

EXECUTIVE SUMMARY

The World Drug Report presents a comprehensive overview of the latest developments in drug markets. It covers production, trafficking, consumption and related health consequences. Chapter 1 of this year's report examines the global situation and the latest trends in the different drug markets and the extent of illicit drug use, as well as the related health impact.

Chapter 2 addresses the phenomenon of new psychoactive substances (NPS), which can have deadly consequences for their users but are hard to control, with dynamic, fast-mutating producers and "product lines" which have emerged over the past decade.

The global picture

Global drug use situation remains stable

On the whole, the global drug use situation has remained stable. While there has been some increase in the estimated total number of users of any illicit substance, estimates show that the number of drug users with dependence or drug use disorders has remained stable. The increase in the annually estimated number of users is, to a large extent, a reflection of an increase in the world population.

However, polydrug use, especially the combination of prescription drugs and illicit substances, continues to be a concern. The misuse of sedatives and tranquilizers is of particular concern, with more than 60 per cent of the countries covered in the report ranking such substances as among the first three misused types of substances.

The increasing number of NPS appearing on the market has also become a major public health concern, not only because of increasing use but also because of the lack of scientific research and understanding of their adverse effects.

Injecting drug use and HIV remain a public health concern

New data reveal that the prevalence of people who inject drugs and those who inject drugs and are also living with HIV in 2011 was lower than previously estimated: 14.0 million people between the ages of 15 and 64 are estimated to be injecting drugs, while 1.6 million people who inject drugs are living with HIV. This reflects a 12 per cent decline in the number of people who inject drugs and a 46 per cent decline in the number of people who inject drugs that are living with HIV since the 2008 estimates.

In 2011, the number of drug-related deaths was estimated at 211,000. Most of those deaths were among the younger population of users and were, to a large extent, preventable. Opioids remained the most commonly reported group of substances involved in drug-related deaths. There continues to be a major gap in the delivery of treatment services

for drug dependence: only an estimated one in six problem drug users had received treatment in the preceding year.

Maritime trafficking poses challenge to authorities

Given the large quantities of licit substances that make their way across oceans and continents every day, in containers and even small boats, maritime trafficking poses a particularly knotty challenge for the authorities.

East and West Africa seem to be gaining in prominence with regard to routes for maritime trafficking. A new maritime route going southwards from Afghanistan via ports in the Islamic Republic of Iran or Pakistan is increasingly being used by traffickers to reach consumer markets through East and West African ports. Since 2009, seizures of heroin have risen sharply in Africa, especially in East Africa, where they increased almost 10-fold.

Experience has shown that a maritime seizure is consistently more likely to be larger than a seizure involving transport by road or rail. In fact, although maritime seizures constitute no more than 11 per cent of all cases across all drug categories globally, each maritime seizure was on average almost 30 times larger than seized consignments trafficked by air. Targeted interdiction efforts by the authorities would enable them to seize larger quantities of drugs being trafficked over water.

New drug trafficking routes

Traffickers are increasingly looking for new routes to supplement the old ones: new land routes for heroin smuggling seem to be emerging, e.g. in addition to the established Balkan and northern routes, heroin is trafficked southward from Afghanistan via the Islamic Republic of Iran or Pakistan, leading through the Middle East via Iraq. While the Balkan trafficking route remains the most popular one, a decrease in the amount of heroin being trafficked on this route has been noted.

Moreover, Afghan opiates seem to be emerging as competition to opiates produced and consumed in the East and South-East Asia subregion, as seizures made in countries of that region show.

While it is clear that the African continent is becoming increasingly important and vulnerable in terms of the proliferation of trafficking routes, the availability of data is very limited. In order to effectively monitor this worrying trend, there is an urgent need to improve the data collection and analysis capacity of countries in the region.

