UNODC
United Nations Office on Drugs and Crime

AMPHETAMINES AND ECSTASY

2011 Global ATS Assessment



Global SMART Programme

Acknowledgements

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DISCLAIMER

The publication has not been formally edited. The boundaries, names and designations used in all maps do not imply official endorsement or acceptance by the United Nations.

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PREFACE

Three years after the last global assessment of Amphetamine-Type Stimulants (ATS), the manufacture and trafficking of these drugs remains a serious and constantly evolving challenge. The *2011 Global ATS Assessment* shines a powerful light on ATS helping governments to better understand this important phenomenon.

Once viewed as purely a cottage industry, ATS manufacture and trafficking has undergone its own industrial revolution. After cannabis, ATS are the second most widely used drugs across the globe outstripping the use of heroin or cocaine. ATS are now manufactured and marketed with organized crime groups involved throughout the production and supply chain.

Until recently, the ATS trade was sometimes ignored in favour of the traditional focus on heroin and cocaine. But there is growing recognition that the expansion of the ATS trade and its high profits threaten security, health and the welfare of populations across the globe.

While seizures of heroin, cocaine and cannabis remained largely stable between 2005 and 2009, ATS seizures, excluding ecstasy, showed a clear increase over the same period. In South-East Asia, for example, the number of methamphetamine pills seized grew significantly: from 32 million in 2008, to 93 million in 2009 and 133 million in 2010.

Injecting ATS use is also growing and increasing the risk of blood borne diseases such as HIV/AIDS. In Thailand, injecting is the second most common delivery system for ATS, while in New Zealand it is the most commonly injected drug. Injecting use is also now commonplace in some countries in Europe.

In addition to amphetamines and ecstasy, established ATS markets have seen the emergence of so-called analogue substances falling outside of international control. Substances such as mephedrone or methylenedioxypyrovalerone (MDPV) are sold as 'bath salts' or 'plant food' and act as substitutes for illicit stimulant drugs such as cocaine or ecstasy.

ATS are attractive to millions of drug users in all regions of the world because they are affordable, convenient to the user and often associated with a modern and dynamic lifestyle. Their risks are often underestimated in public perception.

In terms of the overall number of ATS users in the last twelve months, this appears to have stabilised, but there were increases in some parts of the world where there were few problems with ATS.

Such developments make ATS tidal by nature; rising and falling as demand increases and decreases around the globe. This also explains why the Assessment shows regions suffering high-tides or low-tides in ATS terms with the transition often occurring in extremely short periods of time. Most importantly, the flow of ATS trafficking exploits vulnerable states, often weakened by instability and insecurity.

ATS manufacture has also expanded into new regions and there has been a diversification of the drug's precursor chemicals and manufacturing methods. Additional countries in South-East Asia now report ATS manufacture, as well as the growth of interregional trafficking in countries with no previous history of the drug.

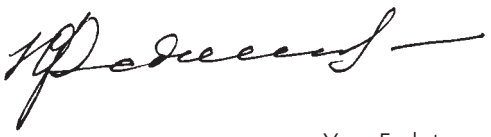
Methamphetamine may also be expanding into Europe with several countries reporting an increase in its use and production. Illicit laboratories have been seized in many European countries. There are also signs that the drug may be replacing amphetamine in some parts of Europe.

Once thought to be largely unaffected by the illicit manufacture and trafficking of ATS, West Africa has now been drawn into the trade's orbit. Methamphetamine manufacture has been reported from Nigeria. Since 2008, seizures in several East Asian countries —notably Japan and the Republic of Korea—appear to have their origin in West Africa. ATS manufacture is also increasingly reported from Central America and South America.

Data is fundamental to understanding the ebbs and flows of ATS. Using its Global Synthetics Monitoring: Analyses Reporting and Trends (SMART) programme, UNODC has a system for watching the drug's tidal movements in some regions of the world. Thanks to the programme, there is more knowledge and therefore a better understanding of the problem; in turn, this will assist Governments in the formulation of effective responses. However, gaps remain.

To deal with this challenge, UNODC is ensuring that the twin-related threats of drug trafficking and Transnational Organised Crime are mainstreamed throughout the United Nations system, mobilizing joint action and creating a vision for the effective delivery of solutions. These activities at the international level should also help stem the ATS tide.

Finally, I would like to thank the donors who supported this initiative and who made this Assessment possible. Further investment is necessary, if we are to build on this Assessment and gain a clearer appreciation of this global problem.



Yury Fedotov
Executive Director
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EXPLANATORY NOTES

This report has not been formally edited.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

The following notes describe certain terms, regional designations, data sources and timeframes used throughout this document.

ATS – Amphetamine-type stimulants (ATS) are a group of substances comprised of synthetic stimulants including amphetamine, methamphetamine, methcathinone, and ecstasy-group substances (e.g., MDMA and its analogues).

In various sections of this report, amphetamine and methamphetamine are also referred to as amphetamines-group substances. In cases where countries report to UNODC without indicating the specific ATS they are referring to, the term non-specified amphetamines is used. Tablets which are marketed to contain an ecstasy-group substance, but may actually contain a variety of other substances, are referred to as ecstasy.

Terms: Since there is some scientific and legal ambiguity about the distinctions between drug 'use', 'misuse' and 'abuse', this report uses the neutral terms, drug 'use' or 'consumption'.

Maps: The boundaries and names shown and the designations used on maps do not imply official endorsement or acceptance by the United Nations. A dotted line represents approximately the line of control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Disputed boundaries (China/India) are represented by cross hatch due to the difficulty of showing sufficient detail.

Population data: Population data used in this report comes from: United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2008 Revision, 2009.

Regions: In various sections, this report uses a number of regional designations. These are not official designations. They are defined as follows:

AFRICA

- East Africa: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, Tanzania (United Republic of) and Uganda
- North Africa: Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia
- Southern Africa: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe
- West and Central Africa: Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo (Democratic Republic of), Congo (Republic of), Côte d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo

AMERICAS

- Caribbean: Antigua and Barbuda, Bahamas, Barbados, Bermuda, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago
- Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama
- North America: Canada, Mexico, United States of America (USA)
- South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela (Bolivarian Republic of)

ASIA

- Central Asia and Transcaucasia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan
- Near and Middle East/South-West Asia: Afghanistan, Bahrain, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates (UAE), Yemen
- East and South-East Asia: Brunei Darussalam, Cambodia, China (including Hong Kong, Macao and Taiwan Province of China), Indonesia, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam
  - Greater Mekong Subregion (GMS): Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, and bordering provinces of China
  - North-East Asia: Japan, Philippines, Republic of Korea
  - Southern Archipelago: Brunei Darussalam, Indonesia, Malaysia and Singapore
- South Asia: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka

EUROPE

- East Europe: Belarus, Republic of Moldova, Russian Federation and Ukraine
- South-East Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Romania, Serbia, the former Yugoslav Republic of Macedonia and Turkey
- West and Central Europe: Andorra, Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom

OCEANIA

- Oceania: Australia, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, and other Pacific island states and territories

Data Sources and timeframes – Unless indicated specifically, data contained in this report draw upon official sources as reported in the UNODC Annual Reports Questionnaire (ARQ) by Member States, annual and technical reports of the International Narcotics Control Board (INCB), official government and inter-governmental entities (e.g., Interpol/ICPO, Europol, World Customs Organization, Inter-American Drug Abuse Control Commission of (CICAD), UNODC Field Office and HONLEA reports, data systems (e.g., DAINAP, CEN) and the scientific literature.

Data related to seizures of ATS, their precursors and clandestine laboratories are subject to change for a variety of reasons, such as new or late data being added or revisions in data already provided by Member States. Thus, some figures may differ from previously published figures. All data reported herein reflect the most up-to-date and accurate information available at the time of writing.

