents which involve new chemicals for use in the illicit manufacture of substances. Dissemination of information on suspicious orders, stopped shipments and seized precursors will have to occur in real time. Regulatory and law enforcement agencies, as well as relevant industries, each play an equally important role in identifying weaknesses and devising adequate solutions. Although much progress has occurred, as outlined in the present report, a good number of challenges for Governments lie ahead.

I. Introduction

1. The United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances[1] of 1988 provides for measures to prevent the diversion of precursor and essential chemicals into the illicit manufacture of drugs. The International Narcotics Control Board monitors the control of Governments over precursors and essential chemicals and assists them in preventing the diversion of those chemicals into illicit traffic.

2. The present report, which is the twentieth annual report on precursors published by the Board, has been restructured and now includes a thematic chapter. Following the executive summary and the introduction, substantive reporting begins in chapter II, which provides statistics and information on actions taken by Governments and the Board under the provisions of article 12 of the 1988 Convention. This includes the utilization of the Pre-Export Notification (PEN) Online system and the results of task force operational support under Project Prism and Project Cohesion. Chapter III details the extent of legitimate trade in precursors and the latest major trends in the trafficking and illicit use of chemicals, highlighting the most relevant cases of suspicious and stopped shipments in and diversions or attempted diversions from international trade, as well as seizures of those substances.

3. Chapter IV provides a thematic examination of 20 years of precursor control. It assesses the implementation of article 12 of the 1988 Convention, reviews the results in precursor control to date and, based on collective knowledge, looks to the future. Chapter V provides recommendations to Governments on the way forward for effective international and domestic precursor control.

4. Annexes I to XI provide updated, practical information that is intended to assist competent national authorities in carrying out their functions, including information on estimated annual legitimate requirements for the import of selected substances that are frequently used in the illicit manufacture of amphetamine-type stimulants, a list of Governments that require pre-export notifications, information on the use of scheduled substances in illicit drug manufacture and a summary of applicable treaty provisions. Annexes I-VI can be found in the printed copy, while all annexes are available in the CD-ROM version of the report and online from the Board's website (www.incb.org).

[1] United Nations, *Treaty Series*, vol. 1582, No. 27627.

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

A. Scope of control

5. The transfer of phenylacetic acid from Table II to Table I of the 1988 Convention became effective on 17 January 2011.

6. In 2011 the Board, pursuant to Economic and Social Council resolution 1992/29 on measures to prevent the diversion of precursor and essential chemicals to the illicit manufacture of narcotic drugs and psychotropic substances, undertook with the World Customs Organization the establishment of a discrete tariff code for preparations containing ephedrine and pseudoephedrine to facilitate the monitoring of international trade in those substances and the identification of diversion attempts.

7. Trade in precursors, like trade in every other commodity, is monitored by customs authorities worldwide using an internationally standardized classification system of names and numbers referred to as the Harmonized Commodity Description and Coding System. While all internationally controlled precursors, including ephedrine and pseudoephedrine in bulk form, have a discrete code, pharmaceutical preparations containing ephedrine and pseudoephedrine do not. Thus, competent national authorities are presently unable to identify specifically imports or exports of those preparations from a broader grouping of pharmaceutical preparations. That weakness has often been misused by traffickers in their attempts to disguise the nature of large shipments of such preparations across borders.

8. The use of discrete Harmonized Commodity Description and Coding System codes for pharmaceutical preparations containing ephedrine and pseudoephedrine would also result in more accurate reporting of licit trade in such preparations on form D and ease the identification of shipments that exceed the annual legitimate requirements of importing countries for such substances.

B. Adherence to the 1988 Convention

9. As at 31 October 2011, the 1988 Convention had been ratified, acceded to or approved by 184 States and formally confirmed by the European Union (extent of competence: article 12). Following the issuance of the 2010 report of the Board on the implementation of article 12, the Marshall Islands became a party to the Convention.[2]

[2] The Marshall Islands became a party to the Convention on 5 November 2010.

Sint Maarten and Curaçao, formerly part of the Netherlands Antilles, became constituent countries within the Kingdom of the Netherlands in October 2010. Details on accessions by region can be found in annex I.

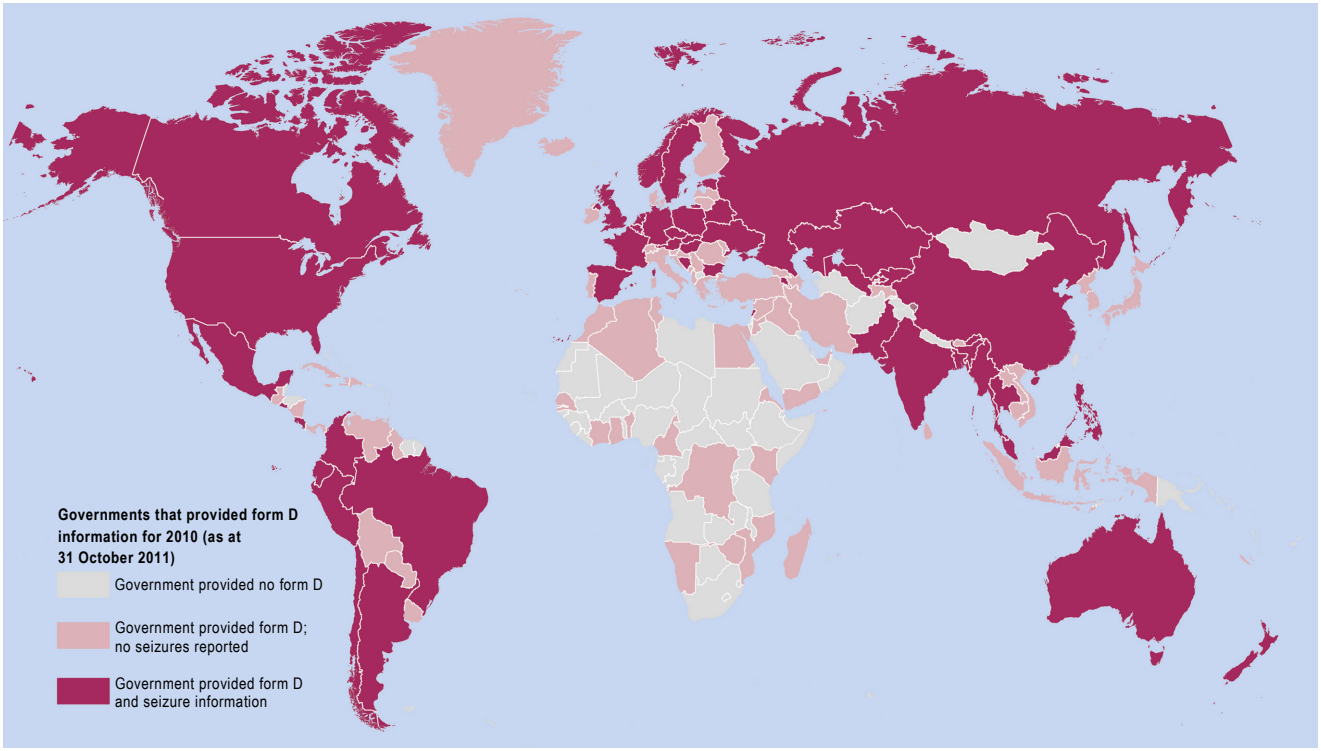
10. Of the 11 States that have yet to become parties to the 1988 Convention,[3] six are in Oceania. The low rate of accession to the 1988 Convention in Oceania, as well as the geographical proximity of the region to illicit drug manufacturing areas, makes the region vulnerable to trafficking in precursors. **Therefore, the Board again urges the 11 States that have yet to become parties to the 1988 Convention to implement the provisions of article 12 and accede to the Convention without further delay.**

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

11. Governments are obliged to report annually on substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances (form D). That information is subsequently used to identify regional and global patterns and trends. As at 31 October 2011, a total of 132 States and territories had submitted form D for the year 2010 (see annex VII). Less than half of Governments submit their form D by the deadline of 30 June of each year, while several middle-income and many low-income countries fail to report altogether. **The Board reminds all States parties to comply with their reporting obligations under the 1988 Convention and to submit form D, using the latest version available, in a timely manner. The latest version is available in all official languages of the United Nations from the Board's web page (www.incb.org).**

12. Reporting on form D is not always complete. For example, only about 29 per cent of Governments in Oceania and one third of those in Africa, Central America and the Caribbean provided a form D for 2010. Some States parties to the 1988 Convention (e.g. Burundi and Gabon) have never submitted form D to the Board, while a number of States have not submitted form D for the past several years. The Board recognizes Gambia for its first-time submission of form D for 2010.

Figure I. Governments submitting form D and those providing seizure data for 2010



[3] Equatorial Guinea, Holy See, Kiribati, Nauru, Palau, Papua new Guinea, South Sudan, Solomon Islands, Somalia, Timor-Leste and Tuvalu.

13. As at 31 October 2011, 51 Governments had reported seizures of Table I or Table II substances on form D for 2010. Twenty-nine Governments had reported seizures of substances not included in Tables I or II. Some provided information on methods of diversion, illicit manufacture or stopped shipments; others, however, submitted insufficient information or aggregated figures without enough details to allow the Board to analyse and identify emerging trends in trafficking in precursors and illicit manufacture of drugs. The Board therefore urges all Governments effecting seizures to provide comprehensive, mandatory information on methods of diversion, stopped shipments and illicit manufacture.

D. Legislation and control measures

14. In accordance with Economic and Social Council resolution 1992/29, the Board 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. Since the ninety-ninth session of the Board, in November 2010, several changes in control measures applied by Governments have been brought to the attention of the Board (see paras. 15-19 below).

15. Following the transfer of phenylacetic acid from Table II to Table I, several countries amended their legislation accordingly. In March 2011, the European Commission adopted Commission Regulation (EU) No. 225/2011, which requires member States of the European Union to furnish pre-export notification for exports of phenylacetic acid from the European Union and for exports of Table II substances to Afghanistan, Australia and Ghana, following their invoking article 12, paragraph 10 (a), of the 1988 Convention.

16. The trend of strengthening controls over precursors of amphetamine-type stimulants continued throughout Central and South America. In February 2011, El Salvador began prohibiting the import, export, production, manufacture, possession, distribution, storage, sale, transfer or transport of phenylacetic acid and its derivatives without express permission from the Government. Effective April 2011, Nicaragua began prohibiting the import and use of phenylacetic acid and its esters, as well as *N*-acetylanthranilic acid and anthranilic acid. In December 2010, Guatemala strengthened existing controls over phenylacetic acid and its derivatives, along with acetic anhydride and potassium permanganate. In February 2011, Paraguay established standards and requirements for the import, export and sale of medicines containing *Ephedra*, ephedrine and pseudoephedrine, their salts, their optical isomers or the salts of their optical isomers, esters or other derivatives as a single drug or combination preparation. Colombia amended the ban on domestic use of ephedrine and pseudoephedrine to allow imports of the two substances exclusively for the manufacture of pharmaceutical preparations for export.[4] **The Board reminds Governments of exporting countries to keep themselves informed of the importing country's existing import restrictions to ensure that their exports do not violate the laws and regulations of the importing country, and to consult available resources, such as the information package for competent national authorities available on the Board's website.**

17. Effective April 2011, the United States began requiring mail-order retailers of pharmaceutical preparations containing ephedrine, pseudoephedrine or norephedrine to apply the training and self-certification requirements that were previously applicable only to other retail sellers. The new law also includes provisions covering two new offences: negligently failing to self-certify as required, and distributing pharmaceutical preparations to sellers who are not self-certified. The law requires the country's Drug Enforcement Administration to maintain a list of self-certified persons for this purpose.

18. In March 2011, the Government of Canada broadened the existing Controlled Drugs and Substances Act to prohibit any person from knowingly possessing, producing, selling or importing anything to be used in the illicit manufacture or trafficking of either methamphetamine or 3,4-methylenedioxymethamphetamine (MDMA, commonly known as "ecstasy").

19. In September 2010, China strengthened control measures over online trading in precursors, requiring all entities that sell precursors through the Internet to be registered.

20. In the light of the continuing challenges to the international precursor control system presented by pharmaceutical preparations containing ephedrine and pseudoephedrine, in March 2011, at the fifty-fourth session of the Commission on Narcotic Drugs, Member States adopted resolution 54/8, in which Governments were encouraged to utilize the PEN Online system for pre-export notification of pharmaceutical preparations containing ephedrine and pseudoephedrine. Malaysia, Thailand and the United Arab Emirates have each requested that they receive pre-export notifications for pharmaceutical preparations. **The Board welcomes the increased focus on shipments of ephedrine and pseudoephedrine in the form**

[4] Ministry of Social Protection resolution 3962, effective 23 October 2009.

of pharmaceutical preparations and encourages Governments to utilize the PEN Online system for pre-export notification of such preparations in accordance with Commission on Narcotic Drugs resolution 54/8.

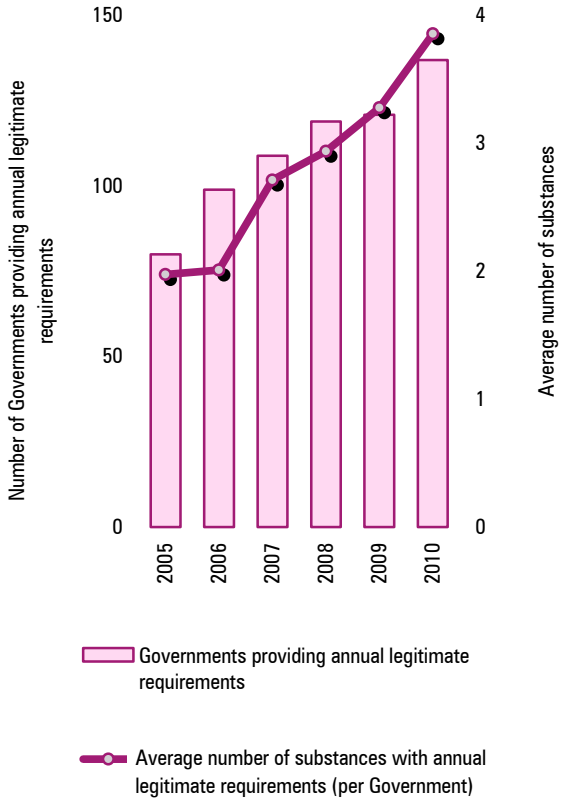
E. Submission of data on licit trade in, uses of and requirements for precursors

21. In accordance with Economic and Social Council resolution 1995/20, Governments provide data on their licit trade in, uses of and requirements for Table I and Table II substances, which enables the Board to identify both trends in the international trade in precursors and unusual or suspicious trade patterns. As at 31 October 2011, 120 States and territories had provided information on licit trade and 113 had furnished data on licit uses of and requirements for precursors (see annex IX).

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

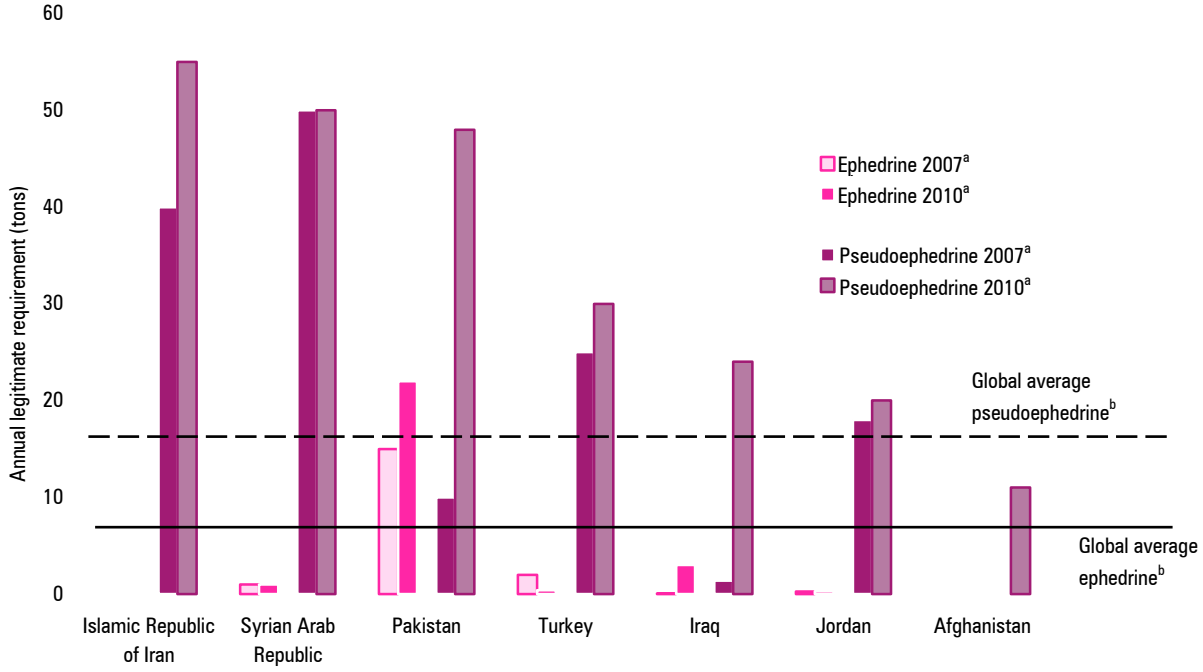
22. In its resolution 49/3, the Commission on Narcotic Drugs requested Member States to provide the Board with annual estimates of their legitimate requirements for the imports of four substances frequently used in the manufacture of amphetamine-type stimulants: 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), 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 can be easily used or recovered by readily applicable means. Both the number of Governments and the number of substances for which such estimates are provided have increased steadily in recent years. As at 31 October 2011, 137 Governments had provided such estimates for at least one substance, and on average for four substances. First-time submissions were provided by Bhutan, Christmas Island, the Cocos (Keeling) Islands, Denmark, the Gambia, the Lao People's Democratic Republic, Namibia, the Netherlands, Senegal, Singapore, Trinidad and Tobago, Ukraine and Uzbekistan. Estimated annual legitimate requirements submitted by Governments are listed in annex II, and are regularly updated on the Board's website.

Figure II. Number of Governments providing estimates of annual legitimate requirements and the average number of substances for which such information was provided, 2005-2010



23. Estimates of annual legitimate requirements are an effective tool that assists Governments in assessing the legitimacy of chemical shipments. Rapid or significant increases in such estimates can be used to identify countries and regions where the risk of diversion is increasing. For example, estimates of annual legitimate requirements for bulk pseudoephedrine on a per capita basis in West Asia more than tripled between 2007 and 2010. During that period, large increases in such estimates were reported by the Islamic Republic of Iran (from 40 tons to 55 tons), Iraq (from 1.4 tons to 14 tons) and Pakistan (from 10 tons to 48 tons), among others, far exceeding per-country average annual legitimate requirements. On a per capita basis, Jordan and the Syrian Arab Republic have consistently reported unusually high estimates of their annual legitimate requirements for bulk pseudoephedrine — between 10 and 20 times the global average. **The Board encourages countries in West Asia to review both their estimates of annual legitimate requirements and their methods for calculating such estimates. Furthermore, the Board invites all Governments to inform it of the methodologies used for preparing their estimates.**

Figure III. Annual legitimate requirements for combined bulk and pharmaceutical preparations containing ephedrine or pseudoephedrine from select countries in West Asia, 2007 and 2010



[a] Totals include both bulk and pharmaceutical preparation forms of the substances.

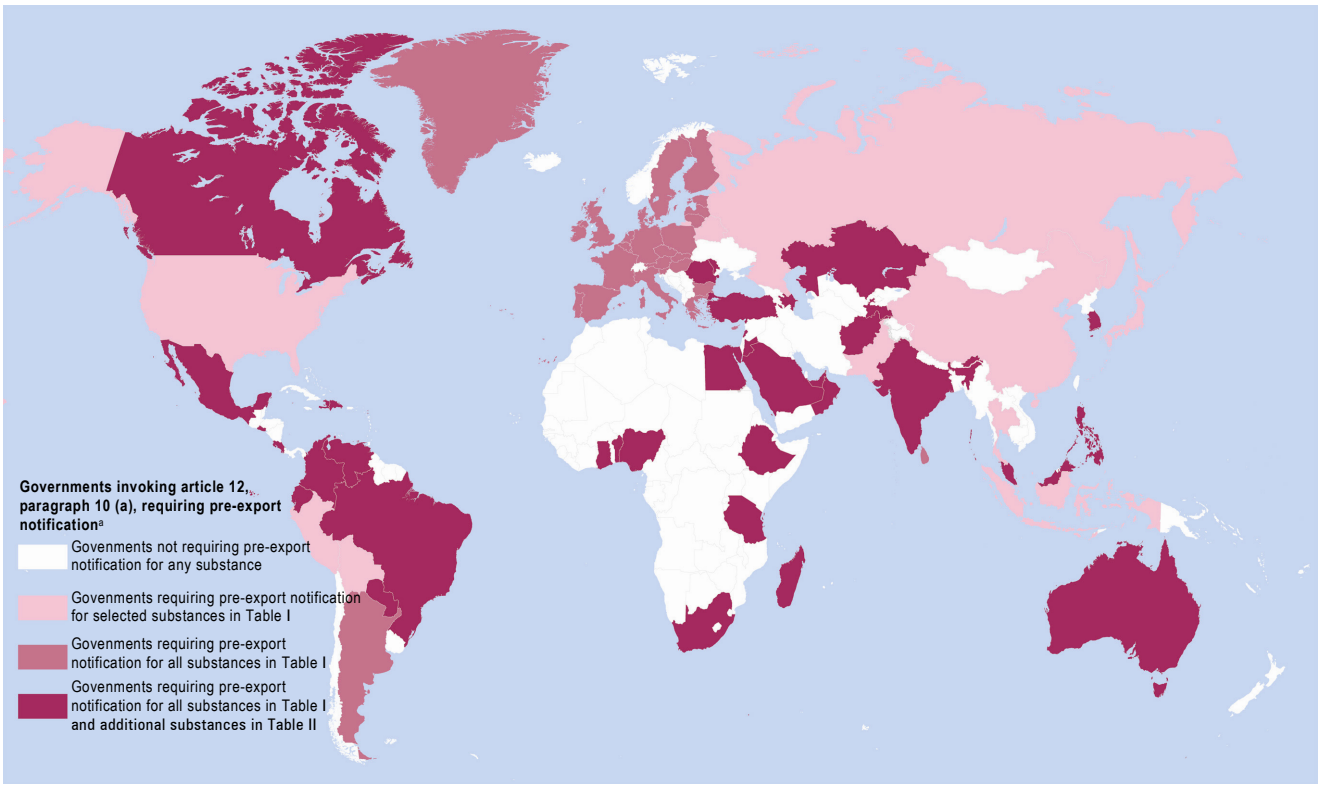
[b] Global average per-country annual legitimate requirements for those Governments requiring a minimum of 10 or more kg in 2010.

24. While many Governments update their estimates of annual legitimate requirements annually to reflect changing market conditions, some have not done so for years. Others have authorized imports of those substances in quantities far in excess of their published estimates. Nearly a third of Governments, including those of some major trading countries, have yet to provide an estimate of their annual legitimate requirements for any of the amphetamine-type stimulant substances. **The Board encourages Governments to regularly review their estimates of annual legitimate requirements, utilizing the most recent market data. The Board also calls upon Governments, especially those with significant trade (including re-export) in the four substances and their preparations, to exercise continuing vigilance to ensure that their estimates of annual legitimate requirements are commensurate with prevailing market conditions.**

G. Pre-export notifications

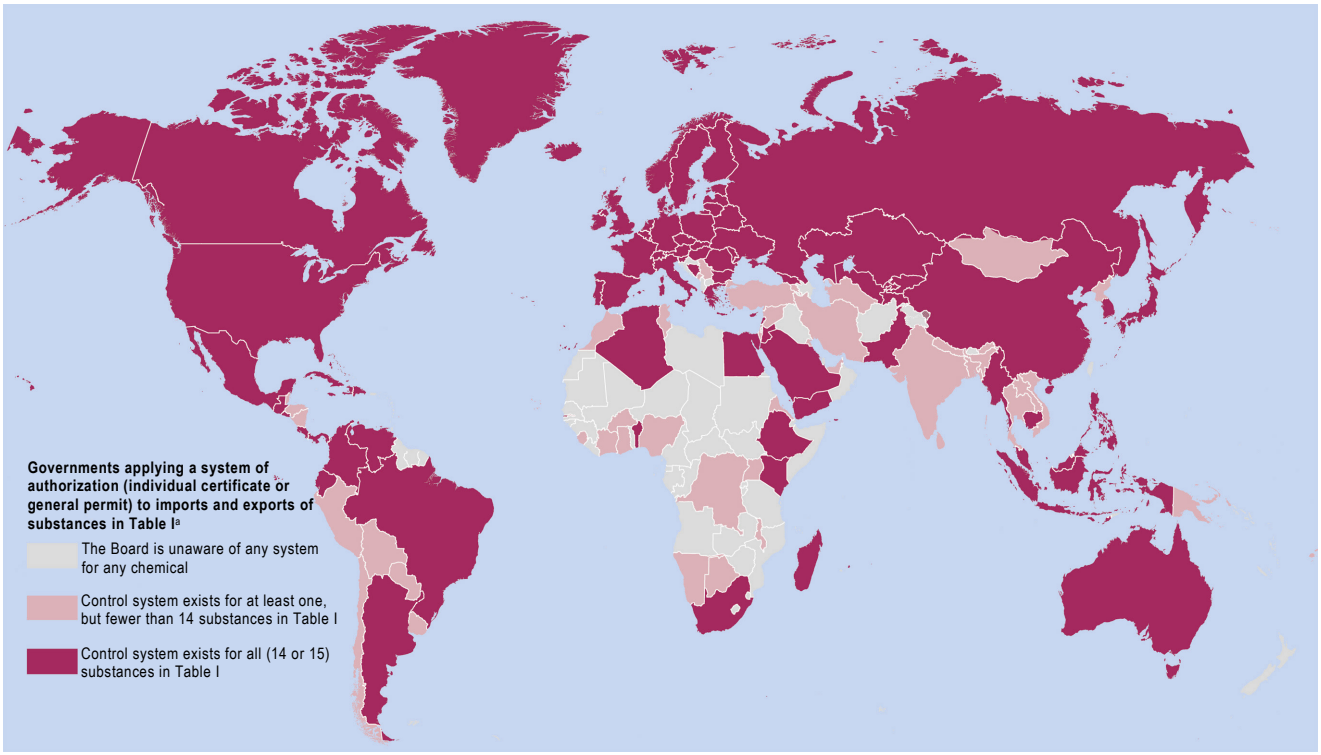
25. A fundamental tool for preventing the diversion of precursors from international trade is for Governments to invoke article 12, paragraph 10 (a), of the 1988 Convention, which requires exporting countries to inform importing countries of proposed chemical shipments. As at 31 October 2011, 79 Governments, including those of two territories, had formally requested pre-export notifications (see annex X). Since the previous report, the Government of Azerbaijan had requested pre-export notifications for all Table I and Table II substances. In some regions, however, the majority of countries had yet to invoke the right to be informed, leaving large areas vulnerable to the diversion and attempted diversion of chemicals into illicit channels. **The Board encourages all Governments to invoke their right to be notified of all exports of precursors destined for their country. The Board wishes to remind Governments of all parties to the 1988 Convention that it is an obligation to provide pre-export notifications to Governments of importing countries and territories that have officially requested them.**

Figure IV. Governments invoking article 12, paragraph 10 (a), of the 1988 Convention (as at 31 October 2011)



a For details, see annex X in the present publication.

Figure V. Governments informing the Board of their import and export control system for substances in Table I



a *Source*: Information package of the Board on the control of precursors 2011 (E/INCB/2011/WP.5)

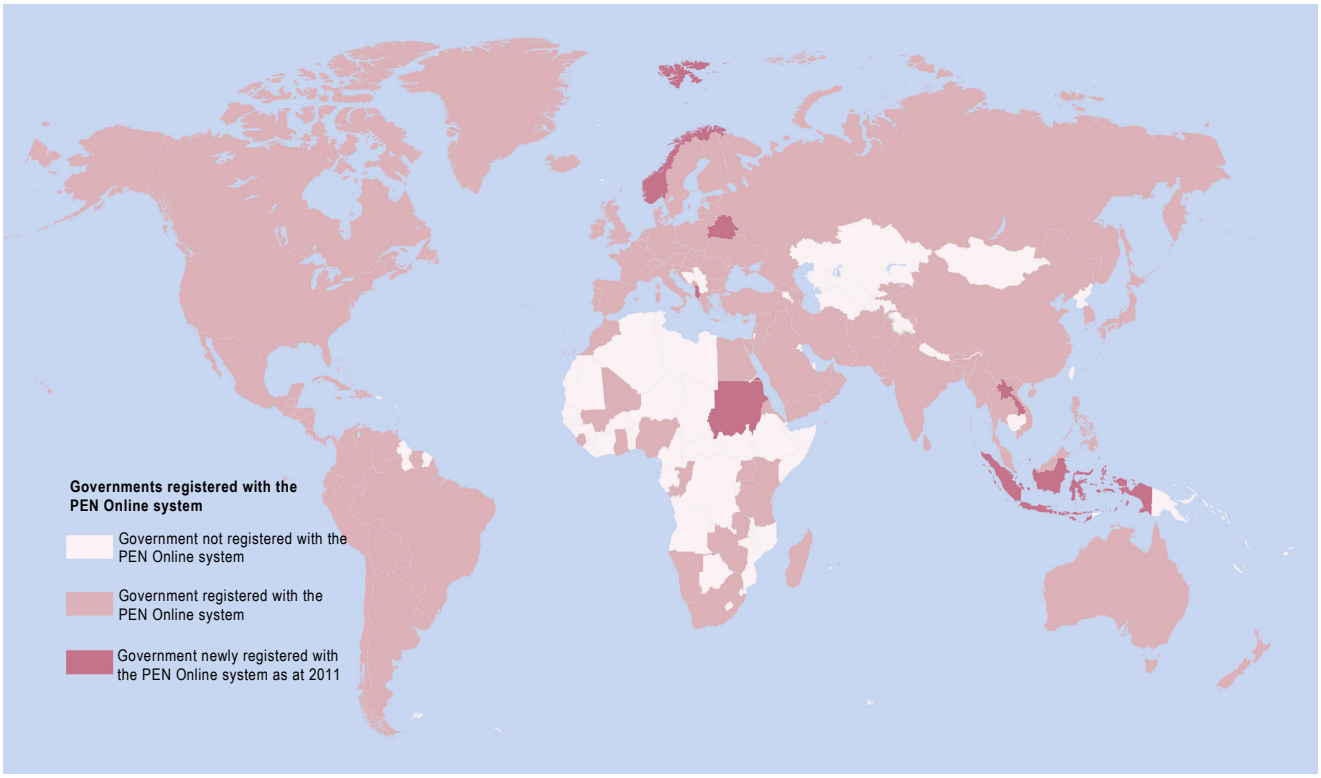
26. At the same time, the Board is aware that some countries do not apply a system of authorizations to exports of certain precursors listed in Table I and Table II, or base the export authorization solely on the issuance of a general permit. The Board is concerned that these countries might not be in a position to comply with their treaty obligation to provide notifications to importing countries prior to the export of precursors. In addition, experience shows that countries applying less stringent controls over precursors, in particular non-traditional trading countries, are at a greater risk of being targeted by traffickers of precursors. **The Board therefore urges Governments of all countries and territories to verify their precursor control mechanisms to ensure that they are informed of any proposed export of precursors and are able to provide pre-export notifications, particularly to the importing countries that have officially requested such notifications.**

27. The Board's PEN Online system was officially launched in March 2006 and has since become a highly effective, cost-free tool that allows Governments to monitor international trade in scheduled substances and to rapidly identify suspicious shipments. As at 31 October 2011, 126 countries and territories had registered to access PEN Online. In 2011, the Governments of Albania, Belarus, Indonesia, the Lao People's Democratic Republic, Norway and the Sudan each registered with the PEN Online system. On average, more than 1,800 pre-export notifications are submitted through the system every month, a significant increase over the roughly 600 monthly notifications just four years ago. **The Board encourages all Governments that are not currently registered with the PEN Online system to do so without delay.**

28. Among countries that have not yet registered with PEN Online, many are in regions that are actively being targeted by traffickers as both a transit point and a destination for precursors. These include substantial parts of Africa, areas of South-Eastern Europe and much of Central Asia.

