

Chapter III.

Analysis of the world situation

A. Global issues

1. Precursor control in countries of conflict

335. The diversion of precursors from licit trade can happen at any stage along the distribution chain. While no country is immune from attempts by traffickers to obtain chemicals for illicit purposes, territories whose status is unclear or contested or, at any given time, is not effectively within the scope of control of an internationally recognized entity's competent national authorities are at increased risk of being targeted by traffickers. The scenarios that give rise to vulnerabilities vary in nature and include political instability, conflict and unresolved territorial disputes in various forms, and civil war or prolonged civil unrest, and the scenario in a given country may change over time. Places in which such scenarios exist are referred to as countries of conflict or conflict areas.

336. INCB has, on several occasions, expressed its concern about the implications such scenarios have for international precursor control and the risk of the territories concerned being targeted by traffickers for the diversion of precursor chemicals and/or activities associated with, or carried out in preparation for, such diversion. In addition to the outright diversion of precursors from companies located in conflict areas, past incidents involving conflict areas have included the placing of orders for precursors using the names of such companies as a front, the channelling of diverted shipments of precursors through the territory of countries of conflict, and the forging of import authorizations.

337. International trade in precursors outside the PEN Online system, which has become the central global system for the exchange of pre-export notifications pursuant to article 12, paragraph 10 (a), of the 1988 Convention, also brings about a higher risk of diversion. This applies to importing countries not using the system actively to monitor incoming notifications. It also applies to exporting countries not using the system, or not using it systematically, to notify importing countries of every planned shipment prior to dispatch. Of particular concern is the trade in pharmaceutical preparations containing scheduled precursors, especially ephedrine and pseudoephedrine, which the Board and the Commission on Narcotic Drugs have recommended be monitored in the same manner as is the trade in the precursors that those preparations contain.

338. With regard to the trade in precursors destined for countries of conflict, INCB is aware of a number of practical challenges experienced by exporting countries. In particular, owing to the lack of integrity of controls in a disputed territory, the authorities of exporting countries are often unable to send pre-export notifications to and interact with an officially recognized counterpart who has both the legal authority and the capacity to provide adequate oversight and assurance regarding a shipment's end purpose or destination. There may also be a lack of compliance with the pre-export notification mechanism, namely, the practical requirement for the authorities of importing countries to view incoming notifications, a limited ability to verify the legitimacy of a shipment and/or insufficient clarification of the reasons for objecting to a shipment. All these factors leave the exporting country in a difficult position when deciding whether or not a proposed export can proceed.

339. INCB has observed that, as a result of economic considerations, shipments are being allowed to proceed more often than not, even when only the minimum requirements of article 12 of the 1988 Convention are being fulfilled. In a few notable cases in the past, the authorities of exporting countries have requested the exporting company to ensure the secure transportation and handling of the substances in the destination country up to their receipt by the importing company. **INCB commends all efforts that contribute to ensuring the availability of controlled precursors for legitimate purposes in all regions of the world, irrespective of a country's situation or a territory's status, while managing the risk of diversion. INCB further invites all Governments to work with the Board to devise appropriate ways and means of monitoring trade pursuant to article 12 of the 1988 Convention and handling pre-export notifications with a view to enabling the trade in chemicals to and from high-risk areas in a regulated manner.**

2. Ketamine: an update on recent developments and status of national controls

340. Ketamine belongs chemically to the phenyl cyclohexamine class of drugs, and like other drugs in this class, functions as a dissociative anaesthetic. First synthesized in 1962 and patented in Belgium in 1963, the substance has been used as a general anaesthetic in human and veterinary medicine. At sub-anaesthetic doses, ketamine is also used in selected conditions for the management of pain and depression. Given its affordable price and flexible modes of administration, its use as an anaesthetic is particularly important for developing countries and in emergency medicine. Ketamine, which is included in the WHO Model List of Essential Medicines and the WHO Model List of Essential Medicines for Children, is not under international control.

341. Discussions on the control status of ketamine at the international level started in the early 2000s, with the substance first being pre-reviewed by the WHO Expert Committee on Drug Dependence in 2002, then critically reviewed by the Committee in 2006, 2012, 2014 and 2015. While WHO recommended that ketamine not be placed under international control, the Commission on Narcotic Drugs, in its resolutions 49/6 of 2006 and 50/3 of 2007, expressed concern over the widespread abuse of and trafficking in ketamine and encouraged Governments to consider placing it on the list of substances controlled under national legislation and adopting a system of precautionary measures for the timely detection of its diversion.

342. To facilitate international trade in ketamine while ensuring compliance with national legislation, INCB sent a questionnaire on the national control status of the substance to all Governments in August 2008. Information on the import and export authorization requirements for ketamine from 123 countries and territories was then published and disseminated through the INCB Secure Portal for Governments (www.incb.org/incb/en/secured/governments.html).

343. In view of recent developments in the medical use of ketamine and increasing non-medical use and seizures reported by some Governments in recent years, the Board decided to request updated information on the national control status of the substance. Consequently, a questionnaire was sent to all Governments in April 2023. Replies from 88 countries and 6 territories had been received as at 1 November 2023.

Updates on national control status and licit use

344. Responses giving information on legislative updates on the control status of ketamine were provided to INCB by 101 Governments in 2023, in comparison with the 128 that provided such information in response to the INCB questionnaire of 2008–2010.

