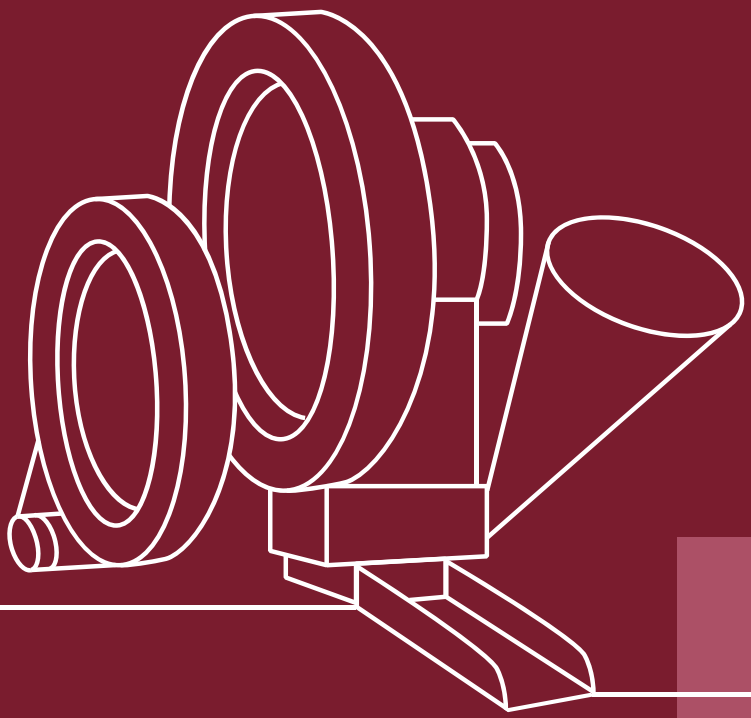
INTERNATIONAL NARCOTICS CONTROL BOARD

ILLICIT DRUG MANUFACTURING EQUIPMENT

and article 13 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988

Technical report – 2025



United Nations

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UNITED NATIONS
Vienna, 2025

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I.
Introduction

1. The illicit manufacture of drugs requires not only the necessary precursor chemicals but also an array of equipment and materials. The equipment in question can include tableting and encapsulating machines, punch and die sets, reaction vessels, glassware and heating mantles. The nature of the equipment used is largely determined by the level of sophistication of the illicit laboratory and by the drugs being manufactured.

2. Article 13 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 provides the basis for international action and cooperation to prevent essential equipment and materials from reaching illicit laboratories, and to enable investigations into cases involving the diversion of such items. In addition, article 3 provides a framework for national efforts to counter and establish as criminal offences, under each country's domestic law, the manufacture, transport or distribution of equipment knowing that it is to be used for illicit purposes, as is also the case for precursor chemicals.

3. In recent years, the International Narcotics Control Board (INCB) has increasingly focused on article 13 as a complementary tool in addressing illicit drug manufacture, while noting that the article's potential has not yet been fully explored. In order to support Governments in addressing such challenges, the Board has developed various tools and resources aimed at advancing knowledge and raising awareness of the provisions of article 13.

4. In 2022, INCB published its first technical report entitled "Illicit drug manufacturing equipment and article 13 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988". The report was prepared pursuant to article 23 of the 1988 Convention and provided the first situational analysis of the equipment used in the illicit manufacture of drugs in the context of article 13.

5. The present technical report, which is the second on the topic, contains information regarding equipment and related action taken by Governments and INCB, and an analysis of current trends and developments, including equipment-related incidents communicated through the Board's Precursors Incident Communication System (PICS). Chapter IV of the report includes a summary and recommendations for a possible way forward regarding the implementation of article 13 of the 1988 Convention.

6. The information provided in this report has been obtained from various sources, including a global survey conducted by the Board in 2024, the Board's fourth expert group meeting on illicit drug manufacturing equipment, held in Vienna in September 2024, equipment-related incidents communicated through PICS and official communications with national authorities. The Board trusts that the information and analysis provided in this report will be useful to Governments in their efforts to prevent the diversion of equipment and materials to the illicit manufacture of drugs.

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

A. Development of tools and resources

7. In recent years, Governments have been facing challenges in the area of illicit drug manufacture. The evolution of illicit drug markets and the growing importance of synthetic drugs, in terms of both supply and demand at the global level, call for increased attention to the matter. Although article 13 of the 1988 Convention does not contain any specific provision that defines how the article itself should be implemented, some countries have already implemented specific measures aimed at monitoring the trade in and distribution of certain types of equipment with a view to preventing their diversion to illicit drug manufacture. Nevertheless, information on national experiences with regard to those measures is not always available, and little is known about the extent and scope of controls, the regulatory and enforcement measures implemented, and the mechanisms in place for promoting voluntary cooperation with the industries concerned.

8. In September 2024, INCB held its fourth expert group meeting on illicit drug manufacturing equipment, with the aim of enhancing knowledge and gathering updated information on new trends and developments in specialized equipment. The meeting involved the participation of 17 experts, from all regions, with practical experience in equipment-related case investigations, regulatory approaches and voluntary cooperation with industry.

9. In 2024, the Board conducted a survey among Governments to gather information on regulatory and operational frameworks applicable to the control of specialized equipment, including information on relevant national authorities with competence in different aspects of equipment. As at 1 April 2025, 68 responses to the survey had been received from Governments in different regions. The Board expresses its appreciation to all Governments that have responded to the survey and that have thus enhanced global knowledge of the subject.

10. On the basis of the information gathered from the survey, the Board has expanded its global centralized repository of existing national approaches implemented by Governments related to the specialized equipment used in the illicit manufacture of drugs.[1] The Board hopes that those approaches will serve as models for other interested Governments. The repository is not exhaustive and is being updated as additional information is made available to INCB.