29. Timely submission of notifications and subsequent feedback are fundamental elements of the PEN Online system; however, in some cases notifications regarding the export of chemicals are not being submitted early enough for proper checking by importing countries or are received after the shipment has departed. **The Board reminds Governments of their obligation under article 12 of the 1988 Convention to provide notification regarding exports of chemicals before such exports depart to those countries that have requested notification. Governments**

Figure VI. Governments registered with the PEN Online system (as at 31 October 2011)



are also encouraged to respond by the verification deadline when denying authorization for a shipment. If more time is needed for the verification of a particular transaction, the competent authorities of the importing country should inform the exporting country and ask it to delay the delivery of the shipment, pending the outcome of the verification.

30. Although most countries that are major traders of precursors are actively using the PEN Online system, a number of registered Governments do not utilize it. Additionally, some fail to use the PEN Online system for every chemical transaction, while others may not be reviewing the pre-export notifications they receive. **The Board urges Governments that have already registered with the PEN Online system to make active use of the system for every transaction involving precursors. In those cases in which there are any grounds for suspicion, exporting countries are encouraged to release shipments only upon official confirmation from the competent authority of the importing country. Importing countries are reminded to use the reply function of the PEN Online system (rather than sending e-mails or faxes) to provide feedback, when necessary, in order to ensure an unbroken chain of monitoring throughout the system.**

31. Information from Taiwan Province of China on precursors is not provided to the Board. According to statistics reported in the Global Trade Atlas online data system, as cited in the 2011 *International Narcotics Control Strategy Report* of the United States, Taiwan Province of China was the third single largest exporter of pseudoephedrine (75.5 tons) and the fourth largest exporter of ephedrine (7.7 tons) globally in 2009.[5] Notifications through the PEN Online system and reporting on form D identified 25 countries trading significant amounts of acetic anhydride with Taiwan Province of China since 2005. Seizures of diverted precursors, including those in the form of pharmaceutical preparations, that originated there have been reported to the Board previously. The current situation represents a significant weakness in the international control mechanism, as a result of which the diversion of chemicals into illicit trade occurs. **The Board invites the Government of China to discuss appropriate ways and means of addressing pre-export notifications, suspicious shipments and attempted chemical diversion cases related to Taiwan Province of China.**

[5] United States Department of State, Bureau of International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report: 2011* (March 2011), vol. I, pp. 83-84.

H. Activities and achievements under Project Prism and Project Cohesion

32. The two international initiatives of the Board, Project Prism and Project Cohesion, serve as communication platforms for the monitoring of licit trade in chemicals that can be used in the illicit manufacture of, respectively, amphetamine-type stimulants, and heroin and cocaine, and for launching targeted, time-bound operations. Specifically, the reporting period saw the March 2011 launch of Operation PAAD (Phenylacetic Acid and its Derivatives) under Project Prism, as well as the continuation of post-operation communications under Operation Pila (2009/10). The activities and results of Operation PAAD were evaluated at the Project Prism Task Force meeting held in Canberra in October 2011. The results of that meeting are summarized in paragraphs 34-38 below. There were no new operational activities under Project Cohesion during the reporting period.

33. Together with the Project Cohesion and Project Prism task forces, a new secure platform for communication has been designed to quickly share real-time information about seizures, diversions and attempted diversions among competent national authorities. Task force members operationally tested and evaluated the new platform, which is expected to be fully implemented during 2012.

1. Activities and achievements under Project Prism

34. The results of various task force operations under Project Prism have demonstrated the ability of organized chemical traffickers to rapidly adapt to pressure from regulatory and law enforcement agencies. Operation Crystal Flow (2007) determined that ephedrine and pseudoephedrine, largely in bulk form, were still readily available to criminals operating in Mexico. Operation Ice Block (2008) determined that traffickers were shifting to precursors in the form of pharmaceutical preparations to circumvent international controls. Operation Pila (2009/10) confirmed the shift towards pharmaceutical preparations and, in its post-operational phase, suggested a return of the P-2-P method for manufacturing methamphetamine, particularly in Mexico. Operation PAAD identified the size and scope of diversion of phenylacetic acid derivatives (esters) to Mexico and Central American countries. The Task Force reviewed in detail the results of Operation PAAD, which focused on global trade in phenylacetic acid and its derivatives that are not under international control.6 Operation PAAD was launched on

[6] Also referred to as esters of phenylacetic acid.

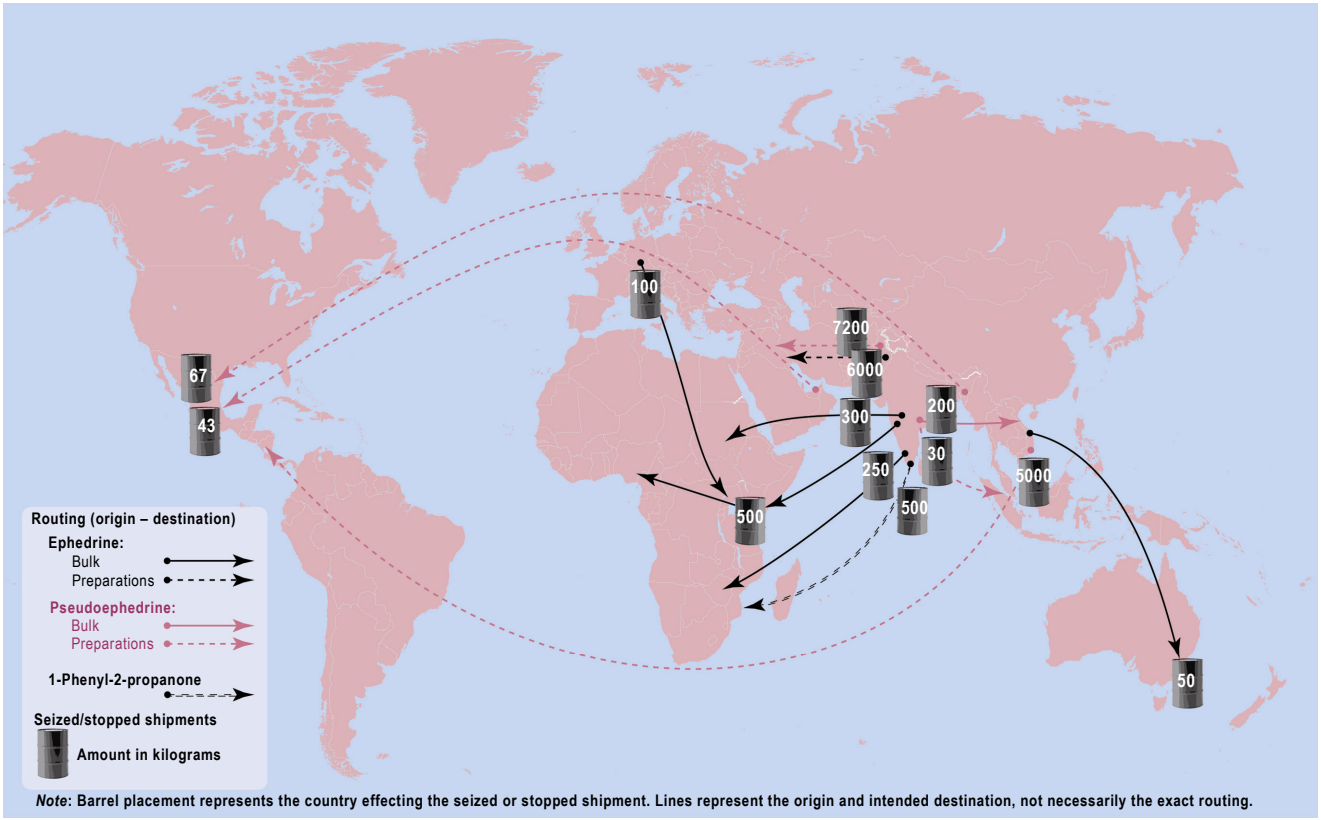
1 March 2011 and ended on 31 August 2011 and built on experiences from previous operations. Operation PAAD generated important strategic and operational information on the unprecedented amounts and specific types of phenylacetic acid derivatives used in the manufacture of methamphetamine, their source and destination countries, trafficking routes and modi operandi. The results highlight the rapid changes in precursors and inherent weaknesses in both international and national control mechanisms. Highlights of the achievements of Operation PAAD can be found in chapter III of the present report (see paras. 89-94 below).

35. The Board continued to identify suspicious transactions involving precursors of amphetamine-type stimulants that were reported through the PEN Online system. Although Operation Pila concluded on 31 March 2010, 20 post-operational communications have been issued since the Board's previous report.[7] Since November 2010, there have been 19 communications to Task Force members related to seizures of chemicals totalling 42 tons, and 71,600 tablets of pharmaceutical preparations containing ephedrine and pseudoephedrine, as well as an additional 5.7 tons of stopped shipments. A shipment of 500 kg of P-2-P was suspended, and three other shipments totalling 13.4 tons were reported as suspicious.

2. Activities and achievements under Project Cohesion

36. Post-operational activities related to chemicals used to manufacture heroin also continued, with two post-operational communications following the conclusion of Operation Data and Intelligence Collection and Exchange (DICE-2) reporting on seizures of acetic anhydride in Afghanistan under Programme Global Shield[8] and in Tajikistan.

Figure VII. Origin and destination of key seizures and stopped shipments of precursors of amphetamine-type stimulants identified in post-Operation Pila communications between November 2010 and July 2011



Note: Barrel placement represents the country effecting the seized or stopped shipment. Lines represent the origin and intended destination, not necessarily the exact routing.

[7] The following substances were reported: ephedrine, 1-phenyl-2-propanone, *Ephedra* plants, pseudoephedrine hydrochloride and pseudopehdrine preparations.

[8] Programme Global Shield, originally Project Global Shield, is a multinational initiative, launched jointly by the United Nations Office on Drugs and Crime, the International Criminal Police Organization and the World Customs Organization, which targets high-risk precursor chemicals used to manufacture improvised explosive devices. Programme Global Shield targets, among other chemicals, acetic anhydride. Given the already existing coverage of acetic anhydride under ongoing projects such as Project Cohesion, close cooperation and information-sharing with the Board under Programme Global Shield has been agreed.

37. After a year of reflection, during which Task Force members analysed in more depth the results of Operation DICE-2, which concluded in mid-April 2010, the Project Cohesion Task Force agreed at its 2011 meeting in Canberra that there was a need to improve reporting on heroin precursors in Afghanistan. The Board would continue to address that through established channels. At the same time, efforts would be undertaken to seek the cooperation of countries with a presence in Afghanistan to share relevant information with the Board. Additional efforts should also be taken to improve understanding of the sources of acetic anhydride seized in connection with the illicit manufacture of P-2-P and, subsequently, methamphetamine.

38. Regarding chemicals used in the illicit manufacture of cocaine, progress in the implementation of the plan of action agreed on during the 2010 Task Force meeting in Bogotá has been very slow. In July 2011, the Government of Colombia concluded a baseline study to identify trends in the legitimate use of potassium permanganate and to determine the country's needs in that regard. However, since that study and other available information suggested that a majority of potassium permanganate and other required chemicals were diverted from, or illicitly manufactured within the Latin American region, the 2011 Task Force meeting was of the view that, unless there was evidence to the contrary, the problem might be more effectively addressed within the region than through an international operation.

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

39. The present chapter provides an overview of the licit trade in precursors and major trends and developments in their illicit trade. It summarizes information on seizures and cases of diversion or attempted diversion from international trade, as well as activities associated with illicit drug manufacture. Significant variation in annual data occur as a result of inconsistent reporting by Governments and the fact that seizures of precursors generally reflect the results of individual significant seizures and targeted regulatory and law enforcement initiatives. Similarly, as seizures of precursors are often the result of cooperation among several countries, the occurrence and magnitude of seizures made in a given country should not be misinterpreted or overestimated with regard to that country's role in the overall trafficking in precursors situation, but rather should be considered in a broader context, reflecting time periods longer than the actual reporting year. Consequently, the data and conclusions presented herein reflect information that covers multiple years.

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

40. Significant international trade occurs in many of the precursors used in the manufacture of amphetamine-type stimulants. During the reporting period, the authorities of 44 exporting countries used the PEN Online system to report 5,000 transactions involving shipments of precursors of amphetamine-type stimulants. The Board initiated more than 280 enquiries into the legitimacy of shipments during the period, resulting in 36 shipments being suspended, stopped or seized.

1. Ephedrine and pseudoephedrine

Licit trade

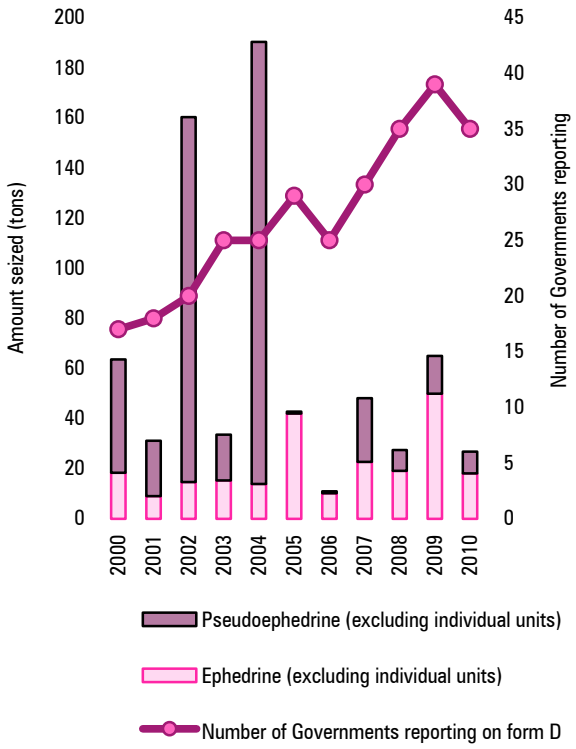
41. During the reporting period, information regarding 3,965 shipments of ephedrine and pseudoephedrine, in both bulk and pharmaceutical preparations, was submitted through the PEN Online system. The amounts involved were 1,130 tons and 1.4 million tablets for pseudoephedrine and 137 tons for ephedrine. Shipments of ephedrine and pseudoephedrine originated in 42 exporting countries and territories and were destined for 143 importing countries and territories. The Board recognizes that successful cooperation and follow-up investigations involving Canada and Belgium confirmed that suspended shipments of 1.6 tons of pseudoephedrine in 2009 were determined to be legitimate and subsequently released.

Trafficking

42. Thirty-five Governments provided information on form D on seizures totalling 26.8 tons of ephedrine and pseudoephedrine in bulk and pharmaceutical preparation forms. Eighteen tons of bulk ephedrine, 110 kg of ephedrine in the form of pharmaceutical preparations, 6.5 tons of pseudoephedrine and 2.2 tons of pseudoephedrine in the form of pharmaceutical preparations were seized. An additional 33.7 million tablets of preparations for the substances were also reported seized. China, India, Mexico and the United States each reported multi-ton seizures in 2010, accounting for 84 per cent of the volume seized. Together, Australia and New Zealand accounted for 1.7 tons, mostly seized in the form of pharmaceutical preparations.

43. Over the past decade, the number of Governments reporting seizures of ephedrine and pseudoephedrine has doubled; however, the amounts reported seized have dropped precipitously, as far less pseudoephedrine is reported seized annually. There are several reasons for the decrease, such as increased utilization of the PEN Online system, which resulted in shipments subsequently being stopped before they were diverted and thus prevented them from becoming seizures; increased diversion of pharmaceutical preparations and challenges in reporting pharmaceutical preparations; shifts in trafficking routes through Africa and other vulnerable regions with weaker precursor control regimes; and, more recently, a greater reliance upon non-scheduled chemicals.

Figure VIII. Seizures reported by Governments on form D of bulk and pharmaceutical preparations containing ephedrine and pseudoephedrine, 2000-2010



44. Since 2005, 65 Governments have reported on form D seizures of more than 220 tons of ephedrine and pseudoephedrine in bulk and pharmaceutical preparation forms. East and South-East Asia accounted for nearly half of the total amounts reported seized, while North America accounted for one quarter. These amounts reflect the fact that those regions are significant legitimate manufacturers and traders in these substances, as well as sources of illicitly manufactured drugs that utilize these chemicals.

45. While substantial seizures of ephedrine and pseudoephedrine were reported by Governments in East and South-East Asia, only six countries reported seizures on form D. Those seizures totalled just 6.4 tons in 2010, significantly less than in 2009 (38.1 tons), with China accounting for the majority of them. China also reported dismantling 378 illicit drug laboratories in 2010, far more than the 244 reported dismantled in 2008, many for the illicit manufacture of methamphetamine. The increase in seizures of clandestine laboratories has been concurrent with an increase in the number of people abusing synthetic drugs recorded in the country's drug registry.

46. Beginning in 2010, significant seizures of pseudoephedrine in the form of pharmaceutical preparations have increasingly been reported throughout the region, suggesting a greater difficulty in obtaining bulk precursors. Authorities in Cambodia and Thailand reported that many of those pharmaceutical preparations had originated in the Republic of Korea. Beyond the 12.8 million tablets seized on the Thailand-Myanmar border as a result of controlled delivery — already reported in 2010 — more than 30 million tablets of pharmaceutical preparations seized in Thailand originated in the Republic of Korea. The identified modi operandi and trafficking routes suggest that pharmaceutical preparations are misdeclared and/or smuggled out of the Republic of Korea to Thailand and from there to Cambodia, Malaysia and Myanmar.

47. Traffickers may also be targeting Viet Nam as a source of ephedrine, pseudoephedrine and P-2-P (see para. 72 below). In December 2010, Nicaraguan authorities requested Viet Nam to stop a shipment of 42 million tablets of pharmaceutical preparations containing pseudoephedrine that weighed more than 5 tons, as Nicaragua prohibits the importation of this substance. Australian authorities informed the Board of an increasing number of attempts to use airplane passengers to smuggle ephedrine from Viet Nam.

48. Taiwan Province of China was identified as a source of diverted ephedrine and pseudoephedrine in last year's report, and the situation there remains difficult for the Board to ascertain. According to data published online by the Food and Drug Administration of Taiwan Province of China, 377 kg of ephedrine and pseudoephedrine were reported seized in 2010, more than double the amounts reported for 2009 (148 kg). The circumstances related to these seizures remain unclear; however, online press releases from the Criminal Investigation Bureau of Taiwan Province of China report the dismantling of domestic illicit methamphetamine laboratories, some of large scale and others that were utilizing precursors in the form of pharmaceutical preparations.

49. Diversion of pharmaceutical preparations containing pseudoephedrine from pharmacies (referred to as "smurfing") remains the primary source of precursors used in the high number of small-scale illicit methamphetamine laboratories in the United States. In October 2010, a national pharmaceutical retailer was found to have allowed a significant number of individuals to purchase amounts of pharmaceutical preparations containing pseudoephedrine that were beyond federal purchase limits over an extended period. Subsequently, more than 145 kg of pseudoephedrine was diverted into illicit channels.

50. A resurgence in small-scale domestic manufacture in the United States has been reported since 2008, with the number of illicit methamphetamine laboratories dismantled increasing by nearly 70 per cent to 6,768 laboratories in 2010. The increase is partially the result of individuals and chemical trafficking organizations circumventing purchase limits on pharmaceutical preparations containing pseudoephedrine and partially a consequence of the growing use of a cruder, simpler "one-pot" manufacturing method that requires less precursor.

51. There has been a decreased reliance upon ephedrine and pseudoephedrine in illicit methamphetamine laboratories in Mexico as a result of increased Government controls, heightened awareness and international cooperation there and in other countries throughout the region, thereby reducing the overall availability of ephedrine and pseudoephedrine to chemical trafficking organizations. Although Mexico and neighbouring countries in Central America reported on form D significant seizures of ephedrine and pseudoephedrine — totalling 5.4 tons in 2010 — a decrease in that trend has been noted since the number of seizures peaked in 2007 and 2008. The United States reported that forensic profiling of seized methamphetamine entering from Mexico found that by 2010 the majority (69 per cent) of the drug was now manufactured via the P-2-P process.

52. The number and amounts of shipments of pharmaceutical preparations reported seized bound for Mexico were far lower than in prior years as well. Since November 2010, only three seizures of pharmaceutical preparations containing pseudoephedrine were reported to the Board, totalling just 97 kg, with an additional 26,000 tablets. All of these shipments were smuggled via air transport service, with two originating in Bangladesh and one in the United Arab Emirates.

53. The Board was informed of the most recent significant seizure of ephedrine in Mexico: in March 2011 authorities seized 1.1 tons of the substance at an industrial-scale clandestine laboratory. The number of illicit drug laboratories reported in Mexico increased from 33 in 2007 to 157 in 2010; most of them were engaged in the illicit manufacture of methamphetamine. Often, these laboratories represent operations of a significant size and level of sophistication, and they are increasingly relying upon non-scheduled precursors such as phenylacetic acid esters in the manufacture of methamphetamine via the P-2-P method.

54. The decline in seized ephedrine and pseudoephedrine was also noted in neighbouring countries in Central America. Guatemala reported via other channels the seizure of 15 kg of ephedrine, 989 kg of pseudoephedrine and 1.47 million pseudoephedrine tablets in 2010. Totals as at mid-May 2011, however, identified only 96 kg of ephedrine and pseudoephedrine and 550,000 tablets of pharmaceutical preparations containing pseudoephedrine seized. Guatemala also reported dismantling several illicit methamphetamine laboratories located near the border with Mexico between May and July 2011. Reports do not specify the types of precursors and other essential chemicals seized at each of those locations.

55. West Asia continues to be a source of methamphetamine for local and international markets. The Islamic Republic of Iran reported that the Anti-Narcotics Police dismantled 166 methamphetamine laboratories in 2010, a significant increase over the 33 laboratories reported dismantled in 2009 and the two reported dismantled in 2008, and that domestic abuse of the drug had also increased. Additionally, authorities reported significant seizures in 2010 and 2011 of smuggled ephedrine originating in Pakistan and the Syrian Arab Republic. In 2010, 294 kg of ephedrine were seized in two separate events; 375 kg were seized in a case in 2011. **The Board urges Governments to continue to strengthen their domestic control mechanisms with regard to precursors of amphetamine-type stimulants.**

56. The Board is increasingly concerned about the diversion and attempted diversion of ephedrine and pseudoephedrine in Pakistan that began emerging in 2010. The Board was informed of two attempted diversions in 2010 of pharmaceutical preparations containing ephedrine and pseudoephedrine in the amounts of 6,000 kg and 7,200 kg, respectively. The shipments were destined for Iraq; however, authorities there informed the Board that the importing company was neither registered with the Government nor authorized to import either substance. Four separate seizures of smuggled ephedrine, totalling 265 kg, were reported by the Government of Pakistan's Anti-Narcotic Force. The seizures, which began in August 2010, took place in provinces bordering the Islamic Republic of Iran. In April 2011, authorities at the port of Karachi seized 245 kg of ephedrine smuggled inside spice packages in a sea container bound for Australia. Pakistan is the only country in the region with a significant annual

ephedrine requirement (22 tons), an amount which has grown to become the fourth highest in the world. The Government of Pakistan has expressed concern about diversion and has requested the Board to provide technical assistance in determining its appropriate annual legitimate requirements for ephedrine and pseudoephedrine.

57. West Africa has recently emerged as a source of methamphetamine bound for East Asia. While attempts to divert precursors continue to occur, seizures in the region remain elusive. In July 2011, Nigerian authorities reported discovering their first clandestine methamphetamine laboratory, near Lagos. Preliminary reports identified the presence of acetone, toluene, sulphuric acid and other non-scheduled substances in undisclosed amounts. The source of the chemicals was not reported. Authorities estimated that the operation was large and had a production capacity of between 20 and 150 kg per cycle.

58. Trafficking in methamphetamine originating in countries in East Africa has also been reported by the World Customs Organization. Although no illicit methamphetamine laboratories have been reported in the region to date, several stopped and lost shipments of ephedrine and pseudoephedrine have been reported (see figure VII). For example, in March 2011 Indian authorities suspended a shipment of 300 kg of ephedrine to an unknown company in the Sudan. Repeated attempts to assess the legitimacy of the shipment with the competent national authorities in the Sudan by both India and the Board were not successful. The International Criminal Police Organization (INTERPOL), as a member of the Project Prism Task Force, used its assets in the region to physically check the address of the importing company in the Sudan and subsequently informed the Board that the company was neither registered nor authorized to import the chemical. The shipment was subsequently stopped by Indian authorities. **The Board commends the efforts of Indian authorities to require importing countries to actively approve shipments of precursor chemicals in cases in which the company is unknown and calls on other exporting countries to exercise the same level of due diligence.**

59. Since 2009, Kenyan authorities have reported significant thefts and/or losses of ephedrine and pseudoephedrine at importing company warehouses and at Nairobi's Jomo Kenyatta International Airport. In November 2010, the Board was informed of the loss of a 500 kg shipment of ephedrine from an airport warehouse. The shipment was destined for Nigeria. In another incident, 25 kg of a 100 kg shipment of pseudoephedrine was lost at a different airport warehouse.

60. Stopped shipments destined for Uganda and Zimbabwe were also reported. In January 2011, Ugandan authorities requested their German counterparts to stop a shipment of 100 kg of ephedrine, as the importing company was not authorized to import the substance; upon further investigation, the documents were found to have been falsified. Zimbabwean authorities informed the Board in December 2010 that a shipment of 250 kg of ephedrine from India had been stopped, as no import authorizations had been granted.

61. Oceania remains a common destination for smuggled ephedrine and pseudoephedrine in both the bulk and pharmaceutical preparation forms. Australia reported a significant increase in border detections in 2011 of ContacNT, a distinct granular pharmaceutical formulation containing pseudoephedrine. New Zealand's form D reported seizures in 2010 of a record 949 kg, predominately pseudoephedrine and primarily in the form of the pharmaceutical formulation ContacNT. In May 2011, nearly 68 kg of the same smuggled pharmaceutical formulation was seized in a joint operation involving police and customs.

2. Norephedrine and *Ephedra*

62. International trade in norephedrine, which can be used in the manufacture of amphetamine, is increasingly being reported. Ephedrine extracted from the *Ephedra* plant can be used in the manufacture of methamphetamine; however, legitimate trade in this natural product is not reported to the Board. Both norephedrine and *Ephedra* are less commonly reported seized or found in illicit laboratories.

Licit trade

63. During the reporting period, international trade reported through the PEN Online system revealed 12 countries exporting norephedrine to 25 importing countries, with 126 transactions involving a total amount of 40,400 kg.

Trafficking

64. Authorities reporting seizures of norephedrine on form D for 2010 included Australia, Mexico and the United States; trace amounts were also reported by Belarus and Germany. The Board was informed via other channels of a seizure of 2 kg of norephedrine made by Japanese customs from an air passenger originating in Nepal. Seizures of *Ephedra* in 2010 were reported on form D by Australia, with 34 cases totalling 3 kg. Most of the seizures were detected in the postal system and originated in the United States in the form of dietary or weight-loss supplements, which were not necessarily intended for use in the illicit manufacture of drugs.

65. The Board was informed of two significant seizures of cut *Ephedra* plant from Kyrgyzstan in 2010. The first seizure, of 14 tons, was effected by Russian Federation customs officers after it arrived at the Vostochniy seaport from Kyrgyzstan via Kazakhstan. The second seizure of 28 tons occurred in a farm warehouse in Kyrgyzstan. Authorities in both cases reported that the smuggled *Ephedra* was destined for the Republic of Korea. Although totals reported seized in 2010 were sizable, they were significantly lower than the 2,100 tons reported in the Board's 2006 report, owing to increased awareness of trafficking that had been identified through activities under Project Prism.