Cocaine seizures in Colombia indicate that the Atlantic route may be gaining in prominence as compared with the Pacific route in maritime trafficking; linguistic ties appear to play a role in cocaine trafficking from South America

to Europe via Brazil, Portugal and Lusophone countries in Africa. The cocaine market seems to be expanding towards the emerging economies in Asia.

Overall trends across drug categories

Opiates

Trends with regard to the production and consumption of opiates witnessed some major shifts.

The limited available data suggest that opioid use (prescription opioids, heroin and opium) has gone up in parts of Asia (East and South-East Asia, as well as Central and West Asia) and Africa since 2009.

Use of opiates (heroin and opium), on the other hand, remains stable (around 16.5 million people, or 0.4 per cent of the population aged 15-64), although a high prevalence for opiate use has been reported from South-West and Central Asia, Eastern and South-Eastern Europe and North America.

In Europe specifically, there are indications that heroin use is declining, due to a number of factors, including an aging user population in treatment and increased interdiction of supply. Nevertheless, non-medical use of prescription opioids continues to be reported from some parts of Europe.

Production-wise, Afghanistan retained its position as the lead producer and cultivator of opium globally (74 per cent of global illicit opium production in 2012). While the global area under poppy cultivation rose by 15 per cent in 2012, driven largely by increases in Afghanistan and Myanmar, global opium production fell by almost 30 per cent, to less than 5,000 tons in 2012, mainly as a result of poor yields in Afghanistan. Mexico remained the largest producer of opium in the Americas.

It appears that opium production in the Lao People's Democratic Republic and Myanmar may not be able to meet the demand posed by the increasing number of heroin users in some parts of Asia.

While seizures of morphine and heroin increased globally in 2011, declines were noted in specific regions and countries, including Turkey and Western and Central Europe.

Cocaine

The global area under coca cultivation amounted to 155,600 ha in 2011, almost unchanged from a year earlier but 14 per cent lower than in 2007 and 30 per cent less than in 2000. Estimates of the amounts of cocaine manufactured, expressed in quantities of 100 per cent pure cocaine, ranged from 776 to 1,051 tons in 2011, largely unchanged from a year earlier. The world's largest cocaine seizures (not adjusted for purity) continue to be reported from Colombia (200 tons) and the United States (94 tons). However, there has been an indication in recent years that the cocaine market has been shifting to several regions which have not been associated previously with either traf-

ficking or use. Significant increases have been noted in Asia, Oceania and Central and South America and the Caribbean. In Central America, intensified competition in trafficking of cocaine has led to growing levels of violence.

Cocaine has long been perceived as a drug for the affluent. There is some evidence which, though inconclusive, suggests that this perception may not be entirely groundless, all other factors being equal. Nonetheless, the extent of its use is not always led by the wallet. There are examples of wealthy countries with low prevalence rates, and vice-versa.

Arguably, parts of East and South-East Asia run a higher risk of expansion of cocaine use (although from very low levels). Seizures in Hong Kong, China, rose dramatically, to almost 600 kg in 2010, and had exceeded 800 kg by 2011. This can be attributed to several factors, often linked to the glamour associated with its use and the emergence of more affluent sections of society. In the case of Latin America, in contrast, most of the increase appears to be linked to "spill-over" effects, as cocaine is widely available and relatively cheap owing to the proximity to producing countries.

In North America, seizures and prevalence have declined considerably since 2006 (with the exception of a rebound in seizures in 2011). Between 2006 and 2011, cocaine use among the general population in the United States fell by 40 per cent, which is partly linked to less production in Colombia, law enforcement intervention and inter-cartel violence.

While, earlier, North America and Central/Western Europe dominated the cocaine market, today they account for approximately one half of users globally, a reflection of the fact that use seems to have stabilized in Europe and declined in North America.

In Oceania, on the other hand, cocaine seizures reached new highs in 2010 and 2011 (1.9 and 1.8 tons, respectively, up from 290 kg in 2009). The annual prevalence rate for cocaine use in Australia for the population aged 14 years or older more than doubled from 1.0 per cent in 2004 to 2.1 per cent of the adult population in 2010; that figure is higher than the European average and exceeds the corresponding prevalence rates in the United States.