ABBREVIATIONS

The following abbreviations have been used in this report:

ACC	Australian Crime Commission
ACCORD	ASEAN and China Cooperative Operations in Response to Dangerous Drugs
ADK	National Anti-Drugs Agency, Malaysia
ADLOMICO	Anti-Drug Liaison Officials' Meeting for International Cooperation
AFP	Australian Federal Police
AIDS	Acquired Immune-Deficiency Syndrome
AIHW	Australian Institute of Health and Welfare
AIPAC	Asia Pacific Amphetamine-Type Stimulants Information Centre
ARQ	UNODC Annual Reports Questionnaire
ASEAN	Association of Southeast Asian Nations
ATS	Amphetamine-type stimulants
BMK	Benzyl methyl ketone (P-2-P)
BNN	National Narcotics Board, Indonesia
BZP	Benzylpiperazine
CCDAC	Central Committee for Drug Abuse Control, Myanmar
CEN	World Customs Organization's Customs Enforcement Network
CICAD	Inter-American Drug Abuse Control Commission
CIS	Commonwealth of Independent States
DAINAP	Drug Abuse Information Network for Asia and the Pacific
DCHQ	National Drug Control Headquaters (Islamic Republic of Iran)
DEA	Drug Enforcement Administration (USA)
DELTA	UNODC Database on Estimates and Long Term Trend Analysis
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	European School Survey Project on Alcohol and other Drugs
Europol	European Police Office
Govt.	Government
HIV	Human Immunodeficiency Virus
HKNB	Hong Kong Special Administrative Region of the People's Republic of China Narcotics Bureau
HKSB	Hong Kong Special Administrative Region of the People's Republic of China Security Bureau
HONLEA	Heads of National Drug Law Enforcement Agencies
ICMP	UNODC Global Illicit Crop Monitoring Programme
IDU	Injecting drug use
INCB	International Narcotics Control Board
INCSR	International Narcotics Control Strategy Report (USA)
Interpol/ICPO	International Criminal Police Organization
JCITAC	Japan Customs Intelligence & Targeting Center
JMHCW	Ministry of Health, Labour and Welfare (Japan)
JNPA	National Police Agency of Japan
L-PAC	l-phenylacetylcarbinol

LCDC	Lao National Commission for Drug Control and Supervision
LSD	Lysergic acid diethlyamide
MBDB	N-Methyl-1-(3,4-methylenedioxyphenyl)-2-butanamine
MDA	3,4-Methylenedioxyamphetamine (tenamfetamine)
mCPP	m-chlorophenylpiperazine
MDE	3,4-Methylenedioxyethylamphetamine
MDMA	3,4-Methylenedioxymethamphetamine
MOHNZ	Ministry of Health (New Zealand)
NACD	National Authority for Combating Drugs, Cambodia
NDARC	National Drug and Alcohol Research Centre (Australia)
NDIC	National Drug Intelligence Center (USA)
NDLEA	National Drug Law Enforcement Agency (Nigeria)
NGO	Non-Governmental Organization
NIDA	National Institute of Drug Abuse (USA)
NNCC	National Narcotics Control Commission (China)
OAS/CICAD/MEM	Organization of American States/Inter-American Drug Abuse Control Commission/ Multilateral Evaluation Mechanism
OECD	Organization for Economic Co-operation and Development
ONCB	Office of the Narcotics Control Board (Thailand)
P-2-P	1-Phenyl-2-propanone (BMK)
PEN	International Narcotics Control Board's Pre-Export Notification online system
PDEA	Philippines Drug Enforcement Agency
PMK	3,4-Methylenedioxyphenyl-2-propanone (3,4-MDP-2-P)
RCMP	Royal Canadian Mounted Police
SACENDU	South African Community Epidemiology Network on Drug Use
SAMHSA	Substance Abuse and Mental Health Services Administration (USA)
SAPS	South African Police Service
SHORE	Centre for Social and Health Outcomes Reserach and Evaluation (New Zealand)
SOCA	Serious Organised Crime Agency (United Kingdom)
SODC	Standing Office on Drugs and Crime (formerly Standing Office on Drugs Control), Viet Nam
SPO	Supreme Prosecutor's Office, Republic of Korea
TFMPP	3-trifluoromethylphenyl-piperazine
UAE	United Arab Emirates
UNAIDS	Joint and Co-sponsored United Nations Programme on Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
UNDCP	United Nations International Drug Control Programme
UNODC	United Nations Office on Drugs and Crime
WCO	World Customs Organization
WDR	UNODC World Drug Report
WHO	World Health Organization
1988 Convention	United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988
2C-B	4-Bromo-2,5-dimethoxyphenethylamine (Nexus)
2C-T-2	4-Ethylthio-2,5-dimethoxyphenethylamine
3,4-MDP-2-P	3,4-Methylenedioxyphenyl-2-propanone (PMK)
4-MTA	4-Methylthioamphetamine

Weights and measurements

u.	unit
lt.	litre
g/mg	gram/milligram
kg	kilogram
mt	metric ton

EXECUTIVE SUMMARY

Amphetamine-type stimulants (ATS) are firmly established on global illicit drug markets and their use continues to exceed that of opiates or cocaine. While the number of people who have used ATS at least once in the last 12 months has stabilized at the global level, increases have occurred in parts of the world that previously had only very small ATS-related problems.

The widespread use of ATS is a result of their attractiveness to users: they seem to appeal to the needs of today's societies and have become part of what is perceived to be a modern and dynamic lifestyle; in some segments of society, they continue to be used frequently for occupational purposes. It is also a result of a market potential with continuously high profits and low risks that maintain their attractiveness to criminal groups around the world.

Since the last global ATS assessment was published in 2008,[1] there have been several new developments.

The report provides evidence for these developments since 2008, with a special focus on subregional patterns and trends, and highlights the challenges ahead.

EXPANSION OF ATS MANUFACTURE TO NEW REGIONS

ATS are attractive to clandestine operators because there are no geographical limitations to where they can be manufactured, there is a large variety of starting materials and manufacturing methods, and they offer considerable profits.

Amphetamines-group substances, (i.e. amphetamine and methamphetamine) account for most ATS manufactured worldwide, while the manufacture of ecstasy-group substances (i.e. MDMA, MDA, MDE) is significantly less widespread. On a global scale, after strong increases peaking in 2004, the number of illicit laboratories[2] declined until 2007 and increased in 2008 and 2009.

Over the past five years, ATS manufacture has spread to new regions which previously reported little or no manufacture. In South-East Asia, for example, Indonesia, Malaysia and, to a lesser extent, Cambodia used to be primarily transit countries for ATS but now report significant illicit ATS manufacture, primarily of methamphetamine and ecstasy. Indonesia has reported a considerable number of seizures of large sophisticated illicit laboratories manufacturing crystalline methamphetamine and ecstasy. In 2009, drug law enforcement authorities in Indonesia dismantled a total of 37 ATS manufacturing operations. The continuing high levels of ecstasy manufacture in Indonesia raise concern that the country could replace Europe as the source of MDMA in the region. Similar developments have occurred in Malaysia, which used to be a transit country for small amounts of crystalline methamphetamine, ecstasy and ketamine destined for Australia, China, Indonesia, Japan, Singapore and Thailand. In the meantime, Malaysia has become a significant methamphetamine manufacturing location and this demonstrates the speed with which shifts in patterns of clandestine manufacture, trafficking and use can occur. Since 2008, Malaysian authorities have reported the dismantling of more than 30 large and small-scale ATS manufacturing laboratories. In Cambodia, official reports of illicit ATS manufacture first emerged in 2007 when police dismantled a large-scale laboratory that was reported to have manufactured at least 1 mt of chloropseudoephedrine, an intermediate in the manufacture of methamphetamine. Illicit ATS manufacture in the country has since increased considerably. ATS manufacture or attempts to manufacture have also been reported from China (including Hong Kong SAR), Japan, Republic of Korea and Thailand.

Reports of ATS manufacture have also emerged from countries in Central America and South America. Six illicit ATS laboratories were reported seized in 2009. However, as ATS data from the region is in short supply, partly due to the traditional focus of drug control authorities on traditional drugs such as cocaine and cannabis, it is likely that the true situation is underreported. ATS manufacture has been reported from Argentina, Belize, Brazil, Guatemala, Nicaragua and Suriname.

