

Drugs, International Challenges



CHEMICAL PRECURSORS, THE UNKNOWN DIMENSION OF THE WORLD'S ILLEGAL DRUG MARKET

Michel Gandilhon

French Monitoring Centre for Drugs and Drug Addiction (OFDT)

In December 2013, criminal investigators in Antwerp identified eight sites that served as dumping grounds for an estimated 90 metric tons of the chemicals used to manufacture synthetic drugs. This revealed a key, but little-known, dimension of the illegal drug economy: precursor trafficking. Indeed, this trafficking draws little attention as efforts are focused on seizures of finished products listed as narcotics (such as heroin, cocaine and amphetamines). Yet, this trafficking is a reality that now touches all continents and makes use of all major global trade routes. Precursor trafficking has expanded since the industrial boom experienced by new global economic players in chemicals manufacturing, like India and China¹. Subsequently, from 1981 to 2010, the number of production sites worldwide rose from 61,000 to 100,000 [1]. For the services responsible for controlling chemical precursors and preventing their trafficking, the task is extremely complex because, in contrast with finished products, the

production and commerce of substances involved in the production of the majority of illegal drugs is in fact perfectly legal². Furthermore, to circumvent the controls established by international conventions and regulations, dealers, as is already the case for New Psychoactive Substance (NPS) [2], constantly adapt by using unclassified substances.

After presenting an overview in the first section of the global situation, and in particular, the main trafficking routes, this issue of *Drugs, international challenges* will discuss the latest trends, and especially the challenges facing Europe with the appearance on the market of new precursors and pre-precursors. The third section

1. Today, the Chinese chemical industry is the world leader, ahead of the United States and Japan, while India is ranked ninth (UNODC [1]).

2. Controlling such trafficking becomes even more complex giving that the proportion of misappropriation appears to be negligible compared to the volumes of chemicals produced worldwide each year.

INTRODUCTION

This issue of *Drugs, international challenges* published in partnership with the OCRTIS (Central Office for the Repression of Drug-Related Offences) discusses the fundamental, but often-ignored, narcotics trafficking issue of precursors. “No such thing as a drug without chemicals” is an adage that is confirmed, especially given the explosive upward trend in the production of synthetic drugs worldwide, for which the market, with the emergence of new psychoactive substances (NPS), is undergoing deep-seated changes. Although twenty-five years ago, with the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances in Vienna in 1988, the international community implemented cooperative measures to control and prevent precursor misappropriation, the fight remains a very difficult one due to increasing numbers of new participants in chemicals production (India, China). These new players make controls extremely challenging, which is compounded by the responsiveness of criminal organisation. Subsequently, much like the current trend for NPS, traffickers constantly attempt to remain a step ahead of law enforcement by using unclassified substances. The sales of unclassified substances, such as APAAN until 2013, are unregulated and used to produce synthetic drugs (such as MDMA, amphetamines and methamphetamines).

Given Europe's importance as a zone of production, it is also highly affected by an increase in the dumping of unclassified chemicals. This dumping, which is too rarely discussed, has a negative impact on the environment.

Werner Verbruggen (Europol)

will be dedicated to the resources employed by the international community to fight against this phenomenon.

Global trafficking

Precursors are chemical substances, psychoactive or otherwise, that are necessary for the preparation (extraction, and above all, synthesis) of narcotics. To prevent misappropriation of chemical substances for illegal purposes worldwide, article 12 of the Vienna convention of 1988 lists about 20 such substances in two tables in the appendices of the

United Nations convention³. The measures adopted do not aim to prohibit, but rather, to monitor the production and legal distribution of potential precursors. Based on the 1988 convention, the table below details the different substances monitored within the scope of European regulations.

Shell corporations: a method for misappropriation

With the exception of cannabis or khat, illegal drugs require precursors and essential chemicals (reagents, solvents, acids) for their synthesis. As evidenced by worldwide seizures, the trafficking of these substances has become a criminal activity in

itself (see box below) and follows the routes of international trade and trafficking, relying on the most traditional maritime, land and air channels. To obtain a precursor necessary to produce drugs, not only must criminal networks rely on the services of chemists⁴, who possess the expertise required to select substances and dose quantities, but they must also necessarily find accommodating trade channels allowing reliable supplies of quality chemical substances. This supply is usually ensured through orders placed by fictitious commercial companies. Very often, intermediary companies qualified as «facilitators» are nothing more than shell companies used by criminal organisations to mask illegal import activities for production purposes (in clandestine laboratories). Therefore, for example, in 2012 Thai criminal networks looked to South Korea for imports of colossal quantities of pseudoephedrine⁵ (a methamphetamine precursor) through fictitious orders (using falsified official documents) for five Thai hospitals. Less frequently, chemical substances are quite simply stolen from companies storing or transporting such substances. Recent examples of ephedrine theft in Mexico, the world's leading methamphetamine producer [3], have been recorded in airport freight warehouses.