66. New Zealand authorities have identified the use of *Ephedra* and ephedrine-containing *Sida cordifolia*[9] plants and plant extracts in a small but growing number of methamphetamine laboratories since 2005. Between 2005 and 2009, there were three confirmed incidents involving *Ephedra* and *Sida cordifolia*; two of those incidents took place at illicit laboratories. In 2010, three additional incidents were confirmed by authorities, and there were three other suspected incidents; all of them involved illicit laboratories. The trend continued into the first half of 2011, during which customs authorities made two seizures totalling 30 kg of *Ephedra* and *Sida cordifolia*, with an additional kilogram seized at an illicit laboratory.

3. 1-Phenyl-2-propanone and phenylacetic acid

67. 1-Phenyl-2-propanone (P-2-P) can be synthesized from phenylacetic acid and can be used in amphetamine or methamphetamine manufacture. The licit international trade in P-2-P, compared with ephedrine and pseudoephedrine, is relatively small and limited to just a few countries, while phenylacetic acid is much more commonly traded. Smuggling of P-2-P continues to be reported in Europe and North America, while its use in alleged cleaning products exported from Jordan has been a concern for years. P-2-P-based methods, including those which start with phenylacetic acid and its esters, play a significantly greater role in the manufacture of methamphetamine than was previously the case, particularly in Mexico.

Licit trade

68. During the reporting period, only 26 shipments of P-2-P, amounting to 17,700 litres, were reported through the PEN Online system. There were 380 shipments of phenylacetic acid, amounting to 210 tons; however, as phenylacetic acid was moved to Table I in January 2011, the number of shipments recorded via PEN Online in the reporting period increased by 20 per cent over the previous reporting period.

69. Few countries have a legitimate need for P-2-P. Between 2005 and 2010, international trade reported through the PEN Online system revealed 10 countries exporting P-2-P to 26 importing countries, with 128 transactions involving 98,000 litres. China, India and Italy accounted for nearly all exports by volume, while Jordan accounted for more than half of all imports, followed by the United States, Brazil and Turkey.

70. Imports of P-2-P to Jordan for use in cleaning products have been reported to the Board since 1994. The most recent import, of nearly 9,000 litres, occurred in 2010; while no imports have occurred in 2011, the Board is aware that enquiries continue to be made by a Jordanian company regarding the importation of significant amounts of P-2-P into the country. The Board has repeatedly advised the Jordanian authorities and those of all other Governments to exercise caution when authorizing shipments of P-2-P for alleged end-use as a cleaning and disinfection agent, and instead to substitute for that precursor one of many alternative chemicals available for the formulation of such products. Concerns about the legitimacy of the shipments to Jordan and their final destination, Iraq, were supported by the results of the laboratory analysis of the alleged cleaning product communicated to the Board, which showed that P-2-P concentrations were only half of what the manufacturer had stated. The Board has also enquired repeatedly with the authorities of Iraq as to the large number of one-time-only importers of the alleged cleaning product and has requested legitimate end-use verification of the alleged cleaning product. Despite the number of communications sent to the Governments of Jordan and Iraq, the legitimacy of products containing P-2-P has not been established. **Therefore, the Board urges the Government of Iraq to investigate and verify the bona fides of importers, brokers and individual end-users of the alleged cleaning product. Additionally, the Board urges the Government of Jordan to strengthen domestic controls over P-2-P and revise its estimates of annual legitimate requirements for the substance to a more adequate level.**

71. Between 2005 and 2010, information on international trade in phenylacetic acid reported through the PEN Online system identified 16 exporting countries and 57 importing countries, and 924 transactions totalling 5,775 tons. China, France, Germany, the United Kingdom and the United States accounted for nearly all exports by volume, while the Democratic People's Republic of Korea, Germany, Mexico, the Netherlands and Spain accounted for 95 per cent of all imports.

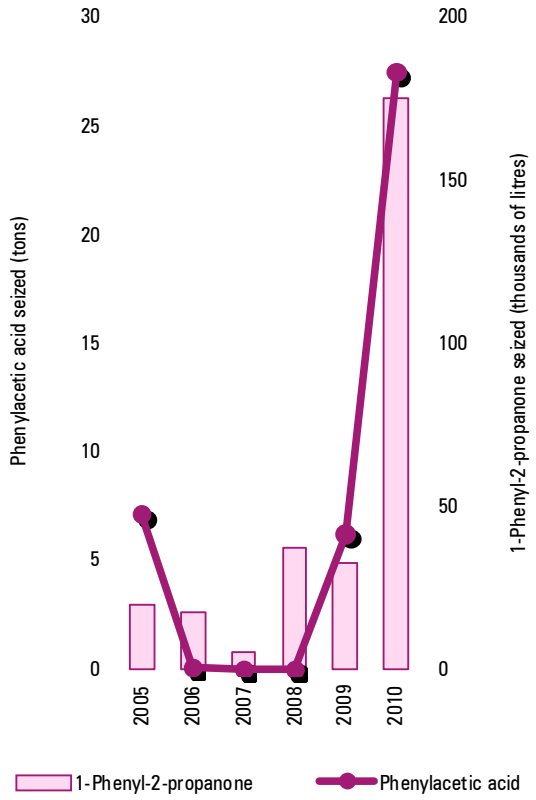
[9] Reported for the first time in the 2009 precursors report.

Trafficking

72. On form D for 2010, 11 Governments reported a total of 26,294 litres of P-2-P seized, the largest amount since 2005. The majority of seizures (95 per cent) were reported by three countries: Mexico (14,203 litres), Canada (5,924 litres) and Belgium (5,050 litres), with lesser amounts also reported by Hong Kong, China, (660 litres) and the Netherlands (330 litres). Both Belgian and Canadian authorities identified the majority of the seized P-2-P as having originated in Viet Nam, a country where the Board is unaware of any legitimate manufacture, trade or domestic controls with respect to that substance.

73. In May 2011, Serbian authorities reported dismantling a large clandestine amphetamine laboratory; however, the type, quantity and sources of the diverted chemicals were not disclosed. German authorities identified an attempt by a Serbian company to obtain 2,000 litres of P-2-P via the Internet homepage of a German chemical trader in 2010. The Serbian company failed to respond to enquiries related to the legitimate end-use of the substance, and no delivery was made. Bulgarian authorities reported a clandestine laboratory seized in an industrial building northwest of Sofia in January 2011. Approximately 2.5 litres of P-2-P were recovered, along with several litres of sulphuric, hydrochloric and formic acids, the sources of which remain under investigation.

Figure IX. Seizures reported by Governments on form D of 1-phenyl-2-propanone and phenylacetic acid, 2005-2010



74. Phenylacetic acid and its esters now play a far greater role in the manufacture of methamphetamine, particularly in Mexico, than was previously the case. Four Governments reported on their form D for 2010 a total of 183.5 tons of phenylacetic acid seized, which, if diverted into illicit manufacture, would have yielded approximately 46 tons of pure amphetamines. The amounts reported seized were nearly four times the previous record amount of 48 tons set in 2005. Of the four Governments, three reported nearly all of the total seized in 2010: those of China (4.7 tons), Mexico (56.1 tons, plus an additional 907 litres) and the United States (122.7 tons).

75. Since the previous report, there were two stopped shipments of phenylacetic acid reported to the Board. A 300 kg shipment originating in the United Kingdom and destined for Turkey was stopped for administrative reasons. A shipment of 1,125 kg originating in the United States and destined for Mexico was stopped because the company had not applied for an import authorization. Authorities from Colombia requested that a shipment of 10 kg originating in the United States be stopped; however, the shipment had already departed before the pre-export notification was issued.

76. Derivatives of phenylacetic acid, in particular its esters, are increasingly being seized in unprecedented amounts throughout North and Central America. In addition to phenylacetic acid, noted above, Mexico and the United States respectively reported on form D seizing 178,000 litres and 145,000 litres of ethyl phenylacetate, an ester of phenylacetic acid. In 2011 several countries throughout Central America reported seizures of esters of phenylacetic acid (see paras. 89-94 below on Project Prism and Operation PAAD) and moved to control its derivatives and esters.

4. 3,4-Methylenedioxyphenyl-2-propanone and piperonal

77. Both 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P) and piperonal can be used in the illicit manufacture of, inter alia, MDMA. While there is little legitimate use for 3,4-MDP-2-P, and subsequently little international trade in the substance, the opposite is true for piperonal. Increasingly, Governments have informed the Board that they have no legitimate need for 3,4-MDP-2-P. The amounts of those substances reported seized remain far lower than would be expected given the volume of MDMA available.

Licit trade

78. During the reporting period, only five shipments of 3,4-MDP-2-P were reported through the PEN Online system, totalling just 2 litres, while 541 shipments amounting to 1,902 tons were reported for piperonal. Eleven countries informed the Board of a legitimate need for 3,4-MDP-2-P, totalling 127 kg annually. Fifty-seven Governments informed the Board that they had no annual legitimate requirements for the import of 3,4-MDP-2-P.

79. Trade in 3,4-MDP-2-P also occurred outside the PEN Online system. Between 2005 and 2010, international trade of 3,4-MDP-2-P as reported through the PEN Online system revealed only 11 transactions, totalling 205 litres and involving just eight countries; however, during the same period, additional countries reported trade on form D. In some cases, that was because commerce was between intra-communitarian partners of the European Union; the importing country had not invoked article 12, paragraph 10 (a), of the 1988 Convention requiring pre-export notification; or the countries were not registered with the PEN Online system.

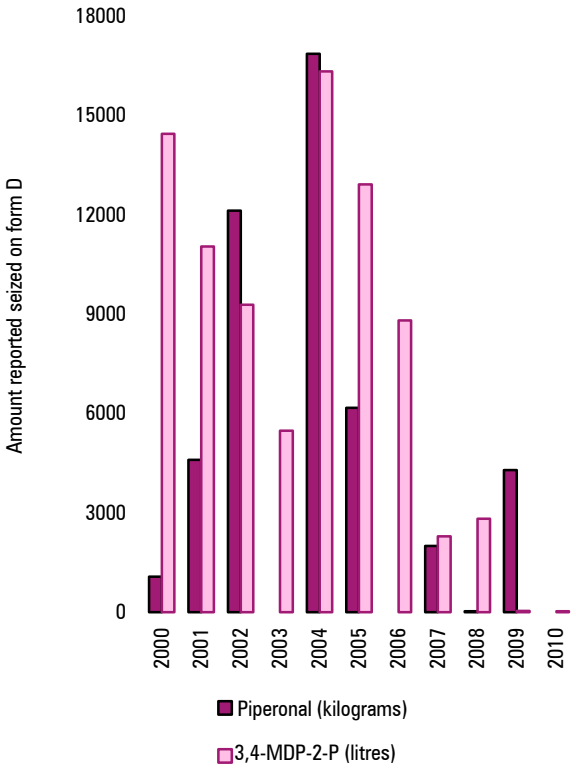
80. Between 2005 and 2010, international trade of piperonal as reported through the PEN Online system identified 1,982 transactions involving 9,857 tons exported by 19 countries and destined for 65 countries. The top five exporters accounted for 98 per cent of total volume: China; Hong Kong, China; the United Kingdom; Spain; and Brazil. In view of the significant volumes of piperonal traded internationally and the tightening of controls on other precursors, **the Board urges Governments to closely monitor movements of piperonal in both international and domestic trade.**

Trafficking

81. Only two countries reported seizing 3,4-MDP-2-P on form D for 2010, with a total volume of just 2.1 litres, and only one country reported seizing trace amounts of piperonal. These were far lower amounts than at any time in the past decade. The discrepancy observed in recent years between the size and frequency of MDMA seizures and those of the precursors under international control required in its manufacture continued in the reporting period.

82. In 2010 there was a single stopped shipment of piperonal from China to Viet Nam, in the amount of 1,000 kg. Authorities in Viet Nam reported that the importing company had never applied for an import licence for the substance.

Figure X. Seizures reported by Governments on form D of 3,4-MDP-2-P and piperonal, 2000-2010



5. Safrole and safrole-rich oils

Licit trade

83. During the reporting period, the Board was informed of 45 shipments of safrole, including the substance in the form of safrole-rich oils, consisting of a total volume of 256,000 litres. Ninety-nine per cent of trade volume in safrole was in the form of safrole-rich oils.

84. Between 2005 and 2010, international trade in safrole as reported through the PEN Online system comprised 176 transactions involving 562,400 litres exported by 13 countries and destined for 31 countries. Viet Nam accounted for nearly all of the export volume, while three countries — Brazil, China and Spain — accounted for 95 per cent of the total import volume.

Trafficking

85. Five countries reported seizures of safrole on their 2010 form D, in amounts totalling 168 litres, the lowest amount recorded since 2006. The Netherlands reported the greatest amount (85 litres), followed by Australia and New Zealand, with trace amounts in Germany and the

United States. In none of the cases were the origins of the safrole identified.

86. Cambodia continued to be the only country reporting large-scale seizures of safrole and safrole-rich oils. Authorities informed the Board that 7 tons of safrole had been seized in 2010. While there is currently no evidence that seized safrole-rich oils sourced from Cambodia have been used in the illicit manufacture of MDMA, the likelihood of this scenario remains. **The Board encourages the Governments of countries with plant species rich in safrole and/or safrole production to remain vigilant to the possibility of their diversion for illicit drug manufacture.**

87. In August 2011, Mexican authorities reported seizing 2,500 litres of safrole at the seaport of Manzanillo. The substance had originated in the Republic of Korea and was misdeclared as cleaning chemicals. This event represented the first seizure of safrole reported to the Board by Mexico. In addition, since June 2010, there have been three suspicious shipments of safrole to Mexico, one of which was stopped. This development, together with infrequent reports of illicit MDMA laboratories in Mexico within the context of the increasing number of sophisticated illicit methamphetamine laboratories now being reported, points to a risk of diversification in the manufacture of amphetamine-type stimulants into MDMA in Mexico.

6. Non-scheduled substances and trends in illicit manufacture

88. Increased controls and awareness of the illicit use of traditional precursors have heightened the risk and subsequent costs to chemical trafficking organizations. Increasingly, criminals are turning to non-scheduled substitute chemicals, in the form of pre-precursors or "designer" precursors, for the illicit manufacture of amphetamine-type stimulants. While many of these developments are region-specific, the likelihood of such methods spreading to other regions should not be underestimated.

Project Prism — Operation PAAD

89. Under the direction of the Project Prism Task Force, Operation PAAD was launched in March 2011 to gather strategic information on the trade, trafficking and illicit use of phenylacetic acid and its derivatives. The highly successful six-month operation was the first under Project Prism to systematically target emerging non-scheduled substances, and included participation from 63 countries. In addition to the PEN Online system, Operation PAAD utilized offline notifications to track shipments of non-scheduled derivatives of phenylacetic acid.

90. Operation PAAD resulted in 24 communications to Task Force members regarding seizures of chemicals in various ports of entry, warehouses and clandestine laboratories totalling 610 tons, along with an additional 1.4 tons of stopped shipments. Significant seizures were reported by the Governments of Belize, El Salvador, Guatemala and Mexico. Although there are numerous derivatives and esters of phenylacetic acid, the most commonly identified ester during the operation was ethyl phenylacetate.[10] **The Board urges competent authorities to raise awareness among all concerned national authorities and industries that attempts are being made to obtain esters of phenylacetic acid for illicit purposes and to ensure that mechanisms are in place that enable industry to fully cooperate in identifying and investigating suspicious orders. Governments are encouraged to treat the esters of phenylacetic acid the same way they treat phenylacetic acid.**

91. During Operation PAAD, there were 25 shipments seized, of which 11 were identified as being destined for Mexico (284 tons), followed by 8 to Guatemala (196 tons) and one each for Belize (15 tons) and Nicaragua (17 tons). Twenty shipments were seized in west-coast seaports, while two were seized in east-coast seaports — in Belize and Mexico. Seven of the shipments, comprising 37 per cent of the total volume, had either been misdeclared or utilized false labels. Backtracking investigations have been launched in cooperation with the Government of China.

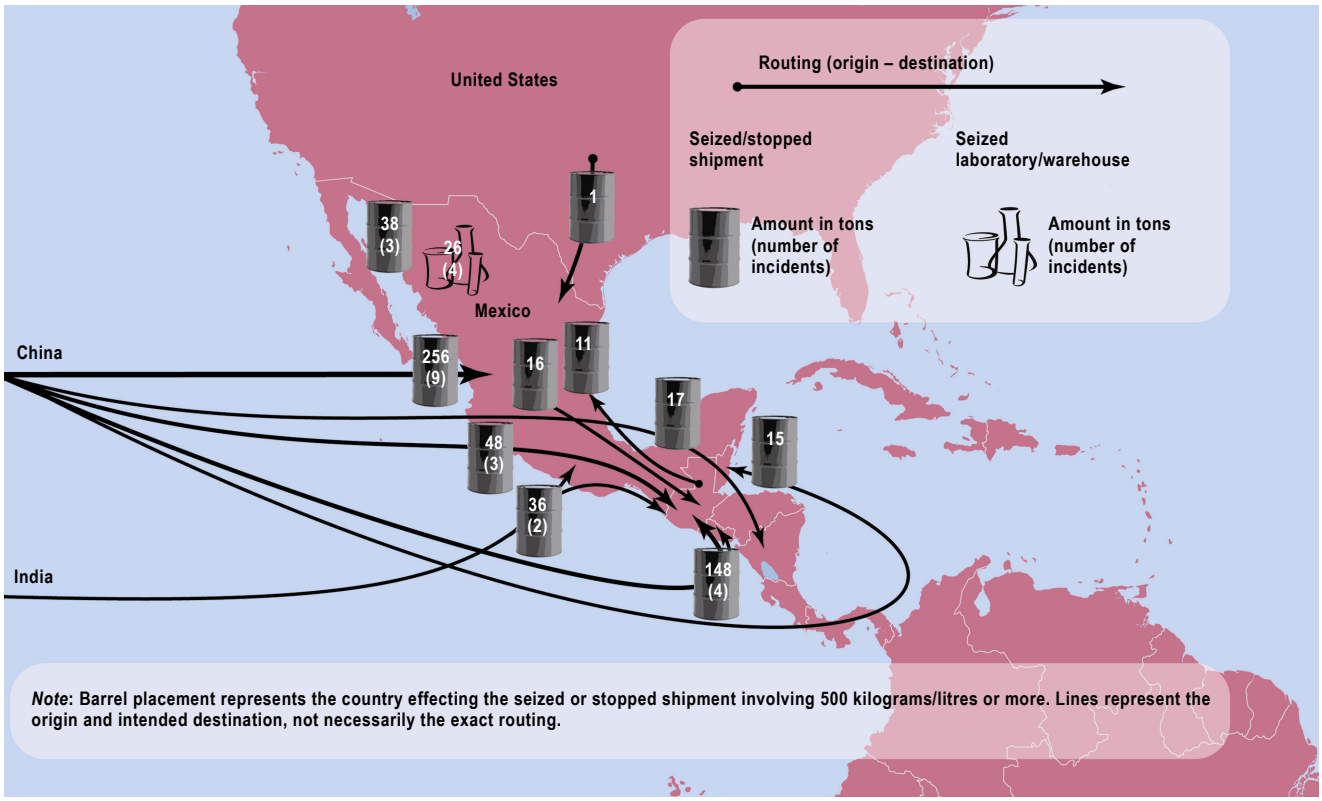
92. Mexico reported 20 seized shipments of phenylacetic acid derivatives, totalling 421 tons. The origin of 16 shipments was reported; 13 originated in China and two in India. Six of the shipments, totalling 93 tons, were seized en route to or from Guatemala, while one shipment was destined for Nicaragua. El Salvador seized nearly 150 tons of phenylacetic acid ethyl ester in four shipments from China destined for Guatemala. According to information from the Container Control Programme, implemented jointly by UNODC and the World Customs Organization, an additional 22 containers of PAAD chemicals were seized in Guatemala during the operational period; these were later confirmed by the Government of Guatemala.

93. Significant amounts of PAAD chemicals were also seized from large illicit warehouses and clandestine laboratories during the operational period. One industrial-scale illicit laboratory dismantled in southern Mexico in May 2011 contained 11,000 litres of ethyl phenylacetate among the 140,000 litres of chemicals seized. In addition, Mexican authorities reported the seizure of an illicit warehouse with almost 800 tons of phenylacetamide, another derivative of phenylacetic acid.[11] Between May

[10] Also referred to as phenylacetic acid ethyl ester.

and July 2011, Guatemala reported seizing five methamphetamine laboratories near the border with Mexico; in at least one case, PAAD chemicals were identified but the amounts were not reported.

Figure XI. Trafficking routes of chemicals communicated under Operation PAAD



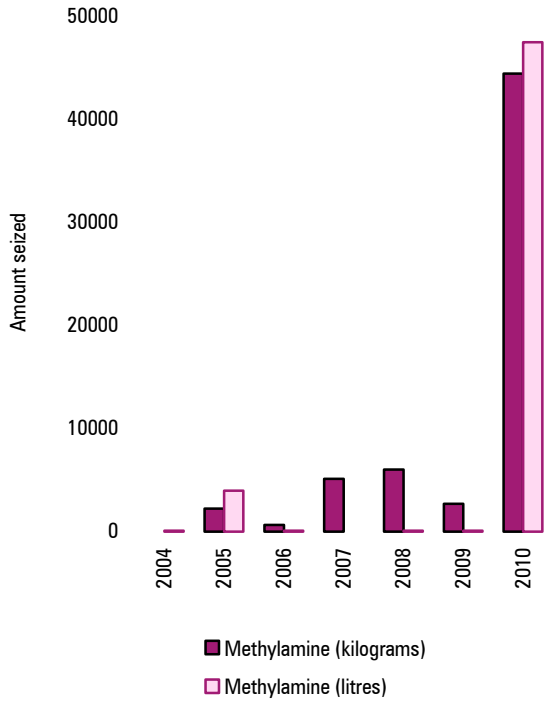
94. Ethyl phenylacetate converts to phenylacetic acid, yielding about 75 per cent (approximately 135 kg are required to produce 100 kg of phenylacetic acid). Other chemicals commonly required in this conversion include acetic anhydride. Depending on the synthetic route used and the practical conversion efficiency, approximately 150 kg of acetic anhydride are required for each 100 kg of phenylacetic acid produced. Acetic anhydride may, however, be substituted by non-scheduled chemicals such as lead acetate, which has been recovered at some illicit laboratories in Mexico. **The Board encourages all Governments to place special emphasis on the identification of chemicals that can be used to convert phenylacetic acid and its esters into P-2-P, in particular acetic anhydride.**

Other non-scheduled substances used in the manufacture of amphetamine-type stimulants

95. Methylamine is a non-scheduled substance which, when used together with P-2-P or 3,4-MDP-2-P, can produce methamphetamine and MDMA, respectively. Seizures of methylamine have been reported to the Board in increasing numbers since 2004, primarily by countries in North America, but such seizures have also been reported in Oceania, Europe and East and South-East Asia. On its form D for 2010, Mexico reported seizing 44.3 tons and an additional 47,300 litres of methylamine; it was followed by the Netherlands, Canada, and the United States. By mid-2011, Mexico had reported three large seizures of methylamine at seaports, totalling more than 154,000 litres and originating in China. Methylamine has been controlled in Mexico since November 2009. El Salvador reported seizing almost 69 tons of methylamine in two seizures in June 2011 in the western seaport of Acajutla; the shipments had been destined for Guatemala.

[11] Although phenylacetamide is a derivative of phenylacetic acid, it was outside the scope of Operation PAAD.

Figure XII. Seizures reported by Governments on form D of methylamine, 2004-2010



96. Since 2005, seizures of small amounts of 1-phenyl-1-propanone (P-1-P),[12] a substance that can be used in the manufacture of ephedrine, have been reported to the Board by Australia, the Czech Republic and the Netherlands; however, Canadian authorities reported on form D that 640 litres of the substance had been seized in 2010. Since November 2009, Indian authorities have reported dismantling four facilities involved in the illicit manufacture of ephedrine from P-1-P. Authorities in India report that the method used to manufacture ephedrine from P-1-P is significantly more expensive than the conventional method used in licit manufacture but is substantially less expensive than obtaining ephedrine via illicit channels.

97. Further to a development identified in last year's report, Polish authorities reported on form D the seizure of 220 kg of *alpha*-phenylacetoacetonitrile (APAAN), an immediate precursor of P-2-P, in a clandestine P-2-P laboratory and related storage site in 2010. Authorities reported that the source of the substance was China. Authorities in the Netherlands informed the Board that two large laboratories for the conversion of APAAN into P-2-P that were dismantled at the beginning of 2011, and in August a single consignment containing 1,000 kg of APAAN was seized in the port of Rotterdam. Information from the Netherlands suggests that, based on prevailing illicit market prices, P-2-P illicitly manufactured from APAAN is significantly less expensive than comparable amounts of P-2-P on the illicit market. Large seizures of APAAN have also been reported in other European Union member States and Turkey since 2009.

98. The Board was informed by two countries of benzyl cyanide, a precursor of P-2-P, being used in illicit drug manufacture in 2010. Mexico reported on its form D seizing 3,820 kg of the substance. Authorities in the Republic of Korea reported through other channels methamphetamine manufacture from benzyl cyanide, the first time that method had been reported used in the country. At the time, the substance was not under control in the Republic of Korea; however, in 2011, benzyl cyanide was designated as a drug precursor.

99. A greater reliance upon 3,4-MDP-2-P methyl glycidate in the manufacture of MDMA is occurring, particularly in Western and Central Europe, as almost no 3,4-MDP-2-P was reported seized in 2010. 3,4-MDP-2-P methyl glycidate was first described in the Board's 2010 report. Authorities from the Netherlands identified the substance in an illicit laboratory in April 2010 and reported seizing a total of 1,200 kg of the substance in 2010. In one case, 1,000 kg was reported seized in an air-freight shipment arriving from China that had been misdeclared. Danish authorities also reported seizing 800 kg of the substance in March 2011; that shipment was later determined to be part of a series of related shipments that had originated in China and were destined for the Netherlands. Slovakia was another country that effected seizures from this series of shipments.

100. Methylamine, P-1-P, APAAN, benzyl cyanide and 3,4-MDP-2-P methyl glycidate are listed on the Board's limited international special surveillance list of non-scheduled substances. That list is available on request and can also be accessed on the Board's restricted web page. **The Board urges competent national authorities to familiarize themselves with the limited international special surveillance list of non-scheduled substances and use it as a tool in cooperation with concerned industries.**

B. Substances used in the illicit manufacture of cocaine

1. Potassium permanganate

101. Potassium permanganate is a common oxidizing agent used in the manufacture of cocaine hydrochloride. The combination of no recent incidents of diversion from international trade and low overall seizure rates compared

[12] Also known as propiophenone or ethyl phenyl ketone.

with the volume of oxidized cocaine seized suggests that the extent of its illicit use, its sources and/or its trafficking patterns have changed. While little licit international trade occurs with coca-producing countries, global seizures of potassium permanganate continue to be concentrated in that region. The decrease in the number of seizures may be a result of the growing illicit manufacture of the substance, greater reliance upon other substitute chemicals, or a possible shift of some cocaine processing into other more vulnerable areas outside the Andean subregion, such as Central America.

Licit trade

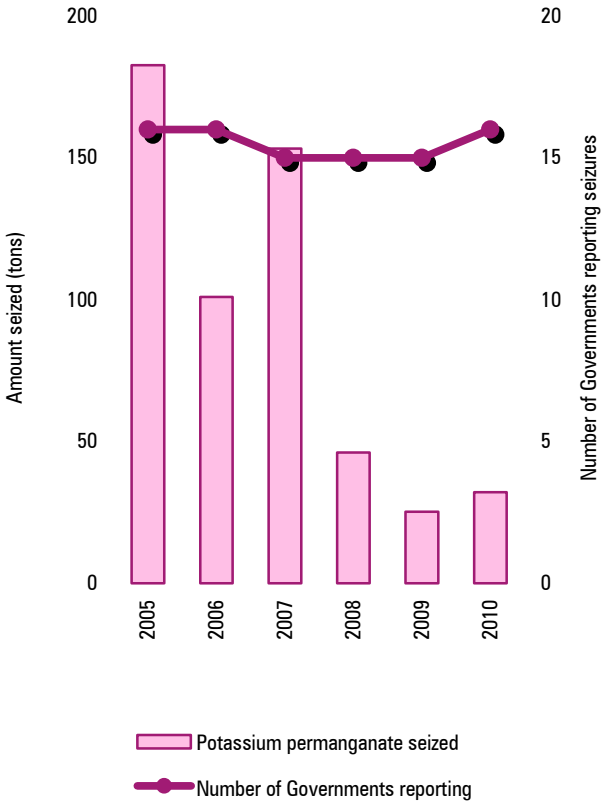
102. During the reporting period, 1,674 shipments of potassium permanganate were reported through the PEN Online system, totalling 27,300 tons. Between 2005 and 2010, international trade of potassium permanganate as reported through the PEN Online system accounted for 5,783 transactions involving 118,564 tons. There were 38 exporters of the substance; the top five exporters by volume were China, the United States, India, the Czech Republic and Hong Kong, China, which together accounted for 96 per cent of the total. There were 160 importers of the substance; the top five by volume were the Islamic Republic of Iran, Thailand, Japan, Spain and Hong Kong, China, accounting for 41 per cent of imports.

103. According to data from the PEN Online system, the global trade in potassium permanganate occurred mainly outside of the South American region. The coca-producing countries, namely Bolivia (Plurinational State of), Colombia and Peru, accounted for less than 1 per cent of imports by volume between 2005 and 2010.

Trafficking

104. Sixteen Governments reported seizures of potassium permanganate on form D for 2010, totalling 32.1 tons. While this amount was larger than in 2009 (25.2 tons), it was the second-lowest amount reported seized in the past decade. Eighty-seven per cent of the volume reported seized occurred in South American countries, with nearly all of that reported by the coca-producing countries. Colombia alone seized 26.4 tons, or 81 per cent of the potassium permanganate reported seized in 2010. The Plurinational State of Bolivia has not reported seizing potassium permanganate on form D since 2005; however, through the Inter-American Drug Abuse Control Commission, the Board learned of 3.6 tons seized in that country between 2006 and 2009.[13]

Figure XIII. Seizures reported by Governments on form D of potassium permanganate, 2005-2010



105. UNODC independently estimates a range for the amount of pure cocaine hydrochloride manufactured annually, based on two conversion factors.[14] Based on the assumptions that potassium permanganate is used for all illicit manufacture of cocaine hydrochloride, that all processing occurs in coca-producing countries and that the amount needed to process cocaine base into hydrochloride is one fifth[15] of the final hydrochloride amount, an order of magnitude for the total amount of potassium permanganate available for illicit manufacture can be estimated. Between 2005 and 2010, potential cocaine

[13] See Organization of American States, Inter-American Drug Abuse Control Commission, *Bolivia: Evaluation of Progress in Drug Control 2007-2009* (2010).