1 Accessible at: http://www.unodc.org/documents/scientific/ATS/Global-ATS-Assessment-2008-Web.pdf

2 Includes laboratories of any size and state of operation, as well as waste dumpsites and chemical and glassware seizures ('warehouses').

Intrinsic characteristics of ATS contributing to their attractiveness vis-à-vis the traditional plant-based drugs heroin and cocaine:

On the demand side

- ATS are attractive because they are perceived as enhancing performance and communication and have come to embody a modern and fashionable lifestyle (the extent to which ATS are used for occupational or recreational purposes depends on the specific substance);
- ATS can be taken orally. In addition to being 'convenient' for the user, the use of pills also avoids injection or smoking and the dangers of social stigma associated with these administration routes;
- ATS are affordable (available on retail markets in single pill units);
- The recreational use of ATS is generally perceived as not being very harmful, and controllable; public health risks of ATS are frequently underestimated in public perception, as well as in the judicial and enforcement areas;

On the supply side

- ATS are attractive because of high profits: with little initial investment, hugely profitable quantities of drugs can be manufactured;
- ATS can be made readily from a variety of starting materials (precursors) using a variety of synthesis methods. When a traditional precursor becomes unavailable, the desired precursor may itself be synthesized from a pre-precursor chemical;
- ATS manufacture is not limited to certain geographic locations. It can take place anywhere, be easily camouflaged, and be relocated as enforcement pressure increases (e.g. makeshift laboratories set up to supply a single order and then dismantled to prevent detection);
- Because there are no geographical limitations, ATS laboratories can be located close to the areas of consumption, thus minimizing the risk of detection when trafficking end-products across international borders;
- Awareness of ATS end-products and/or their precursors is still limited in some parts of the world where other drugs prevail, thus minimizing the risk for illicit operators and trafficking groups;
- For operators of small-scale 'kitchen' laboratories (typically methamphetamine laboratories), ATS are attractive because manufacture does not usually require advanced knowledge of chemistry and can be accomplished by anyone from readily available chemicals.

(Information drawn partly from previous UNODC publications: *Understanding clandestine synthetic drugs (2001)* and *Ecstasy and amphetamines - Global survey 2003*)

For a long time, West Africa was one of the world's subregions which appeared to have been largely unaffected by the illicit manufacture, trafficking and use of ATS. However, since 2008, an increase in methamphetamine seizures in countries in East Asia (primarily Japan and Republic of Korea), has pointed to possible manufacture. In 2009, evidence of possible ATS manufacture was discovered in Guinea and in 2010, the United States Government indicted members of a large international cocaine trafficking organization, for, *inter alia*, the intent to establish an illicit laboratory in Liberia for large-scale manufacturing of methamphetamine. In June 2011, a methamphetamine laboratory was discovered in Nigeria, on the outskirts of Lagos. The laboratory had an estimated capacity of 160-200 kg of crystalline methamphetamine per week.

In the Near and Middle East/South-West Asia subregion, the Islamic Republic of Iran first reported illicit manufacture of methamphetamine in 2008. The substance is used locally but also subsequently trafficked mostly to markets in East and South-East Asia. Strong increases in amphetamine seizures, mostly in the form of *Captagon*,[3] in some countries, e.g. Jordan, the Syrian Arab Republic and the United Arab Emirates might also point to possible manufacturing activity in the region. Some law enforcement intelligence suggests that manufacture of amphetamine (*Captagon*) has shifted from South-East Europe to countries in the Near and Middle East. The decline in amphetamine seizures in Bulgaria and Turkey would support this development. Several countries in the region also have unusually high requirements for ATS precursors such as ephedrine, pseudoephedrine or P-2-P. However, aside from the Islamic Republic of Iran, no reports of illicit manufacture have been received from the region to date.

Due to stricter controls over precursor chemicals necessary to manufacture ATS (particularly ephedrine and pseudoephedrine in bulk form), traffickers have been seeking to obtain precursor chemicals in different physical forms to avoid detec-

3 Captagon was originally the trade name for fenetylline, a synthetic stimulant. Analysis of seized Captagon pills show that most contain amphetamine and other ingredients such as caffeine and theophylline.

tion. Ephedrine or pseudoephedrine are obtained in the form of pharmaceutical preparations (nasal decongestants) by diversion from local pharmacies and subsequently trafficked around the world. Traffickers have also resorted to alternative manufacturing methods, which typically involve either synthesizing necessary chemicals from others more easily available or bypassing their use entirely.

Ephedrine and pseudoephedrine used to be the preferred starting materials for the illicit manufacture of methamphetamine. However, with access to these substances curtailed by more effective controls, traffickers have resorted to using P-2-P as the starting material. In Australia, for example, an increase in the number of laboratories using P-2-P as a precursor in the synthesis of amphetamines was reported in 2009. Phenylacetic acid, an immediate precursor of P-2-P, has also been widely used but controls over the substance were strengthened in 2010.[4] In response, traffickers have been using the esters of phenylacetic acid which may be readily converted to phenylacetic acid. Methyl phenylacetate and ethyl phenylacetate have been seized in illicit ATS laboratories in Mexico. Another substitute substance, l-phenylacetylcarbinol (l-PAC), a precursor of ephedrine), was reported as having been found in illicit ATS manufacturing operations in Canada.

NEW ATS TRAFFICKING ROUTES IN ASIA

Over the last few years, the ATS market has moved from being a cottage-type industry (with many small-scale manufacturing operations) to more of a cocaine - or heroin -type market, characterized by a higher level of integration and involvement of organized crime groups that control the entire chain from the provision of precursors, to manufacture and trafficking of the end-product. Recent years have seen a greater diversification of ATS trafficking routes, particularly in South-East Asia, as well as the growth of inter-regional trafficking through countries previously not identified as being involved in ATS trafficking.

South-East Asia has experienced significant increases in the seizures of methamphetamine pills originating from Myanmar. The number of methamphetamine pills seized increased exponentially in 2009. More than 94 million pills were seized in the region in 2009, compared to 32 million pills in 2008. Seizures increased sharply again in 2010, reaching a total of over 133 million pills. Methamphetamine pills, which are manufactured in the Shan state of Myanmar, are trafficked along new routes to Thailand, China and Lao People's Democratic Republic. The Mekong River is now a key route, likely due to Thailand's stricter controls aimed at suppressing drug trafficking and preventing drug use. There are indications of new routes to the western part of Myanmar and also for onward trafficking to South Asia. Reports from India, Nepal and Bangladesh in 2010 and 2011 indicate that South Asia is also increasingly affected by the trafficking of methamphetamine pills.

Although most ATS are still manufactured within the regions in which they are used, there are indications of increasing inter-regional trafficking. North America (primarily Canada) and East and South-East Asia have emerged as sources of ATS for international markets. Since 2008, there has been an increase in methamphetamine trafficking cases to East Asia from West Africa. The number of seizures and quantities seized in East Asia found to have originated in West African countries such as Benin, Côte d'Ivoire, Cameroon, Ghana, Guinea, Senegal and Nigeria more than tripled in 2009. ATS, mostly methamphetamine, is trafficked by air from West Africa via couriers. Methamphetamine trafficked from the Islamic Republic of Iran to countries in Asia and Oceania (e.g. Azerbaijan, Japan, Malaysia, New Zealand, Thailand, Sri Lanka, Uzbekistan) is another development that has emerged since the publication of the 2008 Global ATS Assessment. Turkey reports that methamphetamine is smuggled from the Islamic Republic of Iran into Turkey, then trafficked by air to East and South-East Asia.