Amphetamine-type stimulants

There are signs that the market for amphetamine-type stimulants (ATS) is expanding: seizures and consumption levels are increasing, manufacture seems to be spreading and new markets are developing.

The use of ATS, excluding "ecstasy", remains widespread globally, and appears to be increasing in most regions. In 2011, an estimated 0.7 per cent of the global population aged 15-64, or 33.8 million people, had used ATS in the preceding year. The prevalence of "ecstasy" in 2011 (19.4 million, or 0.4 per cent of the population) was lower than in 2009.

While use is steady in the traditional markets of North America and Oceania, there seems to be an increase in the market in Asia's developed economies, notably in East and South-East Asia, and there is also an emerging market in Africa, an assessment that is borne out by increasing diversions of precursors, seizures and methamphetamine manufacture. The estimated annual prevalence of ATS use in the region is higher than the global average.

At the global level, seizures have risen to a new high: 123 tons in 2011, a 66 per cent rise compared with 2010 (74 tons) and a doubling since 2005 (60 tons). Mexico clocked the largest amount of methamphetamine seized, more than doubling, from 13 tons to 31 tons, within the space of a year, thus surpassing the United States for the first time.

Methamphetamine continues to be the mainstay of the ATS business; it accounted for 71 per cent of global ATS seizures in 2011. Methamphetamine pills remain the predominant ATS in East and South-East Asia where 122.8 million pills were seized in 2011, although this was a 9 per cent decline compared with 2010 (134.4 million pills). Seizures of crystalline methamphetamine, however, increased to 8.8 tons, the highest level during the past five years, indicating that the substance is an imminent threat.

Methamphetamine manufacture seems to be spreading as well: new locations were uncovered, inter alia, in Poland and the Russian Federation. There is also an indication of increased manufacturing activity in Central America and an increase in the influence of Mexican drug trafficking organizations in the synthetic drugs market within the region.

Figures for amphetamine seizures have also gone up, particularly in the Middle East, where the drug is available largely in pill form, marketed as "captagon" pills and consisting largely of amphetamine.

Europe and the United States reported almost the same number of amphetamine laboratories (58 versus 57) in 2011, with the total number remaining fairly stable compared with 2010.

While "ecstasy" use has been declining globally, it seems to be increasing in Europe. In ascending order, Europe, North America and Oceania remain the three regions with a prevalence of "ecstasy" use that is above the global average.

Cannabis

Providing a global picture of levels of cannabis cultivation and production remains a difficult task: although cannabis is produced in practically every country in the world, its cultivation is largely localized and, more often than not, feeds local markets.

Cannabis remains the most widely used illicit substance. There was a minor increase in the prevalence of cannabis users (180.6 million or 3.9 per cent of the population aged 15-64) as compared with previous estimates in 2009.

The areas of cannabis eradicated increased in the United States, possibly indicating an increase in the area under cultivation. Cultivation also seems to have gone up in the Americas as a whole. In South America, reported cannabis herb seizures rose by 46 per cent in 2011.

In Europe, seizures of cannabis herb increased, while seizures of cannabis resin ("hashish") went down. This may indicate that domestically produced cannabis continues to replace imported resin, mainly from Morocco. The production of cannabis resin seems to have stabilized and even declined in its main producing countries, i.e. Afghanistan and Morocco.

Many countries in Africa reported seizures of cannabis herb, with Nigeria reporting the largest quantities seized in the region.

In Europe, cannabis is generally cultivated outdoors in countries with favourable climatic conditions. In countries with less favourable climatic conditions, such as Belgium and the Netherlands, a larger number of indoor plants are found. It is difficult to compile an accurate picture of cultivation and eradication, as this varies widely across countries and climatic zones. Plant density fluctuates wildly, depending on the cultivation method (indoor or outdoor) and environmental factors.