345. Among those responding to the questionnaire sent by INCB in 2023, around 70 per cent reported that they had placed ketamine under national control. The level of control to which the substance is subject, however, varies from relatively strict control regimes under narcotics laws to weaker reporting or licensing requirements under medicines acts. Regardless of the control status, most respondents (70 countries and 3 territories) require import and export authorizations for international trade in the substance. A list of the countries and territories that require such authorizations for ketamine is updated regularly and is available to all Governments on the INCB Secure Portal for Governments. **The Board encourages importing Governments to issue a letter of no objection or other proof of the legitimacy of the import in cases where ketamine is imported from countries where it is controlled.**

346. Although only seven countries reported the licit manufacture of ketamine, almost all respondents import the substance for medical and scientific use, with some noting increases in trade volume in recent years. In addition to using ketamine as an anaesthetic for surgical and diagnostic procedures, several countries have also approved its medical use in controlled programmes as a treatment for patients with treatment-resistant depression. Some respondents

also reported ongoing projects and clinical trials to further explore the therapeutic potential of ketamine in practice.

347. Alongside its expanding medical use, more than 20 countries reported greater use of ketamine for recreational purposes and increasing seizures of the substance in recent years. Often consumed in small quantities together with other drugs at dance events, some Governments detected greater recreational use of ketamine at more party venues, and the emerging practice of ketamine injections and its use in chemsex¹³³ since the end of the COVID-19 pandemic as a public health emergency. Increases in both the number of seizures and the volume of ketamine seized were also reported. One country reported the emergence of ketamine analogues in response to the placing of ketamine under national control.

Illicit manufacture of and trafficking in ketamine

348. More than 30 per cent of respondents to the INCB survey carried out in 2023 reported ketamine seizures or trafficking in ketamine involving their territory. This included both trafficking in pharmaceutical preparations and illicitly manufactured ketamine. Individual seizures typically involved small amounts, in the range of a few grams, although occasional bulk seizures of a few kilograms, and one seizure of 500 kg, were reported. The largest quantities were reported by countries in Asia, namely, Malaysia (2.6 tons seized in 2022), Myanmar (2.3 tons seized in 2022) and Thailand (nearly 1.8 tons seized in 2022), as well as China, with seizures amounting to almost 1.8 tons since 2021, with the alleged countries of origin being Cambodia, Thailand and Myanmar. India has also been identified as the country of origin of a bulk seizure in Europe. Shipments were often seized at land border crossings or among international postal packages at airports.

349. In South America, diverted ketamine is trafficked for refinement into mixtures known regionally as “tuci” (or “tucibi”, “fake 2C-B” or “*cocaína rosada*”), which consist of varying combinations of ketamine, MDMA, amphetamine and/or various new psychoactive substances. Similar products are known in South-East Asia as “happy water” and “k-powdered milk”. Cases of “tuci” and “pink cocaine” have also been reported in Europe and North America.

350. Globally, ketamine seizures peaked in 2015, and have been increasing again since around 2018, both in terms of frequency of trafficking incidents and the amounts seized.

¹³³The term “chemsex” refers to intentional sex under the influence of psychoactive drugs, mostly among men who have sex with men.

Given the resurgence of ketamine trafficking and non-medical use, the substance has also been one of the target substances in two INCB time-bound intelligence operations, Operation Trance and Operation Knockout, which were conducted in 2020 and 2023, respectively. In these operations, 50 and 224 ketamine incidents were reported, respectively, with over 517 kg seized in the most recent operation. In both operations, Western Europe and Central Europe were the main source regions of seized consignments of ketamine, accounting for some 80 per cent of the incidents reported. In 2023, more countries were identified in relation to ketamine trafficking compared with three years previously, with each continent having been identified at least once as either a place of origin, destination or transit. As at 1 November 2023, Governments had communicated 1,400 incidents involving a total of 5 tons of seized ketamine through IONICS.

351. Previously, seized ketamine had typically been diverted from licit markets. While diversion, and sometimes theft, from legitimate channels continue to be significant sources of supply for illicit uses, increasingly sophisticated illicit laboratories have enabled illicit operators to synthesize ketamine from various internationally non-scheduled chemical intermediates, a trend that started in Asia some 10 years ago. Since then, illicit ketamine laboratories have been dismantled in Belgium, Cambodia, Canada, China, including Hong Kong and Taiwan Province of China, India, Malaysia and the Netherlands (Kingdom of the). Some of the laboratories, in particular those in East and South-East Asia, were industrial in scale, and sometimes used legitimate front companies to import the necessary chemicals and equipment.

352. Despite an increase in reports of illicit ketamine manufacture, in their responses to the Board’s survey of 2023, only five countries reported that they were aware of seizures of ketamine in which the substance was suspected to have been illicitly manufactured; four of them reported illicit manufacture on their territories.