[14] See *World Drug Report 2011*, United Nations publication, Sales No. E.11.XI.10, p. 264.

[15] See annex VIII of the present report. There are indications that at least in Colombia an additional (re-)oxidation step is now commonly employed in cocaine hydrochloride crystallization laboratories to ensure a uniform oxidation level of the cocaine base prior to its conversion into the hydrochloride salt. While this increases the efficiency of the base-to-hydrochloride conversion, it also has an impact on the amount of potassium permanganate required. Revised approximate conversion figures are as yet not available.

hydrochloride production averaged between 929 and 1,165 tons, which would require between 186 and 233 tons of potassium permanganate. With an average of about 81 tons of potassium permanganate reported seized by coca-producing countries each year since 2005, an estimated 266 to 314 tons of potassium permanganate is potentially available every year as a result of diversion and/or illicit manufacture. During the reporting period, the amount reported seized would suggest that approximately 26 to 30 per cent of the amount of potassium permanganate available for use in the region was interdicted annually. There is a relatively high correlation between estimates of cocaine manufacture and the seizure of potassium permanganate in the region (0.92). There appears to be a decreasing rate of interdiction, as the amount of potassium permanganate reported seized annually has decreased at rates faster than the decrease in the rate of cocaine manufacture.

Table 1. Estimated potassium permanganate needed as compared with total potential cocaine manufactured annually, 2005-2010

Potassium permanganate in processes of cocaine hydrochloride manufacture	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*Average 2005-2010*
Potential pure cocaine manufactured (tons)[a]							
Previous conversion factors[b]	1 020	1 034	1 024	865	842	786	**929**
New conversion factors[b]	1 201	1 232	1 264	1 125	1 111	1 054	**1 165**
Potassium permanganate needed in the manufacture of cocaine hydrochloride (tons)[c]							
Based on previous conversion factors	204	207	205	173	168	157	**186**
Based on new conversion factors	240	246	253	225	222	211	**233**
Potassium permanganate reported seized in coca-producing countries (tons)[d]							
Potassium permanganate	141	100	146	43	27	27	**81**
Total estimated available potassium permanganate for illicit cocaine manufacture (sum of amounts needed and seized; tons)							
Based on previous conversion factors	345	307	351	216	195	184	**266**
Based on new conversion factors	381	347	399	268	249	238	**314**
Proportion of total available potassium permanganate interdicted (range)			*Percentage*				
Interdicted (low)	37	29	37	16	11	11	**26**
Interdicted (high)	41	33	42	20	14	15	**30**

Sources:

[a] UNODC, *World Drug Report 2011*, p. 264.

[b] The new conversion factors of UNODC are based on the most recent information published in the *World Drug Report 2010* (p. 251), which suggests that the efficiency of cocaine alkaloid extraction from coca leaves that occurs at illicit laboratories is similar in each of the coca-producing countries. The old conversion factors were based on studies carried out in 1993 and 1994, which suggested large variations in the efficiency of alkaloid extraction among coca-producing countries.

[c] Annex IV to the present document.

[d] Form D and Organization of American States, Inter-American Drug Abuse Control Commission, *Bolivia: Evaluation of Progress in Drug Control 2007-2009* (2010).

106. Outside of the coca-producing region, the only other notable seizures of potassium permanganate reported on form D occurred in Central Asia. In 2010 Kazakhstan seized a total of 3,285 kg — the second highest of any reporting country — originating in China. Uzbekistan reported seizures of 626 kg originating in the Russian Federation. The circumstances surrounding those seizures were not provided, nor was the suspected use of the substance. Previously, both countries had reported only small amounts of potassium permanganate being seized.

107. There are indications that illicit cocaine processing may increasingly be occurring along trafficking routes outside the Andean region. Honduran authorities for the first time reported dismantling a cocaine laboratory, near the border with Guatemala in March 2011. The large operation had been converting cocaine base into hydrochloride. Chemicals seized included 50 kg of potassium permanganate, nearly 2,500 litres of hydrochloric acid, 208 litres of sulphuric acid and significant quantities of other non-scheduled chemicals.

108. Illicit cocaine-processing laboratories have been reported previously in Spain; however, authorities there reported dismantling the largest, most sophisticated operation to date in January 2011. The processing laboratory was discovered on a farm near Madrid, where authorities seized 33 tons of essential chemicals, including 11,345 litres of toluene, 8,060 litres of methyl ethyl ketone, 6,400 litres of acetone, 350 litres of sulphuric acid, 300 litres of hydrochloric acid and other non-scheduled chemicals. The origins of the chemicals were not disclosed. As the refinement and adulteration of cocaine can occur anywhere along cocaine trafficking routes, **the Board urges all Governments to pay attention to shipments of chemicals that can be used in the illicit manufacture of cocaine, especially extracting solvents**.

2. Other chemicals

109. Colombian authorities estimated that between 60 and 80 per cent of seized potassium permanganate might itself be illicitly manufactured. Nevertheless, while there were on average 12 illicit potassium permanganate laboratories seized annually between 2000 and 2006, there were only two to four such laboratories dismantled annually over the past four years. The starting material typically used in these laboratories is manganese dioxide, a common ore of manganese, which is converted to potassium manganate and further to potassium permanganate. Colombian authorities reported seizing an unprecedented 605 tons of potassium manganate in 2010. The most recent reported case of diversion of potassium permanganate from international trade was in 2006. The manufacture of potassium permanganate in coca-producing regions is thus the result of a combination of factors: illicit manufacture, domestic diversion and smuggling.

Table 2. Select illicit laboratories reported dismantled in Colombia by type, 2000-2010

Illicit laboratories	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Cocaine paste and base	405	469	1 296	834	1 556	1 780	2 071	2 186	3 147	2 670	2 334
Cocaine crystallization	221	1 084	138	637	240	163	201	285	296	285	262
Potassium permanganate	6	10	9	11	19	16	15	4	4	2	2

Source: Observatorio de Drogas de Colombia, Drug Information System of Colombia.

110. Acids and solvents are required at various stages of illicit drug manufacture. The majority of the world's reported seizures of Table II acids and solvents occur primarily in three coca-producing countries of the Andean region. Between 2005 and 2010, Bolivia (Plurinational State of),[16] Colombia and Peru accounted for on average roughly half of all global seizures of ethyl ether, hydrochloric acid, methyl ethyl ketone and sulphuric acid. Ninety percent of global seizures of acetone and nearly a third of toluene seizures were also reported in those countries.

[16] As at 2005, the Government of the Plurinational State of Bolivia no longer reported seizures of substances on form D. Seizures of those substances by the Bolivian authorities between 2006 and 2009 were reported in 2011 to the Multilateral Evaluation Mechanism of the Inter-American Drug Abuse Control Commission of the Organization of American States. Data were unavailable for 2010.

Table 3. Percentage of global seizures of acids and solvents in Table II reported by coca-producing countries, 2005-2010

Table II solvents and acids	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*Average 2005-2010*
Acetone	90	89	91	93	90	91	91
Ethyl ether	70	53	34	82	69	26	57
Hydrochloric acid	41	21	55	47	58	50	42
Methyl ethyl ketone	47	65	74	67	53	51	62
Sulphuric acid	24	26	61	56	75	66	37
Toluene	34	16	39	9	6	53	30

Source: Form D and Organization of American States, Inter-American Drug Abuse Control Commission, *Bolivia: Evaluation of Progress in Drug Control 2007-2009* (2010).

C. Substances used in the illicit manufacture of heroin

Acetic anhydride

111. Acetic anhydride is one of the most widely traded Table I substances, with hundreds of millions of litres traded annually. Nevertheless, that is only a fraction of the estimated amount produced globally each year. Only a tiny proportion of that amount is required to satisfy the needs of global illicit drug manufacture. The number of identified diversions of acetic anhydride from international trade has declined in recent years, with most of the reported cases now involving seizures from domestic distribution channels prior to smuggling, often to Afghanistan, the world's largest producer of heroin.

Licit trade

112. During the reporting period, authorities of 27 exporting countries and territories provided over 1,550 pre-export notifications for shipments of acetic anhydride through the PEN Online system. Shipments were destined for 93 importing countries and territories and involved a total of 362 million litres.

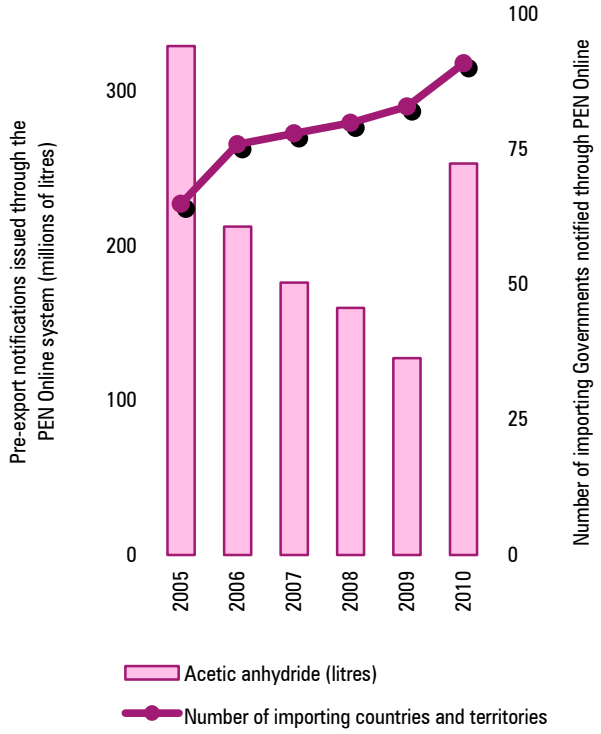
113. Between 2005 and 2010, international trade in acetic anhydride as reported through the PEN Online system accounted for 6,600 transactions totalling 1.2 billion litres, an average of 200 million litres traded annually. Of the 32 exporters, the top five — the United States, Mexico, China, Switzerland and Belgium — accounted for 87 per cent of that volume. There were 122 importers, of which the top five importers by volume — Germany, the Netherlands, China, Belgium and Mexico — accounted for 62 per cent of imports. Several of the countries that are major importers and exporters are in fact major re-exporters. In addition, large amounts of the substance produced are not traded, but rather directly consumed by manufacturing companies.

114. Most exporting countries that have provided notifications through the PEN Online system for shipments of acetic anhydride have in place a control system based on individual export permits; however, not all international trade in acetic anhydride is reported through the PEN Online system. Between 2005 and 2009, the number of destination countries increased by 40 per cent; however, the total amount for which export notifications were provided decreased by 21 per cent, as fewer notifications via the PEN Online system were issued from exporters in North America and member States of the European Union.[17]

115. The decrease in the number of notifications through the PEN Online system is partially a result of the fact that shipments of acetic anhydride and other chemicals under international control traded within the 27 European Union member States are not reported through the PEN Online system. Analysis and understanding of licit trade are further complicated by the fact that international trade of acetic anhydride is organized using huge storage facilities at major ports — so-called "tank farms" — from which the substance is further distributed within the intra-communitarian market.

[17] Increases in 2010 reflected increased use of the PEN Online system, particularly by Mexico.

Figure XIV. Number of Governments receiving pre-export notifications of acetic anhydride through the PEN Online system and totals traded, 2005-2010



Trafficking

116. The volume of acetic anhydride reported seized on form D fluctuated greatly between 2005 and 2010, with 38 Governments reporting 388,000 litres seized; however, only a small number of countries reported significant amounts seized during that time. For example, the 10 countries reporting the most seizures between 2005 and 2010 accounted for 94 per cent of the volume seized. Those countries include Bulgaria, Hungary, the Russian Federation, Slovenia and Turkey.

117. On form D for 2010, 14 Governments reported a total of 128 seizures of acetic anhydride, amounting to nearly 60,000 litres. Six Governments reported seized amounts of greater than 1,000 litres, including Bulgaria (21,111 litres), China (16,346 litres), Pakistan (16,178 litres), Mexico (4,821 litres) and Colombia (1,007 litres). With the exception of Colombia, the totals from each of those countries were at their highest levels since 2005.

118. The Board notes that several Governments did not provide information regarding acetic anhydride seizures that occurred in 2010 on their form D. For example, sources of information other than form D indicate that seizures of acetic anhydride of at least 10 tons occurred in Turkey and at least 14.5 tons in the United Arab Emirates. **The Board reminds Governments that the reporting of seizures on form D is mandatory and is the principal source of information for assessing the latest trafficking trends.**

119. Although no legitimate trade in acetic anhydride destined for Afghanistan occurred, large amounts continued to be smuggled across its borders. Acetic anhydride destined for Afghanistan continued to be diverted from domestic distribution channels, primarily in countries outside the region, and subsequently smuggled into the country. The countries neighbouring Afghanistan were used as transit countries for acetic anhydride contraband from the countries/points of diversion, as evidenced by information from past investigations and reports on licit trade.

120. Seizures of acetic anhydride occur regularly in Afghanistan, but to date the Government has never reported seizures on its form D. Nevertheless, UNODC, Programme Global Shield and the International Security Assistance Force (ISAF) in Afghanistan all reported various seizures taking place in 2010. For example, Programme Global Shield reported 3.5 tons of acetic anhydride seized, although it is uncertain whether that was destined for illicit drug manufacture. In 2011, ISAF also identified several multi-ton seizures of drug precursors seized from heroin laboratories throughout the country. The specific substances and amounts were not reported, however. The Board is also aware that between January and July 2011 more than 50 samples of acetic anhydride were analysed in the forensic laboratory of the Counter-Narcotics Police of Afghanistan. It is nevertheless unclear how the analysed samples relate to seizures in the country. **The Board urges the Government of Afghanistan to develop systems to improve the information regarding seizures provided to the Board in accordance with article 12 of the 1988 Convention.**

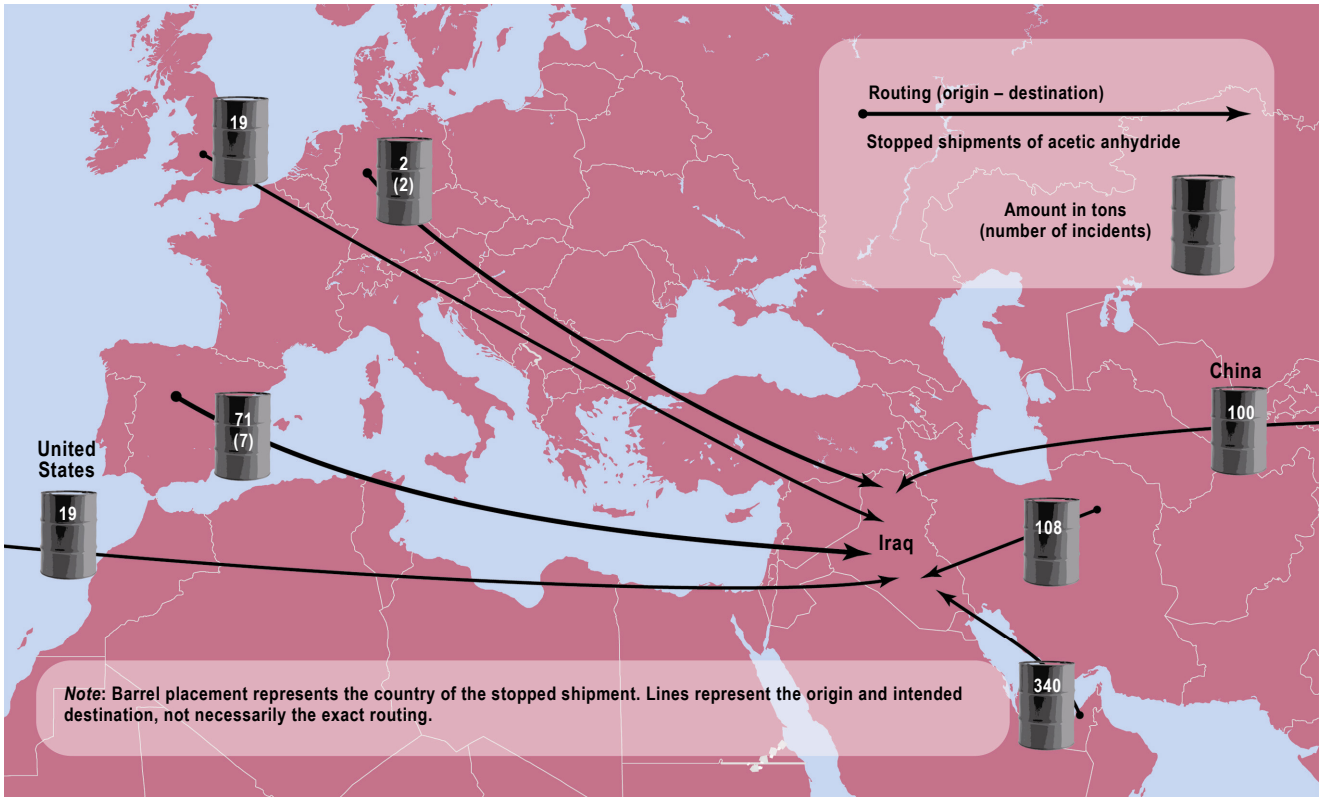
121. Tajikistan shares its southern border with Afghanistan and has been used by traffickers as a transit country for shipments of acetic anhydride. In March 2011, Tajik authorities provided information on a seizure of 375 litres of acetic anhydride. In the same month, authorities in the Russian Federation seized about 740 litres, which traffickers had attempted to obtain from a legitimate manufacturer in the Russian Federation, using falsified end-use documents to smuggle the substance via Tajikistan into Afghanistan. Authorities in Tajikistan are cooperating with authorities in the Russian Federation in the prosecution of those responsible.

122. There was also an additional seizure of 6,500 litres of acetic anhydride in Hungary in 2011, as a result of continuing investigations in Europe following a peak in the amount of seizures in 2008. The joint investigations conducted by several European countries assisted in the identification of loopholes in the precursor control mechanism in the European Union. The Board is aware of efforts by the European Union to strengthen the precursor control mechanism applied in the region.

123. Beginning in 2008, the Project Cohesion Task Force identified significant increases in orders for acetic anhydride placed by companies in Iraq previously not known to the Board, primarily from European exporters. The Government of Iraq reported that many of those companies had no legitimate requirements or authorization for importing the substance and, through successful international cooperation with the authorities of exporting countries, prevented the diversion of 650 tons of the substance. The last such attempt was in December 2010 and involved 100,000 litres (108 tons) of acetic anhydride destined for Iraq, which was subsequently stopped by the authorities in the Islamic Republic of Iran. **The Board urges Governments exporting acetic anhydride to unknown or suspicious companies in Iraq to require authorization before releasing the shipment.**

124. UNODC independently estimates annual global manufacture of heroin, most of which originates in Afghanistan. Based on the assumption that acetic anhydride is the acetylation reagent of choice for all illicit manufacture of heroin, that all acetic anhydride seized is used for illicit heroin manufacture and that the amount of acetic anhydride needed to process morphine into heroin has remained unchanged over time at a ratio of between 1:1 and 4:1,[18] an order of magnitude for the total acetic anhydride diverted can be estimated. Between 2005 and 2010, UNODC estimates average annual heroin manufacture of 634 tons, which would require between 634,000 and 2,537,000 litres of acetic anhydride. Combined with an average of about 65,000 litres of acetic anhydride reported seized annually each year since 2005, an estimated 699,000 to 2,602,000 litres of acetic anhydride are potentially available every year for illicit manufacture. The amount reported seized during the period would suggest

Figure XV. Diversion attempts of acetic anhydride destined for Iraq, as identified under Project Cohesion, 2008-2011



[18] See annex IV. There are indications that current acetic anhydride requirements are at the lower end of this range; however, the extent to which illicit laboratories operate at higher efficiencies cannot be quantified.

Table 4. Estimated acetic anhydride needed as compared with total potential heroin manufactured annually, 2005-2010

Acetic anhydride in processes of heroin manufacture	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*Average 2005-2010*
Potential global heroin manufacture of unknown purity (tons)[a]	529	472	629	757	752	667	**634**
Acetic anhydride needed in the manufacture of heroin (thousands of litres):[b]							
At a ratio of 1:1	529	472	629	757	752	667	**634**
At a ratio of 4:1	2 116	1 888	2 516	3 028	3 008	2 668	**2 537**
Acetic anhydride reported seized on form D (thousands of litres)[c]	22	26	57	201	21	60	**65**
Total estimated available acetic anhydride for illicit heroin manufacture (amounts needed + amounts seized):							
At a ratio of 1:1	551	498	686	958	773	727	**699**
At a ratio of 4:1	2 138	1 914	2 573	3 229	3 029	2 728	**2 602**
	Percentage						
Proportion of total estimated diverted acetic anhydride interdicted (low estimate)	1	1	2	6	1	2	**2**
Proportion of total estimated diverted acetic anhydride interdicted (high estimate)	4	5	8	21	3	8	**9**

[a] World Drug Report 2011, chap. 2.3.
[b] Annex VIII.
[c] Form D.

that approximately 2 to 9 per cent of the amounts of acetic anhydride available for illicit use in manufacture are interdicted annually. The low interdiction rates in part illustrate the lack of reporting of significant seizures of the substance, particularly in Afghanistan. This can also be seen in the lack of seizures reported for Table II acids and solvents in the region.

125. Mexico is both a producer and a major trader of acetic anhydride. The country reported large increases in seizures of acetic anhydride beginning in 2009 (440 litres) and continuing through 2011. Between December 2010 and June 2011, eight separate incidents related to seizures of acetic anhydride were reported via Operation PAAD and other channels, totalling more than 56,000 litres. One industrial-scale illicit methamphetamine laboratory alone accounted for nearly 48,000 litres of seized substance. Although illicit poppy cultivation and heroin manufacture have increased in Mexico, nearly all of the seized acetic anhydride reported was recovered in clandestine methamphetamine laboratories, reflecting the shift to phenylacetic acid and the P-2-P method for illicit methamphetamine manufacture. The Board is concerned that, if such large amounts of acetic anhydride are able to find their way into methamphetamine laboratories, it cannot be ruled out that chemical trafficking organizations can also source acetic anhydride for heroin manufacture outside Mexico.

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

Ergot alkaloids and lysergic acid

Licit trade

126. There is comparatively little trade in ergot alkaloids. During the reporting period, 399 shipments of ergot alkaloids (ergotamine and ergometrine and their salts), totalling 1,794 kg, were reported; 19 countries exported to 54 importing countries. In addition, there were

10 shipments of lysergic acid totalling 9.2 kg during the reporting period.

127. Between 2005 and 2010, international trade of ergot alkaloids as reported through the PEN Online system accounted for 1,178 transactions totalling 7,068 kg, or an average of 1,178 kg traded annually. During that six-year period, there were 15 exporters of the substance, of which the top three exporters by volume were the Czech Republic, Switzerland and Italy, accounting for 98 per cent of volume. There were 64 importers, of which the top five by volume were Turkey, Switzerland, Argentina, India, and Chile, accounting for 59 per cent of imports. International trade in lysergic acid reported through the PEN Online system was almost non-existent, with a total of 31.5 kg traded between 2005 and 2010 originating in two countries and destined for just three countries.

Trafficking

128. Seizures of ergot alkaloids and lysergic acid are rare and typically involve very small amounts, which do not appear to have been be diverted from international trade. For 2010, only two Governments provided information on seizures of ergot alkaloids on form D: Australia (99.7 g) and Mexico (2,000 g). Australia identified four seizures originating in Thailand and one seizure from the United Kingdom. Mexico did not identify the origin of its seizure. Two Governments provided information on seizures of lysergic acid, the origins of which were not identified: the Russian Federation (102.1 g) and Australia (4.3 g).

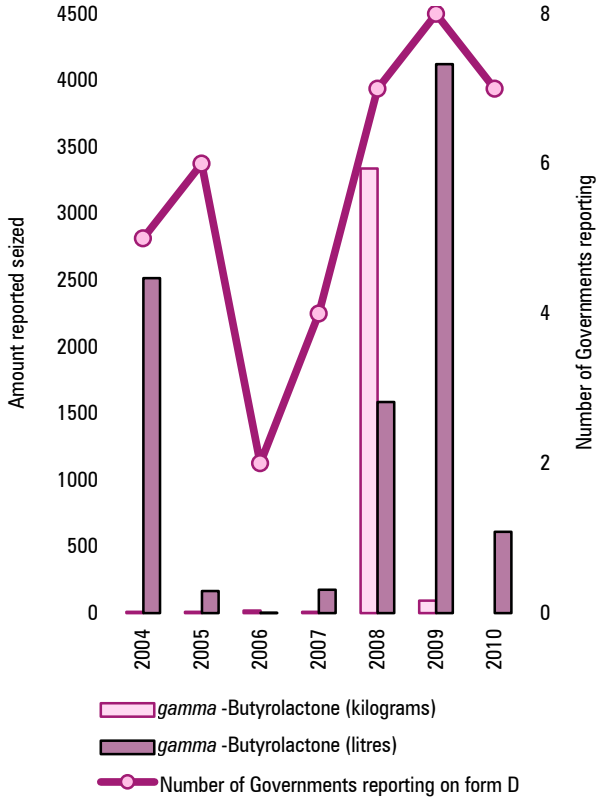
Other non-scheduled substances

129. Several countries have reported dismantling illicit laboratories that had been used to manufacture fentanyl. Canada, Slovakia and the United States each reported via other channels dismantling illicit fentanyl laboratories in 2011. Canada's report of a laboratory in the western part of the country represents its first reported case of illicit manufacture of the drug. In March, the United States reported seizing a laboratory in the eastern part of the country. Slovakia reported seizing a laboratory in August 2011. In each case, information related to the precursor type, amounts and how they were obtained was not provided. In August 2010, the Drug Enforcement Administration of the United States designated 4-anilino-N-phenethyl-4-piperidine, an immediate precursor to fentanyl, for control under the Controlled Substances Act. Four essential precursors for the illicit manufacture of fentanyl and some of its derivatives are included in the Board's limited international special surveillance list of non-scheduled substances to ensure that competent authorities and concerned industries are aware of the potential use of these substances in illicit drug manufacture.

130. The Government of South Africa has reported an increasing number of dismantled methaqualone laboratories since 2008, with five dismantled in 2010. In April 2011, an industrial-scale methaqualone laboratory, including 800 kg of synthesized methaqualone powder, was discovered in Cape Town. The chemicals present suggested methaqualone manufacture starting from the non-scheduled substance isatoic anhydride. Additional chemicals were seized; however, the type, amounts and source of diversion were not disclosed. Based on the evidence available, it was estimated that the laboratory had produced more than 2.8 tons of methaqualone hydrochloride in the past.

131. *Gamma*-butyrolactone (GBL) is a precursor used in the illicit manufacture of *gamma*-hydroxybutyric acid (GHB) and is also converted into GHB when ingested. Governments are increasingly reporting seizures of this chemical, and in greater amounts, on their form D. It has been reported to the Board that GBL is commonly sold on the Internet as part of "GHB kits", which include basic instructions and pre-measured quantities of the necessary precursors required for illicit manufacture. For example, in 2010 Estonia detected 57 shipments of the substance (ranging from 0.5 to 5 litres) in postal or courier parcels, which typically had been ordered via the Internet. The following Governments provided information on form D on seizures since 2004: Australia, Belgium, Canada, Denmark, Estonia, Finland, Germany, Hungary, Netherlands, Norway, Spain and United States. Owing to its conversion in the human body to GHB, GBL was identified for pre-review by the World Health Organization's Expert Committee on Drug Dependence in 2006. In the meantime, the Board added the substance to the limited international special surveillance list of non-scheduled substances in 2007.

Figure XVI. Seizures reported by Governments on form D of *gamma*-butyrolactone, 2004-2010



IV. Twenty years of international precursor control: progress and challenges

132. Over the past 20 years, the Board has reported on the international community's progress in implementing precursor control.[19] There have been many accomplishments: the 1988 Convention has been acceded to by most countries; national legislation and monitoring infrastructure have been developed; and communication has increased, as has international cooperation. Much has been learned, patterns of diversion have been identified and controls with respect to international trade have been adapted and strengthened.

133. Substantively, most controlled chemicals are now more difficult to obtain from international trade than they were 20 years ago, as a result of an increasing number of countries having precursor legislation in place, as well as greater regulatory and monitoring capacity and awareness among relevant industries. The tightening of control measures in an increasing number of countries is reflected, for example, in routes of diversion having become more complex and in non-scheduled substances, especially immediate precursors with few legitimate uses other than as intermediates in legitimate industries, now being commercially available, substituting for the more strictly controlled traditional chemicals.

134. The effective tools available to Governments are increasingly comprehensive, but, while their simplicity in design allows for increasing use by all competent national authorities, they have not had universal implementation. Equal progress has not been seen among all countries, with lower-income countries and indeed entire regions lagging behind. Gaps in global coverage remain, as technical assistance has been neither prioritized nor provided at an adequate level. As criminal chemical trafficking organizations become more organized, specialized and resourceful in their methods of circumventing effective international controls, so too must individual Governments and the international community adapt and respond.