New psychoactive substances

While new harmful substances have been emerging with unflinching regularity on the drug scene, the international drug control system is floundering, for the first time, under the speed and creativity of the phenomenon known as new psychoactive substances (NPS).

The number of NPS reported by Member States to UNODC rose from 166 at the end of 2009 to 251 by mid-2012, an increase of more than 50 per cent. For the first time, the number of NPS actually exceeded the total number of substances under international control (234).

NPS are substances of abuse, either in a pure form or a preparation, that are not controlled by international drug conventions, but which may pose a public health threat. In this context, the term "new" does not necessarily refer to new inventions but to substances that have newly become available in specific markets. In general, NPS is an umbrella term for unregulated (new) psychoactive substances or products intended to mimic the effects of controlled drugs.

Member States have responded to this challenge using a variety of methods within their legislative frameworks, by attempting to put single substances or their analogues under control.

It has generally been observed that, when a NPS is controlled or scheduled, its use declines shortly thereafter, which has a positive impact on health-related consequences and deaths related to the substance, although the "substi-

tution effect” has inhibited any in-depth research on the long-term impact of NPS scheduling. There are of course, instances when scheduling or controlling a NPS has had little or no impact. Generally, the following kinds of impacts have been observed after the scheduling of a NPS:

- (a) The substance remains on the market, but its use declines immediately. Examples include mephedrone in the United Kingdom of Great Britain and Northern Ireland, BZP in New Zealand, “legal highs” in Poland, mephedrone in Australia and MDPV in the United States of America;
- (b) Use of the substance declines after a longer interval, maybe a year or more (e.g. ketamine in the United States);
- (c) Scheduling has little or no immediate impact on the use of the substance, e.g. 3,4-methylenedioxy-*N*-methylamphetamine (MDMA), commonly known as “ecstasy”, in the United States and other countries.

Further, there are cases of NPS disappearing from the market. This has also been the case with the majority of the substances controlled under the 1961 Convention and the 1971 Convention. Of the 234 substances currently under international control, only a few dozen are still being misused, and the bulk of the misuse is concentrated in a dozen such substances.

It is obvious that legislations to control NPS are not a “one size fits all” solution, and there are always exceptions to the rule. However, a holistic approach which involves a number of factors — prevention and treatment, legal status, improving precursor controls and cracking down on trafficking rings — has to be applied to tackle the situation.

There is a lack of long-term data which would provide a much-needed perspective: no sooner is one substance scheduled, than another one replaces it, thus making it difficult to study the long-term impact of a substance on usage and its health effects.

The problem of NPS is a hydra-headed one in that manufacturers produce new variants to escape the new legal frameworks that are constantly being developed to control known substances. These substances include synthetic and plant-based psychoactive substances, and have rapidly spread in widely dispersed markets. Until mid-2012, the majority of the identified NPS were synthetic cannabinoids (23 per cent), phenethylamines (23 per cent) and synthetic cathinones (18 per cent), followed by tryptamines (10 per cent), plant-based substances (8 per cent) and piperazines (5 per cent). The single most widespread substances were JWH-018 and JWH-073 among the synthetic cannabinoids; mephedrone, MDPV and methylone among the synthetic cathinones; and *m*-chlorophenylpiperazine (*m*CPP), *N*-benzylpiperazine (BZP) and 1-(3-trifluoromethylphenyl)piperazine (TFMPP) among the piperazines. Plant-based substances included mostly kratom, khat and *Salvia divinorum*.

What makes NPS especially dangerous and problematic is the general perception surrounding them. They have often been marketed as “legal highs”, implying that they are safe to consume and use, while the truth may be quite different. In order to mislead the authorities, suppliers have also marketed and advertised their products aggressively and sold them under the names of relatively harmless everyday products such as room fresheners, bath salts, herbal incenses and even plant fertilizers.