353. Similarly, information about ketamine precursors is scarce and not systematically reported, given that these chemicals are not under international control. Nevertheless, some countries submit such information to INCB. Reported seizures of ketamine precursors have predominantly involved two chemicals. Both substances are intermediates in the synthesis of ketamine and can readily be converted into the substance. The substances can be considered designer precursors, that is, they are made specifically to circumvent existing legislation. Seizures of the two substances peaked in 2014, around the time that China proposed that ketamine be placed under control in Schedule I of the 1971 Convention. China has also been the country that

most systematically reports the largest seizures of ketamine precursors. **The Board commends the Governments that voluntarily report seizures of ketamine precursors, their sources and related contextual information. Similarly, the Board commends Governments that use forensic profiling analysis to determine whether seized ketamine has been illicitly manufactured and from which chemicals. These efforts help to provide the evidence to prevent illicit ketamine manufacture while protecting legitimate supply chains, thus ensuring the availability of ketamine for legitimate purposes.**

3. Data collection and analysis practices of the Board

354. The regular submission of comprehensive and reliable statistical data from Governments to the Board is vital for the overall functioning of the international drug control system and the analysis of global trends. Good-quality data provide information that is necessary to not only ensure the adequate availability of controlled substances for medical and scientific purposes but also to uncover diversions of controlled substances for illicit purposes.

355. The Board issues technical reports that provide Governments with statistical analyses on the manufacture, consumption, utilization and stocks of and trade in internationally controlled substances. Those reports are based on data that parties to the international drug control conventions are obligated to submit and data that Governments provide voluntarily pursuant to resolutions of the Economic and Social Council and the Commission on Narcotic Drugs. On the basis of its analysis, the Board makes recommendations to competent authorities to ensure the availability of controlled substances for medical and scientific needs while preventing their diversion from licit sources.

356. For narcotic drugs, the submission of estimates of annual licit requirements is mandatory under the 1961 Convention as amended, and the estimates furnished by Governments need to be confirmed by the Board before becoming the basis for calculating the limits on manufacture and import. To ensure that Governments may import narcotic drugs for medical and scientific purposes, estimates are established by the Board for countries that are unable to supply them. More information about the obligations of Governments to comply with the limits on imports and exports of narcotic drugs can be found in paragraph 104.

357. With regard to psychotropic substances, States parties to the 1971 Convention provide to INCB their annual statistics on psychotropic substances, as well as voluntary quarterly statistics on imports and exports of psychotropic

substances. INCB provides and updates the list of psychotropic substances under international control (“Green List”), forms (P, A/P and B/P) and training material to help competent national authorities to meet the requirements of the international drug control treaties and the requests contained in the relevant resolutions for the reporting of data.

358. With regard to precursors, the 1988 Convention, in its article 12, paragraph 12, requires Governments to provide to the Board information on the amounts seized of internationally controlled precursors and their origin, on any substance not included in Table I or Table II of that Convention which is identified as having been used in illicit manufacture of narcotic drugs or psychotropic substances, and on methods of diversion and illicit manufacture. Furthermore, pursuant to resolutions subsequent to the adoption of the 1988 Convention, Governments are requested to provide to INCB, on a voluntary basis, annual information on the licit trade in and use of substances listed in Tables I and II of the 1988 Convention, as well as estimates of their annual legitimate requirements for imports of selected precursors of amphetamine-type stimulants. The 1988 Convention requires the Board to report annually to the Commission on Narcotic Drugs on the implementation of article 12.

359. To support Governments in complying with the provisions of article 12 of the 1988 Convention with regard to the monitoring of legitimate international trade in internationally controlled precursors, the Board developed a secure web-based tool, PEN Online. Since 2006, the PEN Online system has facilitated real-time communication between importing and exporting Governments regarding planned shipments of precursor chemicals in international trade, thus contributing to preventing the diversion of such chemicals into illicit channels.

360. The Board’s Precursors Incident Communication System (PICS) provides Governments with a platform for the exchange of real-time information on chemical-related incidents such as seizures, shipments stopped in transit, diversions and uncovered laboratories used for the illicit manufacture of substances and their equipment. PICS has provided leads for national authorities to initiate backtracking investigations and, on several occasions, the timely communication of details of precursor incidents has led to further seizures or has prevented diversions. PICS also serves as an early warning mechanism for the identification of emerging precursors and the *modi operandi* used for diversion, thus informing the Board’s scheduling assessments. Over the past year, a complementary focus of PICS has increasingly been the exchange of incident information on equipment used for illicit drug manufacture, with a view to enhancing the implementation of article 13 of the 1988 Convention (for more details on PICS, see paras. 329–331).

361. The statistical reports and other data provided by Governments pursuant to their reporting obligations under the three international drug control conventions and the voluntary information provided pursuant to the relevant resolutions are managed under the INCB International Drug Control System (IDS), PEN Online and I2ES, the latter two being web-based platforms that enable countries to engage in the trade in internationally controlled substances securely and rapidly.

362. These three systems are currently being updated to enhance their functionality, in order to better serve the needs of Member States. One of the main new features of the updated version of IDS, Next Generation IDS, will be a web-based portal that will enable Governments to provide reporting data more rapidly and accurately, track reporting errors and review historical data. Next Generation IDS, which will provide a protected and secure web environment for Governments, will also have a multilingual interface and deepened integration with PEN Online and I2ES.

363. In addition to carrying out its mandated functions under the international drug control treaties, the Board also assists Governments, through its GRIDS Programme, in addressing the public health threats posed by the increasing misuse of non-medical synthetic opioids and new psychoactive substances. Under the GRIDS Programme, backtracking investigations are supported through IONICS, which provides national law enforcement agencies with a secure communication platform for the exchange of real-time information on seizures, stopped and suspicious shipments and diversion attempts involving new psychoactive substances, non-medical synthetic opioids and related dangerous substances. A further tool available under the programme is the GRIDS Intelligence HD targeting platform, which enables the development of actionable intelligence for use by national authorities in conducting targeted interventions. Both tools have, in numerous international investigations, produced results that have directly contributed to the dismantling of drug trafficking organizations around the world. The usefulness of IONICS, GRIDS Intelligence HD and PICS, however, depends largely on whether actionable information is provided through those tools in a timely manner and in an amount sufficient to ensure that immediate follow-up can be initiated to identify the traffickers involved.