Pseudoephedrine: global trafficking

One of the best illustrations of the global nature of precursor trafficking is represented by the pseudoephedrine routes being deployed from India to Mexico via the Middle East, Europe and Africa. In this regard, the 2007 seizure by French customs of 2.7 metric tonnes

Table 1 - Precursors and essential chemical substances being monitored in the European Union and listed in four categories according to the risks of misappropriation.

Category 1	Substances
Phenyl-1 propanone-2	Amphetamine/Methamphetamine
N-acetylanthranilic acid	Methaqualone/Mecloqualone*
Lysergic acid	LSD
APAAN	Amphetamines
Ephedrine	Methamphetamine/Methcathinone
Ergometrin	LSD
Ergotamine	LSD
Isosafrole	MDA, MDMA, MDEA
3,4-Methylenedioxyphenyl-2-propanone	MDA, MDMA, MDEA
Norephedrine	Amphetamines
Sassafras oil	MDA, MDMA, MDEA
Piperonal	MDA, MDMA, MDEA
Pseudoephedrine	Amphetamines/Methamphetamines
Safrole	MDA, MDMA, MDEA
Category 2A	Substances
Acetic anhydride	Heroin
Category 2B	Substances
Phenylacetic acid	Amphetamines/Methamphetamines
Anthranilic acid	Methaqualone/Mecloqualone*
Potassium permanganate	Cocaine, Methcathinone
Piperidine	Phencyclidine (PCP)
Category 3	Substances
Acetone	Cocaine, Heroin
Hydrochloric acid	Cocaine, Heroin
Sulphuric acid	Cocaine, Heroin
Ethyl ether	Cocaine, Heroin
Methylethylketone	Cocaine, Amphetamines
Toluene	Cocaine
Category 4	Substances
Ephedrine-containing medicines	Methamphetamines
Pseudoephedrine-containing medicines	Methamphetamines

Source: Regulation (EC) No. 273/2004 of Parliament and Council (appendix 1) amended by Regulation (EU) No. 1258/2013 of 20/11/2013 and the MNCPC site.

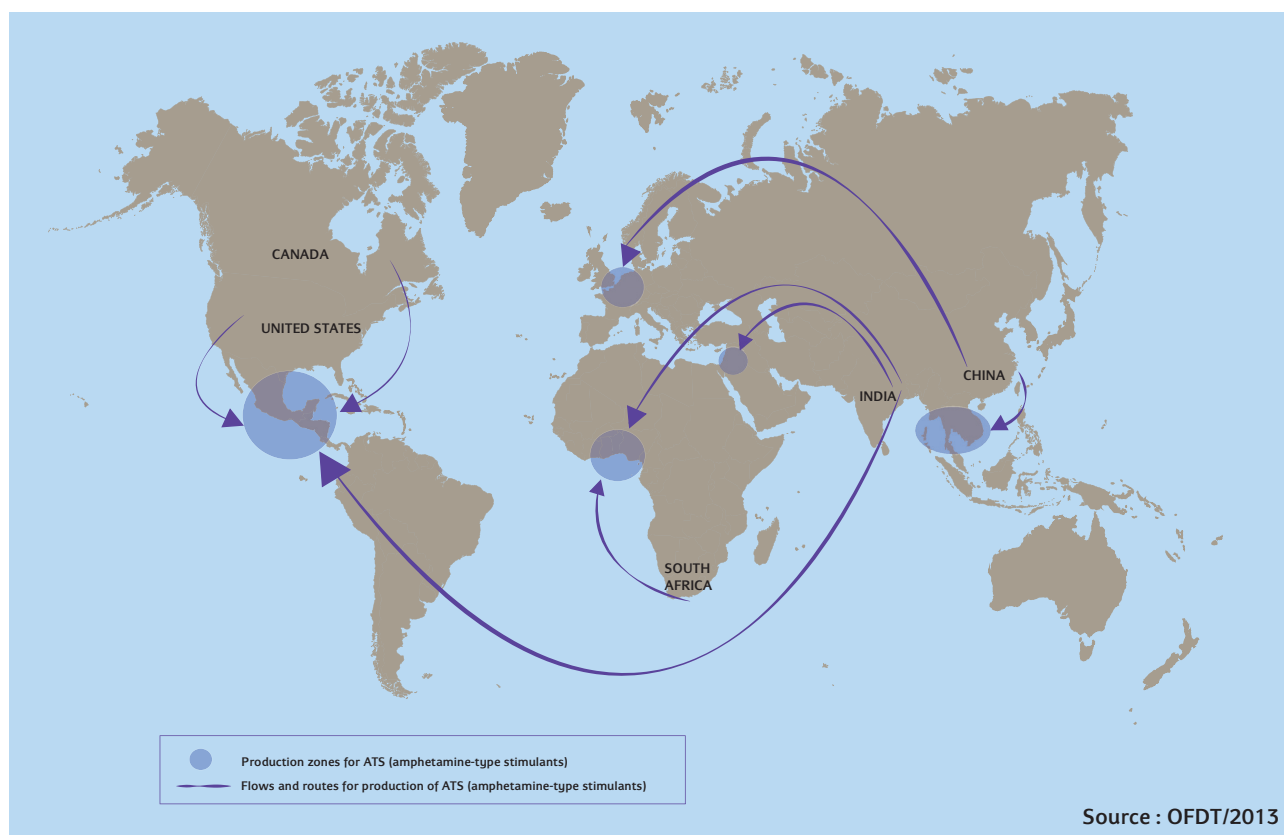
(* Sedative molecule with various commercial names and likely to be misused)