11. In addition, the survey enabled the Board to develop its directory of national authorities that have competence in relation to specialized equipment and article 13 of the 1988 Convention. The directory was developed with the aim of enhancing communication and international cooperation with regard to equipment-related information, and is available on the Board's secure website, for official use only.

12. Over the years, and to support Governments' efforts in preventing the diversion of equipment to the illicit manufacture of drugs and in enhancing the operational use of article 13, the Board has developed various tools and resources related to such equipment, including guidelines and awareness-raising materials. The Board encourages Governments to make full use of the tools and resources related to equipment that are available on its website.

[1] The global repository is available on the INCB website at www.incb.org/incb/en/precursors/materials-and-equipment-national-approaches-repository.html.

B. Legislation and control measures

13. According to the information that was provided by Governments in the survey, and which is available in the global centralized repository of national approaches relating to equipment, 28 countries and territories have implemented policies or regulations related to the control of specialized equipment.

14. Six countries (Australia, Canada, Costa Rica, Malaysia, Mexico and the United States of America) have implemented controls over the international trade in certain equipment, in particular in relation to tableting and encapsulating machines. Australia, Canada, Costa Rica and Malaysia have established that anyone wishing to import the controlled equipment must have an import authorization, and Mexico and the United States require every transaction involving the import or export of certain equipment to be reported to national authorities.

15. Eight countries (Argentina, Azerbaijan, Costa Rica, Ghana, Mexico, Malaysia, the Russian Federation and the United States) have implemented domestic controls over activities relating to certain equipment, regulating activities such as manufacture, trade, distribution, possession, sale and use. Such activities require prior registration with or licensing by national authorities, and transactions involving the equipment must be reported. The scope of those controls has been mainly limited to tableting and encapsulating machines.

16. In one country (Germany), the domestic monitoring of equipment benefits from voluntary cooperation with relevant equipment industry partners, including companies that produce or trade in tableting machines, punches and dies, heating mantles and glassware. A special focus is placed on second-hand markets and traders of such equipment. That voluntary approach is well established in the country; it allows for investigations into and the combating of the illegal use of equipment, even in the absence of formal regulations.

17. Three countries (Australia, Costa Rica and the United States) have adopted a hybrid approach whereby regulatory controls are combined with voluntary monitoring mechanisms through cooperation with the private sector. The collaboration includes proactive educational outreach to the private sector aimed at educating actors in that sector about compliance with national regulations.

18. Of the 68 Governments that responded to the survey, 37[2] reported having provisions in place for the control of equipment, pursuant to article 3 of the 1988 Convention, in their national legislation that establish as criminal offences different activities involving equipment, such as its manufacture, transport or distribution, when those activities are carried out intentionally and with the knowledge that the equipment is to be used for the illicit production or manufacture of narcotic drugs or psychotropic substances.

[2] Albania, Algeria, Argentina, Australia, Belgium, Bosnia and Herzegovina, Canada, Chile, China, Colombia, Costa Rica, Croatia, Ecuador, El Salvador, Ghana, Honduras, Iraq, Jordan, Malta, Mexico, Montenegro, Morocco, Netherlands (Kingdom of the), New Zealand, Panama, Paraguay, Peru, Portugal, Qatar, Romania, Saudi Arabia, Singapore, South Africa, Spain, Suriname, Turkmenistan and United States.

C. International cooperation related to equipment

19. The following paragraphs summarize aspects of cooperation between INCB and some of its international and regional partners, as well as relevant initiatives implemented by those partners. INCB has a long history of cooperative partnership with the United Nations Office on Drugs and Crime in the area of precursor controls. Furthermore, a potential partnership is being explored, through the Office's training initiatives related to awareness-raising, to address the misuse of equipment for illicit purposes.

1. World Customs Organization

20. The specialized equipment used in the illicit manufacture of drugs is traded legitimately in open and unrestricted markets. It does not have unique Harmonized System codes,[3] but is covered in the system under larger categories of related items, making the international monitoring of that equipment challenging. INCB has been working closely with the World Customs Organization (WCO) to establish unique Harmonized System codes for selected equipment included in the international monitoring list of equipment used in the illicit manufacture of drugs.[4]

21. At its seventy-fifth session, the Harmonized System Committee provisionally adopted all amendments to the Harmonized System necessary for creating unique codes for the items of specialized equipment proposed by INCB. The new Harmonized System codes are expected to become effective in the 2028 edition of the Harmonized System Nomenclature. However, INCB is working with WCO to enable the introduction, on a voluntary basis, of interim national codes (based on the applicable six-digit codes of the Harmonized System) as soon as is practically feasible.

2. Inter-American Drug Abuse Control Commission of the Organization of American States

22. The Inter-American Drug Abuse Control Commission (CICAD) is the consultative and advisory body of the Organization of American States (OAS) on the drug problem. The OAS Hemispheric Drug Strategy 2020 and its corresponding Plan of Action for the period 2021–2025 highlight the importance of preventing the diversion of equipment for use in illicit drug manufacture, encouraging States members of OAS to strengthen national capacity and regional cooperation to prevent the trade in and diversion of materials and equipment used in the illicit manufacture of narcotic drugs and psychotropic substances, including tableting and encapsulating machines.

23. CICAD has been working closely with INCB to enhance precursor controls and ensure that its member States have the tools to respond to emerging challenges. On the basis of its "Concept paper regarding the regulation of equipment used in the illegal production of synthetic drugs", which was developed in 2010, CICAD is planning to prepare an updated technical tool on good practices in preventing the diversion of equipment, which is to be discussed at its next expert group meeting. INCB and CICAD are currently exploring possible opportunities for cooperation and synergies in relation to that tool.