364. The Board urges Governments to enhance their national mechanisms for monitoring the cultivation, production, manufacture, and trade of controlled substances. Recognizing the challenges posed by the poor quality, irregularity, and often the lack of comprehensive data, the Board emphasizes the need for robust improvements in national data collection systems.

4. Free trade zones and trafficking in drugs and precursors

365. Free trade zones, also known as free zones or free ports, have played a pivotal role in promoting international trade and economic development across the globe. These designated areas, often exempt from many of the usual customs, import and export regulations, facilitate the movement of goods, foster foreign investment and create employment opportunities.

366. However, the very factors that make free trade zones attractive for investment and economic activity also make them susceptible to misuse for illicit activities, including the distribution and manufacture of counterfeit goods, money-laundering and trafficking in tobacco products.¹³⁴ While, on the one hand, the limited supervision, if any, exercised by customs authorities over shipments of goods from abroad into free trade zones, or from such zones to foreign countries, provides for the faster movement of goods, thereby lowering transaction costs, on the other hand, it allows contraband to move undetected through those zones. In general, softened customs controls in free trade zones have made the zones increasingly vulnerable to a wide range of abuses by criminal actors.¹³⁵

367. Trade involving narcotic drugs, psychotropic substances and precursors carried out within and through free trade zones is governed by the international drug control conventions and related resolutions of United Nations bodies and by the revised Kyoto Convention on the Simplification and Harmonization of Customs Procedures.

Free trade zones and the international drug control conventions

368. The inherent vulnerability of free trade zones to serving as fertile grounds for trafficking in drugs and precursors is recognized in the three international drug control conventions. To address situations where limited control or a lack of control would make it possible for traffickers to use such zones as convenient depots for their contraband goods and to smuggle drugs across uncontrolled or insufficiently controlled borderlines, the 1961 Convention as amended, in its article 31, paragraph 2, and the 1971 Convention, in its article 12, paragraph 3 (a), require parties to exercise the same supervision and control in free trade zones as in other

¹³⁴Kenji Omi, “‘Extraterritoriality’ of free zones: the necessity for enhanced customs involvement”, WCO Research Paper, No. 47 (September 2019).

¹³⁵International Chamber of Commerce and Business Action to Stop Counterfeiting and Piracy, “Controlling the zone: balancing facilitation and control to combat illicit trade in the world’s free trade zones” (May 2013).

parts of their territories, provided, however, that more drastic measures may be applied. The commentaries to the two conventions suggest that the conditions often prevailing in free ports and free zones that may render such zones convenient for the operations of traffickers indicate the need to apply even stricter control measures in them than in other areas.

369. Article 18 of the 1988 Convention contains similar provisions regarding the application by parties of measures in free trade zones that are no less stringent than those applied in other parts of their territories, including with regard to substances in Tables I and II of that Convention, that is, precursor chemicals. Article 18, paragraph 2, of the 1988 Convention provides for additional measures that require more intervention by Governments in free trade zones. These include monitoring the movement of goods and persons in such zones; empowering competent authorities to search cargoes and incoming and outgoing vessels, and when appropriate, to search crew members, passengers and their baggage; establishing and maintaining a system to detect consignments suspected of containing narcotic drugs, psychotropic substances and precursor chemicals; and establishing and maintaining surveillance systems in harbour and dock areas and at airports and border control points in free trade zones and free ports.

370. The experience since the adoption of the 1988 Convention has revealed the need for attention to be devoted to preventing the diversion of precursors within free trade zones. Reflecting the depth of that concern, the Economic and Social Council, in its resolution 1992/29, underlined the importance of applying suitable regulatory measures, in accordance with the provisions of article 18 of the 1988 Convention, to every stage of the receipt, storage, handling, processing and delivery of precursor and essential chemicals in free ports and free trade zones and in other sensitive areas such as bonded warehouses. Furthermore, in its resolution 1995/20, the Council urged Governments to ensure, as far as possible, that shipments entering or leaving such zones be subject, where permitted, to the controls necessary to safeguard against diversion.

Free trade zones and the revised Kyoto Convention on the Simplification and Harmonization of Customs Procedures

371. Free trade zones represent an important means for facilitating trade. The revised Kyoto Convention defines a “free zone” as a part of the territory of a contracting party (to the Convention) where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the customs territory.

372. Although the revised Kyoto Convention states that customs authorities shall have the right to carry out checks at any time on the goods stored in a free zone, there is little consistency in the application of that provision among free zones globally. This is perhaps due to misinterpretation of the aforementioned definition of a free zone, which appears to confer extraterritorial status on such zones, leading to the limited involvement and authority of customs authorities.¹³⁶

373. Other provisions of the revised Kyoto Convention, however, provide sufficient evidence to address this misconception. The fact that the Convention provides for the involvement of customs authorities in relation to requirements for the suitability, construction and layout of free zones, and that those authorities retain the right to carry out checks at any time on the goods stored in such zones, indicates that it is only for purposes of duties and taxes that goods located in the zones are considered as being outside the customs territory.