3. The 1988 Vienna Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances extended previous conventions (1961, 1971) and notably aimed to reinforce international cooperation against organised crime with a focus on the fringe involved in chemical precursor trafficking.

4. In Mexico, criminal organisations sometimes directly recruit chemists graduating from university [3].

5. Ephedrine and pseudoephedrine are used in bronchodilation and nasal decongestant medicines.

Map 1 - Flows and routes of precursors (ephedrine, pseudoephedrine, BMK⁶, PMK⁷, APAAN⁸) toward production zones for ATS (amphetamine-type stimulants)



Seizures on five continents

Europe: In December 2013, criminal investigators in Antwerp, Belgium identified eight sites that served for dumping nearly 88 t of chemical substances used to manufacture MDMA.

Asia: In December 2013, the Pakistani ANF (Anti-Narcotics Forces) stated having intercepted a cargo of 103 t of the precursors needed to produce heroin (acetic anhydride and hydrochloric acid). This is a new record for a single maritime delivery to the docks of Port Qasim in Karachi (Pakistan). Around the same time, 18 t of acetic anhydride were seized in Iran and 13 t intercepted in Afghanistan.

America: In December 2011, in the Pacific port of Manzanillo, the Mexican authorities seized a 23 t container of methylamine coming from Turkey. Methylamine is a substance that was not classified during the 1988 Convention, but is classified as a precursor in the United States by the DEA (Drug Enforcement Administration). That same month, 120 t of the same substance, coming from China and hidden in containers destined for Guatemala, were discovered in the Port of Lazaro Cardenas. These interceptions bring the total quantity of 2011 Mexican precursor seizures to approximately 1,200 t.

Oceania: In September 2011, a joint operation between Sydney, Australia customs and federal police helped dismantle a safrrole import network. Quantities coming from China allegedly would have enabled 235 kg of methamphetamines or 2.3 million ecstasy doses to be produced.

Africa: In July 2009 in Moussayah and Bouramayah, Guinea-Conakry, police found enormous quantities of solid and liquid precursors (e.g., sulphuric acid, sassafras oil, methanol, methyl ethyl ketone, etc.) destined for use in synthetic drug production.

of pseudoephedrine⁹ tablets at Roissy-Charles-de-Gaulle airport from an Air France freight flight coming from Teheran (Iran) demonstrates the increasing complexity of the trafficking routes and strategies used to cover up tracks. Officially, the cargo was intended to be sent to Kisangani (Democratic Republic of the Congo), where it was to covertly depart for Mexico and supply the methamphetamine laboratories of the Sinaloa cartel. Since the merchandise did not have any transport