Countries in nearly all regions have reported the emergence of NPS. The 2008-2012 period in particular saw the emergence of synthetic cannabinoids and synthetic cathinones, while the number of countries reporting new phenethylamines, ketamine and piperazines declined (as compared with the period prior to 2008).

Origin and manufacture

While most widespread in Europe and North America, NPS seem to originate nowadays primarily in Asia (East and South Asia), notably in countries known for their advanced chemical and pharmaceutical industries. Domestic manufacture has also been reported by countries in Europe, the Americas and Asia. Nonetheless, the overall pattern is one of transregional trafficking which deviates from the clandestine manufacture of controlled psychotropic substances such as ATS, which typically occurs within the same region as where the consumers are located.

Role of technology

The Internet seems to play an important role in the business of NPS: 88 per cent of countries responding to a UNODC survey said that the Internet served as a key source for the supply in their markets. At the same time, a Eurobarometer survey found that just 7 per cent of young consumers of NPS in Europe (age 15-24) used the Internet to actually purchase such substances, indicating that, while the import and wholesale business in such substances may be increasingly conducted via the Internet, the end consumer still retains a preference for more traditional retail and distribution channels.

Spread of new psychoactive substances at the regional level

With its early warning system, comprising 27 European Union countries and Croatia, Norway and Turkey, Europe has the most advanced regional system in place to deal with emerging NPS. Through the early warning system, formal notification was provided for a total of 236 new substances during the 2005-2012 period, equivalent to more than 90 per cent of all substances found globally and reported to UNODC (251). The number of identified NPS in the European Union rose from 14 in 2005 to 236 by the end of 2012.

NPS seem to constitute a significant market segment already. Close to 5 per cent of people aged 15-24 have already experimented with NPS in the European Union,

which is equivalent to one-fifth of the numbers who have tried cannabis and close to around half of the number who have used drugs other than cannabis. While cannabis use has clearly declined among adolescents and young people in Europe over the past decade, and the use of drugs other than cannabis has remained largely stable, the use of NPS has gone up.

Within Europe, Eurobarometer data for 2011 suggest that five countries account for almost three-quarters of all users of NPS: United Kingdom (23 per cent of the European Union total), followed by Poland (17 per cent), France (14 per cent), Germany (12 per cent) and Spain (8 per cent). The United Kingdom is also the country that identified the most NPS in the European Union (30 per cent of the total during the 2005-2010 period).

The United States identified the largest number of NPS worldwide: for 2012 as a whole, a total of 158 NPS were identified, i.e. twice as many as in the European Union (73). The most frequently reported substances were synthetic cannabinoids (51 in 2012, up from 2 in 2009) and synthetic cathinones (31 in 2012, up from 4 in 2009). Both have a serious negative impact on health. Excluding cannabis, use of NPS among students is more widespread than the use of any other drug, owing primarily to synthetic cannabinoids as contained in Spice or similar herbal mixtures. Use of NPS among youth in the United States appears to be more than twice as widespread as in the European Union.

In Canada, authorities identified 59 NPS over the first two quarters of 2012, i.e. almost as many as in the United States. Most of the substances were synthetic cathinones (18), synthetic cannabinoids (16) and phenethylamines (11). In a national school survey, widespread use was reported among tenth-grade students for *Salvia divinorum* (lifetime prevalence of 5.8 per cent), jimson weed or *Datura* (2.6 per cent), a hallucinogenic plant, and ketamine (1.6 per cent).

NPS are also making inroads in the countries of Latin America, even though, generally speaking, levels of misuse of such substances in the region are lower than in North America or Europe. Reported substances included ketamine and plant-based substances, notably *Salvia divinorum*, followed by piperazines, synthetic cathinones, phenethylamines and, to a lesser extent, synthetic cannabinoids. Brazil also reported the emergence of mephedrone and of DMMA (a phenethylamine) in its market; Chile reported the emergence of *Salvia divinorum* and tryptamine; Costa Rica reported the emergence of BZP and TFMPP, two piperazines.