374. Furthermore, WCO has issued a publication entitled “Practical guidance on free zones” to ensure the adequate global application of customs procedures and surveillance in free zones. The core elements of the guidance include, inter alia, the full involvement of customs authorities in free zones, reporting to customs authorities and the use of data and information technology systems, customs audits in free zones, and the authority of customs officials to seize illegal goods and conduct on-site checks inside free zones.

375. A uniform application of the provisions of the international drug control conventions and the revised Kyoto Convention would greatly reduce the chances of free trade zones being misused for illicit activities. However, few countries have implemented the provisions of the revised Kyoto Convention, even though the number of contracting parties to the Convention has reached 129.

Operation Insight

376. To increase the awareness of the control processes and procedures of free trade zones, and to better protect them from being misused for the diversion of and trafficking in precursor chemicals, INCB, WCO and the UNODC-WCO Container Control Programme jointly implemented Operation Insight in the period 2022–2023. Designed as an exercise to understand the processes whereby precursor chemicals enter and exit through free zones, the joint operation was conducted at a limited number of locations.

¹³⁶Omi, “‘Extraterritoriality’ of free zones”.

377. The preliminary findings of the operation revealed a lack of uniformity among the participating countries with regard to the territorial status of free trade zones and whether and how customs procedures are applied in them. In some countries, free trade zones were considered to be part of the customs territory, while in others they were not. The customs authorities in some countries conducted risk-based background checks on companies applying for tenancy in free trade zones and checks on their admissible activities, key employees and compliance records, while in others they did not. Similarly, divergent practices were reported regarding the authority of customs officials to conduct inspections, audits and investigations and to seize goods within the free trade zones. With regard to the submission of declarations and related data, the customs authorities of all participating countries reported having access to such data, although there were disparities in the quality of the data. Half of the locations reported that they had not implemented any cooperation mechanisms with operators and companies.

378. Although the joint operation was only conducted on a limited scale, the findings confirm the need for strengthening transparency in procedures and mechanisms in free trade zones. The divergence of practice among countries with regard to controls over free trade zones and the lower level of oversight by customs authorities in such zones, compared to the rest of the territory in which the zones are located, continue to be reasons for concern, as such factors make free trade zones vulnerable to exploitation by criminal organizations, enabling them to traffic drugs and precursor chemicals through the zones more easily. **Accordingly, the Board reiterates that States parties to the international drug control conventions are required to apply drug control measures in free ports and free zones that are no less stringent than those applied in other parts of their territories, and have the option of applying more stringent measures, as outlined in the conventions.**¹³⁷ **Ensuring that drug control measures are upheld in free ports and free zones is imperative to preventing trafficking in internationally controlled narcotic drugs, psychotropic substances and precursor chemicals.**

¹³⁷Article 31, paragraph 2, of the 1961 Convention; article 12, paragraph 3 (a), of the 1971 Convention; and article 18 of the 1988 Convention.

5. Practices and challenges in the implementation of measures applied nationally to control non-scheduled precursor chemicals

379. One of the effects of scrutiny of data on the international trade in precursor chemicals is the greater attention given by illicit drug manufacturers to the possibility of sourcing the same chemicals in domestic markets. The Board drew attention to this trend in specific chapters of the INCB reports on precursors for 2020 and 2021.¹³⁸

380. In an effort to take stock of existing precursor control measures applied to domestic markets, the Board conducted a survey in June 2021 and a follow-up survey in March 2023. By November 2023, 78 Governments and the European Commission had responded. Of those respondents, 62 provided detailed information on specific control measures. The survey also extended questions about domestic controls to other internationally non-scheduled chemicals found to have been used in the illicit manufacture of drugs.

381. Almost 80 per cent of the responding Governments reported that they had placed other non-internationally scheduled chemicals under national control, ranging from 1 up to more than 70 chemicals. The Board is also aware that some countries generically extend the definitions of chemicals under control by including entire families of derivatives of listed chemicals and other substances closely related to them. For example, Canada has applied such an approach to analogues and derivatives of 4-AP, which became subject to criminal prohibitions under the Controlled Drugs and Substances Act of Canada in 2022.

382. The survey provided information about the number of non-scheduled chemicals that have been placed under international control. The survey revealed that 28 countries have placed 1 to 10 internationally non-scheduled chemicals under national control. In addition, three countries have enacted national controls for 11 to 20 such chemicals, and four countries have done so for 21 to 30 chemicals.

383. On the basis of the findings of the survey, the Board identified four key areas for preventing the domestic diversion of non-scheduled precursors from licit to illicit channels, namely: (a) manufacture; (b) distribution; (c) end uses; and (d) Internet-facilitated trade involving (non-scheduled) precursor chemicals.