6. BMK: Benzyl Methyl Ketone or Phenylacetone or P2P (Phenyl-1 propanone-2) – amphetamine precursor.

7. PMK: Piperonyl Methyl Ketone (3,4 Methylene-dioxyphenyl 2 propanone) – MDMA precursor.

8. APAAN: Alpha Phenyl Aceto Aceto Nitrile – Amphetamine pre-precursor

9. Pseudoephedrine yields 1 kg of methamphetamine for every 1.5 kg used. This translates into approximately 10,000 tabs. Over 2 t of pseudoephedrine represents 19 million «Meth» tablets. Its category 1 classification means that every commercial transaction that takes place (whether import or export) is closely monitored by the authorities.

or export authorisation documents, and the quantities largely exceeded the legal needs of the Democratic Republic of the Congo, a criminal investigation was conducted. The OCRTIS (Office central pour la répression du trafic illicite des stupéfiants, or Central Office for the Repression of Drug-Related Offences) with the help of the MNCPC (Mission nationale de contrôle des précurseurs chimiques, or National Mission for the Control of Chemical Precursors – see below) organised a “monitored” delivery of this merchandise from Paris to Kinshasa. The objective of this operation was to identify the criminal organisation working with the Mexican cartels. Known as “Operation Congo”, this mission helped identify the complete route taken by precursors. Precursors coming from India and transiting through Iran, France and the Congo were destined for the State of Jalisco on the West coast of Mexico. This monitored delivery led to the discovery in Kinshasa of an additional 13 t of pseudoephedrine which, when added to the initial cargo, would have produced nearly 10 t of methamphetamine. In Mexico, the results of the investigation enabled Mexican federal police and the DEA in Cancun and Acapulco to dismantle a precursor import network overseen by a Mexican of Chinese descent¹⁰ [4].

Europe - a major importer

In the international breakdown of drug production, the European continent (the Netherlands, Belgium, Poland) is a major producer of synthetic drugs (MDMA, amphetamines) and therefore a major consumer and importer of the precursors needed for this production [5].

The challenge posed by unregulated precursors

For the past ten years, law enforcement services have been faced with a new challenge. Criminal networks, which are internationally interconnected, tend to replace substances that are subject to international

control by others whose sale is not regulated. Subsequently, in the last few years, there have been reports of substances coming from Russia, and now China, that can be substituted for amphetamine-, MDMA- and even methamphetamine-based precursors. This situation can be compared with the emergence of NPS, new psychoactive substances or legal highs: molecules are changed, albeit marginally, to circumvent legislation and at least temporarily avoid bans.

Pre-precursor trafficking

More recently, since 2011, Europe has become an area in which pre-precursors are transformed into precursors. This is the case with APAAN (alpha-phenylacetone nitrile), which must be transformed into BMK (Benzyl Methyl Ketone) to produce amphetamine. This type of trafficking was revealed in the Netherlands when several hidden laboratories that converted APAAN into BMK were uncovered¹¹. These massive imports from China were intended to offset increasingly frequent seizures of BMK, a Chinese-made precursor, by replacing it with local APAAN production [6]. As is seen more and more frequently, these uncovered laboratories both convert APAAN into BMK and produce amphetamines. In the Netherlands in 2012 and 2013, the number of laboratories of this type that were dismantled exceeded that of traditional laboratories. In parallel, several hundred tons of APAAN were seized in Belgium and the Netherlands, and several dozen Chinese companies, which initiated this kind of trafficking, were identified by Europol [7, 8].

However, since legal use is extremely limited, APAAN has long had the advantage of not being classified as a precursor, leading criminal networks to exploit the substance until massive imports towards Europe began to attract the attention of law enforcement services. Since late 2013, the European Union has classified APAAN as a category 1 drug precursor, while in March 2014, the United Nations Commission on Narcotic Drugs unanimously voted for this substance to be placed under international control. The use of

pre-precursors to directly and locally produce the precursors needed to manufacture the finished product does not only pertain to amphetamines. MDMA has also been affected by the mixed laboratories discovered in the Netherlands. These labs produce PMK (Piperonyl-Methyl-Ketone), the MDMA precursor, from PMK glycidate imported from China and transiting through certain European Union countries¹². However, the substitution of a precursor with a new substance is not limited to Europe. For several years now, a new type of laboratory has cropped up in Columbia. These labs use a local rock called “pyrolusite”, which is naturally rich in manganese, to produce potassium permanganate, a necessary cocaine precursor.