EMERGENCE OF METHAMPHETAMINE IN EUROPE

There are indications that methamphetamine markets may be expanding in Europe, as several countries have reported increased availability of the drug as well as an increase in use and more widespread reports of manufacture. Illicit methamphetamine laboratories have been seized for the first time in several European countries, including Austria, Belarus, Lithuania, Netherlands, Poland and Portugal. In Germany, more methamphetamine laboratories have been reported than amphetamine since 2008. Bulgaria reported the seizure of two mobile methamphetamine laboratories in 2010; the first such instance since 2001. In Europe, methamphetamine is primarily sold in the powder form.

There are signs that methamphetamine might be replacing amphetamine on the illicit market of some countries, for example, Sweden, Norway, Lithuania, Latvia and Estonia. Seizures of methamphetamine in Europe increased from 133 kg in 2005 to 697 kg in 2009, the latest year for which data are available.

4 In 8 March 2010, phenylacetic acid was transferred from Table II to Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 – effective as of 17 January 2011 – in an attempt to prevent diversions of the substance into illicit ATS manufacture by increasing international controls and reporting. In April 2010, the Government of Mexico strengthened control of phenylacetic acid by transferring the substance and its salts and derivatives from Table II to Table I of the federal law on precursor control. Mexico also brought methylamine, hydriodic acid and red phosphorus under its national control. Those three substances are not under international control but are used in the illicit manufacture of ATS (INCB, 2011b).

INJECTING ATS USE IN SOME REGIONS

In absolute numbers, most ATS users continue to live in East and South-East Asia, the most populous subregion in the world. The injecting use of methamphetamine and its associated negative health consequences has been reported as a growing problem in East and South-East Asia. Lao People's Democratic Republic and Malaysia, for example, reported the injecting use of crystalline methamphetamine for the first time in 2008 and 2009, respectively. In Thailand, injecting is the second most common mode of administration for crystalline methamphetamine and the third most common mode of administration for methamphetamine pills. In New Zealand, methamphetamine is the most commonly injected drug and in Japan, injecting is the primary mode of administration for crystalline methamphetamine. High rates of amphetamines injection are also reported in the Czech Republic as well as Sweden, Estonia, Finland, Latvia, Lithuania, Georgia and Ukraine.

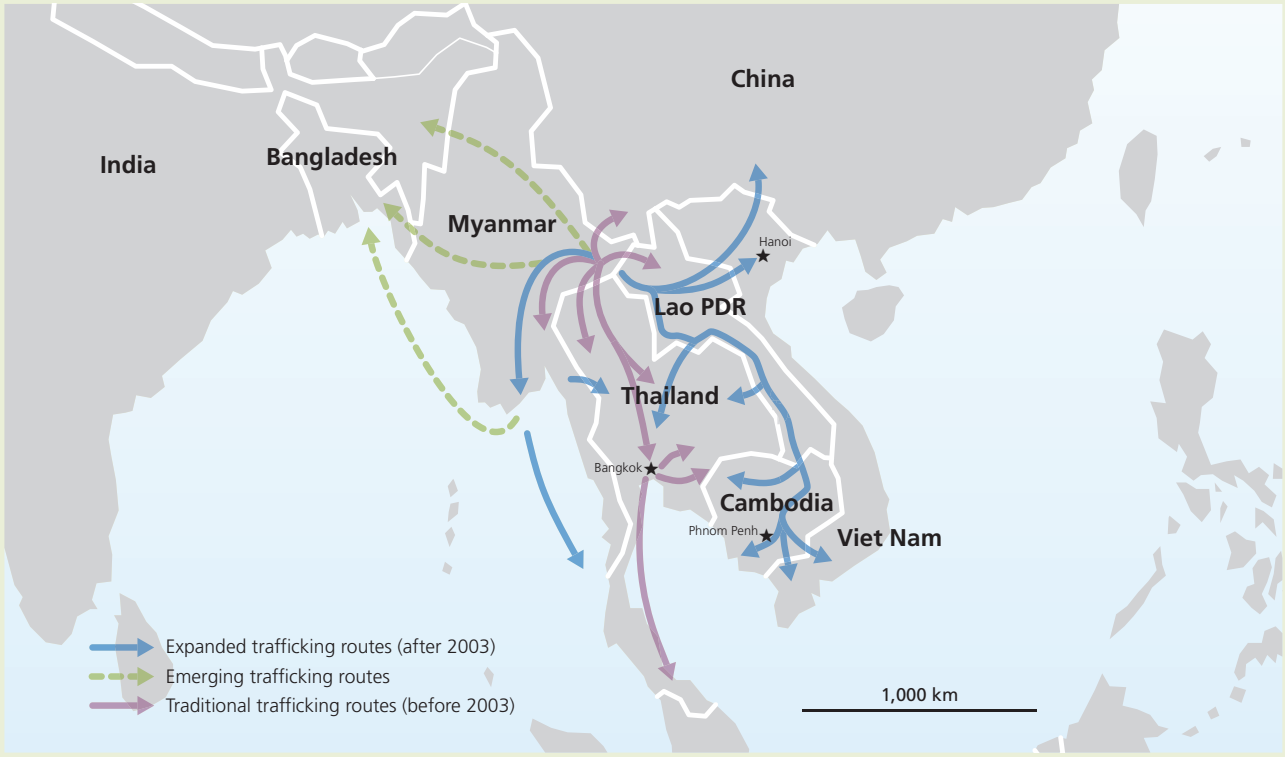
DECLINE AND POSSIBLE RESURGENCE OF ECSTASY AND EMERGENCE OF ANALOGUE SUBSTANCES IN ESTABLISHED ATS MARKETS

In 2008 and 2009, many European countries reported a declining availability of ecstasy, reflected by significant declines in ecstasy seizures as well as decreasing MDMA content detected through forensic analysis. In many cases, declines in supply and purity were accompanied by the emergence of analogue substances not under international control. These substances are marketed as so-called 'legal highs' and mimic the effects of taking illicit stimulant substances such as ecstasy or amphetamines. Widely used substances include BZP, mephedrone (4-methylmethcathinone (4-MMC)) and MDPV. The new unregulated synthetic compounds appeared first in established ATS markets, particularly in Europe, the United States, Canada, Australia and New Zealand but have meanwhile spread to other markets, e.g. Philippines.

Most recent reports point to the increasing purity of ecstasy and a possible resurgence of the drug on the illicit drug market. The Netherlands reported increasing purity of ecstasy in 2010, which was at 82%, compared to 70% in 2008 and 2009.

The resurgence of ecstasy could also have impacted on the availability of analogue substances such as mephedrone, which seemed to have disappeared from the illicit ecstasy market in the Netherlands during the first half of 2010. Ecstasy seizures

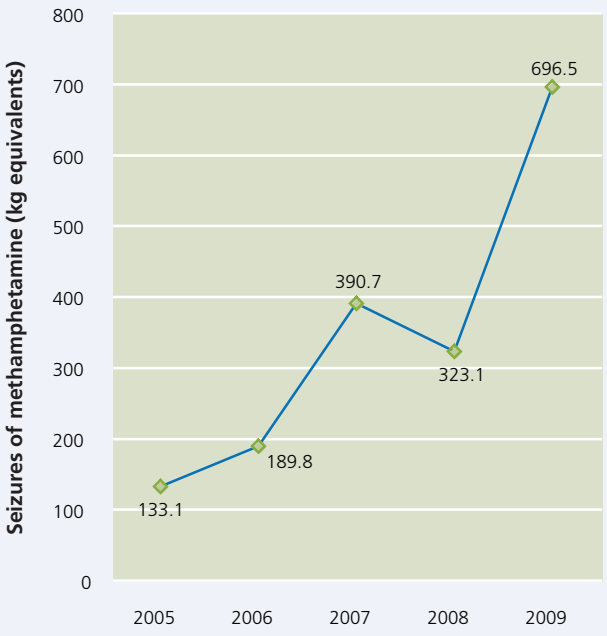
Greater Mekong Subregion: primary methamphetamine trafficking routes



Source: CCDAC, 2009
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

are at a five-year high in the USA, with a total of 3,411 kg reported seized in 2009, a 15% increase over 2008. Europol reports that it is likely that ecstasy manufacture and trafficking will begin to increase again in the coming years, which could affect the availability of unregulated substances on the ATS market.