A. Progress

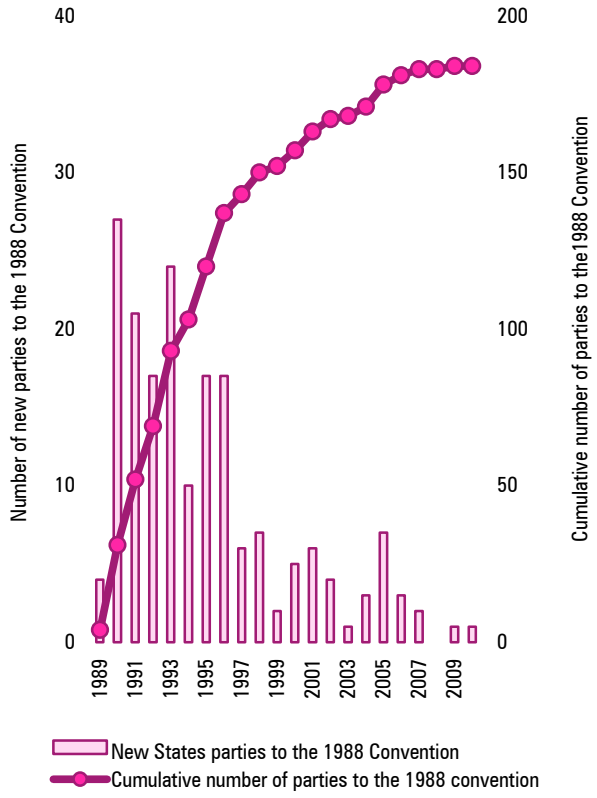
135. Since 1988, the Board has developed and deployed the annual precursor questionnaire (form D); begun the collection, organization and analysis of data; extended assistance to Governments in organizing and coordinating their approaches to the monitoring and control of precursors; and developed and maintained the precursor databank.

136. Most Governments have established competent national authorities responsible for regulating or enforcing national controls over precursors. While 188 such authorities exist, to date 21 countries have not yet reported a competent national authority.[20] This is true primarily among African countries, where nine countries, or one in six, have no competent national authority responsible for precursor control at the national level, making the African region vulnerable to attempts by traffickers to obtain chemicals for illicit purposes.

[19] The Board's first report on the implementation of article 12 was issued in 1991 (E/CN.7/1991/21 and Corr.1).

[20] The Board has not been informed of competent national authorities for the 1988 Convention by the following Governments: Albania, Angola, Belarus, Belize, Burundi, Comoros, France (Martinique), Haiti, Liberia, Liechtenstein, Malawi, Marshall Islands, Mauritania, Mongolia, Mozambique, Nauru, Palau, San Marino, Somalia, South Sudan and Yemen.

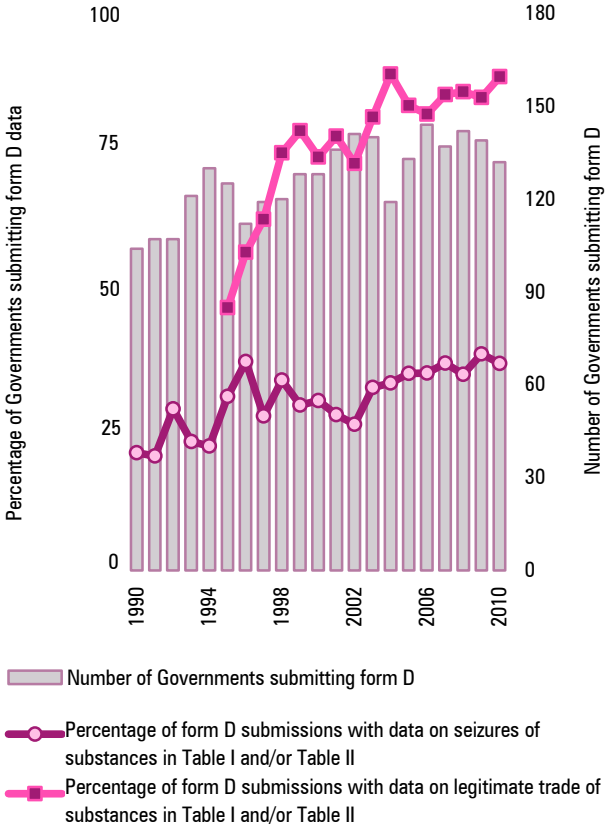
Figure XVII. Number of new States parties and total number of parties to the 1988 Convention, 1989-2010



137. Reporting to the Board on seizures of precursors, diversions and illicit drug manufacture, as well as on licit trade, has also greatly increased over the past 20 years as systems at the national level to control, track and ultimately report have been implemented or improved. In 1990, 104 Governments submitted form D, but only one Government in five was able to provide any information related to chemical seizures. Fewer still were able to provide information related to the diversion of precursors and stopped shipments of chemicals, or details related to clandestine manufacture. In 2010, the number of Governments reporting increased to 132, and the percentage able to provide information on the seizure of precursors, mandatory under the 1988 Convention, nearly doubled, to 37 per cent. Increases were also seen in the provision of data on legitimate trade, increasing from 47 per cent of submissions in 1995 to 89 per cent by 2010, and estimates of annual legitimate requirements for imports of select precursors of amphetamine-type stimulants.

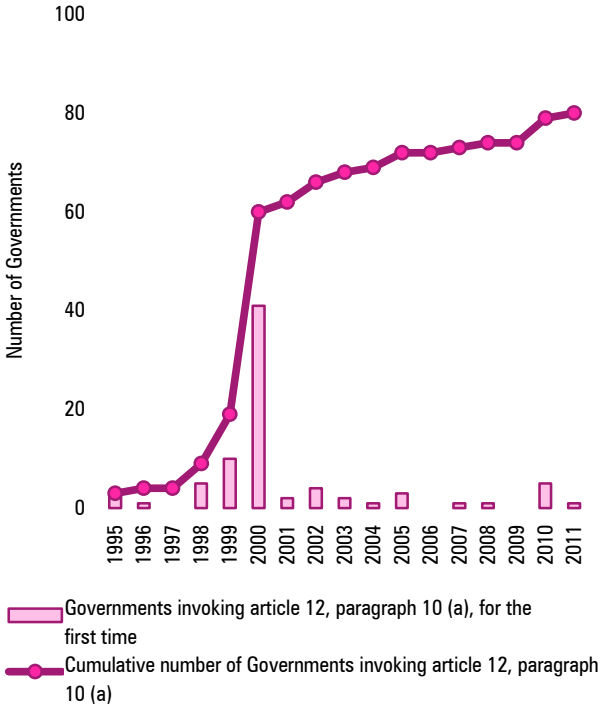
138. Identifying suspicious transactions in legitimate trade is possible by knowing the market and its players and understanding and recognizing regular trade patterns, legitimate trade requirements, companies trading in precursors, end-users and end-uses. To be able to assess the legitimacy of an import and object to it in case of doubt, the competent national authority of the importing country needs to be aware of the proposed transaction. One of the most effective means to this end is the system of pre-export notifications. Increasingly, Governments are requiring notifications in accordance with article 12, paragraph 10 (a), of the 1988 Convention. The number of Governments having requested notification prior to a proposed import has grown to 79. Nevertheless, although new Governments are slowly being added each year, only 40 per cent of countries require any notification. With only 21 per cent of low-income countries requiring pre-export notification, versus 66 per cent and 40 per cent for upper- and middle-income countries, respectively,[21] low-income countries are disproportionally more likely to be vulnerable to diversion attempts.

Figure XVIII. Annual submissions of form D and the provision of select data, 1990-2010



[21] Income categorization is based on 2010 World Bank data on gross national income per capita, in United States dollars using the Atlas method, averaged from 2006 to 2010.

Figure XIX. Governments invoking article 12, paragraph 10 (a), of the 1988 Convention requiring pre-notification of export of chemicals, 1995-2011

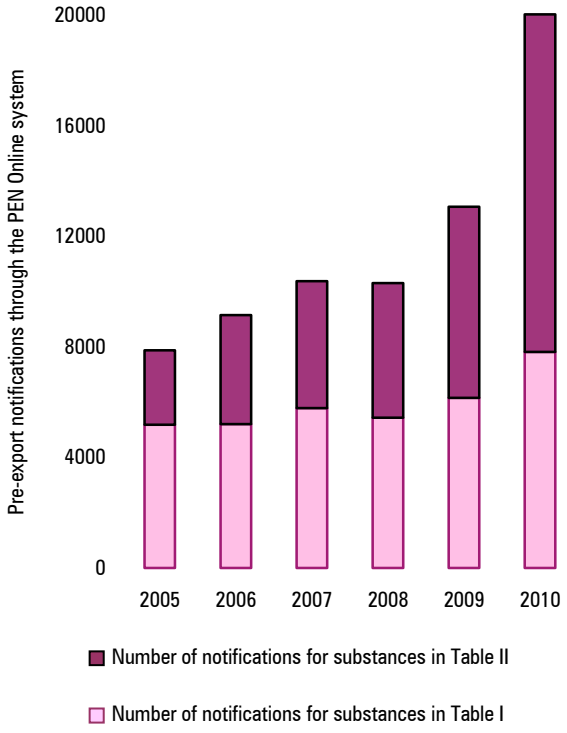


139. Significant improvements in the monitoring of international trade in precursors were seen with the launch of the PEN Online system in 2006. With this automated system, it has now become possible for the competent national authorities of exporting and importing countries to communicate through a single, centralized system, confirming the legitimacy of individual transactions or suspending or stopping suspicious shipments in real time. Pre-export notifications sent via the PEN Online portal have increased to more than 20,000 annually to 169 countries and territories. There are now 126 registered users of the system, which the Board provides to Governments; however, only 43 per cent of low-income countries are registered, a disproportionally smaller number than among either upper- or middle-income countries (85 per cent and 65 per cent, respectively).

140. It is important to continue the development of the PEN Online system and to individually and collectively perform a risk analysis of the proposed shipments reported via PEN Online. Although it is not a party to proposed transactions between exporting and importing countries, the Board assists Governments in verifying transactions to countries, in particular countries and regions where notifications are either not required or where resources and capacity are limited.

141. Results have been achieved in implementing the General Assembly recommendations on improving the exchange of information regarding suspicious transactions and on the need for increased multilateral cooperation in exchanging information on transactions involving precursors and disseminating systematic information on the modi operandi used by chemical trafficking organizations.[22] The Board has supported various international time-bound operational activities to counter the diversion of precursor chemicals and to launch backtracking investigations: Operation Purple (1999-2005), Operation Topaz (2001-2005) and Project Cohesion — the resulting merger of the other two in 2005 — provided Governments with strategic information on the trafficking of potassium permanganate and acetic anhydride, while Project Prism (since 2002) focuses on select precursors of amphetamine-type stimulants. These multilateral operations have led to an increase in the number of cases in which diversions (or attempted diversions) from international trade and into illicit channels have been identified, communicated and prevented. Examples of these successes are illustrated in chapter III, section H.

Figure XX. Pre-export notifications for substances in Table I and Table II communicated through the PEN Online system, 2005-2010



22 General Assembly resolution S-20/4B.

142. The information developed under these operations, combined with annual reporting, also feeds into the process of scheduling and rescheduling substances under international control. In response to emerging trends in illicit trafficking and manufacture, the Board has previously proposed to the Commission on Narcotic Drugs that it schedule or reschedule several chemicals. Norephedrine, which had emerged for use in the illicit manufacture of amphetamine-type stimulants, was added to Table I in 2000. Since that time, several other chemicals have been rescheduled from Table II to Table I, including acetic anhydride (2001), potassium permanganate (2001) and phenylacetic acid and its salts (2011).

143. Increasingly, over the last several years, chemical trafficking organizations have begun obtaining alternative chemicals, including made-to-order chemicals, directly from industry. In response, Governments are increasingly adopting the concept of industry as a critical partner in preventing diversion. The Board's *Guidelines for a Voluntary Code of Practice for the Chemical Industry* and the limited international special surveillance list of non-scheduled substances are free tools that can assist in that regard. The surveillance list, established in 1998 in response to increasing concern about the use of substitute chemicals, aids Governments in flexibly targeting non-scheduled substances most likely to be diverted from legitimate trade, while balancing the requirements of legitimate industry. The list has grown to now include 52 substances and is distributed to regulatory authorities for use in partnership with industry.

B. Challenges and the way forward

144. Twenty years of international precursor control have demonstrated that the international system of controls provides for a number of necessary tools. Experience has shown, however, that the tools have not had universal implementation and that there remains a need to implement them more comprehensively within countries and at the global level. Specific examples of these tools are listed in chapter V below.

145. Twenty years of international precursor control have also demonstrated the ability of chemical trafficking organizations to rapidly adapt to pressures from regulatory and law enforcement agencies. Specifically, their ability to obtain intermediates, pre-precursors and made-to-order chemicals has increased, as has the size and sophistication of manufacture, as evidenced by their ability to use other starting materials and methods which were previously considered too complex and costly to employ in illicit settings. This is compounded by the continued increase in the type and amount of synthetic, non-plant-based drugs and the unprecedented speed with which shifts now occur. The inherent flexibility in the sourcing of precursors and in illicit manufacture means that mechanisms to counter these developments must also be flexible.

146. The concept of scheduling individual substances is a reactive measure that cannot keep pace with the rapid emergence of new precursor substances used in the illicit manufacture of drugs. Instead, a more flexible approach is needed, with a shorter response time to identify suspicious orders and prevent diversion of new chemicals, which can only be achieved in partnership with industry.

147. At the same time, legislation must be more flexible to allow for the investigation and prosecution of incidents which involve new chemicals when there is suspicion that such chemicals are intended for use in the illicit manufacture of substances. Similar to seizures of chemicals currently under control, incidents utilizing new unscheduled chemicals should be considered the beginning of an investigation rather than its end.

148. Governments must also consider the degree to which the criminal act of trafficking in chemicals corresponds to the punishment. Penal, civil and administrative sanctions involving new chemicals must be proportional to the type and amount of illicit substance for which manufacture was intended. Thus, cases involving precursors intended for use in illicit drug manufacture should result in sanctions consistent with the amount of drugs that were to have been manufactured.

149. Finally, in order for the international community to benefit from the knowledge of new developments and prevent future diversions, it is paramount to improve the dissemination of information and strategic intelligence on suspicious orders, stopped shipments and seized precursors in real time. Regulatory and law enforcement agencies and relevant industry, both nationally and internationally, all play an equally important role in understanding the dynamics and complexities of modern-day diversion and trafficking, identifying weaknesses and devising adequate solutions.

V. Recommendations

150. The present report has examined actions taken by Governments and the Board, the latest information related to the diversion and attempted diversion of precursors, legislative and other control measures and the achievements under Project Prism and Project Cohesion over the past year. In addition, much of the information and analysis has assessed the achievements and challenges during the first 20 years of precursor control. The present

chapter outlines broad recommendations to bring the policies of Governments into alignment and fill existing gaps in the control system identified in the present report and in previous reports.

151. The diversion of some chemicals, such as acetic anhydride, from domestic distribution channels — rather than through international trade — with subsequent cross-border smuggling, has become the most common method of obtaining precursor chemicals for use in illicit manufacture. It is vital to strengthen domestic controls over the movement of chemicals by implementing a system of licensing; developing a keen understanding of domestic manufacture of, trade in and need for controlled substances; and verifying legitimate end-use. **The Board urges Governments to focus domestic control efforts on the beginning of the chemical supply chain, starting with the verification of the bona fides of all new companies entering business.**

152. Despite improvements, many Governments have yet to provide estimates of their annual requirements for the import of certain precursors of amphetamine-type stimulants. Additionally, many of these estimates are outdated and not reflective of changing market conditions. This is of particular concern with respect to substances that have little legitimate use. To ensure that the estimates remain useful for the identification of suspicious transactions involving those particular precursors, **the Board reminds Governments to provide timely and accurate estimates in accordance with Commission on Narcotic Drugs resolution 49/3.**

153. The Board notes with concern that communication with a number of Governments remains problematic. In some cases, contact information for competent national authorities designated under the 1988 Convention have never been provided to the Board, enquiries about potentially suspicious transactions go unanswered and the rate of participation and information exchange of Governments in Project Prism or Project Cohesion is low. **The Board reminds Governments of their shared responsibility to quickly communicate information related to the diversion and attempted diversion of precursors so as to facilitate international efforts to counter trafficking in precursors.**

154. Owing to limited capacity, the Governments of some countries in low-income regions have not implemented many of the tools designed to prevent diversion of chemicals. **The Board urges all Governments and relevant international organizations to provide assistance for training and capacity-building for competent authorities of low-income countries to enable them to monitor and communicate the legitimacy of relevant transactions and to prevent diversions.**

155. To accurately assess the global situation with respect to diversion and attempted diversion of precursors and to identify and respond to weaknesses in the control system, Governments must submit timely, accurate and comprehensive information on form D. The ongoing problem of underreporting cannot be explained solely by the limited capacity of Governments, since numerous Governments of middle- and high-income countries also fall short of their reporting responsibilities. Additionally, the provision of information would be more valuable for the analyses if details of the relevant circumstances, such as modi operandi and methods used for diversion and the illicit manufacture, were included in the reports. **The Board urges Governments to improve reporting on form D in accordance with article 12 of the 1988 Convention and to furnish the Board with on-time, comprehensive information on the results of investigations concerning seizures or stopped shipments.**

156. There has been a significant increase in international trade notifications through the PEN Online system, which continues to be a key tool in global efforts to prevent the diversion of precursors from international trade. Although registered users of the system continue to increase, geographical gaps in coverage remain and not every transaction is entered into the system. For example, data available to the Board also show that significant amounts of substances are intended for re-export but that not all subsequent transactions appear to be traceable through the PEN Online system. **The Board requests all Governments that have not yet done so to register for the PEN Online system. Governments are reminded to actively and systematically use the PEN Online system for all transactions, as both exporters and importers, including for the timely provision of feedback to exporting countries and the communication of objections or non-objections with respect to individual transactions.**

157. The available tools and instruments, such as the PEN Online system, and the requirement that countries be notified of impending shipments of precursors (article 12, paragraph 10 (a), of the 1988 Convention) have not been implemented by all countries. This is particularly true of low-income countries, where limited investment and slow implementation continue to hamper progress. Nevertheless, the PEN Online system is capable of sending pre-export notifications to all countries, including those not yet registered, via the integrated fax and e-mail options. **Therefore, the Board urges all exporting countries to use the PEN Online system regardless of whether the Government of the importing country is registered to use**

the system or has invoked articles requiring pre-export notification.

158. Chemical trafficking organizations have become increasingly resourceful, organized and adaptable in order to circumvent the growing number of control measures that have been introduced. Multilateral international cooperation is an essential component in identifying and responding to new methods of diversion and preventing future diversion. **The Board urges the Governments concerned to actively participate in and contribute to relevant multilateral anti-trafficking operations and activities under Project Prism and Project Cohesion.**

159. As bulk ephedrine and pseudoephedrine have become more costly to source, illicit manufacturing techniques have been adapted to use pharmaceutical preparations containing these precursors. **The Board calls upon all Governments to enact effective measures to control ephedrine and pseudoephedrine in the form of pharmaceutical preparations in accordance with Commission on Narcotic Drugs resolution 54/8.**

160. Derivatives and other forms of substances beyond the scope of existing international drug control measures, such as phenylacetic acid esters, are now being increasingly utilized in the illicit manufacture of drugs. **The Board encourages all Governments to partner with relevant industry to closely monitor or control derivatives of controlled substances that readily allow for conversion into the controlled substance in the same way as the controlled substances themselves.**

161. Many Governments are exercising export controls above and beyond the minimum outlined under the 1988 Convention and subsequent resolutions of the Commission on Narcotic Drugs. For example, some countries are refusing to release shipments to new unknown companies until the importing Government approves the shipment. Other countries have legislation to ensure that their exports of controlled chemicals do not violate the applicable laws and regulations of the importing country. **The Board recommends that all Governments ensure that their exports of controlled chemicals do not violate the applicable laws and regulations of the importing country. Furthermore, the Board encourages exporting countries to release shipments only upon receiving official confirmation from the competent authority of the importing country in cases where there are grounds for suspicion.**

Annexes*

*Annexes Vii-XI are not included in the printed copies of this report but are available in the CD-ROM version of the report and online from the Board's website (www.incb.org).

Annex I

Parties and non-parties to the 1988 Convention, by region, as at 31 October 2011

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)	Ethiopia (11 October 1994)	Somalia
	Benin (23 May 1997)	Gabon (10 July 2006)	South Sudan[a]
	Botswana (13 August 1996)	Gambia (23 April 1996)	
	Burkina Faso (2 June 1992)	Ghana (10 April 1990)	
	Burundi (18 February 1993)	Guinea (27 December 1990)	
	Cameroon (28 October 1991)	Guinea-Bissau (27 October 1995)	
	Cape Verde (8 May 1995)	Kenya (19 October 1992)	
	Central African Republic (15 October 2001)	Lesotho (28 March 1995)	
	Chad (9 June 1995)	Liberia (16 September 2005)	
	Comoros (1 March 2000)	Libya[b] (22 July 1996)	
	Congo (3 March 2004)	Madagascar (12 March 1991)	
	Côte d'Ivoire (25 November 1991)	Malawi (12 October 1995)	
	Democratic Republic of the Congo (28 October 2005)	Mali (31 October 1995)	
	Djibouti (22 February 2001)	Mauritania (1 July 1993)	
	Egypt (15 March 1991)	Mauritius (6 March 2001)	

Region	*Party to the 1988 Convention*	*Non-party to the 1988 Convention*
	Morocco (28 October 1992)	South Africa (14 December 1998)
	Mozambique (8 June 1998)	Sudan (19 November 1993)
	Namibia (6 March 2009)	Swaziland (8 October 1995)
	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)
	Sierra Leone (6 June 1994)	
Regional total **54**	**51**	**3**
Americas	Antigua and Barbuda (5 April 1993)	Chile (13 March 1990)
	Argentina (10 June 1993)	Colombia (10 June 1994)
	Bahamas (30 January 1989)	Costa Rica (8 February 1991)
	Barbados (15 October 1992)	Cuba (12 June 1996)
	Belize (24 July 1996)	Dominica (30 June 1993)
	Bolivia (Plurinational State of) (20 August 1990)	Dominican Republic (21 September 1993)
	Brazil (17 July 1991)	Ecuador (23 March 1990)
	Canada (5 July 1990)	El Salvador (21 May 1993)

Region	*Party to the 1988 Convention*	*Non-party to the 1988 Convention*
	Grenada (10 December 1990)	Peru (16 January 1992)
	Guatemala (28 February 1991)	Saint Kitts and Nevis (19 April 1995)
	Guyana (19 March 1993)	Saint Lucia (21 August 1995)
	Haiti (18 September 1995)	Saint Vincent and the Grenadines (17 May 1994)
	Honduras (11 December 1991)	Suriname (28 October 1992)
	Jamaica (29 December 1995)	Trinidad and Tobago (17 February 1995)
	Mexico (11 April 1990)	United States of America (20 February 1990)
	Nicaragua (4 May 1990)	Uruguay (10 March 1995)
	Panama (13 January 1994)	Venezuela (Bolivarian Republic of) (16 July 1991)
	Paraguay (23 August 1990)	
Regional total		
35	**35**	**0**
Asia	Afghanistan (14 February 1992)	Democratic People's Republic of Korea (19 March 2007)
	Armenia (13 September 1993)	Georgia (8 January 1998)
	Azerbaijan (22 September 1993)	India (27 March 1990)
	Bahrain (7 February 1990)	Indonesia (23 February 1999)
	Bangladesh (11 October 1990)	Iran (Islamic Republic of) (7 December 1992)
	Bhutan (27 August 1990)	Iraq (22 July 1998)
	Brunei Darussalam (12 November 1993)	Israel (20 March 2002)
	Cambodia (2 April 2005)	Japan (12 June 1992)
	China (25 October 1989)	

Region	*Party to the 1988 Convention*	*Non-party to the 1988 Convention*
	Jordan (16 April 1990)	Qatar (4 May 1990)
	Kazakhstan (29 April 1997)	Republic of Korea (28 December 1998)
	Kuwait (3 November 2000)	Saudi Arabia (9 January 1992)
	Kyrgyzstan (7 October 1994)	Singapore (23 October 1997)
	Lao People's Democratic Republic (1 October 2004)	Sri Lanka (6 June 1991)
	Lebanon (11 March 1996)	Syrian Arab Republic (3 September 1991)
	Malaysia (11 May 1993)	Tajikistan (6 May 1996)
	Maldives (7 September 2000)	Thailand (3 May 2002)
	Mongolia (25 June 2003)	Turkey (2 April 1996)
	Myanmar (11 June 1991)	Turkmenistan (21 February 1996)
	Nepal (24 July 1991)	United Arab Emirates (12 April 1990)
	Oman (15 March 1991)	Uzbekistan (24 August 1995)
	Pakistan (25 October 1991)	Viet Nam (4 November 1997)
	Philippines (7 June 1996)	Yemen (25 March 1996)
Regional total		
46	**45**	**1**
Europe	Albania (27 July 2001)	Belgium[c] (25 October 1995) Holy See
	Andorra (23 July 1999)	Bosnia and Herzegovina (1 September 1993)
	Austria[c] (11 July 1997)	Bulgaria[c] (24 September 1992)
	Belarus (15 October 1990)	Croatia (26 July 1993)

Region	*Party to the 1988 Convention*	*Non-party to the 1988 Convention*
	Cyprus[c] (25 May 1990)	Netherlands[c] (8 September 1993)
	Czech Republic[c] (30 December 1993)	Norway (14 November 1994)
	Denmark[c] (19 December 1991)	Poland[c] (26 May 1994)
	Estonia[c] (12 July 2000)	Portugal[c] (3 December 1991)
	Finland[c] (15 February 1994)	Republic of Moldova (15 February 1995)
	France[c] (31 December 1990)	Romania[c] (21 January 1993)
	Germany[c] (30 November 1993)	Russian Federation (17 December 1990)
	Greece[c] (28 January 1992)	San Marino (10 October 2000)
	Hungary[c] (15 November 1996)	Serbia[d] (3 January 1991)
	Iceland (2 September 1997)	Slovakia[c] (28 May 1993)
	Ireland[c] (3 September 1996)	Slovenia[c] (6 July 1992)
	Italy[c] (31 December 1990)	Spain[c] (13 August 1990)
	Latvia[c] (25 February 1994)	Sweden[c] (22 July 1991)
	Liechtenstein[c] (9 March 2007)	Switzerland (14 September 2005)
	Lithuania[c] (8 June 1998)	The former Yugoslav Republic of Macedonia (13 October 1993)
	Luxembourg[c] (29 April 1992)	Ukraine (28 August 1991)
	Malta[c] (28 February 1996)	United Kingdom[c] (28 June 1991)
	Monaco (23 April 1991)	European Union[d] (31 December 1990)
	Montenegro (3 June 2006)	

Region	*Party to the 1988 Convention*		*Non-party to the 1988 Convention*
Regional total			
46	**45**		**1**
Oceania	Australia (16 November 1992)	New Zealand (16 December 1998)	Kiribati
			Nauru
	Cook Islands (22 February 2005)	Samoa (19 August 2005)	Palau
	Fiji (25 March 1993)	Tonga (29 April 1996)	Papua New Guinea
			Solomon Islands
	Micronesia (Federated States of) (6 July 2004)	Vanuatu (26 January 2006)	Tuvalu
		Marshall Islands (5 November 2010)	
Regional total			
15	**9**		**6**
World total			
196	**185**		**11**

[a] By its resolution 65/308 of 14 July 2011, the General Assembly decided to admit South Sudan to membership in the United Nations.
[b] Since 16 September 2011, "Libya" has replaced "Libyan Aran Jamahiriya" as the short name used in the United Nations.
[c] State member of the European Union.
[d] Extent of competence: article 12.

Annex II

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 annual estimates of their legitimate requirements for 3,4-methylenedioxyphenyl-2-propanone, pseudoephedrine, ephedrine and 1-phenyl-2-propanone 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 table below reflects 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. Governments are invited to review their requirements as published, amend them as necessary and inform the Board of any required change. The data are current as at 31 October 2011. (For updates, see www.incb.org/pdf/e/precursors/REQUIREMENTS/INCB_ALR_WEB.pdf.)