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[3] The Harmonized Commodity Description and Coding System, generally referred to as the "Harmonized System", is an international product nomenclature developed by WCO in cooperation with the Harmonized System Committee. Each commodity or group of commodities is identified by a six-digit code (the Harmonized System code). Although the six-digit codes are meant to be the same worldwide, countries are free to add two or four digits to reflect their national or regional requirements, without changing the first six digits. The Harmonized System contributes to the harmonization of customs and trade procedures by enabling the uniform identification of commodities and facilitating international trade monitoring.

[4] The international monitoring list of equipment used in the illicit manufacture of drugs is available on the Board's secure website, for official use only.

3. *European Union Agency for Law Enforcement Cooperation*

24. In relation to illicit drug manufacturing equipment, the European Union Agency for Law Enforcement Cooperation (Europol) manages the Europol Illicit Laboratory Comparison System, a database of photographic evidence and other non-personal information collected from illicit laboratories. Through the system, Europol supports European Union member States in their backtracking investigations and facilitates the identification of links between different cases involving equipment, laboratories and operators.

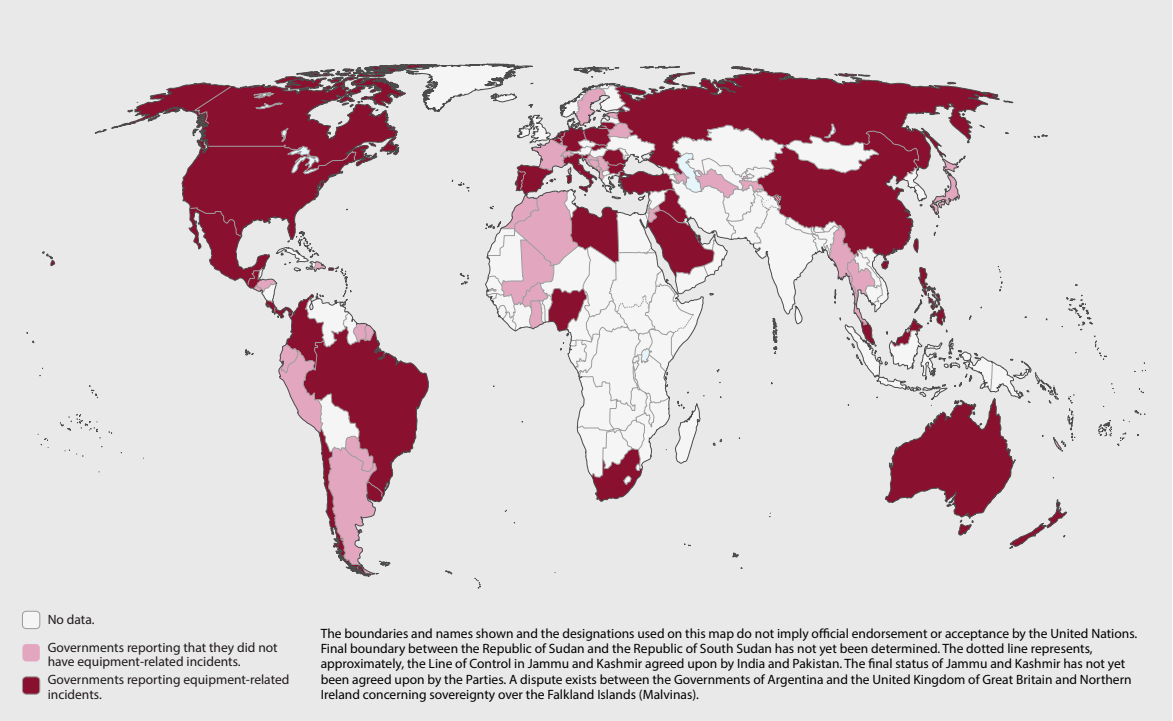
25. Europol has a long-standing cooperative partnership with INCB and has supported and contributed to the work of the Board's expert groups and to the development of equipment-related guidance materials. INCB and Europol are currently exploring synergies between PICS and Europol tools, for global benefit.

III.
Major trends and developments related to equipment

26. The present chapter provides an overview of the major trends and developments related to the equipment used in illicit drug manufacture. The chapter is based on information provided to the Board by various means, such as PICS, surveys, expert group meetings and official information from Governments.

27. The most comprehensive data, in geographical terms, were gathered by means of the equipment survey. The data cover the period from January 2022 to December 2024. Of the 68 Governments that responded to the survey, 35 (equivalent to 51 per cent of all respondents) reported seizures of specialized equipment (see figure I).

Figure I. **Governments reporting equipment-related incidents in the period 2022–2024**



Source: survey on illicit drug manufacturing equipment conducted by INCB in 2024.
Source of the base map: United Nations Geospatial Network.