Europe: seizures of methamphetamine 2005-2009



Source: UNODC ARQ/DELTA

DATA CONSTRAINTS

Analysing ATS markets and developing an evidence base upon which actions to counter the ATS problem can be built relies on accurate, comparable and timely data. UNODC analyses are based on data reported by Member States. However, there is irregular and/or incomplete reporting from several key regions, including South Asia, the Near and Middle East, parts of the Americas, Africa and most Pacific Island states and territories. As this report shows, these are often the very regions for which there are already indications of a future spread of the ATS problem.

Irregular or incomplete reporting from Member States is compounded by the varying quality of data provided. Specifically, and similar to other drugs, information about the extent of ATS use is the weakest indicator, as household and other surveys are lacking or are outdated in some countries in several of the most affected regions. Unfortunately, this happens to be the case in several populous countries (for example, China and India). The lack of systematic forensic information on the specific ATS substances, the actual precursors used and the size and capacity of clandestine laboratory operations is another limitation. Without these data, which provide critical evidence for both demand and supply side trends, specific regional shifts and emerging trends in ATS markets fail to be detected in a timely manner. Lack of these data, together with lack of price data, also affects estimates of wholesale and retail market values, mark-ups, and the profitability of the ATS market.

CONCLUSIONS

After cannabis, ATS are the second most widely used drugs. The number of ATS users has stabilized at high levels: UNODC estimates that the annual prevalence for amphetamines-group substances ranged between 0.3% and 1.3% in 2009, or some 14 to 57 million people aged 15-64. For the ecstasy group, global annual prevalence is estimated at between 0.2% and 0.6% of the population aged 15-64, or some 11 to 28 million past-year users. The scale of the problem is underreported, as some large countries such as China or India have never conducted a nationally representative survey to collect data on ATS use.

The report has shown that the ATS problem keeps spreading to new regions and countries not previously affected by the phenomenon. It is a dynamic problem characterized by rapid changes in regional trends in the levels of manufacture, trafficking and use. And it is a complex problem, with a great variety of substances sold in a number of different forms- as powders, pills or high purity crystals.

Due to the complexity and dynamic nature of the ATS phenomenon, the capacity to monitor the illicit manufacture, trafficking and use of ATS is a sizeable and often enormous challenge for many Governments. Attention to the ATS problem remains uneven across the world and there is a need to establish and further develop ways to assess the ATS situation in key regions. In the Near and Middle East, the region with the highest seizures of amphetamines, there is a strong need to broaden the information and knowledge base. Data on ATS use are almost non-existent and little is known about the origin of the pills which are seized in large quantities in most countries in the region. Africa, increasingly associated with trafficking of precursors and expanding ATS manufacturing capacity is another region which would benefit from investment into drug-related problems. Most Pacific Island States and territories lack infrastructure to collect and provide information on ATS yet are increasingly associated with trafficking of precursors and the transit of ATS.

The international community has recognized, most notably in the 1998 UNGASS *Action Plan on ATS* as well as in the 2008 Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy

to Counter the World Drug Problem, that ATS continue to pose a serious and constantly evolving challenge to international drug control efforts; a challenge which threatens the security, health and welfare of the population, especially youth, and has called on Member States to produce comprehensive national, regional and global responses.

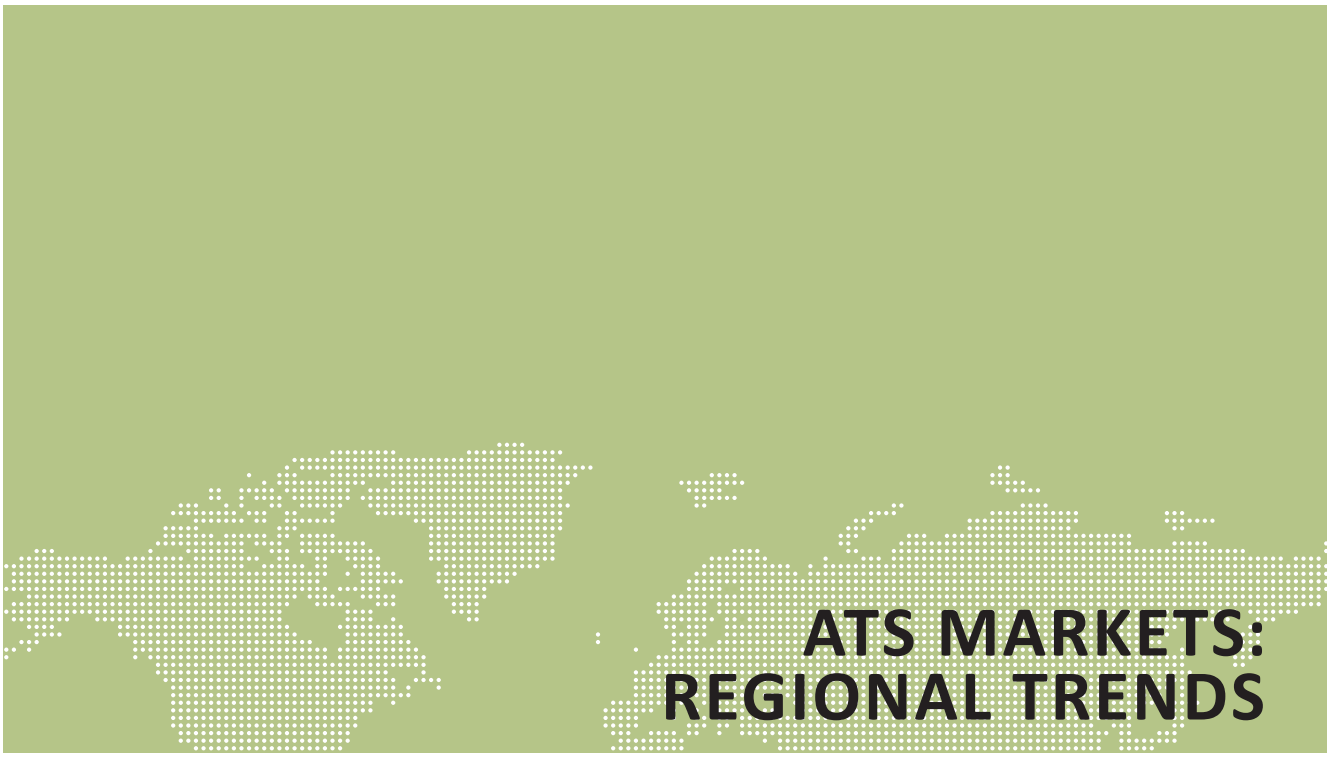
To properly respond to the ATS problem, further investments in ATS information systems that provide accurate, timely and actionable information with detail at the subregional or national level, remain among the highest priorities for action.

Emerging ATS markets need to be monitored and addressed proactively before they are established and become a significant added burden to national health and justice systems. UNODC will continue to identify and communicate information on emerging trends to assist relevant Government authorities in their understanding of the ATS market.

Illicit ATS manufacture needs to be targeted at the origin by further increasing the effectiveness of precursor control. Such efforts should also include preventing the diversion of preparations containing ATS precursors and of derivatives specially designed to circumvent existing controls.

Finally, it is evident from this report that a worsening ATS problem is correlated with a lack of infrastructure and resources, and priority must therefore be given to those vulnerable countries and subregions where ATS are spreading most rapidly and where data are known to be lacking or insufficient.[5]

5 Vulnerability, in this regard, is a result of both limited awareness and lack of preparedness to address the ATS phenomenon adequately, and real limitations in human, financial and technological resources, i.e. the overburdening of national infrastructures and law enforcement, judicial, prison and health care resources.