Beyond synthetic drugs

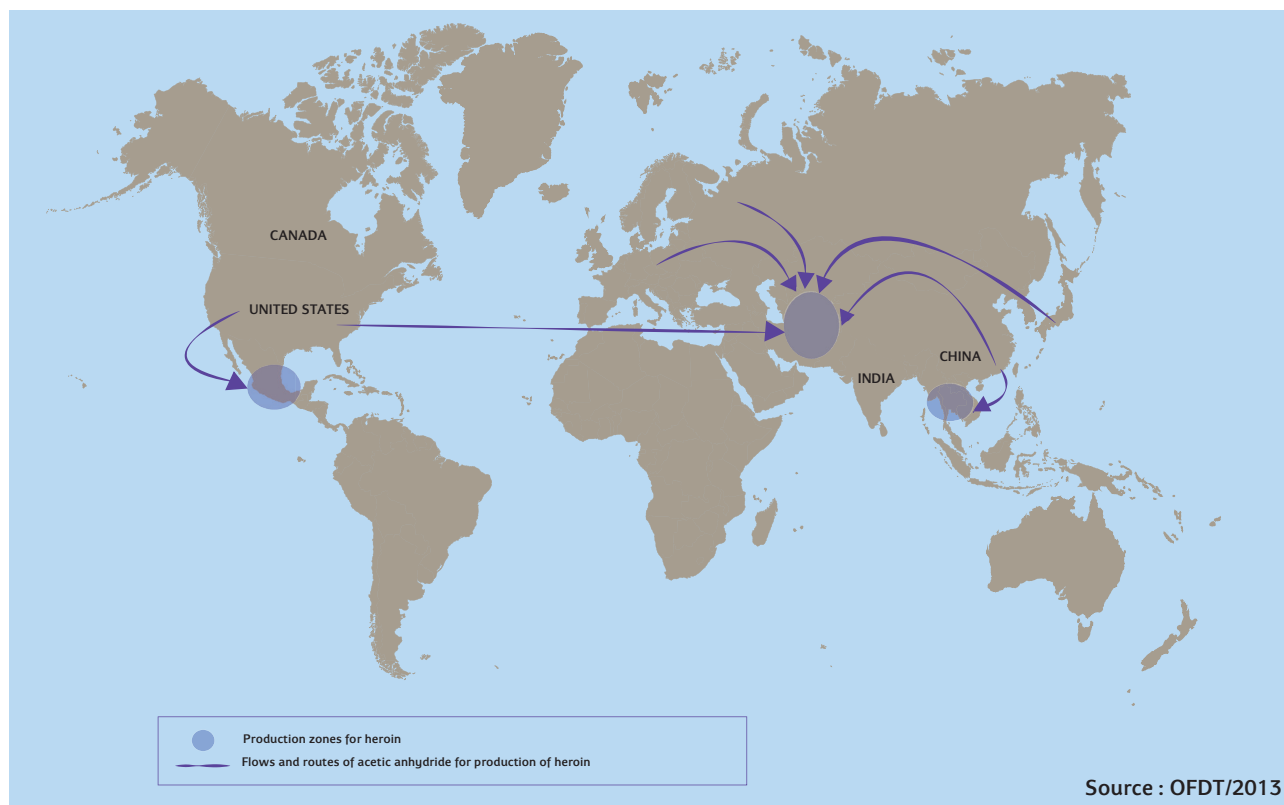
Pre-precursor and precursor trafficking toward Europe is not just for the synthetic drug market. Within the scope of an operation entitled “COLAPSO”, an investigation initiated by UDYCO (the Unidad de Drogas y Crimen Organizado, or the Central Drug Task Force of the Spanish Bureau of Drugs and Organised Crime) confirmed suspicions that a Spanish company was engaging in chemical trafficking, and led to the 2011 dismantling of a cocaine laboratory in the Madrid region¹³. This was unusual for a drug generally produced from coca grown in three Latin American Andean countries

10. Responsible for several years for massive imports of pseudoephedrine into Mexico from India and China, this operation entailed a record discovery of cash in a hacienda in Mexico: Two hundred and five million (205,000,000) US dollars.