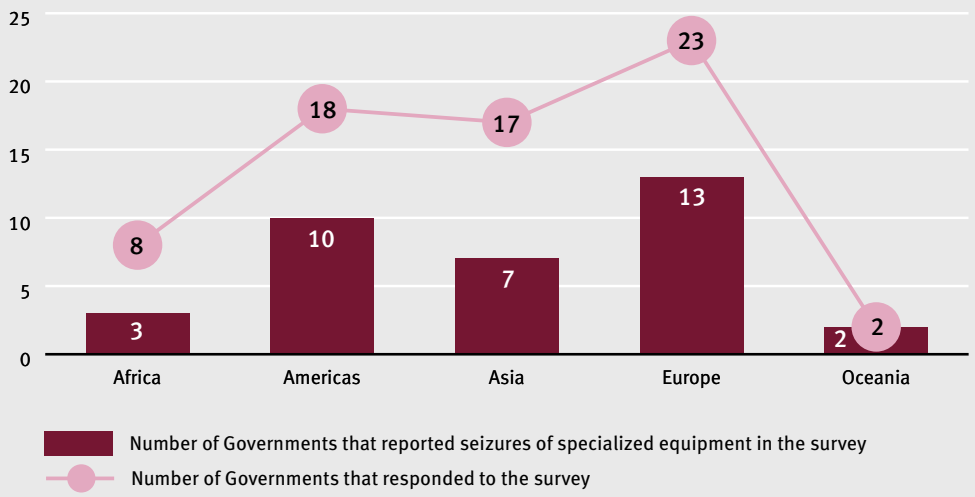
BOX 1. EQUIPMENT-RELATED INCIDENTS REPORTED BY GOVERNMENTS IN THE SURVEY

The statistical data on equipment seizures reported by Governments in the survey may be limited, in some countries, to the following categories:

- The type of equipment used in the illicit manufacture of the specific drugs being manufactured in each country
- The national regulations and scope of control in the various countries. Some Governments have implemented controls over certain types of equipment, in particular tableting and encapsulating machines
- Seizures at borders by customs officers of equipment that is under control in the country
- Reported seizures of equipment by law enforcement agencies and investigative bodies that reflect the specific national context

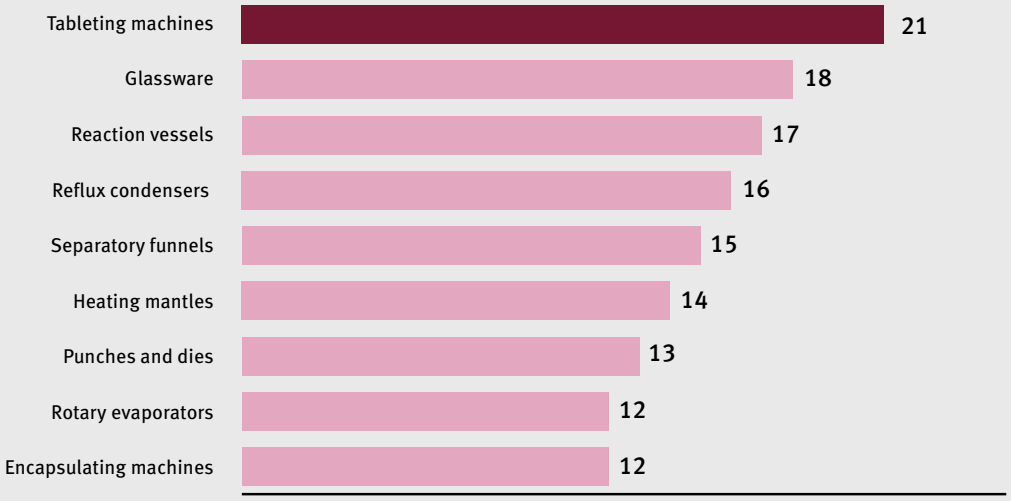
28. During the reporting period, 13 Governments in Europe reported seizures of equipment, followed by 10 Governments in the Americas region. More than 50 per cent of the responding Governments in both regions reported equipment seizures. In Oceania, the two Governments responding to the survey (Australia and New Zealand) also reported such seizures (see figure II).

Figure II. **Number of Governments that reported seizures of specialized equipment in the period 2022–2024, by region**



29. Tableting machines were the most commonly seized pieces of equipment globally, followed by glassware, reaction vessels, reflux condensers, separatory funnels, heating mantles, punches and dies, encapsulating machines and rotary evaporators (see figure III).

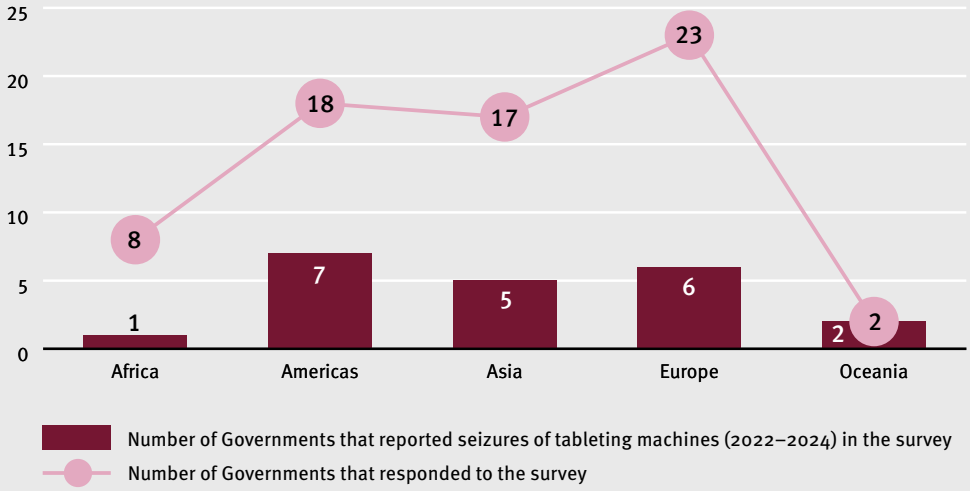
Figure III. **Number of Governments reporting seizures of the most common types of equipment in the period 2022–2024**



30. During the reporting period, 21 Governments in different regions reported seizures of tableting machines. The Governments that reported such seizures were Australia, Belgium, Brazil, Canada, Chile, China, Germany, Iraq, Malaysia, Mexico, New Zealand, Netherlands (Kingdom of the), Panama, Portugal, Saudi Arabia, Slovakia, South Africa, Spain, Türkiye, the United States and Uruguay.