ATS MARKETS: REGIONAL TRENDS





ASIA

EAST AND SOUTH-EAST ASIA

Regional Overview

East and South-East Asia, home to about a third of the global population, has one of the most established ATS markets in the world, primarily for methamphetamine. It is estimated that between 3.5 million to 20.9 million persons in the region have used ATS in the past year. All 11 countries covered in this chapter have reported ATS use, and in several of those, ATS have emerged as the primary drug threat in recent years, displacing traditionally used plant-based drugs such as heroin, opium and cannabis. The injecting use of methamphetamine and its associated negative health consequences is reported as a growing problem in the region.

Since 2006, the illicit manufacture of ATS has continued at high levels in the region. China, Myanmar and the Philippines remain the major manufacturing countries in East and South-East Asia. During the past five years significant numbers of illicit ATS manufacturing laboratories have also been reported from Indonesia, Malaysia and, to a lesser extent, Cambodia. Previously, these latter three countries had been primarily transit countries for ATS but have more recently also become key manufacturing centres. In addition, a small number of ATS-related laboratories and precursor chemical manufacturing sites have been reported from China, Hong Kong, China, Japan, Republic of Korea and Thailand. Overall, the number of illicit ATS laboratories dismantled between 2004 and 2009 increased significantly, from 13 to 458. The largest number of methamphetamine laboratories was reported in China, followed by Indonesia, Malaysia, Myanmar and the Philippines. Limited ecstasy manufacture takes place in the region, including in China, Indonesia and Malaysia.

Trafficking patterns in East and South-East Asia have also shifted during the past few years, particularly in the Greater Mekong subregion, which includes Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam and the bordering southern provinces of China. The 93.3 million methamphetamine pills seized in 2009 in China, Lao People's Democratic Republic, Myanmar and Thailand represent a three-fold increase in comparison with 2008 figures. In 2010, total seizures surpassed 133 million pills.

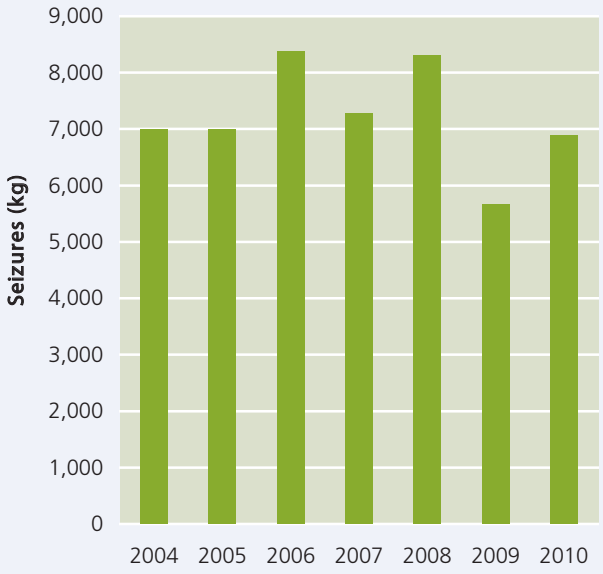
This increased trafficking of methamphetamine pills from Myanmar to markets in the region was reflected by the single seizure of nearly 22 million methamphetamine pills in February 2010 in Lao People's Democratic Republic, one of the largest seizures ever in the region. In addition, increasing amounts of chemicals and pharmaceutical preparations used for

East and South-East Asia: ATS laboratories, seizures, and annual prevalence rates (2004-2009)

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	49	66	98	11	16
	Other synthetic/combined stimulants	-	1	-	244	391
	Ecstasy-group substances	-	7	27	33	51
	Total	**49**	**77**	**125**	**288**	**458**
Seizures (kg)	Methamphetamine	12,171.9	12,118.4	10,867.3	11,578.6	15,810.4
	Amphetamine	5,262.2	76.5	128.6	72.2	-
	Non-specified amphetamines	1,388.9	2,339.1	687.4	1.7	175.0
	Ecstasy-group substances	1,137.8	449.1	1,725.0	814.3	496.5
	Total	**19,960.8**	**14,983.2**	**13,408.3**	**12,466.8**	**16,481.9**
Annual Prevalence (15-64)	*Amphetamines-group substances*	0.9%	0.9%	0.8%	0.8%	0.8%
	Ecstasy-group substances	0.1%	0.1%	0.3%	0.3%	0.3%

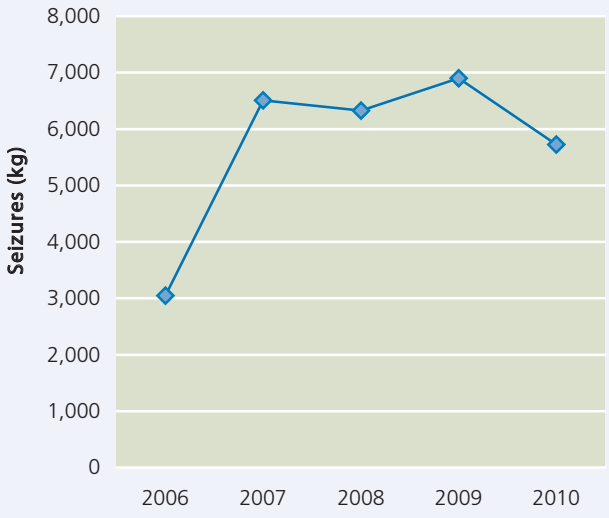
** From 2007 onwards, reported prevalence percentage is based on midpoint of range.*
- Not reported.
Source: UNODC ARQ/DELTA

Crystalline methamphetamine seizures in East and South-East Asia, 2004-2010



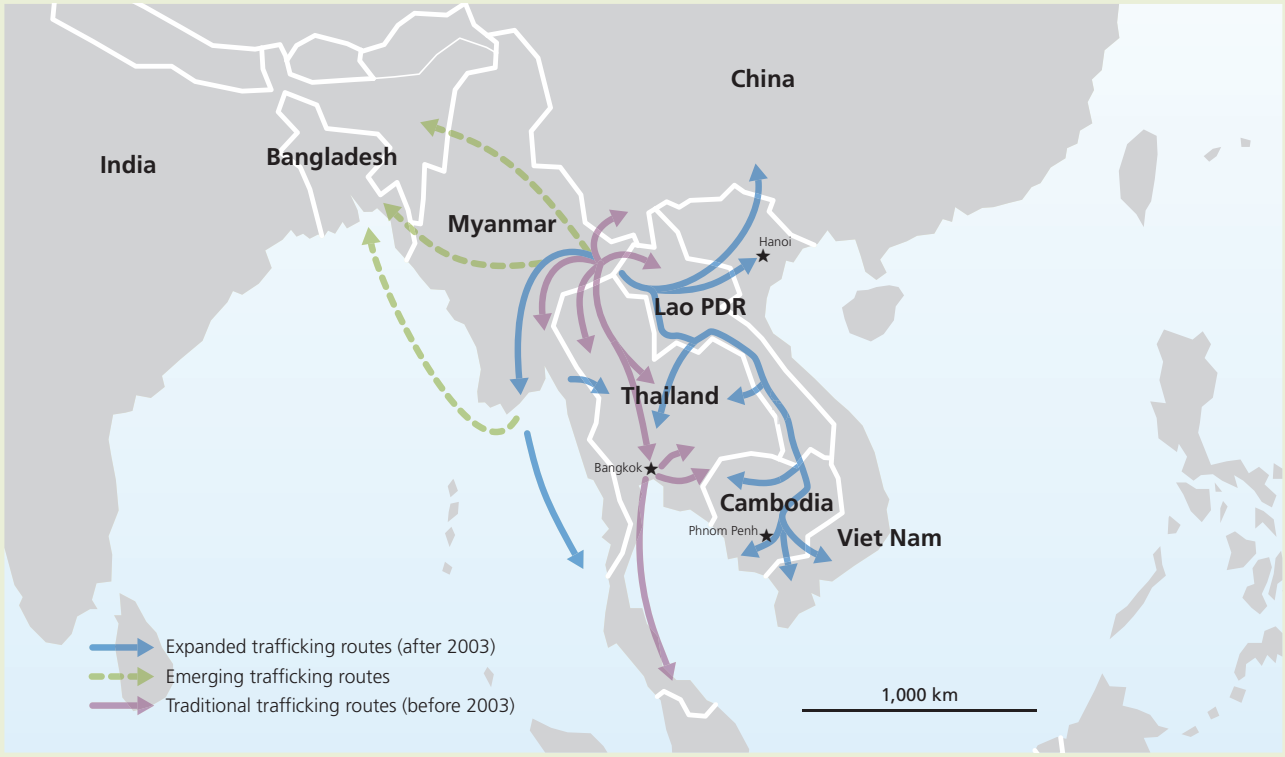
Source: DAINAP

Ketamine seizures in East and South-East Asia, 2006-2010



Source: DAINAP

Greater Mekong Subregion: primary methamphetamine trafficking routes



Source: CCDAC, 2009
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

the manufacture of methamphetamine are being diverted and trafficked through the Greater Mekong Subregion. Large volumes of pharmaceutical preparations containing ephedrine and pseudoephedrine have been reported in a number of countries in the region, most notably in Cambodia and Myanmar.