11. In 2012, 17 conversion laboratories were dismantled in the Netherlands, 2 in Belgium, 1 in Germany and 1 in Poland. Source: EMCDDA, Synthetic drug production in Europe, Perspectives on drugs: <http://www.emcdda.europa.eu/topics/pods/synthetic-drug-production>

12. In 2014, the cooperation of police departments of seven European Union countries (Austria, Belgium, Germany, Hungary, the Netherlands, Slovenia and Romania) led to the dismantling of the international trafficking network supply of PMK glycidate and APAAN to Dutch laboratories. According to Europol estimates, in 2012 and 2013, this group allegedly imported 10 t of APAAN and 650 kg of PMK glycidate: <https://www.europol.europa.eu/content/synthetic-drug-precursor-trafficking-network-broken>

13. «Dans la plus grande raffinerie de cocaïne d'Europe» (In the biggest cocaine refinery in Europe), Journal du dimanche, 29 January 2011.

Map 2 - Flows and routes of acetic anhydride to heroin production areas

(Peru, Columbia and Bolivia). When the clandestine laboratory was identified, 300 kg of cocaine hydrochloride and, more importantly, 30 metric tons of precursors and chemicals (hydrochloric acid, ammonia, sulphuric acid, calcium chloride, caustic soda) were seized from a Spanish criminal group affiliated with Columbians. The very nature of the chemicals discovered confirmed the existence of one of the biggest units for transforming Columbian cocaine base ever dismantled in Spain. This discovery suggests that it is now simpler to transform coca base into cocaine hydrochloride closer to the countries where the drug is being used.

The ecological dimension

In addition to the major issue of managing the risks related to manipulating extremely dangerous chemicals during synthetic drug production, which occurs primarily in the Netherlands, there are enormous quantities of waste dumped at the end of the production chain. Criminal organisations have no problem dumping pollutant chemicals into the nature. One kilogram of

MDMA generates approximately 15 kg of extremely toxic waste, and all drug production affects the environment, which is difficult to hide. Some Mafia groups, mainly Italian, have grasped this, and now offer their services to the criminal organisations that specialise in synthetic drug production in order to optimise waste management. For a while now the 'Ndrangheta and Camorra have been investing in the management of all categories of waste, creating specialised companies that offer services to production entities - legal or otherwise - at very competitive prices because they circumvent the very strict rules imposed by the European Union [9]. This waste trafficking generates high revenues, thereby representing an effective method for money laundering and providing an opportunity to do away with cumbersome waste, and particularly the by-products of synthetic drug production.

In Belgium or the Netherlands, dumping sites cropped up at an alarming pace between 2011 and 2013 (they more than doubled in three years). This situation is clearly interpreted by the Dutch police as a war-

ning that amphetamine and MDMA production is on the rise again after a downward trend from 2009-2010 that was the result of a decline in production following a shortage of the precursors necessary for producing synthetic drugs. Quantities of chemical waste represent a good indicator of the level of synthetic drug production, as well as of the type of synthetic drugs being produced. The by-products of production, precursors and their packaging, all represent precious clues for identifying and tracking¹⁴ such substances. All of these discoveries help launch criminal investigations. The number of seizures of precursors and the quantity of such substances have risen in three years. This indicates that the large-scale production of synthetic drugs in Belgium and the Netherlands is up over the last few years. This kind of environmental waste also affects the United States, which is a key producer of amphetamine-

14. Backtracking or tracking substances investigations

15. For every kilogram of "Meth" produced, there are 6 kg of toxic waste.

type stimulants (ATS), and methamphetamines in particular.¹⁵ During the “Interflow” meeting organised by Interpol in March 2014, a DEA representative estimated the three-year cost (2011–2012–2013) of the “Clean up” mission intended to preserve the environment from the clandestine production of synthetic drugs to be 38 million dollars.

The dimensions of the international anti-trafficking efforts

Under pressure from the United Nations, some States with high levels of narcotics production were required to officially recognise the absence of legal needs for certain precursors in their domestic production, and subsequently prohibit the import of such precursors. Mexico and then Guatemala, in 2008 and 2009 respectively, enacted a law banning the import of ephedrine- or pseudoephedrine-based preparations, which are used

in methamphetamine production. In 2009, after a resolution passed by the UN Security Council, Afghanistan, the world’s leading heroin producer, decided to ban imports of acetic anhydride, which is the chemical precursor used to transform opium into heroin. Thereafter, any quantity of this heroin precursor found is considered contraband and reprehensible¹⁶.