Annual legitimate requirements reported by Governments for ephedrine, pseudoephedrine, 3,4-methylenedioxyphenyl-2-propanone, 1-phenyl-2-propanone and their preparations

(Kilograms)

Country or territory	*Ephedrine*	*Ephedrine preparations*	*Pseudoephedrine*	*Pseudoephedrine preparations*	*3,4-MDP-2-P*[a]	*P-2-P*[b]
Afghanistan	50	50	6 000	5 000	0	0
Albania	5	0	0	0	0	0
Algeria	10		17 000			
Argentina	50		16 000		0	1
Ascension Island	0	0	0	0	0	0
Australia	3	10	3 000	1 300	1	2
Austria	281	13	1	0	1	1
Azerbaijan	20		10		0	0
Bahrain	0	0			0	
Bangladesh	200		49 021			
Barbados	250		160			
Belarus		25	25		0	0
Belgium	300		11 000		5	1
Belize			P	P		
Benin	2		8	10		
Bhutan	0	0	0	0	0	0
Bosnia and Herzegovina	25	0	1 500	0	0	0
Botswana	300					
Brazil	3 000[c]		15 000[c]		0	3 807
Bulgaria	3 000		500		0	0
Cambodia	200	50	300	900		
Canada	2 000	5	20 000		0	0
Chile	251		5 000			
China	155 000		200 000			
Hong Kong, China	4 500	0	7 500	0	0	0
Macau, China	1	10	1	159	0	0
Christmas Island	0	0	0	0	0	0
Cocos (Keeling) Islands	0	0	0	0	0	0
Colombia	5[d]	4[e]	4 000[d]	P		
Cook Islands	0	0	0	0	0	0
Costa Rica	0	0	1 846	1 028	0	0
Côte d'Ivoire	31	7	0	2	0	0
Croatia	2		1		0	1
Cuba	200			6		
Cyprus			350			
Czech Republic	600	10	1 600	800	0	1
Denmark					0	0
Democratic People's Republic of Korea	2 300	1 500	0	0	5	0
Democratic Republic of the Congo	250		900			

Country or territory	*Ephedrine*	*Ephedrine preparations*	*Pseudoephedrine*	*Pseudoephedrine preparations*	*3,4-MDP-2-P*[a]	*P-2-P*[b]
Dominican Republic	75	5	230	250	0	0
Ecuador	100		7 500		0	0
Egypt	6 000		60 000	2 500		
El Salvador	P(6)[f]	P(2)[f]	P	P	0	0
Estonia	6					
Falkland Islands (Malvinas)		1		1		
Finland	6	100		1 000		1
Gambia	0	0	0	0	0	0
Georgia	50	30	50	200		
Germany	1 000		10 000		1	3 000
Ghana	2 000		700			
Greece	26		600		0	0
Guatemala			P	P		
Guinea	36					
Guinea-Bissau	0	0	0	0	0	0
Guyana	120	50	120	30	0	0
Haiti	150		300		0	0
Honduras	P	P(1)[e]	P	P		
Hungary	600		1		1	2 130
Iceland	1		1			
Indonesia	12 058		29 452			
Iran (Islamic Republic of)	50	1	55 000	10	6	51
Iraq	3 000	100	14 000	10 000	0	0
Ireland	1	2	1	916	0	0
Israel	19	5	1 777	21		
Italy	125	0	22 800	0	0	2 000
Jamaica			300	300	0	0
Jordan	300		20 000			60 500
Kazakhstan	818		1			
Kenya	3 000		3 500			
Kyrgyzstan	0		20	32	0	0
Lao People's Democratic Republic	0	0	200	17 346	0	0
Latvia	25	27	41	383		
Lebanon	50	2	220	350	0	0
Lithuania	1	1	1	600	1	1
Luxembourg	1					
Madagascar	702	180	150			
Malawi	1 000					
Malaysia	50	0	4 280	264	0	0
Malta		220	220			
Mauritius	0	0	0	0	0	0
Mexico	P[f]	P[f]	P	P		
Monaco	0	0	0	0	0	0

Country or territory	*Ephedrine*	*Ephedrine preparations*	*Pseudoephedrine*	*Pseudoephedrine preparations*	*3,4-MDP-2-P*[a]	*P-2-P*[b]
Mongolia	3					
Montenegro		1		1		
Montserrat		1		1		
Morocco	41	0	3 477	0	0	0
Mozambique	3					
Myanmar	1	0	0	0	0	0
Namibia	0	0	0	0	0	0
Netherlands		0		0	0	0
New Zealand	50		700			
Nicaragua	P[g]	P[g]	P	P		
Nigeria	9 650		5 823			
Norway	400	0	0	0	0	0
Pakistan	22 000		48 000			
Panama	25	30	1 000	1 000		
Papua New Guinea	1		200		0	0
Paraguay	0	0	2 500	0	0	0
Peru	54		2 409	1 192		
Philippines	138	0	110	0	0	0
Poland	130		4 200		0	2
Portugal			15			
Republic of Korea	23 316		62 901		1	1
Republic of Moldova		60		250		
Romania	260		8 000			
Russian Federation	1 500					
Saint Helena	0	1	0	1	0	0
Sao Tome and Principe	0	0	0	0	0	0
Senegal	0	0	0	0	0	0
Serbia	25		718			1
Singapore	0	0	0	0	0	0
Slovakia	4	2	1	0	0	0
Slovenia	2		100			
Solomon Islands	0	1	0	1	0	0
South Africa	15 000	0	10 444	0	0	0
Spain	275		5 114		0	99
Sri Lanka				0	0	0
Sweden	123	192	1	33	1	24
Switzerland	2 000		62 000		100	100
Syrian Arab Republic	1 000		50 000			
Tajikistan	38					
Thailand	41		38 540	0		
Trinidad and Tobago						0
Tristan da Cunha	0	0	0	0	0	0
Turkey	400		30 000			1 015
Uganda	150	20	2 000	300		

Country or territory	*Ephedrine*	*Ephedrine preparations*	*Pseudoephedrine*	*Pseudoephedrine preparations*	*3,4-MDP-2-P*[a]	*P-2-P*[b]
Ukraine	541	25	112	4 038		
United Arab Emirates	200	41	63	2 499		
United Kingdom	10 500	4 744	12 850	29 840	5	1
Uzbekistan	2		15			
United Republic of Tanzania	500	500	3 000	1 000		
United States	123 400		390 000		0	18 440
Uruguay			22			
Venezuela (Bolivarian Republic of)	1 000		3 000			
Yemen			5 000			
Zambia	5		10			
Zimbabwe	100	1	100	0	0	0

Notes:The names of territories and special administrative regions are in italics.

A blank field signifies that no requirement was indicated or that data were not submitted for the substance in question.

A zero (0) signifies that the country or territory has no licit requirement for the substance.

Reported quantities of less than 1 kg have been rounded up and are reflected as 1 kg.

The letter "P" signifies that importation of the substance is prohibited.

[a] 3,4-Methylenedioxyphenyl-2-propanone.

[b] 1-Phenyl-2-propanone.

[c] Including the licit requirements for pharmaceutical preparations containing the substance.

[d] The required amount of ephedrine is to be used for the manufacture of injectable ephedrine sulfate solution. The required amount of pseudoephedrine is to be used exclusively for the manufacture of medicines for export.

[e] In the form of injectable ephedrine sulfate solution.

[f] Imports of the substance and preparations containing the substance are prohibited, with the exception of the imports of injectable ephedrine preparations and ephedrine as a prime raw material for the manufacture of such ephedrine preparations. Pre-export notification is required for each individual import.

[g] Imports of the substance and preparations containing the substance are prohibited, with the exception of the imports of injectable ephedrine preparations and ephedrine as a prime raw material for the manufacture of such ephedrine preparations. Such import requires an import permit.

Annex III

Substances in Tables I and II of the 1988 Convention

Table I	*Table II*
Acetic anhydride	Acetone
N-Acetylanthranilic acid	Anthranilic acid
Ephedrine	Ethyl ether
Ergometrine	Hydrochloric acid[a]
Ergotamine	Methyl ethyl ketone
Isosafrole	Piperidine
Lysergic acid	Sulphuric acid[a]
3,4-Methylenedioxyphenyl-2-propanone	Toluene
Norephedrine	
Phenylacetic acid[b]	
1-Phenyl-2-propanone	
Piperonal	
Potassium permanganate	
Pseudoephedrine	
Safrole	
The salts of the substances in this Table whenever the existence of such salts is possible.	The salts of the substances in this Table whenever the existence of such salts is possible.

[a] The salts of hydrochloric acid and sulphuric acid are specifically excluded from Table II.
[b] Transferred from Table II to Table I, effective 17 January 2011.

Annex IV

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

The use of scheduled substances in the illicit manufacture of narcotic drugs and psychotropic substances, depicted in figures A.I-A.IV below, represents classic production and manufacturing methods. 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 has been used at all stages of drug production.

Figure A.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

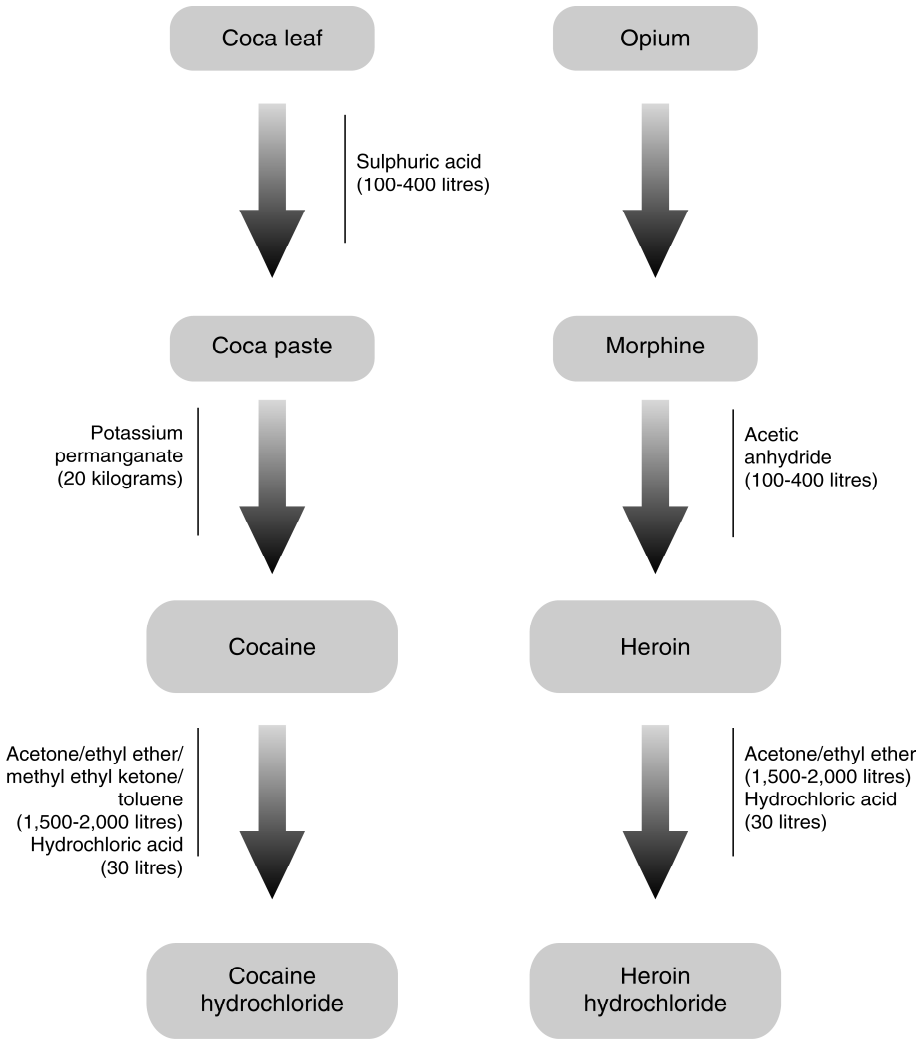


Figure A.II. Illicit manufacture of amphetamine and methamphetamine: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 100 kilograms of amphetamine sulphate and methamphetamine hydrochloride

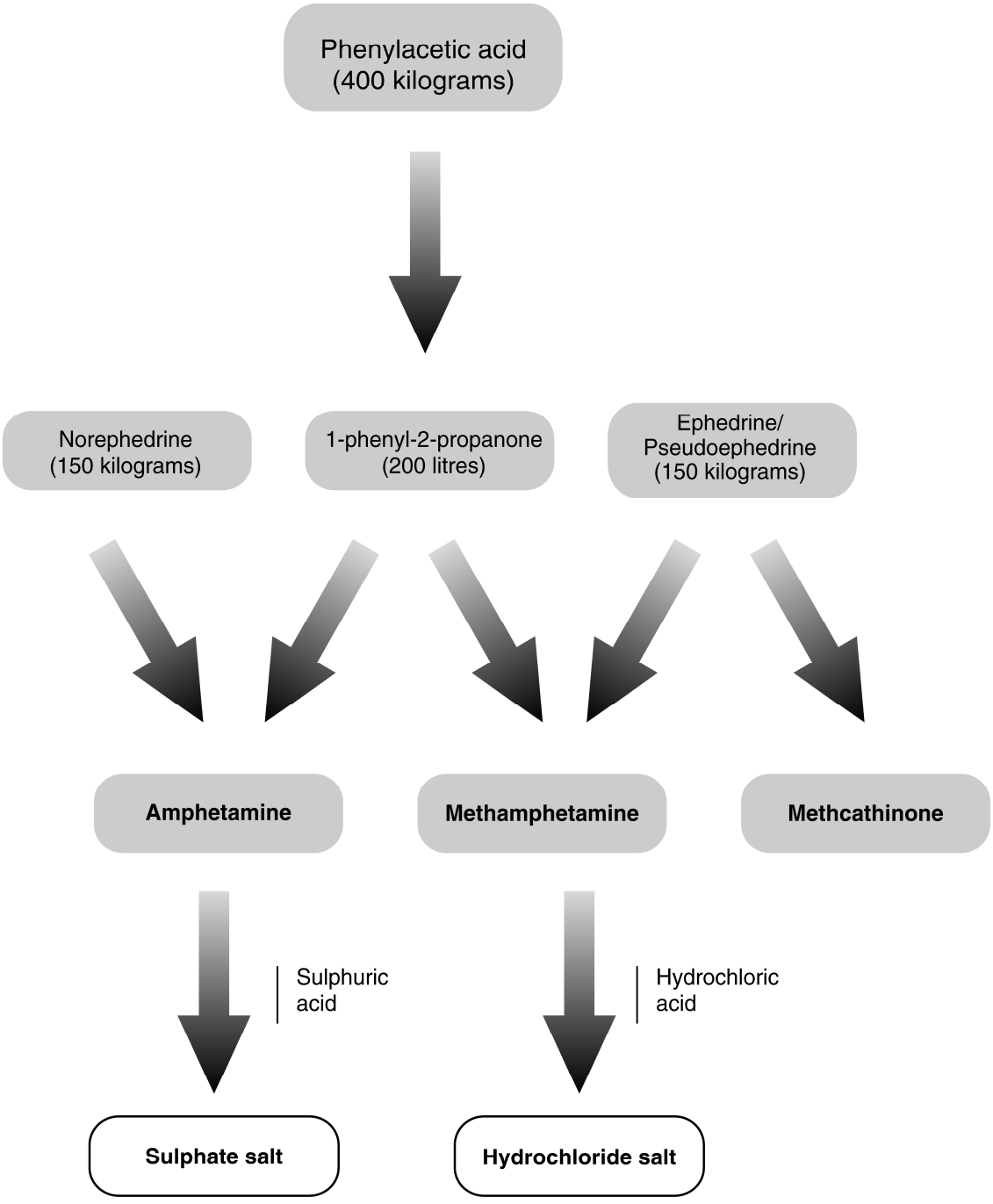
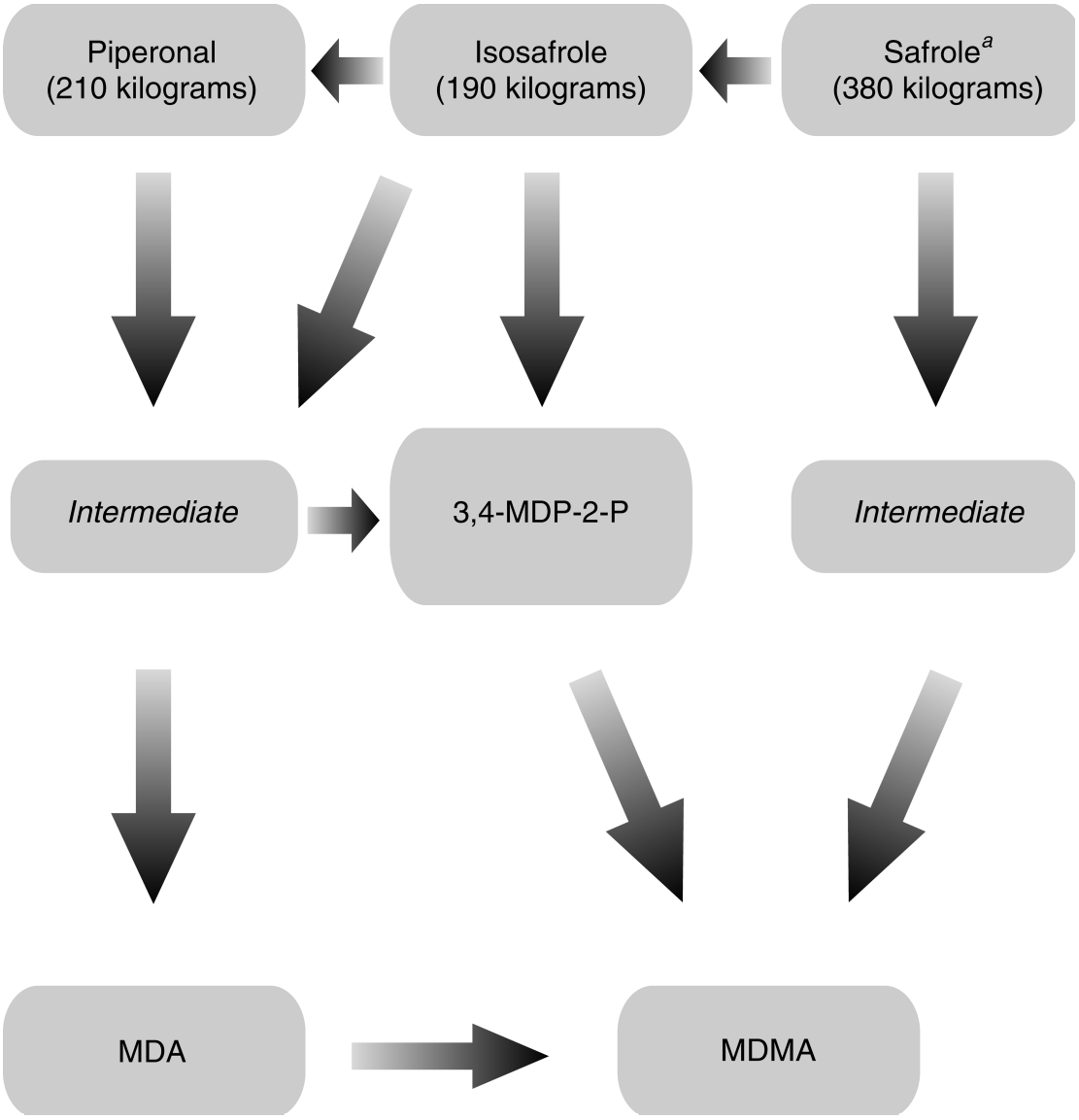


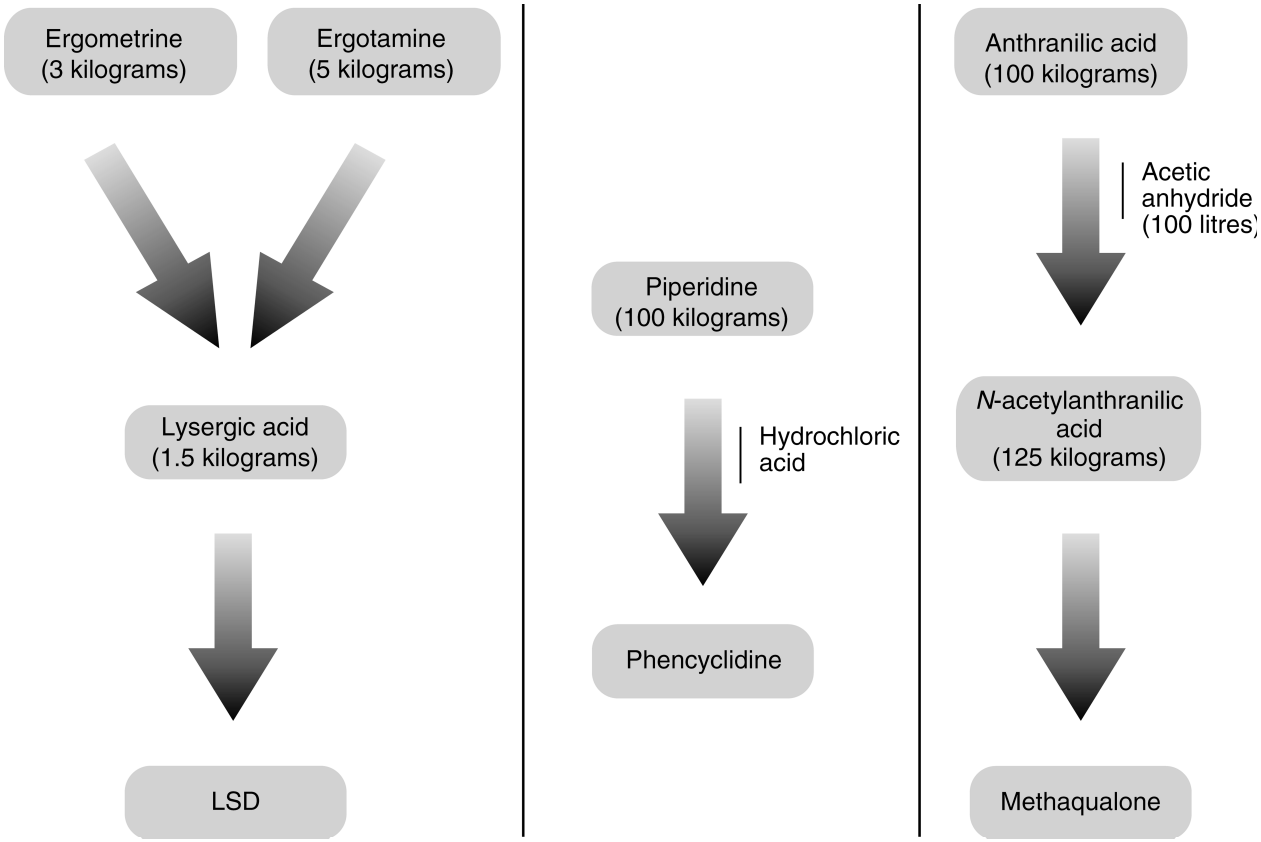
Figure A.III. Illicit manufacture of methylenedioxymethamphetamine and related drugs: scheduled substances and the approximate quantities thereof required for the manufacture of 100 litres of 3,4-MDP-2-P



Note: Approximately 250 litres of 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P) are required to manufacture 100 kg of 3,4-methylenedioxyamphetamine (MDA) hydrochloride; 125 litres of 3,4-MDP-2-P are required to manufacture 100 kg of methylenedioxymethamphetamine (MDMA) or 3,4-methylenedioxyethylamphetamine (MDEA).

[a] Including safrole in the form of safrole-rich oils.

Figure A.IV. Illicit manufacture of lysergic acid diethylamide (LSD), methaqualone and phencyclidine: scheduled substances and the approximate quantities thereof required for the illicit manufacture of 1 kilogram of LSD and 100 kilograms of methaqualone and phencyclidine



Annex V

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[a] provides as follows:

> The Parties shall use their best endeavours to apply to substances which do not fall under this 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[b] provides as follows:

> The Parties shall use their best endeavours to apply to substances which do not fall under this 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[c] contains provisions for the following:

(a) General obligation for parties to take measures to prevent diversion of the substances in Table I and Table II of the 1988 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 such operations and prevent accumulation of substances in Tables I and II (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).

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[a] United Nations, *Treaty Series*, vol. 520, No. 7515.
[b] Ibid., vol. 1019, No. 14956.
[c] Ibid., vol. 1582, No. 27627.

Annex VI

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, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya,[a] Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan,[b] Sudan, Swaziland, 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, Syrian Arab Republic, Tajikistan, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan and Yemen;

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

South-Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Romania, Serbia and the former Yugoslav Republic of Macedonia;

Western and Central Europe: Andorra, Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Holy See, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, 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.

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[a] Since 16 September 2011, "Libya" has replaced "Libyan Arab Jamahiriya" as the short name used in the United Nations.

[b] By its resolution 65/308 of 14 July 2011, the General Assembly decided to admit South Sudan to membership in the United Nations.

Annex VII

Submission of information by Governments pursuant to article 12 of the 1988 Convention (form D) for the years 2006-2010

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 nil returns.

Entries for parties to the 1988 Convention (and for the years that they have been parties) are shaded.

Country or territory	*2006*	*2007*	*2008*	*2009*	*2010*
Afghanistan			X	X	
Albania	X	X	X	X	X
Algeria	X	X	X	X	X
Andorra	X	X	X	X	X
Angola			X		
Anguilla[a]					
Antigua and Barbuda					
Argentina	X	X	X	X	X
Armenia		X	X	X	X
Aruba[a]					
Ascension Island	X	X	X	X	X
Australia	X	X	X	X	X
Austria[b]	X	X	X	X	X
Azerbaijan		X	X	X	X
Bahamas					
Bahrain				X	X
Bangladesh	X	X	X	X	X
Barbados					
Belarus	X	X	X	X	X
Belgium[b]	X	X	X	X	X
Belize			X	X	
Benin	X	X	X	X	X
Bermuda[a]	X	X	X		
Bhutan		X			X
Bolivia	X		X	X	X
Bosnia and Herzegovina	X	X	X	X	X
Botswana	X		X		
Brazil	X	X	X	X	X
British Virgin Islands[a]					
Brunei Darussalam	X	X	X	X	X
Bulgaria[b]	X	X	X	X	X
Burkina Faso	X				
Burundi					
Cambodia	X	X		X	X
Cameroon		X	X	X	X
Canada	X	X	X	X	X
Cape Verde			X		

Country or territory	*2006*	*2007*	*2008*	*2009*	*2010*
Cayman Islands[a]					
Central African Republic			X	X	
Chad				X	
Chile	X	X	X	X	X
China	X	X	X	X	X
Hong Kong, China	X	X	X	X	X
Macao, China	X	X	X	X	X
Christmas Island[a]		X[c]	X[c]	X[c]	X[c]
Cocos (Keeling) Islands[a]		X[c]	X[c]	X[c]	X[c]
Colombia	X	X	X	X	X
Comoros					
Congo	X		X		
Cook Islands	X	X	X		X
Costa Rica	X	X	X	X	X
Cote d'Ivoire		X	X	X	X
Croatia	X	X	X	X	X
Cuba	X	X	X	X	X
Curaçao[d]					
Cyprus[b]	X	X	X	X	X
Czech Republic[b]	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	X
Djibouti					
Dominica		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				X	X
Estonia[b]	X	X	X	X	X
Ethiopia	X	X	X	X	
Falkland Islands (Malvinas)	X	X	X		
Fiji					
Finland[b]	X	X	X	X	X
France[b]	X	X	X	X	X
French Polynesia[a]	X[e]	X[e]			
Gabon					
Gambia					X
Georgia	X	X	X	X	X
Germany[b]	X	X	X	X	X
Ghana				X	X
Gibraltar					
Greece[b]	X	X	X	X	X
Grenada					
Guatemala			X	X	X

Country or territory	*2006*	*2007*	*2008*	*2009*	*2010*
Guinea					
Guinea-Bissau		X	X		
Guyana	X	X	X	X	X
Haiti	X	X	X	X	X
Holy See					
Honduras	X	X			
Hungary[b]	X	X	X	X	X
Iceland	X	X	X	X	X
India	X	X	X	X	X
Indonesia	X	X	X		X
Iran (Islamic Republic of)	X	X	X	X	X
Iraq		X	X	X	X
Ireland[b]	X	X	X	X	X
Israel			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
Kenya			X	X	X
Kiribati					
Kuwait					
Kyrgyzstan	X	X	X	X	X
Lao People's Democratic Republic	X	X		X	X
Latvia[b]	X	X	X	X	X
Lebanon	X	X	X	X	X
Lesotho					
Liberia					
Libyan Arab Jamahiriya	X				
Liechtenstein					
Lithuania[b]	X	X	X	X	X
Luxembourg[b]	X		X	X	X
Madagascar	X		X	X	X
Malawi	X	X	X	X	
Malaysia	X		X	X	X
Maldives	X		X	X	X
Mali					
Malta[b]	X	X	X	X	X
Marshall Islands					
Mauritania	X		X	X	
Mauritius	X	X	X		X
Mexico	X	X	X	X	X
Micronesia (Federated States of)	X				
Monaco	X	X			
Mongolia					
Montenegro[f]		X	X	X	X
Montserrat[a]	X	X			X

Country or territory	*2006*	*2007*	*2008*	*2009*	*2010*
Morocco	X	X	X	X	X
Mozambique	X	X	X		X
Myanmar	X	X	X	X	X
Namibia	X				X
Nauru	X	X			
Nepal	X				
Netherlands[b]	X	X	X	X	X
Netherlands Antilles[a]	X	X	X	X	X[d]
New Caledonia[a]	X			X	X
New Zealand	X	X	X	X	X
Nicaragua	X	X	X	X	X
Niger		X			
Nigeria					
Norfolk Island[a]		X[c]	X[c]	X[c]	X[c]
Norway	X	X	X	X	X
Oman	X		X	X	
Pakistan	X	X	X	X	X
Palau					
Panama	X	X	X	X	X
Papua New Guinea	X	X			
Paraguay	X	X	X	X	X
Peru	X	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					
Republic of Korea	X	X	X	X	X
Republic of Moldova[g]	X	X	X	X	X
Romania[b]	X	X	X	X	X
Russian Federation	X	X	X	X	X
Rwanda	X	X	X		
Saint Helena		X	X	X	
Saint Kitts and Nevis					
Saint Lucia		X	X	X	X
Saint Vincent and the Grenadines	X				
Samoa	X				
San Marino					
Sao Tome and Principe	X	X	X	X	
Saudi Arabia	X	X	X	X	
Senegal	X		X	X	X
Serbia[h]	X	X	X	X	X
Seychelles			X		
Sierra Leone					
Singapore	X	X	X	X	X
Sint Maarten[d]					
Slovakia[b]	X	X	X	X	X
Slovenia[b]	X	X	X	X	X

Country or territory	*2006*	*2007*	*2008*	*2009*	*2010*
Solomon Islands					
Somalia					
South Africa	X	X	X	X	
Spain[b]	X	X	X	X	X
Sri Lanka	X	X	X	X	X
Sudan	X				
Suriname					
Swaziland					
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
Thailand	X	X	X	X	X
The former Yugoslav Republic of Macedonia					X
Timor-Leste					
Togo	X				
Tonga	X	X			
Trinidad and Tobago	X	X	X	X	X
Tristan da Cunha	X	X	X		
Tunisia	X	X	X	X	X
Turkey	X	X	X	X	X
Turkmenistan	X	X	X	X	
Turks and Caicos Islands[a]	X				
Tuvalu					
Uganda	X	X	X	X	
Ukraine	X	X	X	X	X
United Arab Emirates	X	X	X	X	X
United Kingdom[b]	X	X	X	X	X
United Republic of Tanzania	X			X	X
United States of America	X	X	X	X	X
Uruguay	X	X	X	X	X
Uzbekistan	X	X	X	X	X
Vanuatu	X	X			
Venezuela (Bolivarian Republic of)	X	X	X	X	X
Viet Nam	X	X	X	X	X
Wallis and Futuna Islands[a]					
Yemen	X	X	X	X	X
Zambia	X	X			
Zimbabwe				X	X
Total number of governments that submitted form D[i]	**144**	**137**	**142**	**139**	**133**
Total number of governments requested to provide information	**212**	**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] The Netherlands Antilles was dissolved on 10 October 2010, resulting in two new constituent entities, Curaçao and Sint Maarten. The authorities of Curaçao submitted form D for 2010 for the former Netherlands Antilles.