Since 2008, transnational organized criminal groups from the Islamic Republic of Iran and West Africa have been playing a greater role in ATS trafficking in East and South-East Asia. In 2009, 28 Iranians were arrested for attempting to smuggle methamphetamine in crystalline and liquid forms into Indonesia. Malaysia, the Philippines and Thailand have also reported increasing inflows of methamphetamine and other ATS into the country by Iranian drug trafficking organizations. Japan reported the arrest of more than 130 Iranians for methamphetamine-related offences over the past few years, including one case of suspected methamphetamine manufacture in June 2010. There are new indications that West African groups, which have hitherto trafficked primarily in cocaine and heroin, may be diversifying into the region's lucrative methamphetamine trade.

ATS use in East and South-East Asia continues to rise and by 2009 ATS ranked in the top three drugs of use in all countries in the region. Methamphetamine in pill form ranks as the top drug of use in the Lao People's Democratic Republic and Thailand, while methamphetamine in crystalline form ranks as the most commonly used drug in Brunei Darussalam, Cambodia, Japan, the Republic of Korea and the Philippines. The expansion of crystalline methamphetamine trafficking into the region has been accompanied by an upsurge in the use of the drug. Ecstasy use is reported in most countries, albeit at relatively low and declining levels.

This chapter focuses on the evolving ATS situation in East and South-East Asia since 2008. The coverage is divided into subregions, beginning with the Greater Mekong Subregion, followed by North-East Asia including Japan, the Republic of Korea and the Philippines, and the Southern Archipelago nations of Indonesia and Malaysia.

GREATER MEKONG SUBREGION

The Greater Mekong Subregion, which includes Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam and bordering provinces of southern China, continues to be heavily affected by the manufacture, trafficking and use of ATS, primarily methamphetamine, on a large scale. Whereas previously Myanmar, the bordering provinces of southern China and Thailand have been most impacted by ATS, the problem has also shifted over the past few years to Cambodia, the Lao People's Democratic Republic and Viet Nam. Emerging ATS trends include shifting patterns of drug trafficking routes throughout the region as well as increasing use of crystalline methamphetamine. While not yet widespread, the increasing injecting use of methamphetamine has been officially reported by Cambodia, the Lao People's Democratic Republic and Thailand. Meanwhile, legal and drug treatment systems continue to be dominated by methamphetamine cases.

Myanmar

Myanmar remains the major source of methamphetamine pills in the Greater Mekong Subregion. Most illicit methamphetamine manufacture takes place in the eastern part of Shan State. Forensic profiling of ATS in Thailand suggests there are at least 12 methamphetamine manufacturing sites in Myanmar. In addition, there are indications that at least 50 different organized criminal groups are involved in activities related to the trafficking of drugs from Myanmar.[1] The presence of different types of 'WY' methamphetamine pills in Kayah State and Kayin State, which are 30-50% cheaper in price compared to pills produced in Shan State, suggests possible local methamphetamine manufacture in those states.[2]

Methamphetamine pills manufactured in Shan State are trafficked along new trafficking routes that have emerged since 2003, directly to Thailand, China and the Lao People's Democratic Republic,[3] with the Mekong River now a key route.[4] There is also evidence of new trafficking routes to the western part of Myanmar and onward trafficking to South Asia.[5]

Between 1998 and 2010, only 39 manufacturing facilities were seized in Myanmar, mostly consisting of smaller tableting operations, with only two large-scale operations. This information is inconsistent with the vast number of pills seized

1 ONCB, 2009.

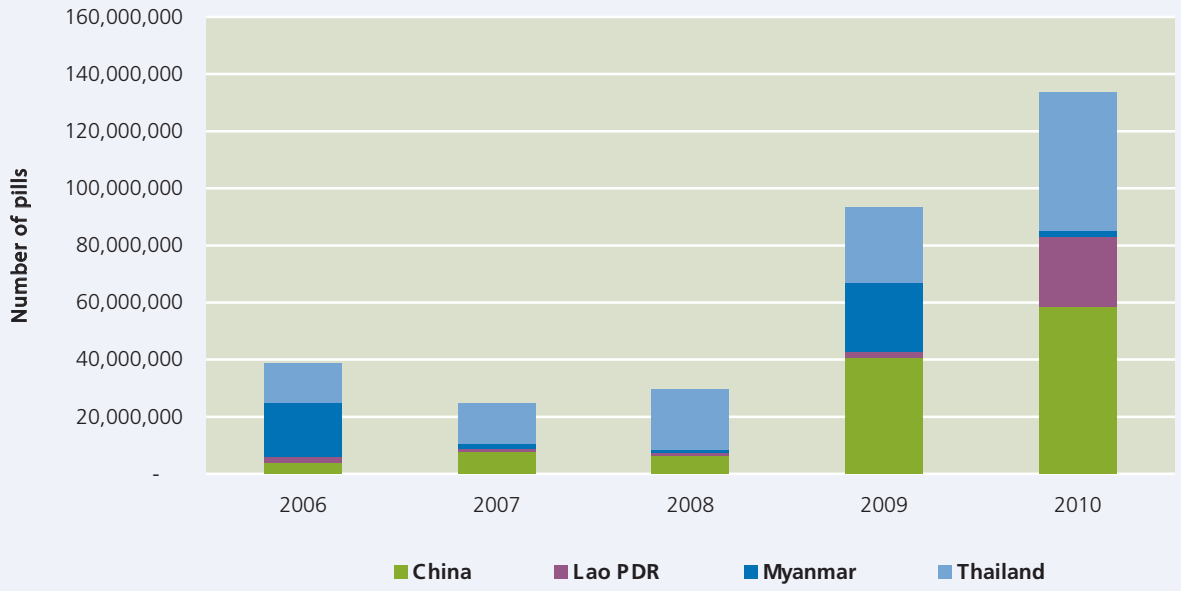
2 UNODC, 2010c.

3 ONCB, 2009.

4 This may be due to increased counter-narcotics efforts by the Government of Thailand, aimed at the suppression of drug trafficking and the prevention of drug use, which forced drug producers and traffickers to find new trafficking routes.

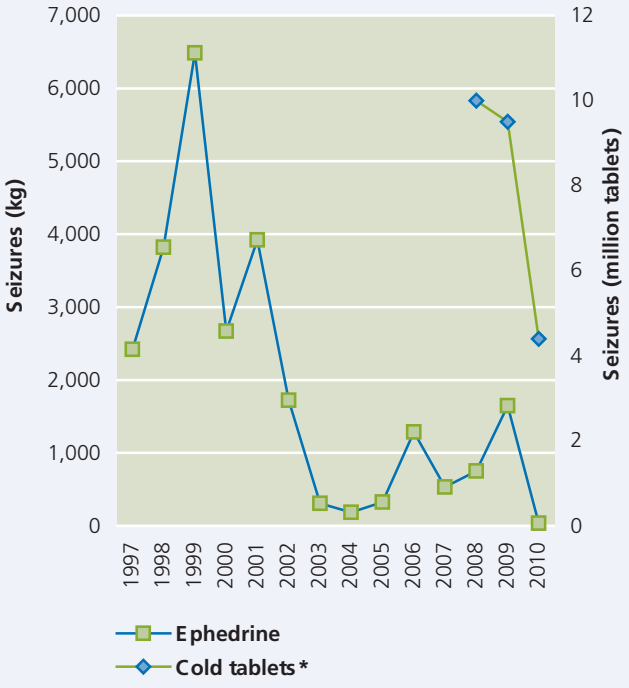
5 In 2009, a new trafficking route emerged, to Rakhine State from Yangon. Pills seized in Rakhine State in 2009 were likely for export rather than for local consumption (UNODC, 2010c).