More cooperation

However, precursor anti-trafficking measures cannot be limited to exerting pressure on States producing illegal drugs. For some time now, given the heightened realisation of the limitations of the policy of pressure implemented by the international community, there is increasing emphasis on international cooperation. Therefore, nearly ten years ago, the United Nations through the INCB (International Narcotics Control Board) and the UNODC (United Nations Office on Drugs and Crime) implemented an electronic system for notification prior to exporting precursors: PEN Online (Pre-Export

Notification). The number of States who are stakeholders in this system is more or less equal to the 209 countries that signed the 1988 Vienna Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. More recently, the INCB implemented a system for reporting incidents involving precursors: PICS (Precursors Incident Communication System). The purpose of this tool is to share information on cases (seizures, laboratory dismantling or cargo interception) involving precursors. Partnerships between chemical companies and pharmaceutical companies is crucial to the cooperation needed to monitor precursors. Such a partnership relies on these sectors overseeing and monitoring appropriate vigilance measures in order to identify and report attempted misappropriation or theft to the appropriate authorities (in France, the MNCPC).

The EU’s responses

Since 1995, the European Union has initiated negotiations and signed bilateral partnership agreements with the Andean countries (Bolivia, Colombia, Ecuador, Peru and Venezuela). Moreover, the “Europe-Asia Cooperation on Synthetic Drugs and their Precursors” Conference held in Paris from 6–7 March 2007 helped intensify this international cooperation. This was not just the result of emphasising a policy of diplomatic action; it was also the fruit of fostering relationships between States based on shared responsibility [10] recognising both the role of Europe in production of and demand for synthetic drugs as well as the role of certain Asian countries as suppliers of the necessary precursors. This policy focuses especially on China, whose industrial development, which has made this country the world’s leading chemicals supplier, has a strong

French measures

The MNCPC (the *Mission nationale de contrôle des précurseurs chimiques de drogues*, or the National Mission for the Control of Chemical Precursors) is the French authority with control over chemical precursors for illegal drugs. This mission coordinates the implementation of efforts to prevent the misuse of new chemical precursor. It is also responsible for ensuring the interface between the investigatory and law enforcement services on the one hand and chemical producers and retailers on the other hand.

The MNCPC is overseen by the Service de l’Industrie (the Industry Department) and la Direction générale des Entreprises (the Directorate General for Enterprise) to bring together manufacturers and retailers of the chemicals sector and help detect potential misappropriation. It is comprised of members of the French Ministry of Economy, Industry and Digital Technology, as well as agents from the French Ministries of the Budget (customs) and the Interior (police).

It has broad power over controlling narcotics precursors, both nationally (relations with French producers, monitoring outside interactions, coordinating the appropriate French authorities) and internationally (contacts with foreign authorities, representation of France when interacting with European and International institutions).

The MNCPC also provides industrialists and partner authorities with brochures to raise awareness and provide information. Moreover, in partnership with the MILDECA (Interministerial Mission for Combating Drugs and Addictive Behaviours), the MNCPC recently distributed detection kits for the precursors of heroin (acetic anhydride), amphetamines (BMK), methamphetamine (ephedrine and pseudoephedrine) and ecstasy (PMK, safrole, piperonal).

16. Since then, the number of seizures has increased. In April 2009, one of the first seizures made at Kabul Airport (200 l of acetic anhydride) was a misappropriation with complicity from an Indian company located in New Delhi. This case revealed underlying corruption involving a high-ranked airport employee. The misappropriation was blatant because the precursors were hidden among other goods. There was no indication of the existence of the chemicals on the Air waybill (AWB).

influence on drug-producing areas¹⁷ [11]. Subsequently, China, which signed a cooperation agreement with the European Union in 2008, and Southeast Asia have been fortifying their regulations to reinforce the control by authorities of substances with multiple uses likely to be incorporated into illegal drug production. This policy of forging bilateral agreements¹⁸ was also evidenced by partnerships with the United States, and especially, with Mexico. More recently, on 4 July 2013, the Russian Federation consented to a partnership with the European Union. This agreement will be ratified this year. However, to preserve the free trade and economic interests of the States, preventing misappropriation by operators is the focus to limit the access of criminal networks to precursors for drug production. Since 2004, European regulations directly applicable in the Member States govern the conditions for the control of intra-Community trade of precursors as well as the rules for monitoring commerce between the European community and non-community countries.