[e] Information was provided by France.
[f] By its resolution 60/264, the General Assembly decided to admit Montenegro to membership in the United Nations.
[g] Since 9 September 2008, "Republic of Moldova" has replaced "Moldova" as the short name used in the United Nations.
[h] Following the Declaration of Independence by the National Assembly of Montenegro on 3 June 2006, the President of the Republic of Serbia notified the Secretary-General that the membership of the state union of Serbia and Montenegro in the United Nations, including all organs and organizations of the United Nations system, was continued by the Republic of Serbia, which remained responsible in full for all the rights and obligations of the state union Serbia and Montenegro under the Charter of the United Nations. Since 3 June 2006, the Republic of Serbia has acted in the United Nations under the designation "Serbia".
[i] In addition, the European Commission has submitted form D for the years 1993-2010.

Annex VIII

Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board

1. Tables A.1 and A.2 below 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 by Governments in accordance with article 12, paragraph 12, of the Convention.

2. The tables include data on domestic seizures and on seizures effected at points of entry or exit. They do not include reported seizures of substances where it is known that the substances were not intended for the illicit manufacture of drugs (for example, seizures effected on administrative grounds or seizures of ephedrine/pseudoephedrine preparations to be used as stimulants). Stopped shipments are also not included. The information may include data submitted by Governments through means other than form D; in such cases, the sources are duly noted.

Units of measure and conversion factors

3. Units of measure are indicated for every substance. As fractions of full units are not listed in the tables, figures are rounded as necessary.

4. For a variety of reasons, individual quantities of some substances seized are reported to the Board using different units; for instance, one country may report seizures of acetic anhydride in litres, another in kilograms.

5. To enable a proper comparison of collected information, it is important that all data be collated in a standard format. To simplify the necessary standardization process, figures are given in grams or kilograms where the substance is a solid and in litres where the substance (or its most common form) is a liquid.

6. Seizures of solids reported to the Board in litres have not been converted into kilograms and are not included in the tables, as the actual quantity of substance in solution is not known.

7. For seizures of liquids, quantities reported in kilograms have been converted into litres using the following factors:

Substance	*Conversion factor (kilograms to litres)*[a]
Acetic anhydride	0.926
Acetone	1.269
Ethyl ether	1.408
Hydrochloric acid (39.1% solution)	0.833
Isosafrole	0.892
3,4-Methylenedioxyphenyl-2-propanone	0.833
Methyl ethyl ketone	1.242
1-Phenyl-2-propanone	0.985

Piperidine	1.160
Safrole	0.912
Sulphuric acid (concentrated solution)	0.543
Toluene	1.155

[a] Derived from density (*The Merck Index* (Rahway, New Jersey, Merck, 1989)).

8. As an example, to convert 1,000 kilograms of methyl ethyl ketone into litres, multiply by 1.242, i.e. 1,000 × 1.242 = 1,242 litres.

9. For the conversion of gallons to litres it has been assumed that in Colombia the United States gallon is used, with 3.785 litres to the gallon, and in Myanmar the imperial gallon, with 4.546 litres to the gallon.

10. If reported quantities have been converted, the converted figures are listed in the tables in italics.

11. The names of territories appear in italics in the tables.

12. A dash (–) signifies nil (the report did not include data on seizures of the particular substance in the reporting year).

13. A degree symbol (°) signifies less than the smallest unit of measurement shown for that substance (for example, less than 1 kilogram).

14. Discrepancies may exist between the regional total seizure figures and the world total figures because of rounding to whole numbers of the actual quantities seized.

Table A.1. Seizures of substances in Table I of the 1988 Convention as reported to the International Narcotics Control Board, 2006-2010

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Africa																		
South Africa																		
	2006	13	–	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Regional total																		
	2006	**13**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2007	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2008	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2009	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2010	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Central America																		
Belize																		
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	601	–
Costa Rica																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–
	2009	–	–	–	–	–	–	–	–	–	–	30	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Dominican Republic																		
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	49	–
	2009	–	–	–	–	–	–	–	–	–	–	–	250	–	–	4	238	–
El Salvador																		
	2008	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	15	–
	2010	–	–	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Guatemala																		
	2006	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Panama																		
	2006	–	–	–	–	–	5 000	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	10 000	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Regional total																		
	2006	**0**	**0**	**1**	**0**	**0**	**5 000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**
	2007	**0**	**0**	**10 000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**
	2008	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**665**	**0**
	2009	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**250**	**0**	**0**	**4**	**238**	**0**
	2010	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**
North America																		
Canada																		
	2006	–	–	1 730	–	–	–	–	0	7 378	1	–	21	–	0	0	0	0
	2007	–	–	246	–	–	–	–	–	370	59	–	3	–	0	0	0	0
	2008	–	–	110	2	0	300	–	3	2 823	–	230	–	–	0	14	41	21
	2009	–	–	357	–	–	–	–	–	–	5 924	–	–	–	0	154	0	80
	2010	–	–	676	–	–	–	–	–	–	–	–	–	–	16	0	0	0

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Mexico																		
	2007	10	–	3 696	–	–	–	–	–	–	–	–	–	2 000	10	12 216	0	0
	2008	4	–	3 293	–	–	–	–	–	–	–	–	–	–	0	2 874	0	0
	2009	440	–	879	–	–	–	–	–	–	119	–	30 654	4 289	0	2 681	0	0
	2010	4 821	–	5 337	–	2 000	–	–	–	–	14 203	25	56 080	–	0	0	0	0
United States of America																		
	2006	77	1	229	–	–	9	–	–	–	2	1	–	–	143	289	–	5
	2007	4	–	1 181	–	–	10 000	–	0	0	2	1 132	1	–	2	4 562	–	6
	2008	39	5	104	–	–	–	–	0	–	3	0	1	1	6	602	–	3
	2009	0	–	3 993	–	–	–	–	0	0	3	1	0	–	8	1 855	–	17
	2010	21	–	5 000	–	–	–	0	–	–	5	23	122 715	–	7	4 535	–	0
Regional total																		
	2006	**77**	**1**	**1 959**	**0**	**0**	**9**	**0**	**0**	**7 378**	**3**	**1**	**21**	**0**	**143**	**289**	**0**	**5**
	2007	**14**	**0**	**5 123**	**0**	**0**	**10 000**	**0**	**0**	**370**	**61**	**1 132**	**4**	**2 000**	**12**	**16 778**	**0**	**6**
	2008	**43**	**5**	**3 507**	**2**	**0**	**300**	**0**	**3**	**2 823**	**3**	**230**	**1**	**1**	**6**	**3 490**	**41**	**24**
	2009	**440**	**0**	**5 228**	**0**	**0**	**0**	**0**	**0**	**0**	**122**	**1**	**30 654**	**4 289**	**8**	**4 690**	**0**	**97**
	2010	**4 842**	**0**	**11 014**	**0**	**0**	**0**	**0**	**0**	**0**	**20 132**	**48**	**178 795**	**0**	**23**	**4 535**	**0**	**0**
South America																		
Argentina																		
	2006	–	–	–	1	–	–	–	–	–	–	–	–	–	2	–	–	–
	2007	–	–	382	–	–	–	–	–	–	–	–	–	–	1	–	–	–
	2008	–	–	4 316	26	–	–	–	–	–	–	–	–	–	132	–	–	–
	2009	–	–	10 440	–	–	–	–	–	–	–	–	–	–	52	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Brazil																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	82	–	–	–
	2007	3	–	–	–	–	–	–	–	–	–	–	–	–	700	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	206	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	4	47	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	217	–	–	–
Chile																		
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–
	2009	–	–	1 187	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colombia																		
	2006	8 798	–	–	–	–	–	–	–	–	–	–	–	–	98 904	–	–	–
	2007	4 672	–	–	–	–	–	–	–	–	–	–	–	–	144 401	–	–	–
	2008	30	–	–	–	–	–	–	–	–	–	–	–	–	41 630	–	–	–
	2009	8	–	1	–	–	–	–	–	–	–	–	–	–	22 793	220	–	–
	2010	1 007	–	–	–	–	–	–	–	–	–	–	–	–	26 442	–	–	–
Ecuador																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	300	–	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	775	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	480	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	589	–	–	–
Paraguay																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	50	–	–	–
Peru																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	1 337	–	–	–
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	1 502	–	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	516	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	1 774	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	517	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Venezuela (Bolivarian Republic of)																		
	2009	–	–	336	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Regional total																		
	2006	**8 798**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100 674**	**0**	**0**	**0**
	2007	**4 674**	**0**	**382**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**146 603**	**0**	**0**	**0**
	2008	**30**	**0**	**4 316**	**26**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43 271**	**0**	**0**	**0**
	2009	**8**	**0**	**11 963**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25 103**	**267**	**0**	**0**
	2010	**1 007**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**27 766**	**0**	**0**	**0**
East and South-East Asia																		
China																		
	2006	2 126	–	–	5 319	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	5 297	–	5 860	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	5 186	–	6 700	–	–	–	–	–	–	2 857	–	–	10	–	1 100	–	–
	2009	926	–	28 120	–	–	–	–	–	–	2 275	–	8 570	–	55	380	–	–
	2010	16 346	–	4 310	–	–	–	–	–	–	–	–	4 670	–	–	1 270	–	–
Hong Kong, China																		
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	7	–
	2010	–	–	–	–	–	–	–	–	–	660	–	–	–	–	[o]	–	–
Macao, China																		
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–
Indonesia																		
	2008	–	–	111	[o]	–	–	–	–	–	–	–	–	–	2	–		–
Japan																		
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	131	–
	2009	8 424	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Lao People's Democratic Republic																		
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4 665	–
Malaysia																		
	2010	–	13	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–
Myanmar																		
	2006	1 401	–	1 288	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	959	–	530	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	1 142	–	751	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	700	–	–	1 646	–	–	–	–	–	–	–	–	–	–	3 272	–	–
	2010	14	–	–	33	–	–	–	–	–	–	–	–	–	–	–	766	–
Philippines																		
	2006	–	–	71	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	35	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	–	–	204	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	9	–	–	–	–	–	–	1	–	–	–	8	[o]	–	–
	2010	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Republic of Korea																		
	2008	14 800	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	13	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Thailand																		
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	45 965
	2008	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	192	–
	2009	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	[o]	–
	2010	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	[o]	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Regional total																		
	2006	**3 527**	**0**	**1 359**	**5 319**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2007	**6 256**	**0**	**6 425**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**131**	**45 965**
	2008	**21 128**	**0**	**7 770**	**2**	**0**	**0**	**0**	**0**	**0**	**2 857**	**0**	**0**	**0**	**2**	**1 100**	**192**	**0**
	2009	**10 062**	**0**	**28 129**	**1 646**	**0**	**0**	**0**	**0**	**0**	**2 277**	**0**	**8 570**	**10**	**63**	**3 655**	**4 672**	**0**
	2010	**16 360**	**13**	**4 313**	**33**	**0**	**0**	**0**	**0**	**0**	**660**	**0**	**4 670**	**0**	**0**	**1 275**	**766**	**0**
South Asia																		
India																		
	2006	133	–	1 226	–	–	–	–	–	–	–	–	–	–	–	50	–	–
	2007	236	–	105	–	–	–	–	–	–	–	–	–	–	–	290	–	–
	2008	2 754	1	1 284	[o]	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	1 038	–	1 064	1 244	–	–	–	–	–	–	–	–	–	–	180	–	–
	2010	81	–	1 848	–	–	–	–	–	–	–	–	–	–	–	359	–	–
Regional total																		
	2006	**133**	**0**	**1 226**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**0**
	2007	**236**	**0**	**105**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**290**	**0**	**0**
	2008	**2 754**	**1**	**1 284**	**[o]**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2009	**1 038**	**0**	**1 064**	**1 244**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**180**	**0**	**0**
	2010	**81**	**0**	**1 848**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**359**	**0**	**0**
West Asia																		
Armenia																		
	2008	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Kazakhstan																		
	2006	4	–	31	–	–	–	–	–	–	–	–	–	–	–	27	–	–
	2009	2	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–
	2010	1	–	–	–	–	–	–	–	–	–	–	–	–	3 285	–	–	–
Kyrgyzstan																		
	2007	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lebanon																		
	2009	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–
Pakistan																		
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	15 239	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–
	2009	4 405	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–
	2010	16 178	–	265	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Syrian Arab Republic																		
	2008	390	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Turkey																		
	2006	3 772	–	–	–	–	–	–	–	–	197	–	–	–	–	–	–	–
	2007	13 303	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	10 553	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
United Arab Emirates																		
	2009	4 000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Uzbekistan																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	–	o	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	9	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	626	–	–	–
Regional total																		
	2006	**3 776**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**197**	**0**	**0**	**0**	**o**	**27**	**0**	**0**
	2007	**13 312**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**
	2008	**26 183**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**o**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2009	**8 410**	**0**	**265**	**o**	**0**	**0**	**0**	**0**	**o**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**
	2010	**16 196**	**0**	**0**	**o**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3 911**	**0**	**0**	**0**
Europe																		
States not members of the European Union																		
Belarus																		
	2006	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	118	–
	2009	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	2	–
	2010	–	–	–	o	–	–	–	–	2	–	1	–	–	–	16	o	–
Croatia																		
	2006	–	–	–	–	–	–	–	–	1 333	–	–	–	–	–	–	–	–
	2009	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–
Norway																		
	2006	–	–	o	3	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	o	4	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	–	–	o	3	–	–	–	–	–	–	–	–	–	–	–	1	–
	2009	–	–	o	2	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Russian Federation																		
	2006	9 903	–	13	45	–	–	–	–	–	402	1	–	–	4	1	0	–
	2007	24 984	–	6	4	–	–	–	52	–	191	0	–	–	195	1	0	–
	2008	25	–	3	–	–	–	–	120	–	2 128	–	–	–	10	0	–	–
	2009	32	–	2	–	–	–	–	1	–	1 731	–	–	–	4	0	–	–
	2010	15	–	0	–	–	–	–	102	–	–	–	–	–	0	–	–	–
Serbia																		
	2009	–	–	–	–	–	–	–	–	–	–	–	1 900	–	–	–	–	–
Ukraine																		
	2006	33	–	18	–	–	–	–	–	–	–	–	–	–	81	0	–	–
	2007	130	–	0	–	–	–	–	–	–	–	18	–	–	1 352	478	–	–
	2008	400	–	0	1	–	–	–	–	–	–	–	–	–	846	–	74	–
	2009	19	–	0	1	0	–	–	–	–	–	–	4	–	41	1	1	–
	2010	43	–	8	0	–	–	–	–	–	0	–	–	–	386	17	3	–
States members of the European Union																		
Austria																		
	2006	3	–	–	–	–	–	–	–	–	–	–	0	–	0	–	–	–
	2007	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
	2009	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Belgium																		
	2006	–	–	126	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	250	–	–
	2008	–	–	–	810	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	120	–	–	–	–	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2010	–	–	–	–	–	–	–	–	–	5 050	–	–	–	–	–	–	–
Bulgaria																		
	2006	38	–	–	3	–	–	–	–	–	32	–	500	–	–	–	–	–
	2007	–	–	183	–	–	–	–	–	–	–	–	50	–	–	–	–	–
	2008	–	–	43	0	–	–	–	–	–	–	–	153	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	40	–	–	–	–	–	–	–
	2010	21 111	–	–	0	–	–	–	–	–	20	–	–	–	–	–	–	–
Czech Republic																		
	2006	–	–	1	–	–	–	–	–	–	–	–	–	–	–	0	–	–
	2007	–	–	1	0	–	–	–	–	–	–	–	–	–	–	0	1	–
	2008	–	–	2	1	–	–	–	–	–	–	–	–	–	–	1	15	–
	2009	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	0	–
	2010	–	–	7	0	–	–	–	–	–	–	–	–	–	–	2	0	–
Denmark																		
	2006	–	–	–	–	–	–	–	–	–	590	–	–	–	–	–	–	–
Estonia																		
	2006	0	–	–	–	–	–	–	–	–	51	–	–	–	–	–	–	–
	2007	0	–	7	–	–	–	–	–	–	98	–	–	–	–	–	–	–
	2008	–	–	–	0	–	–	–	–	–	22	–	–	–	–	–	–	1 841
	2009	–	–	–	–	–	–	–	–	–	49	–	–	–	–	0	–	–
	2010	–	–	–	0	–	–	–	–	–	29	–	–	–	–	–	–	–
Finland																		
	2006	15	–	–	–	–	–	–	0	–	70	–	–	–	2	–	–	–
	2007	–	–	–	0	–	–	–	–	–	0	–	–	–	–	–	0	–
	2008	–	–	0	0	–	–	–	–	–	–	–	–	–	2	–	0	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2010	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
France																		
	2006	0	–	2	–	–	–	–	0	–	–	–	–	–	–	–	–	–
	2007	–	–	4	–	–	–	–	–	–	–	–	–	–	–	6 997	–	–
	2008	–	–	6	–	–	–	–	–	–	–	–	–	–	–	502	–	–
	2009	–	–	263	–	–	–	–	–	–	–	–	250	–	–	40	–	–
	2010	–	–	0	–	–	–	–	–	–	–	–	–	–	1	0	–	–
Germany																		
	2007	0	–	1	–	–	–	–	–	–	243	–	–	–	–	–	–	4
	2008	2	–	55	0	–	–	–	–	–	1	–	0	0	–	–	567	–
	2009	56	–	212	–	–	–	–	–	–	100	–	26	–	1	–	78	–
	2010	12	–	46	0	–	–	0	–	–	–	0	2	–	0	0	0	0
Greece																		
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
	2008	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	0
	2010	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary																		
	2006	–	–	–	63	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	63 616	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	2	0	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	0	1	–	–	–	–	–	–	–	–	–	0	–	7	–
Ireland																		
	2008	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	300	–	–	–	–	–	–	–	–	–
	2010	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
Lithuania																		
	2006	0	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–
	2007	–	–	–	–	–	–	–	–	–	–	–	106	–	–	–	–	1
	2008	0	–	–	–	–	–	–	–	–	567	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	116	–	–	–	–	–	–	929
Luxembourg																		
	2006	–	–	–	–	–	–	–	–	–	–	–	–	0	3	0	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	77	–
Netherlands																		
	2006	–	–	–	–	–	–	–	–	105	174	–	–	–	–	–	–	–
	2007	–	–	5	–	–	–	–	–	20	–	–	–	–	5 094	–	–	–
	2008	900	–	135	–	–	–	–	–	–	–	–	0	–	1 975	–	0	60
	2009	–	–	40	–	–	–	–	–	40	207	165	–	–	–	25	304	20
	2010	–	–	500	–	–	–	–	–	–	334	–	–	–	–	–	8	85
Poland																		
	2006	–	–	–	–	–	–	–	–	–	1 085	–	–	–	–	–	–	–
	2007	–	–	–	–	–	–	–	–	–	241	–	–	–	–	–	–	–
	2008	160	–	0	–	–	–	–	–	–	39	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	119	–	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–	–	60	–	–	–	–	–	–	–
Portugal																		
	2007	–	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–
	2009	–	–	–	0	–	–	–	–	–	–	–	–	0	–	–	–	–
Romania																		
	2006	87	–	1	–	–	–	–	–	–	–	–	0	–	64	0	–	–
	2007	1 206	–	1	0	–	–	–	–	–	–	–	0	–	4	–	–	–

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2008	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	0	–
	2009	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovakia																		
	2006	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2007	–	–	0	–	–	–	–	–	–	–	–	–	–	–	0	–	–
	2008	–	–	1	0	–	–	–	–	–	–	–	–	–	–	–	0	–
	2009	800	–	0	–	–	–	–	–	–	–	–	–	–	–	1	0	–
	2010	–	–	0	–	–	–	–	–	–	–	–	–	–	–	0	0	–
Slovenia																		
	2007	6 472	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	86 118	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain																		
	2006	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–
	2007	–	–	–	–	–	–	–	–	–	–	–	–	–	7	–	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
	2009	5	–	–	–	–	–	–	–	–	–	–	1	–	0	–	–	–
	2010	–	–	0	–	–	–	–	–	–	–	–	–	–	2	–	–	–
Sweden																		
	2007	–	–	300	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2008	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–
	2009	–	–	0	9	–	–	–	–	–	–	–	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
United Kingdom																		
	2006	3	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–
	2007	–	–	50	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	54	5

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
	2010	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Regional total																		
	2007	**10 082**	**0**	**162**	**115**	**0**	**0**	**0**	**0**	**1 438**	**2 407**	**1**	**501**	**0**	**156**	**1**	**0**	**0**
	2008	**32 794**	**0**	**560**	**10**	**0**	**0**	**0**	**52**	**20**	**774**	**18**	**156**	**0**	**6 653**	**7 727**	**1**	**8**
	2009	**151 223**	**0**	**245**	**814**	**0**	**0**	**0**	**120**	**0**	**2 757**	**0**	**153**	**0**	**2 835**	**503**	**775**	**1 901**
	2010	**912**	**0**	**527**	**12**	**0**	**0**	**0**	**301**	**40**	**2 483**	**165**	**2 181**	**0**	**46**	**67**	**439**	**954**
	2011	**21 181**	**0**	**563**	**2**	**0**	**0**	**0**	**102**	**2**	**5 493**	**1**	**2**	**0**	**390**	**36**	**94**	**85**
Oceania																		
Australia																		
	2006	–	–	92	–	0	13	–	–	–	–	3	–	7	–	159	–	50
	2007	12	–	167	9	–	32	255	113	1 907	0	0	–	0	1	159	108	7
	2008	–	–	1 103	28	59	–	1	–	–	3	0	1	–	–	37	1 528	–
	2009	1	–	77	6	–	0	5	0	0	6	–	0	–	–	417	388	14
	2010	–	–	46	51	–	100	0	4	0	9	11	–	0	–	303	366	47
New Zealand																		
	2006	25	–	–	1	–	–	–	–	–	–	–	–	–	1	–	210	–
	2007	2	–	–	0	–	–	–	–	–	–	–	–	–	–	–	155	–
	2008	2	–	15	0	–	–	–	–	–	–	–	–	–	0	–	0	–
	2009	7	–	–	43	–	–	–	–	–	–	–	–	–	–	–	3	–
	2010	0	–	–	24	–	–	–	–	–	–	–	–	–	1	–	925	35
Regional total																		
	2006	**25**	**0**	**92**	**1**	**0**	**13**	**0**	**0**	**0**	**0**	**3**	**0**	**7**	**1**	**159**	**210**	**50**
	2007	**14**	**0**	**167**	**9**	**0**	**32**	**255**	**113**	**1 907**	**0**	**0**	**0**	**0**	**1**	**159**	**263**	**7**
	2008	**2**	**0**	**1 117**	**28**	**59**	**0**	**1**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**37**	**1 528**	**0**
	2009	**8**	**0**	**77**	**49**	**0**	**0**	**5**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**417**	**391**	**14**
	2010	**0**	**0**	**46**	**75**	**0**	**100**	**0**	**4**	**0**	**9**	**11**	**0**	**0**	**1**	**303**	**1 291**	**83**

Country or territory by region	Year	Acetic anhydride (litres)	N-Acetylanthranilic acid (kilograms)	Ephedrine (kilograms)	Ephedrine preparations[a] (kilograms)	Ergometrine (grams)	Ergotamine (grams)	Isosafrole (litres)	Lysergic acid (grams)	3,4-MDP-2-P (litres)	1-Phenyl-2-propanone (litres)	Norephedrine (kilograms)	Phenylacetic acid[b] (kilograms)	Piperonal (grams)	Potassium permanganate (kilograms)	Pseudoephedrine (kilograms)	Pseudoephedrine preparations[a] (kilograms)	Safrole (litres)
World total																		
	2006	**26 430**	**1**	**4 840**	**5 436**	**0**	**5 022**	**0**	**0**	**8 816**	**2 607**	**6**	**521**	**7**	**100 973**	**529**	**210**	**55**
	2007	**57 308**	**0**	**22 762**	**19**	**0**	**10 032**	**255**	**165**	**2 297**	**836**	**1 150**	**160**	**2 000**	**153 282**	**24 956**	**395**	**45 986**
	2008	**201 363**	**6**	**18 243**	**872**	**59**	**300**	**1**	**124**	**2 823**	**5 619**	**230**	**155**	**1**	**46 114**	**5 147**	**3 201**	**1 925**
	2009	**20 878**	**0**	**46 988**	**2 951**	**0**	**0**	**5**	**301**	**40**	**4 888**	**196**	**41 655**	**4 299**	**25 233**	**9 280**	**5 741**	**1 065**
	2010	**59 667**	**13**	**18 059**	**110**	**2 000**	**100**	**0**	**106**	**2**	**26 294**	**60**	**183 466**	**0**	**32 089**	**6 523**	**2 151**	**168**

[a] Seizures of ephedrine and pseudoephedrine reported to the Board in units have not been converted to kilograms and are not included in the above table, as the actual quantity of ephedrine or pseudoephedrine is not known. The following countries have reported seizures of pseudoephedrine in units in 2010: Czech Republic (326,941 units), Germany (462 units), Slovakia (336 units) and Thailand (33,376,072 units).

[b] Transferred to Table I of the 1988 Convention in January 2011.

Table A.2. Seizures of substances in Table II of the 1988 Convention as reported to the International Narcotics Control Board, 2006-2010

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Africa									
South Africa									
	2006	319	–	2	286	–	–	173	524
	2007	369	–	–	1 038	–	–	413	615
	2008	–	–	–	1 038	–	–	–	–
	2009	–	–	–	–	–	–	–	–
	2010	–	–	–	–	–	–	–	–
Regional total									
	2006	**319**	**0**	**2**	**286**	**0**	**0**	**173**	**524**
	2007	**369**	**0**	**0**	**1 038**	**0**	**0**	**413**	**615**
	2008	**0**	**0**	**0**	**1 038**	**0**	**0**	**0**	**0**
	2009	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2010	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Central America									
El Salvador									
	2006	–	–	–	412 500	–	–	–	–
Panama									
	2007	–	–	–	1 041	–	–	–	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Regional total									
	2006	**0**	**0**	**0**	**412 500**	**0**	**0**	**0**	**0**
	2007	**0**	**0**	**0**	**1 041**	**0**	**0**	**0**	**0**
	2008	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2009	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	2010	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
North America									
Canada									
	2006	120	–	–	278	–	[0]	171	184
	2007	142	–	7	41	4	–	–	448
	2008	1 235	–	–	36	–	–	1	906
	2009	1 023	–	–	175	–	–	4	1 024
	2010	172	–	–	267	4	–	55	423
Mexico									
	2007	1 492	–	62	721	–	–	18	1 765
	2008	8 674	–	447	14 102	1 002	–	6 004	425
	2009	13 242	–	8	7 681	–	–	2 230	13 502
	2010	7 776	–	47	10 244	370	–	2 927	21 451
United States									
	2006	9 530	–	1 190	30 266	111	5	3 069 179	4 020
	2007	6 931	–	1 420	3 888	154	[0]	1 406	5 197
	2008	4 114	–	2 817	3 411	279	209	2 180	6 206
	2009	3 126	–	1 452	1 701	85	20	2 835	1 943
	2010	2 378	–	1 603	1 917	96	90	2 209	715

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Regional total									
	2006	**9 650**	**0**	**1 190**	**30 544**	**111**	**5**	**3 069 350**	**4 204**
	2007	**8 565**	**0**	**1 489**	**4 650**	**158**	**0**	**1 424**	**7 410**
	2008	**14 023**	**0**	**3 264**	**17 549**	**1 281**	**209**	**8 185**	**7 537**
	2009	**17 391**	**0**	**1 460**	**9 557**	**85**	**20**	**5 069**	**16 469**
	2010	**10 326**	**0**	**1 650**	**12 428**	**470**	**90**	**5 191**	**22 589**
South America									
Argentina									
	2006	668	–	45	42 000	–	–	6	–
	2007	1 086	–	108	401	35 802	–	28 957	–
	2008	719	–	290	204	–	–	659	–
	2009	504	–	271	589	12	–	442	–
	2010	214	–	237	163	–	–	17	1
Brazil									
	2006	512	–	306	8 562	1 512	–	12	5 964
	2007	1 040	–	32	1 195	6	–	5 315	14
	2008	44	–	17	1 357	225	–	220	66
	2009	84 520	–	1 336	17 797	30	5	1 947	185
	2010	956	–	–	22 381	6 714	–	1 834	6 748
Chile									
	2006	220	–	–	–	–	–	14 958	–
	2008	95	–	–	400	–	–	1 593	–
	2009	–	–	–	–	–	–	1 185	–
	2010	1 600	–	–	–	–	–	2 223	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Colombia									
	2006	1 467 242	–	23 259	286 532	60 818	–	1 321 764	26 587
	2007	1 207 105	–	33 410	519 122	103 838	–	524 653	43 346
	2008	1 468 212	–	68 228	313 312	21 359	–	305 755	27
	2009	1 381 411	–	5 034	191 926	38 849	–	249 441	2 914
	2010	688 224	–	6 455	187 914	44 160	–	631 247	66 060
Ecuador									
	2006	–	–	–	–	28 550	–	–	–
	2007	–	–	–	443	500	–	200	–
	2008	–	–	60	423	6 927	–	143	449
	2009	2 285	–	–	3 984	15 356	–	1 378	–
	2010	4 320	–	–	2 286	10 774	–	1 473	–
Paraguay									
	2006	200	–	–	10	–	–	–	–
	2009	632	–	–	–	–	–	5 160	–
Peru									
	2006	8 444	–	–	24 303	–	–	6 309	216
	2007	84 549	–	12 800	33 432	–	–	33 107	220
	2008	29 864	–	150	75 963	–	–	30 776	3 318
	2009	18 580	–	–	72 601	–	–	77 257	–
	2010	31 139	–	–	172 807	–	–	31 367	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Regional total									
	2006	**1 477 286**	**0**	**23 610**	**361 407**	**90 880**	**0**	**1 343 049**	**32 766**
	2007	**1 293 780**	**0**	**46 351**	**554 594**	**140 146**	**0**	**592 232**	**43 580**
	2008	**1 498 934**	**0**	**68 745**	**391 658**	**28 511**	**0**	**339 146**	**3 861**
	2009	**1 487 933**	**0**	**6 641**	**286 898**	**54 247**	**5**	**336 810**	**3 099**
	2010	**726 452**	**0**	**6 693**	**385 550**	**61 648**	**0**	**668 162**	**72 809**
East and South-East Asia									
Cambodia									
	2007	702	–	–	–	–	–	–	–
China									
	2006	97 111	–	19 088	420 700	–	–	228 855	46 939
	2007	51 737	–	90 013	126 716	–	–	10	69 335
	2008	82 232	–	11 687	405 671	–	–	238 215	11 781
	2009	31 522	–	25 147	151 298	871	–	89 448	18 099
	2010	31 966	–	16 572	141 918	1 403	–	219 388	–
Hong Kong, China									
	2010	–	–	–	570	–	–	–	–
Macao, China									
	2006	69	–	–	–	–	–	–	–
Indonesia									
	2008	183	–	–	110	5	–	5	105