31. The region with the largest number of Governments reporting seizures of tableting machines was the Americas region. Seven countries, or 39 per cent of the responding Governments in that region, reported incidents involving that type of equipment (see figure IV). In Oceania, the two responding Governments (Australia and New Zealand) reported seizures of tableting machines, while in Europe, six Governments, or 31 per cent of the respondents to the survey, reported such seizures.

Figure IV. **Number of Governments reporting seizures of tableting machines in the period 2022–2024, by region**



BOX 2. **SOURCES OF SPECIALIZED EQUIPMENT**

The following types of equipment used in illicit drug manufacture may be encountered in seizure operations:

- Commercially produced equipment diverted for illicit purposes, with or without subsequent modifications
- Custom-made equipment

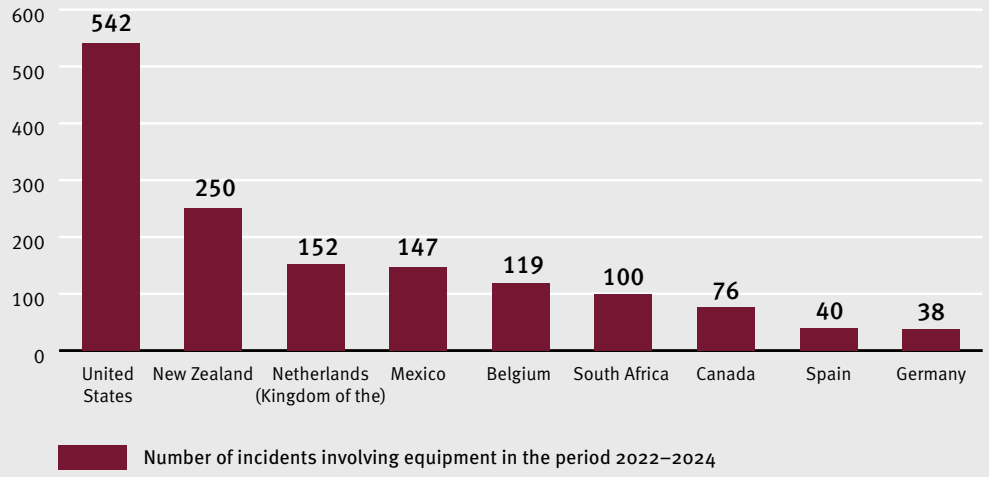
Commercially produced equipment with modifications and custom-made equipment might involve specialists who are often complicit in criminal operations. In addition, commercially produced equipment may be new or second-hand.

32. The main type of the tableting machines seized was reported to be commercially produced new equipment. Some Governments reported incidents that had involved the import of the separate parts of tableting machines, which were then assembled locally. When information about the origin of the tableting machines was provided, the country of origin was often reported to be China.

A. Trends and developments related to illicit drug manufacturing equipment, by country

33. Figure V shows the Governments that reported 10 or more equipment-related incidents during the reporting period. In addition, 26 Governments[5] reported at least one equipment-related incident during that period. The incidents in most of those countries were mainly seizures involving reaction vessels, glassware, tableting machines, separatory funnels, reflux condensers, heating mantles, rotary evaporators, encapsulating machines and punches and dies, in that order. Globally, equipment seizures were typically reported in connection with clandestine laboratories and were less often effected at borders because many countries still lack specific regulations regarding equipment.

Figure V. **Governments reporting 10 or more equipment-related incidents in the period 2022–2024**



34. Of all responding countries, the United States reported the largest number of equipment-related incidents. Specifically, in 2023, 542 equipment-related incidents were reported, involving 141 seizures of tableting machines, 80 seizures of parts of such machines, 36 seizures of encapsulating machines, and 313 seizures of punch and die sets. The main type of equipment encountered was reported to be commercially produced new equipment, and the equipment was typically seized at borders. In addition, it was reported that punch and die sets had frequently been misdeclared in order to evade detection by customs officers.

35. The second largest number of equipment-related incidents was reported by New Zealand, which reported approximately 250 such incidents during the reporting period, each involving the seizure of 5 to 10 units of specialized equipment, mainly related to clandestine laboratories for the illicit manufacture of methamphetamine and 3,4-methylenedioxymethamphetamine (MDMA, commonly known as "ecstasy"). Regarding the source of the equipment encountered, tableting and encapsulating machines were typically imported from abroad, and reaction vessels and distillation apparatuses were often custom-made or diverted from other industries. Most of the glassware found at seizure sites was reported to have been either newly imported or purchased domestically from glassware suppliers.

[5] Australia, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Guatemala, Iraq, Italy, Libya, Lithuania, Malaysia, Nigeria, Panama, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, Saudi Arabia, Slovakia, Slovenia, Türkiye and Uruguay.

36. In 2023, the Kingdom of the Netherlands reported over 152 incidents related to the dismantling of clandestine laboratories, representing an increase of more than 40 per cent compared with the previous year. In addition, some investigations were carried out in storage locations, where equipment was also seized. However, it is not only the number of the laboratories but also the variety of products being manufactured that has been increasing. Over the years, the country has experienced a considerable increase in the number of illicit laboratories manufacturing drugs such as amphetamine, methamphetamine, MDMA, LSD, cocaine and heroin, as well as precursors such as 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P) and 1-phenyl-2-propanone (P-2-P). With regard to the manufacture of synthetic drugs and precursors, the equipment most commonly encountered included pressure reaction vessels, distillation apparatuses, separatory funnels, rotary evaporators and manual tableting machines, as well as a limited number of high-capacity rotary tablet presses.

37. For some years, the Kingdom of the Netherlands has also been experiencing an increase in the scale and sophistication of the equipment used in illicit drug manufacture. The use of high-quality and sophisticated equipment has increased the efficiency of the manufacturing process, resulting in increases in the yield and the quality of the end products.