Conclusion

Although the awareness of the need to control chemical precursors in order to fight illegal drug use and trafficking dates back to the 1930s [1], it is only since the 1988 international convention was signed that the efforts really took off, requiring signatory States to implement ad hoc authorities and measures. Since then, the global efforts to fight precursor trafficking have been significantly stepped-up through a policy combining diplomatic pressure and heightened international cooperation: each chemical seizure represents a win in the fight against illegal drug production, as demonstrated by the European MDMA shortage of 2009, following major seizures of the sassafras oil precursor. However, the results are still limited if we consider that there is “no such thing as a drug without chemicals”. This is due in part to the more intense global trade, generated mainly by the emergence of newly industrialised countries such as China and India, making law enforcement ef-

forts complicated; this is also the result of the fact that organised crime adapts and evolves more quickly than current laws and regulations, which is demonstrated through the development of new synthetic drugs [12]. A vivid illustration of the phenomenon appeared in the last few years with the discovery of new precursors and pre-precursors (APAAN, PMK glycidate) which, due to changes in chemical names, tend to escape, albeit temporarily, regulations.

Many thanks to Bruno Balduc (OCRITIS), without whom this issue would not exist.

17. China is also a major producer of amphetamines due to the presence in that country of a major ephedrine hydrochloride production industry.

18. These bilateral agreements aim to reinforce the regulatory cooperation with third countries based on the instruments described in regulation (EC) no. 111/2005 by activating joint assistance mechanisms and creating cooperative monitoring groups between contracting parties.

Bibliography

1. UNODC (UNITED NATIONS OFFICE ON DRUGS AND CRIME), World drug report 2014, New York, United Nations, 2014, 128 pages.
2. UNODC (UNITED NATIONS OFFICE ON DRUGS AND CRIME), The challenge of new psychoactive substances, New York, UNODC, Global SMART Programme, 2013, 122 pages.
3. OLVERA J.C. and GANDILHON M., « Les cartels mexicains : de l'Amérique latine à l'Europe », *Drogues, enjeux internationaux*, n° 3, 2012, pp. 1-5.
4. GRILLO I., *El Narco : la montée sanglante des cartels mexicains*, Paris, Buchet-Chastel, 2012, 358 pages.
5. EUROPOL, SOCTA 2013, EU Serious and Organised Crime Threat Assessment, The Hague, European Police Office, 2013, 48 pages.
6. EMCDDA, Synthetic drug production in Europe. Perspectives on drugs (PODs). <http://www.emcdda.europa.eu/topics/pods/synthetic-drug-production> [last accessed 07/10/2014].
7. EUROPOL and EMCDDA, EU drug markets report: a strategic analysis, Lisbon, EMCDDA, Joint publications, 2013, 154 pages.
8. OCRITIS, Tendances du trafic de stupéfiants en France en 2013, Paris, OCRITIS, 2014, 8 pages.
9. DE SAINT-VICTOR J., *Un pouvoir invisible. Les mafias et la société démocratique (XIXe-XXIe siècles)*, Paris, Gallimard, coll. L'Esprit de la cité, 2012, 432 pages.
10. MILDT, MNCPC, SCTIP and OCRITIS, Conférence Europe-Asie Paris 2007. Lutte contre les drogues synthétiques et leurs précurseurs chimiques, 2007, 200 pages.
11. HE BINGSONG, *Le crime organisé en Chine. Des triades aux mafias contemporaines*, Paris, CNRS Editions, coll. Arès, 2012, 287 pages.
12. LAHAIE E., MARTINEZ M. and CADET-TAÏROU A., « New psychoactive substances and the Internet: current situations and issues », *Tendances*, n°84, 2013, 8 pages.

DRUGS, INTERNATIONAL CHALLENGES

Director of publication: François Beck (OFDT)

Coordination and editing: Michel Gandilhon (OFDT), Julie-Émilie Adès (OFDT)

Editorial Committee: Laurent Laniel (OEDT), Matthieu Pittaco (OCRITIS), Stéphane Quéré (DRMCC/Paris-II), David Weinberger (INHESJ)

Documentation: Isabelle Michot, Anne de l'Épervier

Graphic designer: Frédérique Million

Thanks to Hervé Mathevet (MNCPC) and Werner Verbruggen (Europol)



French Monitoring Centre for Drugs and Drug Addiction
3, avenue du Stade-de-France
95218 Saint-Denis-La-Plaine cedex
Tél. : +33(1) 41 62 77 16 / Fax : +33 (1) 41 62 77 00
e-mail : ofdt@ofdt.fr