384. The information provided in national responses assists the Board in updating its information package on the control

¹³⁸E/INCB/2020/4 and E/INCB/2021/4.

of precursors, enabling enhanced dialogue with Governments and contributing to policy discussions on measures to address the proliferation of chemicals not included in Table I and Table II of the 1988 Convention. **The Board commends all Governments that have responded and provided important information on the scope and extent of their national legislation, including domestic controls over substances in both Table I and Table II of the 1988 Convention and additional chemicals that are not included in Table I or Table II but that are under national control.**

385. The use of non-scheduled chemicals, including designer precursors, in illicit drug manufacture is clearly a major challenge in international precursor control. In order to increase Governments' awareness, the Board has produced several resources and guidance documents, including the limited international special surveillance list of non-scheduled chemicals, which is updated annually, the Precursor Chemical Monographs and a guidance document to address the proliferation of non-scheduled chemicals. This latest document is the result of extensive consultations and a series of events convened or supported by the Board since 2020, and provides a full range of policy and enforcement options that Governments can choose to address the challenge of the use of such non-scheduled chemicals in illicit drug manufacture. Every year, as part of the information package circulated to all parties to the 1988 Convention, the Board also disseminates a compilation of national/domestic measures that Governments have adopted to control substances.

386. Lastly, in October 2022, the Board also launched PEN Online Light, an electronic platform similar to PEN Online that has been designed to allow the sharing of information about planned exports of precursor chemicals not under international control. PEN Online Light operates exclusively on a voluntary basis. Additional information can be found in paragraph 333.

387. Various industrial sectors that use chemical substances – whether they are internationally controlled or not – might, often unknowingly, be exploited by drug traffickers to source precursors for illicit drug manufacture. Voluntary cooperation with relevant industries is therefore a key element of effective precursor control. While industries dealing with known and controlled drug precursors are generally licensed/regulated by authorities, the categories of industry dealing with non-scheduled alternative or substitute chemicals not under international control are less known and may not be licensed/regulated. In 2022, the Board published a booklet containing a global review of categories of industry involved in the manufacture and distribution of and trade in chemicals used in the illicit manufacture of drugs. The booklet aims to call the attention of Governments to the need to expand voluntary cooperation with industry to many more actors. In

this connection, the Board is also engaged with partners in developing methodologies that allow Member States to map their national industry landscapes, identify potential areas of intervention and strengthen the proactive and responsible participation of industry in preventing diversion.

6. Challenges and opportunities in promoting drug treatment and rehabilitation according to the UNODC and WHO International Standards for the Treatment of Drug Use Disorders after the COVID-19 pandemic

388. With the slowing down of the global COVID-19 pandemic and with WHO declaring the end of the disease as a public health emergency in May 2023, Governments around the world are striving to resume the provision of public drug use treatment and rehabilitation services to the most vulnerable populations. Considering the impact of the pandemic on treatment delivery and services, analysis of the persisting challenges and innovative approaches to treatment and rehabilitation can provide valuable input for the development of future public policies and approaches.

389. The Board has discussed the issue of the provision of effective treatment services in previous annual reports. It recently devoted specific chapters to the following topics: women and drugs (2016); treatment, rehabilitation and social reintegration for drug use disorders as essential components of drug demand reduction (2017); improving substance use prevention and treatment services for young people (2019); and the hidden epidemic of the use of drugs among older persons (2020).

390. The COVID-19 pandemic has had a profound impact on the delivery of treatment services. The strain on health-care systems and the restriction of movement have disrupted the conventional methods of treatment in many national settings. Even before the pandemic, the global landscape of drug use treatment and rehabilitation services was marked by disparities, challenges and limitations that necessitated comprehensive, evidence-based responses. UNODC highlighted a substantial gap between the demand for treating drug-related disorders and actual treatment provision, with just one in five affected individuals receiving care in 2021. The pandemic has further exposed these inequities, disproportionately affecting vulnerable demographics.

391. In 2012, a joint statement was issued by 12 United Nations agencies and programmes, calling on States to close compulsory drug detention and rehabilitation centres and

implement voluntary, evidence-informed and rights-based health and social services in the community. Over 10 years later, however, many of these centres remain operational. In some cases, they operate as private clinics with the collaboration of patients' families, as observed in some parts of South America, or as prison-like facilities run by the State, outside the control and monitoring of the justice system, as seen in parts of Asia. In some countries in Africa, they can be found in hospital settings, and as the result of administrative and financial constraints. A report issued by UNODC and UNAIDS in 2022 indicated that compulsory drug treatment facilities in East and South-East Asia have not been closed as planned.

392. The shift in drug use patterns observed in many regions might have left Governments and communities unprepared. As a result, owing to the limited availability of proper treatment services, an increased number of patients have been directed to compulsory treatment facilities, where deteriorating conditions have been observed in some countries. Similarly, overcrowding and inadequate rehabilitation programmes in prison settings compound challenges, affecting both physical and mental well-being.

393. The provision of non-evidence-based treatment is not limited to compulsory settings. Many treatment and rehabilitation facilities around the world continue to employ interventions such as physical exercise, forced labour, excessive use of sedatives, forced religious conversion and punishment in isolation cells under the guise of "therapy". This includes facilities that have been licensed by Governments but that do not provide their staff with proper training or undergo monitoring in line with the UNODC and WHO International Standards for the Treatment of Drug Use Disorders.

394. According to UNICEF, the pandemic has underlined the need to strengthen mental health and psychosocial support for vulnerable populations, especially young people. In 2022, UNODC reported that young people were using more drugs than the previous generation, which could be particularly detrimental to their mental health. For example, national mental health plans in Malaysia, Papua New Guinea, the Philippines and Thailand all emphasized the need to shift service delivery from institutional, specialized clinical treatment to strengthened community-based services and to place greater emphasis on rehabilitation, recovery, and social integration and support.