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
Malaysia									
	2010	130	–	–	120	–	–	5	725
Myanmar									
	2007	163	–	2 814	75	–	–	–	–
	2008	–	–	352	128	–	–	32	–
	2009	8 227	–	1 707	2 378	–	–	–	–
	2010	1 202	–	–	–	–	–	2 000	–
Philippines									
	2006	–	–	–	–	–	–	–	–
	2007	–	–	–	320	–	–	–	–
	2008	902	–	–	385	–	–	–	–
	2009	132	–	7	39	–	–	–	3
	2010	55	–	–	105	–	–	–	300
Thailand									
	2006	–	–	–	–	–	–	54	–
Regional total									
	2006	**97 180**	**0**	**19 088**	**420 700**	**0**	**0**	**228 909**	**46 939**
	2007	**52 602**	**0**	**92 827**	**127 110**	**0**	**0**	**93 619**	**69 335**
	2008	**83 317**	**0**	**12 039**	**406 294**	**5**	**0**	**238 252**	**11 886**
	2009	**39 881**	**0**	**26 860**	**153 714**	**871**	**0**	**89 448**	**18 102**
	2010	**33 353**	**0**	**16 572**	**142 143**	**1 403**	**0**	**221 394**	**1 025**

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
South Asia									
Bangladesh									
	2009	–	–	–	–	17 624	–	–	7
	2010	120	–	–	–	22 767	–	–	6
India									
	2006	–	675	–	–	–	–	–	–
	2008	–	188	–	–	–	–	–	–
Maldives									
	2008	–	–	–	–	–	–	10 860	–
	2009	–	–	–	–	3	–	–	–
	2010	–	–	–	–	–	–	7 331	–
Regional total									
	2006	**0**	**675**	**0**	**0**	**0**	**0**	**0**	**0**
	2007	**0**	**188**	**0**	**0**	**0**	**0**	**0**	**0**
	2008	**0**	**0**	**0**	**0**	**0**	**0**	**10 860**	**0**
	2009	**0**	**0**	**0**	**0**	**17 627**	**0**	**0**	**7**
	2010	**120**	**0**	**0**	**0**	**22 767**	**0**	**7 331**	**6**
West Asia									
Kazakhstan									
	2006	48	–	–	12	–	–	1 978	413
	2009	71	–	–	156	–	–	1 530	–
	2010	245	–	–	51 794	–	–	–	–

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
Kyrgyzstan									
	2006	–	–	–	–	–	–	231	–
	2007	–	–	–	–	–	–	346	–
	2008	–	–	–	–	–	–	2 983	–
	2010	–	–	–	–	–	–	94	–
Lebanon									
	2006	10	–	3	3	–	–	–	–
	2007	1	–	1	0	–	–	–	–
	2008	1	–	1	–	–	–	–	–
	2009	2	–	3	–	–	–	–	–
	2010	–	–	0	0	–	–	–	–
Pakistan									
	2008	15	–	–	–	–	–	–	–
	2009	–	–	–	8 220	–	–	–	–
	2010	–	–	–	7 110	–	–	–	–
Tajikistan									
	2007	–	–	–	–	–	–	1 007	–
Turkey									
	2006	4 081	–	–	168	2	–	–	–
	2007	280	–	530	–	–	–	–	–
	2008	1	–	–	–	–	–	–	–

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
Uzbekistan									
	2006	–	–	–	120	–	–	542	–
	2007	o	–	–	60	–	–	3 132	–
	2009	–	–	–	–	–	–	300	–
Regional total									
	2006	**4 139**	**0**	**3**	**302**	**2**	**0**	**2 751**	**413**
	2007	**281**	**0**	**531**	**60**	**0**	**0**	**4 485**	**0**
	2008	**16**	**0**	**1**	**0**	**0**	**0**	**2 983**	**0**
	2009	**73**	**0**	**3**	**8 376**	**0**	**0**	**1 830**	**0**
	2010	**245**	**0**	o	**58 917**	**0**	**0**	**94**	**0**
Europe									
States not members of the European Union									
Albania									
	2007	13	–	10	5	–	–	–	–
Belarus									
	2006	905	–	–	–	–	–	74 700	–
	2007	4 020	–	–	–	–	–	–	558
	2008	3	–	–	–	–	–	–	–
	2009	17	–	3	1	1	–	5	1
	2010	–	–	–	2	2	–	–	–
Bosnia and Herzegovina									
	2010	–	–	–	–	–	–	550	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
Russian Federation									
	2006	64 502	–	809	219 734	–	–	255 587	80 205
	2007	31 067	–	1 314	168 133	5	2	132 406	5 165
	2008	5 214	o	477	4 296	–	–	1 598	725
	2009	1 252	–	109	1 088	–	–	247	239
	2010	555	–	7	846	–	–	54	118
Ukraine									
	2006	1 249	–	128	8 181	2 036	–	56 060	4 065
	2007	6 605	6	3	135 349	115	–	79 609	5 269
	2008	o	–	–	o	–	–	o	10 314
	2009	574	–	–	2 113	966	–	4 700	5 227
	2010	20 726	–	o	111 221	131	–	112 410	26 235
States members of the European Union									
Austria									
	2006	1	–	–	3	–	–	1	2
	2007	–	–	–	1	–	–	1	1
	2008	1	–	–	2	–	–	12	5
	2009	–	–	–	1	–	–	–	3
	2010	–	–	–	1	–	–	–	16
Belgium									
	2006	2 890	–	–	125	–	–	5	–
	2007	78	–	62	1 256	–	–	173	22
	2008	1 510	–	–	1 850	–	–	–	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
	2009	1 165	–	–	50	–	–	–	–
	2010	–	–	–	1 016	–	–	100	–
Bulgaria									
	2010	–	–	–	8	–	–	–	–
Czech Republic									
	2007	–	–	–	4	–	–	–	10
	2008	–	–	–	–	–	–	–	17
	2009	–	–	–	–	–	–	–	17
Estonia									
	2006	–	–	–	–	–	–	4	2
	2007	–	–	–	–	–	–	15	2
	2008	–	–	–	0	–	–	0	–
	2009	0	–	2	–	–	–	7	–
	2010	8	–	–	0	–	–	7	8
Finland									
	2006	–	–	–	23	1	–	2	–
	2008	12	–	1	23	–	–	–	–
France									
	2007	987	–	–	–	–	–	–	–
	2009	–	–	–	–	–	–	–	4 656

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
Germany									
	2006	6	–	6	8	–	–	3	6
	2007	3	–	–	803	–	–	62	13
	2008	2	–	3	8	–	–	3	11
	2009	10	–	7	64	–	–	128	322
	2010	31	–	2	25	–	–	12	19
Greece									
	2007	–	–	–	–	–	–	3	0
Hungary									
	2007	0	–	–	2	–	–	1	–
	2009	0	–	–	–	–	–	1	–
	2010	15	–	2	–	–	–	1	20
Lithuania									
	2006	–	–	–	–	–	–	10	–
	2008	10	–	–	20	–	–	20	–
	2009	7	–	–	–	–	–	–	–
Luxembourg									
	2006	835	–	–	100	889	5	–	88
Netherlands									
	2006	3 458	–	1 690	8 134	–	–	47	–
	2007	15 211	–	1 400	5 546	–	–	1 375	29

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
	2008	6 631	–	30	3 971	9	–	770	400
	2009	720	–	5	701	–	–	182	942
	2010	1 434	–	–	6 178	375	–	522	–
Poland									
	2006	2	–	–	76	–	–	19	17
	2007	–	–	–	145	–	–	12	1
	2008	–	–	–	231	–	–	31	20
	2010	–	–	–	–	–	–	61	–
Portugal									
	2007	37	–	40	6	–	–	5	9
Romania									
	2006	338	3	2	11	–	60	294	10
	2007	–	–	6	500	–	–	1 591	[o]
Slovakia									
	2006	–	–	–	8	–	–	–	62
	2007	2	–	–	6	–	–	–	67
	2008	4	–	–	24	–	–	1	88
	2009	1	–	–	13	–	–	1	36
	2010	–	–	–	4	–	–	–	32
Spain									
	2006	401	–	37	15	205	–	–	–

Country or territory, by region	Year	Acetone (litres)	Anthranilic acid (kilograms)	Ethyl ether (litres)	Hydrochloric acid (litres)	Methyl ethyl ketone (litres)	Piperidine (litres)	Sulphuric acid (litres)	Toluene (litres)
	2007	567	–	72	57	872	–	259	1
	2008	862	–	104	77	2 083	–	106	1
	2009	3 705	–	74	207	256	–	93	42
	2010	442	–	66	55	43	–	35	4
United Kingdom									
	2006	5	–	5	9	–	–	13	8
	2007	–	–	–	2	–	–	2	5
	2010	–	–	–	1	–	–	–	–
Regional total									
	2006	**74 592**	**3**	**2 676**	**236 425**	**3 130**	**60**	**386 745**	**54 466**
	2007	**58 588**	**6**	**2 906**	**311 814**	**992**	**2**	**215 512**	**11 153**
	2008	**14 249**	°	**615**	**10 502**	**2 092**	**0**	**2 540**	**11 581**
	2009	**7 452**	**0**	**200**	**4 237**	**1 223**	**0**	**5 363**	**10 542**
	2010	**23 211**	**0**	**77**	**119 357**	**552**	**0**	**113 752**	**27 394**
Oceania									
Australia									
	2007	202	–	1 274	271	3	–	29	275
	2009	2 027	–	–	40	–	–	43	–
	2010	54	–	30	214	°	–	278	25
New Zealand									
	2006	321	–	218	491	73	–	168	1 540
	2007	249	–	–	233	59	–	195	1 009

Country or territory, by region	*Year*	*Acetone (litres)*	*Anthranilic acid (kilograms)*	*Ethyl ether (litres)*	*Hydrochloric acid (litres)*	*Methyl ethyl ketone (litres)*	*Piperidine (litres)*	*Sulphuric acid (litres)*	*Toluene (litres)*
	2008	291	–	5	235	32	–	56	643
	2009	172	–	3	232	–	–	83	321
	2010	200	–	6	752	134	–	244	1 434
Regional total									
	2006	**321**	**0**	**218**	**491**	**73**	**0**	**168**	**1 540**
	2007	**451**	**0**	**1 274**	**504**	**62**	**0**	**225**	**1 284**
	2008	**291**	**0**	**5**	**235**	**32**	**0**	**56**	**643**
	2009	**2 199**	**0**	**3**	**272**	**0**	**0**	**125**	**321**
	2010	**254**	**0**	**36**	**966**	**134**	**0**	**522**	**1 459**
World total									
	2006	**1 663 488**	**678**	**46 786**	**1 462 656**	**94 197**	**68**	**5 031 145**	**170 852**
	2007	**1 414 635**	**6**	**145 378**	**1 000 810**	**141 357**	**2**	**907 909**	**133 376**
	2008	**1 610 831**	**188**	**84 669**	**827 276**	**31 921**	**209**	**602 023**	**35 507**
	2009	**1 554 928**	**0**	**35 167**	**463 054**	**74 053**	**24**	**438 645**	**48 540**
	2010	**793 961**	**0**	**25 028**	**719 930**	**86 975**	**90**	**1 016 444**	**125 282**

Annex IX

Submission of information by Governments on licit trade in and legitimate uses of and requirements for substances in Tables I and II of the 1988 Convention for the years 2006-2010

Governments of the countries and territories indicated have provided information on licit trade in, 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 on form D for the years 2006-2010. That information was requested in accordance with Economic and Social Council resolution 1995/20 of 24 July 1995. Details may be made available on a case-by-case basis, subject to confidentiality of data.

Notes: The names of non-metropolitan territories and special administrative regions are in italics.

X signifies that relevant information was submitted on form D.

	2006		*2007*		*2008*		*2009*		*2010*	
Country or territory	*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		
Albania	X	X				X	X	X	X	X
Algeria			X	X	X	X	X	X	X	X
Andorra										
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	X
Aruba										
Ascension Island	X	X			X	X			X	X
Australia	X	X	X	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	
Bangladesh	X	X	X	X	X	X	X	X	X	X
Barbados										
Belarus	X	X	X	X	X	X	X	X	X	X
Belgium[a]	X	X	X	X	X	X	X	X	X	X
Belize							X			
Benin	X	X	X	X	X	X	X	X	X	X
Bermuda										
Bhutan			X	X					X	

Country or territory	2006		2007		2008		2009		2010	
	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
Bosnia and Herzegovina	X	X	X	X	X	X	X	X		
Botswana										
Brazil	X	X	X	X	X	X	X	X	X	X
British Virgin Islands										
Brunei Darussalam	X	X	X	X	X	X	X	X	X	X
Bulgaria[a]	X	X	X	X	X	X	X	X	X	X
Burkina Faso										
Burundi										
Cambodia	X	X	X	X			X	X	X	X
Cameroon						X				
Canada	X	X	X	X	X	X	X	X	X	X
Cape Verde					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
Hong Kong	X	X	X	X	X	X	X	X	X	X
Macao	X	X	X	X	X	X	X	X	X	X
Christmas Island					X	X				
Cocos (Keeling) Islands										
Colombia	X	X	X	X	X	X	X	X		
Comoros										
Congo					X	X				
Cook Islands	X	X	X	X	X	X				
Costa Rica	X	X	X	X	X	X	X	X	X	X
Côte d'Ivoire		X	X	X	X	X	X	X	X	X
Croatia	X		X	X	X	X	X		X	
Cuba	X	X	X	X	X	X	X	X	X	X
Curaçao[b]										
Cyprus[a]	X	X	X	X	X	X	X	X	X	X
Czech Republic[a]	X	X	X	X	X	X	X	X	X	X
Democratic People's Republic of Korea	X	X	X	X	X	X	X	X		X
Democratic Republic of the Congo	X	X	X	X	X	X	X	X	X	
Denmark[a]	X		X	X	X	X	X		X	
Djibouti										

Country or territory	2006		2007		2008		2009		2010	
	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
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							X	X	X	X
Estonia[a]	X	X	X	X	X	X	X	X	X	X
Ethiopia	X	X	X	X	X	X	X	X		
Falkland Islands (Malvinas)	X	X	X	X	X	X				
Fiji										
Finland[a]	X	X	X	X	X	X	X	X	X	X
France[a]	X		X	X	X		X	X	X	X
French Polynesia										
Gabon										
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
Gibraltar										
Greece[a]	X	X	X	X	X	X	X	X	X	X
Grenada										
Guatemala	X	X			X	X	X	X	X	X
Guinea										
Guinea-Bissau										
Guyana	X	X	X	X	X	X	X	X		X
Haiti	X	X	X	X	X	X	X	X	X	X
Holy See										
Honduras	X	X	X	X						
Hungary[a]	X	X	X	X			X	X	X	X
Iceland	X	X	X	X	X	X	X	X	X	X
India	X	X	X	X	X	X	X	X	X	X
Indonesia	X	X	X	X	X	X			X	X
Iran (Islamic Republic of)	X	X	X	X	X	X	X	X	X	X
Iraq					X	X	X	X	X	X
Ireland[a]	X	X	X	X	X	X	X	X	X	X
Israel					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

Country or territory	2006		2007		2008		2009		2010	
	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
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
Kenya					X	X	X	X	X	X
Kiribati										
Kuwait										
Kyrgyzstan	X	X	X	X	X	X	X	X	X	X
Lao People's Democratic Republic	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	X									
Libyan Arab Jamahiriya										
Liechtenstein										
Lithuania[a]	X	X	X	X	X	X	X	X	X	X
Luxembourg[a]	X				X		X	X	X	
Madagascar	X	X			X	X	X	X	X	X
Malawi	X	X	X	X						
Malaysia	X	X			X	X	X	X	X	X
Maldives										
Mali										
Malta[a]	X	X	X	X	X	X	X	X	X	X
Marshall Islands										
Mauritania										
Mauritius			X	X	X	X			X	X
Mexico	X	X	X	X	X	X	X	X	X	X
Micronesia (Federated States of)	X	X								
Monaco	X	X	X	X						
Mongolia							X		X	X
Montenegro[c]			X	X	X	X	X	X	X	X
Montserrat		X		X						X
Morocco	X	X	X	X	X	X	X	X	X	X
Mozambique									X	X
Myanmar	X	X	X	X	X	X	X	X	X	X
Namibia	X	X								
Nauru										
Nepal	X	X								
Netherlands[a]	X	X	X	X	X	X	X	X	X	X

Country or territory	2006		2007		2008		2009		2010	
	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
Netherlands Antilles[b]	X	X	X	X	X	X	X	X	X	X
New Caledonia										
New Zealand	X	X	X	X	X	X	X	X	X	X
Nicaragua	X	X	X	X	X	X	X	X	X	X
Niger			X	X						
Nigeria										
Norfolk Island			X	X						
Norway	X	X	X	X	X	X	X	X	X	X
Oman	X				X		X			
Pakistan	X	X	X	X	X	X	X	X	X	X
Palau										
Panama	X	X	X	X	X	X	X	X	X	X
Papua New Guinea	X	X	X	X						
Paraguay			X	X	X	X	X	X	X	
Peru	X	X	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	
Qatar										
Republic of Korea	X	X	X	X	X	X	X	X	X	X
Republic of Moldova[d]	X	X	X	X	X	X	X	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										
Saint Helena			X	X	X	X	X	X		
Saint Kitts and Nevis										
Saint Lucia			X		X	X				
Saint Vincent and the Grenadines										
Samoa										
San Marino										
Sao Tome and Principe										
Saudi Arabia	X		X	X	X		X	X		
Senegal	X	X			X		X	X	X	
Serbia[e]	X	X	X	X	X	X	X	X	X	X
Seychelles					X	X				
Sierra Leone										
Singapore	X	X	X	X	X	X	X	X	X	X
Sint Maarten[b]										

Country or territory	2006		2007		2008		2009		2010	
	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
Slovakia[a]	X	X	X	X	X	X	X	X	X	X
Slovenia[a]	X	X	X	X	X	X	X	X	X	X
Solomon Islands										
Somalia										
South Africa	X	X	X	X	X	X	X	X		
Spain[a]	X	X	X	X	X	X	X	X	X	X
Sri Lanka			X	X	X	X	X	X	X	
Sudan										
Suriname										
Swaziland										
Sweden[a]	X	X	X	X	X	X	X	X	X	X
Switzerland	X	X	X	X	X	X	X	X	X	X
Syrian Arab Republic	X	X	X	X	X	X	X	X	X	X
Tajikistan	X	X	X		X		X	X	X	X
Thailand	X	X	X	X	X	X	X	X	X	X
The former Yugoslav Republic of Macedonia									X	X
Timor-Leste										
Togo										
Tonga										
Trinidad and Tobago	X	X	X	X	X	X	X	X	X	X
Tristan da Cunha		X		X						
Tunisia	X	X	X	X	X	X	X	X	X	X
Turkey	X	X	X	X			X	X	X	X
Turkmenistan	X	X	X	X	X	X				
Turks and Caicos Islands										
Tuvalu										
Uganda	X	X	X	X	X	X	X	X		
Ukraine	X	X	X	X	X	X	X	X	X	X
United Arab Emirates	X		X		X	X	X	X	X	X
United Kingdom[a]	X	X	X	X	X	X	X	X	X	X
United Republic of Tanzania	X						X	X	X	X
United States	X	X	X	X	X	X	X	X	X	X
Uruguay	X	X	X	X	X		X		X	X
Uzbekistan	X	X	X	X	X	X	X	X	X	X
Vanuatu	X	X								
Venezuela (Bolivarian Republic of)	X		X	X		X	X	X	X	X
Viet Nam	X	X	X	X	X	X	X	X	X	X
Wallis and Futuna Islands										

Country or territory	2006		2007		2008		2009		2010	
	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
Yemen	X		X	X	X	X	X		X	
Zambia	X	X	X	X						
Zimbabwe							X	X	X	X
Total number of Governments that submitted form D	122	109	120	116	122	116	123	117	118	110
Total number of Governments requested to provide information	212	212	213	213	213	213	213	213	213	213

[a] State member of the European Union.

[b] The Netherlands Antilles was dissolved on 10 October 2010, resulting in two new constituent entities, Curaçao and Sint Maarten.

[c] By its resolution 60/264, the General Assembly decided to admit Montenegro to membership in the United Nations.

[d] Since 9 September 2008, "Republic of Moldova" has replaced "Moldova" as the short name used in the United Nations.

[e] Following the Declaration of Independence by the National Assembly of Montenegro on 3 June 2006, the President of the Republic of Serbia notified the Secretary-General that the membership of the state union of Serbia and Montenegro in the United Nations, including all organs and organizations of the United Nations system, was continued by the Republic of Serbia, which remained responsible in full for all the rights and obligations of the state union Serbia and Montenegro under the Charter of the United Nations. Since 3 June 2006, the Republic of Serbia has acted in the United Nations under the designation "Serbia".

Annex X

Governments that have requested pre-export notifications pursuant to article 12, paragraph 10 (a), of the 1988 Convention

1. The 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 under the above provisions are listed in the table below in alphabetical order, followed by the substance (or substances) to which the provisions apply and the date of notification of the request transmitted by the Secretary-General to Governments.

3. Governments may wish to note the possibility of requesting that a pre-export notification for all substances listed in Table II of the 1988 Convention be sent as well.

Notifying Government	*Substances to which pre-export notification requirement applies*	*Date of communication to Government by the Secretary-General*
Afghanistan[a]	All substances included in Tables I and II	13 July 2010
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
Australia[a]	All substances included in Tables I and II	12 February 2010
Austria	All substances included in Table I	19 May 2000
Azerbaijan	All substances included in Tables I and II	21 January 2011
Belarus[b]	Acetic anhydride, ephedrine, potassium permanganate and pseudoephedrine	
Belgium	All substances included in Table I	19 May 2000
Benin[a]	All substances included in Tables I and II	4 February 2000
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

Notifying Government	*Substances to which pre-export notification requirement applies*	*Date of communication to Government by the Secretary-General*
Canada	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
China	Acetic anhydride	20 October 2000
Macao, China[c]	All substances included in Table I	
Colombia[a]	All substances included in Tables I and II	14 October 1998
Costa Rica[a]	All substances included in Table I All substances included in Table II	27 September 1999 31 January 2005
Cyprus	All substances included in Table I	19 May 2000
Czech Republic	All substances included in Table I	19 May 2000
Denmark	All substances included in Table I	19 May 2000
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
Ethiopia[a]	All substances included in Tables I and II	17 December 1999
Finland	All substances included in Table I	19 May 2000
France	All substances included in Table I	19 May 2000
Ghana[a]	All substances included in Tables I and II	26 February 2010
Germany	All substances included in Table I	19 May 2000
Greece	All substances included in Table I	19 May 2000
Haiti[a]	All substances included in Tables I and II	20 June 2002
Hungary	All substances included in Table I	19 May 2000
India[a]	All substances included in Tables I and II	23 March 2000
Indonesia[a]	Acetic anhydride, *N*-acetylanthranilic acid, anthranilic acid, ephedrine, ergometrine, ergotamine, isosafrole, 3,4-methylenedioxyphenyl-2-propanone, norephedrine, phenylacetic acid, 1-phenyl-2-propanone, piperonal, potassium permanganate, pseudoephedrine and safrole	18 February 2000
Ireland	All substances included in Table I	19 May 2000
Italy	All substances included in Table I	19 May 2000
Japan	*N*-Acetylanthranilic acid, ephedrine, ergometrine, ergotamine, isosafrole, lysergic acid, 3,4-methylenedioxyphenyl-2-propanone, 1-phenyl-2-propanone, piperonal, pseudoephedrine and safrole	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
Latvia	All substances included in Table I	19 May 2000
Lebanon[a]	All substances included in Tables I and II	14 June 2002
Lithuania	All substances included in Table I	19 May 2000
Luxembourg	All substances included in Table I	19 May 2000

Notifying Government	*Substances to which pre-export notification requirement applies*	*Date of communication to Government by the Secretary-General*
Madagascar[a]	All substances included in Tables I and II	31 March 2003
Malaysia[a]	All substances included in Table I, including pharmaceutical preparations containing ephedrine and pseudoephedrine, anthranilic acid, ethyl ether and piperidine	21 August 1998 and 8 March 2011
Maldives[a]	All substances included in Tables I and II	6 April 2005
Malta	All substances included in Table I	19 May 2000
Mexico[a]	All substances included in Tables I and II	6 April 2005
Netherlands	All substances included in Table I	19 May 2000
Nigeria[a]	All substances included in Tables I and II	28 February 2000
Oman[a]	All substances included in Tables I and II	16 April 2007
Pakistan[a]	Acetic anhydride, acetone, ephedrine, potassium permanganate and pseudoephedrine	12 November 2001
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
Portugal	All substances included in Table I	19 May 2000
Republic of Korea	All substances included in Table I and acetone	3 June 2008
Republic of Moldova[a]	All substances included in Tables I and II	29 December 1998
Romania[a]	All substances included in Tables I and II	19 May 2000
Russian Federation[a]	Acetic anhydride, ephedrine, ergometrine, ergotamine, 3,4-methylenedioxyphenyl-2-propanone, norephedrine, 1-phenyl-2-propanone, potassium permanganate, pseudoephedrine and all substances included in Table II	21 February 2000
Saudi Arabia[a]	All substances included in Tables I and II	18 October 1998
Singapore	All substances included in Table I	5 May 2000
Slovakia	All substances included in Table I	19 May 2000
Slovenia	All substances included in Table I	19 May 2000
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
Sri Lanka	All substances included in Table I	19 November 1999
Sweden	All substances included in Table I	19 May 2000
Tajikistan[a]	All substances included in Tables I and II	7 February 2000
Thailand	All substances included in Table I (except potassium permanganate), including pharmaceutical preparations containing ephedrine and pseudoephedrine, and anthranilic acid	18 October 2010
Turkey[a]	All substances included in Tables I and II	2 November 1995

Notifying Government	*Substances to which pre-export notification requirement applies*	*Date of communication to Government by the Secretary-General*
United Arab Emirates[a]	All substances included in Table I, including pharmaceutical preparations containing ephedrine and pseudoephedrine, and Table II	26 September 1995 and 8 May 2011
United Kingdom	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	Acetic anhydride, ephedrine and pseudoephedrine	2 June 1995 and 19 January 2001
Venezuela (Bolivarian Republic of)[a]	All substances included in Tables I and II	27 March 2000
European Union (on behalf of all its States members)[d]	All substances included in Table I	19 May 2000

Note: The names of the 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 substances listed in Table II of the 1988 Convention as well.

[b] Not yet notified by the Secretary-General as, in a subsequent communication, the Government of Belarus requested the Secretary-General to suspend such notification until a national mechanism to receive and process pre-export notifications was established.

[c] Not yet notified by the Secretary-General.

[d] Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Annex XI

Licit uses of the substances in Tables I and II of the 1988 Convention

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 to 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	Common solvent in the chemical and pharmaceutical industries; used in the production of lubricating oils and as an intermediate in the manufacture of chloroform and in the manufacture of plastics, paints, varnishes and cosmetics
N-Acetylanthranilic acid	Used in the manufacture of pharmaceuticals, plastics and fine chemicals
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
3,4-Methylenedioxy-phenyl-2-propanone	Used in the manufacture of piperonal and other perfume components
Methyl ethyl ketone	Common solvent; used in the manufacture of coatings, solvents, degreasing agents, lacquers, resins and smokeless powders
Norephedrine	Used in the manufacture of nasal decongestants and appetite suppressants

Substance	*Licit uses*
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
1-Phenyl-2-propanone	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 for mosquito repellent
Potassium permanganate	Important reagent in analytical and synthetic organic chemistry; used in bleaching applications, disinfectants, antibacterials 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

Glossary

For the purposes of the present report, the following terms and definitions have been used:

diversion:	transfer of substances from licit to illicit channels
industrial-scale illicit laboratory:	laboratory manufacturing amphetamine-type stimulants that uses oversized equipment and/or glassware that is either custom-made or purchased from industrial processing sources; produces significant amounts of drugs 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 manpower to handle large amounts of drugs and chemicals; a typical manufacture cycle for amphetamine-type stimulants would yield 50 kg or more of the substance
pharmaceutical formulation:	mixture, typically a solid, prior to its formulation into a finished dosage form, that contains precursors present in such a way that they can be used or recovered by readily applicable means
pharmaceutical preparation:	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; may be presented in their retail packaging or in bulk
seizure:	prohibiting the transfer, conversion, disposition or movement of property or assuming custody or control of property on the basis of an order issued by a court or a competent authority; may be temporary or permanent (i.e. confiscation); different national legal systems may use different terms
stopped shipment:	shipment permanently withheld because reasonable grounds exist to believe that it may constitute an attempted diversion, as a result of administrative problems or because of other grounds for concern or suspicion
suspended shipment:	shipment temporarily withheld because of administrative inconsistencies or other grounds for concern or suspicion, for which clarification of the veracity of the order and resolution of technical issues are required before the shipment may be released
suspicious order/suspicious transaction:	order or transaction of questionable, dishonest or unusual character or condition, for which there is reason to believe that a substance in Table I or Table II of the 1988 Convention, which is being imported or exported or is transiting, is destined for the illicit manufacture of narcotic drugs or psychotropic substances

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: the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol; the Convention on Psychotropic Substances of 1971; and the 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.

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