38. At the time of writing, 95 per cent of the equipment encountered in the Kingdom of the Netherlands was either custom-made equipment or industrial pharmaceutical equipment, including equipment modified by a facilitator.[6] In addition, there has been an increase in the use of multipurpose custom-made equipment designed for large-scale manufacturing, in which the synthesis of various substances is carried out in one vessel, for example, in a pressure reaction vessel containing distillation equipment.

39. The situation in Belgium is similar to that in the Kingdom of the Netherlands, in that the equipment encountered is mainly custom-made or has been modified. The scale of laboratories has also been increasing, and there has been greater use of industrial and pharmaceutical equipment. During the reporting period, from January 2022 to the end of 2024, specialized equipment was seized in 93 clandestine laboratories and 26 storage sites. The equipment encountered was typically used for the manufacture of MDMA and methamphetamine and included reaction vessels, distillation apparatuses, glassware, separatory funnels, rotary evaporators, tableting machines and punch and die sets. In addition, two laboratories for the manufacture of synthetic cathinones were encountered, from which plastic vessels with stirring devices were seized.

40. In addition to seizures of equipment for the manufacture of synthetic drugs, Belgium and the Kingdom of the Netherlands also reported seizures of well-designed, custom-made equipment for the secondary extraction of cocaine, such as filter units and heating and drying cabinets. It was reported that the equipment encountered was very similar to that used by criminal cocaine manufacturing organizations in clandestine laboratories in South America.

41. Mexico reported 147 incidents involving the seizure of specialized equipment during the reporting period, in particular equipment for the illicit manufacture of methamphetamine and fentanyl. The incidents involved the seizure of 689 reaction vessels, 204 reflux condensers, 297 distillers and 42 tableting machines. Most of the equipment was custom-made, allowing for large-scale manufacture, but lacked labels or any identification data that could be used in backtracking investigations. The tableting machines were mostly new and commercially produced and had been imported into Mexico.

42. South Africa reported over 100 incidents involving equipment during the reporting period, typically related to clandestine laboratories for the illicit manufacture of methamphetamine and methaqualone (known by the

[6] Facilitators are companies or persons that provide equipment for the illicit manufacture of precursors and synthetic drugs. The equipment is usually of high quality and well designed, and is, nowadays, also used in combination with many electronic devices.

brand name Mandrax in that country). The equipment encountered included glassware, rotary evaporators, separatory funnels, reflux condensers, heating mantles, tableting machines, encapsulating machines, and punches and dies. Custom-made equipment was reported to have been seized in connection with laboratories for the illicit manufacture of methamphetamine, specifically in connection with recent incidents involving the same equipment, precursors and manufacturing processes as those that had been used in clandestine laboratories dismantled in Mexico.

43. Canada reported the seizure of equipment discovered in 54 shipments at its borders during the reporting period. All the seizures involved tableting and encapsulating machines, which are the only types of specialized equipment that are currently regulated in Canada. The tableting machines were reported to have been encountered in both assembled and disassembled form. The encapsulating machines seized were reported to have been of the manually operated type, in most cases having a capacity of 100 to 400 holes for manual filling. Punches and dies were typically imported as sets.

44. In addition, Canada reported having conducted approximately 22 clandestine laboratory investigations involving equipment during the reporting period. The equipment seized included the following: reaction vessels, glassware, separatory funnels, reflux condensers, heating mantles, rotary evaporators, tableting machines and mixers. It was reported that the country of origin of the equipment encountered in clandestine laboratories or warehouses typically could not be determined, as, in most cases, all tracking numbers or identifiers had been removed prior to their illicit use.

45. During the reporting period, Spain reported 40 incidents related to the dismantling of clandestine laboratories involving equipment used in the illicit manufacture of narcotic drugs and psychotropic substances, including MDMA and synthetic cannabinoids, and equipment used for the secondary extraction of cocaine. The seized equipment included glassware, rotary evaporators, condensers, heating mantles, tableting machines and punches and dies. Most of the equipment seized was commercially produced new and second-hand equipment.

46. Germany reported 38 incidents involving equipment during the reported period. Most of the equipment seized in those incidents was seized from laboratories for the illicit manufacture of amphetamine using the Leuckart method. The equipment required for that method is widely available on the domestic market and had mostly been bought on second-hand markets and subsequently customized by facilitators according to the requirements of the illicit operators. In addition, Germany reported seizures of tableting machines with small to medium production capacity, mainly imported from abroad. Infrequently, seizures of second-hand industrial or pharmaceutical grade rotary tableting machines were reported; they were often several decades old.

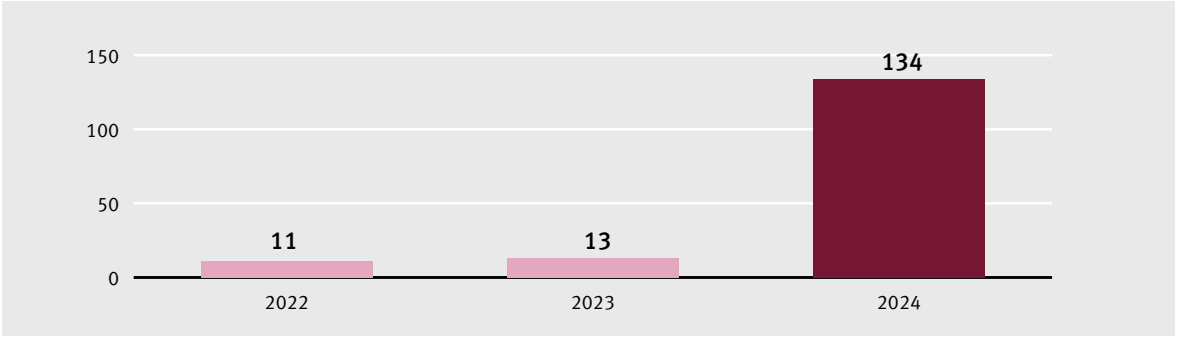
47. The Board is also aware of new trends in illicit drug manufacturing equipment in South America, including an increase in the use of custom-made industrial equipment designed specifically for the extraction of cocaine, which results in an increased yield and enhances the efficiency of alkaloid production.