395. Remarkably, the pandemic has not only highlighted challenges in treatment and rehabilitation, but has also acted as a catalyst for innovation in treatment services. For example, the integration of telehealth and technology has emerged as a promising solution, especially in North America, overcoming traditional barriers to care and

enhancing patient engagement. Telehealth, shown to be feasible and acceptable, has the potential to provide evidence-based treatment and support remotely, increasing patient satisfaction.

396. Advancements in personalized and alternative treatment that have improved the rehabilitation process have also been observed. Initiatives such as the court diversion programme of Thailand underscore the importance of alternatives that prioritize rehabilitation over punitive measures. Such evidence-based programmes align with UNODC and WHO recommendations for effective drug disorder rehabilitation.

397. The successful adoption of quality standards was observed in many countries, reflecting Governments' efforts to improve the lives and dignity of patients who use drugs, as well as the readiness of the United Nations system to support and promote such endeavours. For example, from 2020 to 2021, two treatment centres in Bolivia (Plurinational State of) and the Dominican Republic took part in the UNODC initiative "Quality assurance: facilitating drug dependence treatment in accordance with the International Standards for the Treatment of Drug Use Disorders in Latin America". In the Plurinational State of Bolivia, an assessment confirmed that the evaluated institutions met an average of 86 per cent of the key quality standards. In the Dominican Republic, 58 per cent of the facilities had medical doctors specialized in addiction medicine or addiction psychiatry on staff, with some (48 per cent) offering services for specific population groups, such as LGBTI individuals.

398. Elsewhere in the Americas, Ecuador has introduced treatment facilities that offer social support services, including education and vocational training assistance (74 per cent), employment and income generation support (48 per cent), and housing support (29 per cent). In Guatemala, most facilities provide motivational enhancement therapy, group counselling, individual counselling and twelve-step facilitation, as well as Internet- or web-based therapy. In Mexico, over half of facilities receive funding from the Ministry of Health, although only a small number cater to homeless people (8 per cent), Indigenous groups (6 per cent), or migrants, displaced persons and refugees (5 per cent). Overall, capacity for dealing with various types of drugs has increased, but the provision of specialized medical care and nursing support remains challenging, as does gender mainstreaming.

399. In Africa, the scarcity of comprehensive information and prevalence data continues to hinder efforts to gauge the full extent of the drug use problem and the availability of appropriate treatment. According to the latest field test report in French-speaking African countries prepared by

UNODC, in West and Central Africa, treatment systems for substance use disorders take the form of Government-run care centres within the health-care system, outpatient addiction treatment facilities and various types of hospitalization centres. These centres and facilities are mostly lacking in or provide inadequate opioid agonist treatment, except for in Côte d'Ivoire, Senegal and Togo. A number of positive developments have also been identified, such as the newly established Interministerial Committee for Combating Drug Abuse and Psychotropic Substances of Benin. However, the development of services for specific populations, such as women, children and prisoners, is still urgently needed in the region.

400. The Board urges Governments to ensure access to voluntary, evidence-based treatment services, in line with the UNODC and WHO International Standards for the Treatment of Drug Use Disorders. In doing so, Governments should address systemic disparities and ensure inclusivity in treatment services, with special attention given to vulnerable groups. The Board also encourages Governments to continue to focus on initiatives to combat stigma and discrimination in relation to people who use drugs.

401. The Board supports the call by UNODC for Governments to close compulsory treatment facilities and to shift efforts and resources towards the provision of evidence-based treatment services and alternatives to imprisonment.

402. The Board encourages Governments to continue collaborating with the international community to strengthen management and monitoring capacities, as well as data collection and data-sharing, to inform and improve public policies and the provision of treatment and rehabilitation services.

403. Lastly, the Board urges Member States to implement continuous review mechanisms directed at licensed treatment facilities in their territories, with the aim of ensuring compliance with the UNODC and WHO International Standards for the Treatment of Drug Use Disorders.

7. The impact of drug-related crimes on the environment

404. The intricate interplay between illicit drug economies and environmental degradation has emerged as a pressing concern, demanding comprehensive scrutiny and concerted action. The impact of illicit drug-related activities on the environment takes different forms around the

globe, including deforestation, contamination of rivers and soil, and animal and human poisoning. Indirectly, the illicit production, manufacture and trafficking of drugs can also be linked to other environmentally damaging activities, such as illicit mining. The impact of those activities often affects local communities most adversely, as it may destroy livelihoods and introduce violence and drug use to populations in remote areas. While the connection between illicit drug-related activities and environmental consequences still requires further research, there is growing evidence showing that there are significant linkages at play.

405. The illicit cultivation of drug crops occurs predominantly in remote and ecologically fragile areas, resulting in significant impacts on local ecosystems and biodiversity. According to UNODC, the tropical forests of Nigeria have become hubs for illicit cannabis cultivation, causing profound shifts in their ecological dynamics. Similarly, the Andean region has witnessed the expansion of illicit coca cultivation leading to substantial deforestation, soil degradation and loss of floral and faunal diversity. The Amazon basin, a biodiversity hotspot, faces threats due to illicit coca cultivation, with varying degrees of forest loss occurring across countries. In the Golden Triangle of South-East Asia, illicit opium poppy cultivation has played a pivotal role in forest degradation. In certain areas of Afghanistan, such as the southern province of Helmand, opium poppy cultivation has resulted in salinization because of poor drainage during irrigation.