For many years, New Zealand has played a key role in the market for piperazines, notably BZP. A large number of NPS are also found in Australia, similar to the situation in Europe and North America. Overall, 44 NPS were identified during the first two quarters of 2012 in the Oceania region, equivalent to one quarter of all such substances

identified worldwide. Australia identified 33 NPS during the first two quarters of 2012, led by synthetic cathinones (13) and phenethylamines (8).

According to the UNODC survey undertaken in 2012, the second-largest number of countries reporting the emergence of NPS was in Asia. The emergence of such substances was reported from a number of countries and areas, mostly in East and South-East Asia (Brunei Darussalam; China; Hong Kong, China; Indonesia; Japan; Philippines; Singapore; Thailand; Viet Nam), as well as in the Middle East (Bahrain, Israel, Jordan, Oman, Saudi Arabia and United Arab Emirates).

Hong Kong, China, reported the emergence of a number of synthetic cannabinoids (such as JWH-018) and synthetic cathinones (4-methylethcathinone and butylone). Indonesia informed UNODC of the emergence of BZP. Singapore saw the emergence of a number of synthetic cannabinoids (including JWH-018) and synthetic cathinones (3-fluoromethcathinone and 4-methylecathinone). Oman witnessed the emergence of synthetic cannabinoids (JWH-018). Japan reported the emergence of phenethylamines, synthetic cathinones, piperazines, ketamine, synthetic cannabinoids and plant-based substances.

The two main NPS in Asia in terms of consumption are ketamine and kratom, mostly affecting the countries of East and South-East Asia. Ketamine pills have been sold for several years as a substitute for “ecstasy” (and sometimes even as “ecstasy”). In addition, large-scale traditional consumption of khat is present in Western Asia, notably in Yemen.

In total, 7 African countries (Angola, Cape Verde, Egypt, Ghana, South Africa, Togo and Zimbabwe) reported the emergence of NPS to UNODC. Egypt reported not only the emergence of plant-based substances (*Salvia divinorum*) but also the emergence of synthetic cannabinoids, ketamine, piperazines (BZP) and other substances (2-diphenylmethylpiperidine (2-DPMP) and 4-benzylpiperidine). Nonetheless, the overall problems related to the production and consumption of NPS appear to be less pronounced in Africa. There are, however, a number of traditionally used substances (such as khat or ibogaine) that fall under the category of NPS and that, in terms of their spread, may cause serious health problems and other social consequences.

The road ahead

Scheduling or controlling a substance is a lengthy — and costly — process, especially as it is the authorities who bear the onus of proof. Additionally, controlling an ever-larger number of substances, affecting police, customs, forensic laboratories, import/export authorities and the health authorities, among others, may stretch some Member States beyond their capacities.

Alternative systems, such as the establishment of “early warning systems” for NPS, “emergency scheduling”, “ana-

logue scheduling”, “generic scheduling”, application of the “medicines law” and other creative approaches, all have their pros and cons. Most have improved the situation and have taught valuable lessons in planning for future control regimes. However, what is missing is coordination at the global level so that drug dealers cannot simply exploit loopholes, both within regions and even within countries.

The establishment of a global early warning system is needed to inform Member States of emerging substances and to support them in their response to this complex and changing phenomenon.¹ While the international drug control conventions offer the possibility of scheduling new substances, the sheer rapidity of emerging NPS makes this a very challenging undertaking. What is needed is an understanding and sharing of methods and lessons learned in regional responses to the situation involving NPS before exploring the setting up of a global response to the problem.

1 In its resolution 56/4 of 15 March 2013, the Commission on Narcotic Drugs encouraged the United Nations Office on Drugs and Crime “to share and exchange ideas, efforts, good practices and experiences in adopting effective responses to address the unique challenges posed by new psychoactive substances, which may include, among other national responses, new laws, regulations and restrictions”.