B. Precursors Incident Communication System

48. The Board's Precursors Incident Communication System (PICS) is the only global, secure online platform for sharing actionable information on both seizures and suspicious shipments of precursors and equipment used in illicit drug manufacture. During the reporting period, from January 2022 to December 2024, 18 countries[7] communicated through PICS a total of 158 equipment incidents involving a total of 201 pieces of equipment.

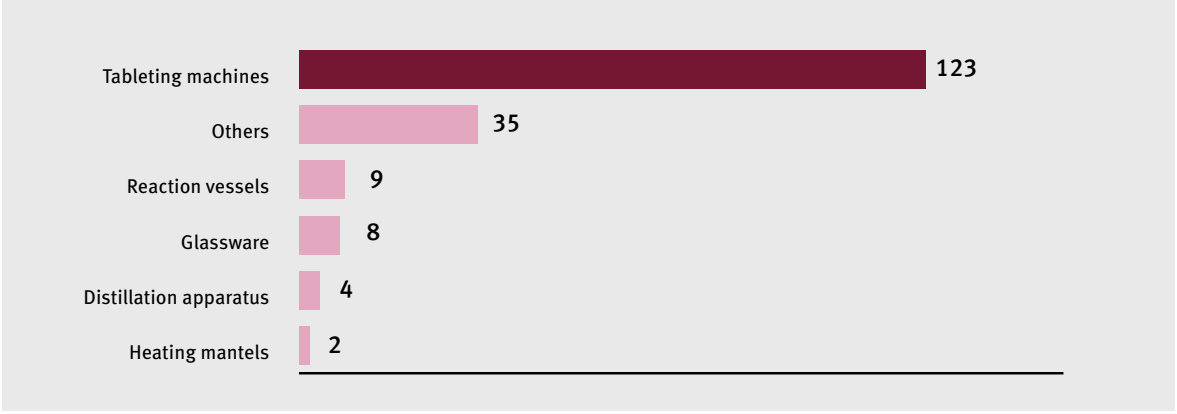
49. In 2024, 134 equipment-related incidents involving a total of 169 pieces of equipment were communicated through PICS. That number represented a significant increase compared with the number of such incidents communicated in the previous year (see figure VI).

Figure VI. **Number of equipment-related incidents communicated through the Precursors Incident Communication System in the period 2022–2024, by year**



50. During the reporting period, most of the incidents communicated through PICS involved tableting machines (123), followed by reaction vessels, glassware and distillation apparatuses (see figure VII). The increase in the number of incidents communicated through PICS in 2024 is mostly attributed to 109 incidents involving tableting machines communicated by the Customs and Border Protection agency of the United States. All seizures were reported to have been made at borders and, where such information was available, the country of origin of the machines was identified as China. In addition, Germany, Libya, Netherlands (Kingdom of the), South Africa, Spain and Uruguay communicated incidents involving tableting machines during the reporting period.

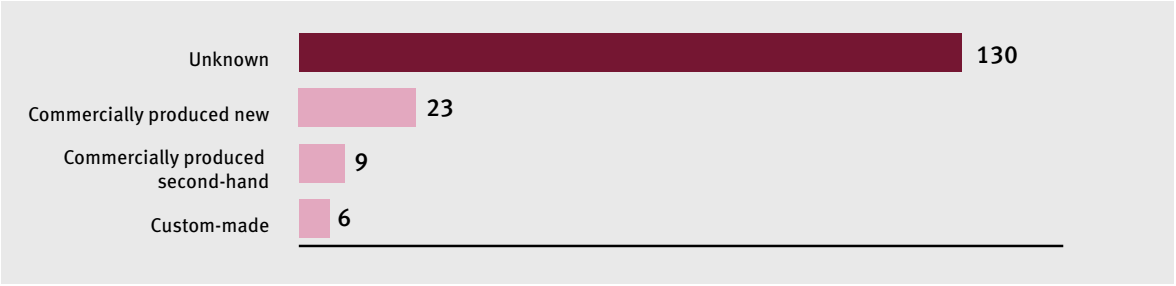
Figure VII. **Number of incidents communicated through the Precursors Incident Communication System in the period 2022–2024, by equipment type**



[7] Australia, Cambodia, Canada, Chile, Germany, India, Iraq, Italy, Libya, Mexico, Netherlands (Kingdom of the), Nigeria, Russian Federation, South Africa, Spain, United States, Uruguay and Uzbekistan.

51. The equipment-related incidents communicated through PICS involved new, second-hand, custom-made or modified equipment. However, on the basis of the information available in PICS, the source of most of the equipment seized was unknown (see figure VIII).