406. Illicit drug production makes use of noxious chemicals that percolate into the environment, yielding widespread and harmful contamination. For instance, methamphetamine synthesis involves the use of hazardous chemicals, such as anhydrous ammonia, that are often disposed of in the environment without being properly treated. Within the relatively small geographic area comprising the southern areas of the Kingdom of the Netherlands and the northern areas of Belgium, the concentration of dumping sites associated with synthetic drug production has led to significant soil and water contamination. Similarly, cocaine production in the Andean Amazon region employs substances such as sulfuric acid and kerosene, triggering ecological disruptions. Although the risks posed to public health and biodiversity by such activities may be relatively small in global terms, they may be significant at the local level.

407. The carbon footprint of illicit drug production has alarming implications for climate change. For example, according to statistical data provided by UNODC, the manufacture of cocaine produces significant carbon emissions, an estimated 8.9 million tons of carbon dioxide per year. It takes more than 300 litres of gasoline to produce 1 kg of cocaine, with legacy impacts ranging from water pollution to soil degradation, which have implications for both

animal and human health. The process of illicit drug production, characterized by inadequate waste management in remote locations, exacerbates its carbon emissions impact. In Cambodia and Myanmar, the utilization of precursor chemicals in the illicit manufacture of synthetic drugs has created a specific negative impact on the fragile ecosystems of those countries due to the large amount of wood required in the process. Additionally, illegal gold mining and cryptocurrency mining (involving massive energy consumption for computing), often intertwined with drug trafficking, play a pivotal role in increasing deforestation and augmenting carbon emissions within the Amazon region.

408. Drug trafficking is connected to various forms of environmental exploitation. In Central America, drug cartels seamlessly diversify into illegal logging, illegal mining, and trafficking in wildlife. Notably, those activities are frequently accompanied by a range of convergent crimes, from bribery to violent crimes. Research in Central America indicates that drug trafficking can indirectly drive land-use changes by facilitating deforestation through illicit capital and land control practices, potentially resulting in greater environmental impacts than those caused by the direct actions of drug trafficking networks.

409. In Ecuador, the deterioration of the environment and the degradation of natural resources due to coca bush cultivation and cocaine production pose threats to vulnerable livelihoods at the northern border with Colombia, especially for those who depend economically on the harvest of shells and crabs. This situation has the potential to push local vulnerable populations into the illicit economy, including the activities of cocaine smuggling or smuggling subsidized gasoline to cocaine traffickers in the department of Nariño in Colombia for use in cocaine manufacture.

410. In Mexico, the confluence of illicit cannabis and opium poppy cultivation converges with the unlawful logging trade, particularly afflicting the Sierra Madre Occidental region. Across the Amazon basin, violent disputes between local communities and drug traffickers are routinely reported, often a result of complaints over land speculation and illegal occupation. The triple border area of Brazil, Colombia and Peru is a hotspot of illicit deforestation, driven by the illegal timber trade, as well as drug trafficking.

411. In Africa, increased law enforcement activities along traditional drug supply routes have shifted distribution patterns, with West Africa emerging as a significant hub. For instance, in Nigeria, outdoor cannabis cultivation processes involve labour-intensive tasks such as clearing, planting and harvesting, potentially resulting in greenhouse gas emissions from fuel and electricity use. Additionally, armed groups associated with drug trafficking also engage in illicit

activities such as elephant poaching and ivory trafficking, further impacting on the continent's landscapes and wildlife.

412. Efforts to eradicate illicit drug crops often have unintended environmental consequences. Aerial spraying of herbicides, such as glyphosate, can harm non-target species and result in soil and water contamination. In its report on human rights challenges in addressing and countering all aspects of the world drug problem,¹³⁹ issued in August 2023, OHCHR confirmed that risks are posed by the aerial spraying of pesticides and other chemicals to the environment and the health of the affected population, and recommended that States and relevant stakeholders avoid aerial spraying for crop eradication and ensure that the eradication of illicit crops does not negatively affect the environment or the health of individuals.

413. In the report, OHCHR further recognized that some of the most prominent effects of illicit drug economies, such as deforestation, monocultures, pollution of waters and soil, and the high carbon footprint of in-house cultivation, pose a risk to access to a clean and healthy environment, which was recognized as a universal human right by the General Assembly in 2022.¹⁴⁰ This is evidenced, for example, in Colombia, where drug-related violence and displacement are intertwined, and eradication efforts can trigger further deforestation due to land-use changes, and in Myanmar, where analogous efforts aimed at eradicating opium poppy cultivation have caused soil erosion and the concomitant loss of indigenous agroforestry practices.

414. Striking a balance between addressing drug-related crime and minimizing environmental harm remains a complex challenge. Addressing the environmental impact of the illicit drug trade requires a holistic approach. International cooperation is essential, given the potential of drug-related crime to undermine ecosystems and human well-being. Coordinated responses encompass comprehensive law enforcement efforts, environmental protection measures and sustainable development strategies.

415. The Board calls on Governments, with the support of the international community, to take urgent action to address such threats, prioritizing the safety and well-being of local, native and vulnerable populations, as well as the protection of the environment. Furthermore, the Board urges Governments to collaborate with the international community and with the United Nations system in improving the available research and data on the dynamics of illicit drugs and the environment and the related impacts across all regions of the globe.

¹³⁹ A/HRC/54/53.

¹⁴⁰ General Assembly resolution 76/300.