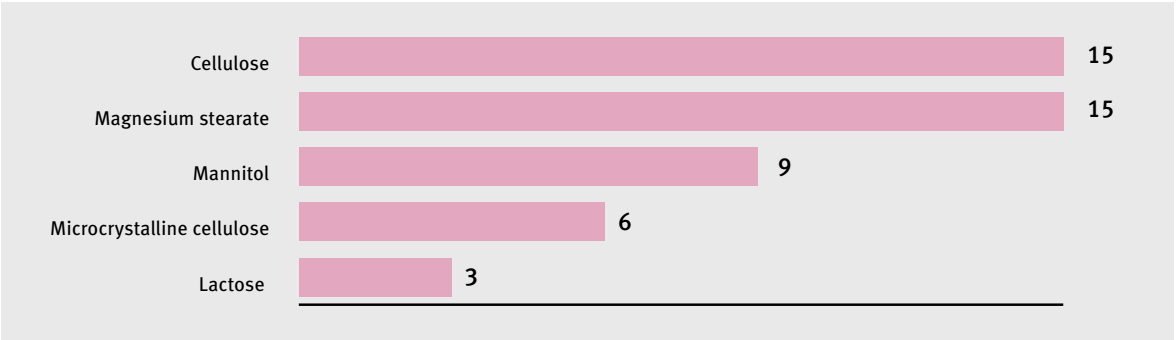
Figure VIII. **Number of equipment-related incidents communicated through the Precursors Incident Communication System in the period 2022–2024, by source of equipment**



52. The manufacture of tablets requires tableting machines, as well as excipients, for the compression of mixed powders containing drugs into tablets. Excipients such as cellulose (including microcrystalline cellulose), mannitol, lactose and magnesium stearate are frequently encountered in clandestine laboratories, together with tablet presses. The Board is aware of an increase in the number encountered of excipients and mixtures of excipients used for the illicit manufacture of drugs and fake medicines.

53. During the reporting period, 34 incidents involving excipients were communicated through PICS. Cellulose and magnesium stearate were the excipients most often communicated (15 incidents each), followed by mannitol (9), microcrystalline cellulose (6) and lactose (3) (see figure IX). Most of those incidents were communicated by the Kingdom of the Netherlands, which reported 28 such incidents. Chile, Mexico, South Africa and the United States also communicated excipient-related incidents through PICS.

Figure IX. **Number of excipient-related incidents communicated through the Precursors Incident Communication System in the period 2022–2024, by excipient involved**



IV.
Conclusions

54. The present report is the Board's second on illicit drug manufacturing equipment. For the most part, it confirms the observations made in the previous report, published in 2022, and thus underlines the need to increase the operational use of article 13 of the 1988 Convention in order to prevent the trade in and diversion of equipment for the illicit production or manufacture of narcotic drugs and psychotropic substances. The information presented in this report can be summarized as follows:

(a) Globally, in the absence of specific national legislation, most equipment seizures continue to be reported in connection with the dismantling of clandestine laboratories, while seizures effected at borders are less frequently reported;

(b) Tableting machines are the most common type of equipment reported seized in all regions;

(c) Most of the tableting machines seized in the reporting period were reported to be new and commercially produced;

(d) Where the country of origin of tableting machines could be traced, it was often identified as China;

(e) Often, and with a view to avoiding detection, imported tableting machines are shipped in pieces and subsequently assembled in the country of destination;

(f) There has been a notably increasing trend in the sophistication and scale of illicit drug manufacturing laboratories, including the greater use of sophisticated, high-quality pharmaceutical equipment and process engineering, in particular in Europe;

(g) Second-hand equipment is typically purchased in local markets or on the Internet and then modified locally. The effective monitoring and control of second-hand equipment is therefore crucial;

(h) There has been an increase in the use of custom-made equipment or modified industrial equipment, which has made efforts by law enforcement authorities to trace its origin or conduct effective backtracking investigations more complex, because of the removal of labels or other identifying elements. To address this evolving threat, it is essential to extend monitoring to markets for certain types of second-hand equipment, and eventually to the modifiers of such equipment;

(i) It appears that successful law enforcement operations and arrests of facilitators have started to have an impact on the availability of certain types of equipment, and have led to shifts to alternative manufacturing methods involving different types of equipment, including equipment of lower quality, and an increase in associated safety risks;

(j) There has been an increase in the number of dismantled laboratories that were used for the secondary extraction of cocaine, in particular in Europe, and in which the same equipment and chemicals were used as those used by criminal organizations involved in the manufacture of cocaine in clandestine laboratories in South America. That increase confirms that the linkages between regions in relation to illicit drug manufacture are not limited to the manufacture of synthetic drugs;

(k) Some Governments have adopted voluntary measures such as the establishment of public-private partnerships with relevant industries, through which reports of suspicious purchases received from partner industries have enabled those Governments to conduct investigations into and prevent the diversion of drug manufacturing equipment.

55. International cooperation is a key factor in ensuring progress in efforts to prevent and investigate the diversion of specialized equipment for the purposes of illicit drug manufacture. A number of tools and resources are already available. The Board encourages Governments to undertake the following specific measures:

(a) In relation to supply-side trends, actionable information and equipment-related investigations:

(i) Exchange information on equipment-related incidents, including on the type and source of the equipment involved, such as whether it was commercially produced and new or second-hand, or custom-made, and its country of origin, with a view to identifying relevant trends, and consider using, or more systematically using, PICS to that end;

(ii) Conduct backtracking investigations regarding seized equipment, and consider sharing experiences in that regard for investigative purposes;

(iii) Monitor the Internet for suspicious posts referring to equipment;

(b) In relation to legislation and control measures:

(i) Share approaches, regulations and good practices that could serve as models and provide guidance to interested Governments;

(ii) Use Harmonized System codes where available, including provisionally before they are officially available in the 2028 edition of the Harmonized System Nomenclature, to monitor international trade;

(c) In relation to cooperation with industry and the monitoring of legitimate trade:

(i) Enhance knowledge of the nature and extent of the legitimate industries and operators at the national level that supply, adapt or trade in specialized equipment that is of possible interest to traffickers;

(ii) Promote voluntary cooperation with relevant national industries, including traders in second-hand equipment and other relevant actors;

(iii) Consider sharing information about planned exports of selected equipment, by email, with importing countries and INCB on a voluntary basis.

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