Combined methamphetamine pill seizures in China, Lao People's Democratic Republic, Myanmar and Thailand



Source: DAINAP

Myanmar: seizures of ephedrine and pseudoephedrine, 1997-2010



*Cold tablets containing pseudoephedrine.
Source: CCDAC, 2009

Myanmar: domestic trafficking routes of methamphetamine pills



Source: CCDAC, 2009
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Myanmar: bottles of ephedrine-containing nasal drops seized in Special Region 1 (Kokang)



Source: CCDAC, 2009

throughout the region.[6] No reported crystalline methamphetamine manufacturing facilities have been seized in the country, but most crystalline methamphetamine seized in northern Thailand during the past three to four years originated from the Myanmar part of the Golden Triangle.[7]

Only two million methamphetamine pills were seized in 2010, compared to seizures of nearly 24 million pills in 2009. Seizures in 2008 and 2007 amounted to 1.1 million pills and 1.6 million pills, respectively.[8] The significant increase in 2009 was likely due to Government pressure on ceasefire groups, many of which manufacture ATS, to come under Government control. Although seizures of methamphetamine pills dropped sharply in 2010, seizures of crystalline methamphetamine during the year amounted to 226 kg, showing an upward trend for two successive years. The amount of crystalline methamphetamine seized in 2009 amounted to 124 kg compared with a total of only 20 kg seized between 2006 and 2008.[9]

Ephedrine and pseudoephedrine, the main methamphetamine precursors, are trafficked into the country from China, India and Thailand.[10] From 2003 to 2008, less than 1 mt of ephedrine was seized each year except for 2006 when 1.3 mt were seized. In 2009, ephedrine seizures jumped to 1.5 mt and then dropped again in 2010 to 34 kg.[11] At the same time, however, Myanmar has reported significant seizures of cold tablets containing pseudoephedrine, with 9.4 million such pills seized in 2009 and 4.5 million pills seized in 2010.[12] Increasing seizures of pharmaceutical preparations that contain ephedrine and pseudoephedrine may account for the low amount of bulk ephedrine seizures in recent years, as precursor traffickers have started to use different forms of precursor chemicals in order to avoid law enforcement detection and to circumvent strict international controls on precursor chemicals.

Most of the methamphetamine manufactured in Myanmar is trafficked to other countries, primarily in the Greater Mekong Subregion. However, domestic methamphetamine use is reportedly on the rise. Use of methamphetamine pills has increased every year since 2003.[13] Use has spread from the border areas near manufacturing centres to urban areas. There has been no reported domestic use of crystalline methamphetamine to date.[14]

Thailand

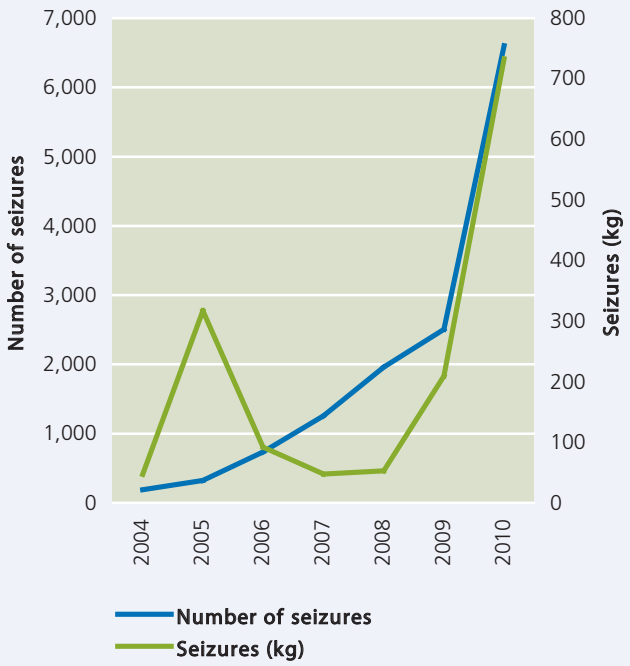
Thailand has one of the largest markets for methamphetamine in the region. While methamphetamine pill use remains the most common form of drug use in the country, the use of crystalline methamphetamine has become increasingly widespread.

Domestic manufacture of methamphetamine in Thailand is limited to small-scale manufacture. Over the past three years, law enforcement authorities have seized methamphetamine pill tableting operations located in the outskirts of Bangkok and in surrounding provinces as well as in the northern province of Chiang Rai, indicating that pill pressing operations are taking place in the area bordering Myanmar.[15] In July 2010, a Swedish national arrested in the eastern province of Rayong was charged with manufacturing crystalline methamphetamine in his home.[16]

Large quantities of cold tablets containing pseudoephedrine, sourced primarily from Thailand, Malaysia and the Republic of Korea, were seized in Thailand's border areas and at Suvarnnabhumi International Airport in 2009 and 2010.[17] Most

6 UNODC, 2010c.
7 This has been suggested by authorities from Myanmar and Thailand (ONCB, 2009).
8 UNODC, 2010c.
9 UNODC, 2010c.
10 ONCB, 2009 and CCDAC, 2010.
11 UNODC, 2010d. The increase in 2006 was due to greater law enforcement efforts (UNODC, 2008).
12 DAINAP; UNODC, 2010c.
13 UNODC, 2010d.
14 UNODC, 2010d.
15 ONCB, 2010a.
16 ONCB, 2011.
17 ONCB, 2010b.

Thailand: seizures of crystalline methamphetamine, 2004-2010



Source: DAINAP

of the tablets were believed to be destined for illicit ATS manufacturing facilities in Myanmar. Since 2008, approximately 35 million preparations and 192 kg of bulk pseudoephedrine have been seized in the country.[18] The increasing quantity of the seizures indicates traffickers are smuggling larger quantities of pharmaceutical preparations to production centres.

Although there is growing domestic methamphetamine manufacture in Thailand, the majority of the methamphetamine pills found in the country is sourced from Myanmar. Due to increased illicit manufacture in Myanmar, seizures of methamphetamine in both pill and crystalline forms in Thailand have increased each year since 2007. During that period, methamphetamine pill seizures rose from 14 million pills in 2007 to 22 million pills in 2008, 27 million pills in 2009 and nearly 50 million pills in 2010. At the same time, seizures of crystalline methamphetamine also increased dramatically, with 47 kg seized in 2007, 53 kg in 2008, 209 kg in 2009 and 773 kg in 2010.[19]

Most of the methamphetamine that enters Thailand is for domestic use but limited quantities are also transshipped to other markets, including Europe, North America[20] and the Middle East. Crystalline methamphetamine is trafficked into the country from Myanmar and Cambodia both for domestic use and for onward trafficking to Malaysia, the Philippines, Hong Kong, China and Japan.[21] As in several other countries in East and South-East Asia, increasing amounts of crystalline methamphetamine are trafficked into Thailand by couriers from the Islamic Republic of Iran. In 2009, eight Iranian drug traffickers were arrested with 27 kg of crystalline methamphetamine. From January to September 2010, 79 Iranian drug traffickers were arrested in Thailand with nearly 109 kg of the drug. Iranian couriers typically attempt to traffic methamphetamine in crystalline, liquid and powder form into the country via Suvarnnabhumi International Airport.[22]

Most ecstasy in Thailand is reportedly trafficked by air from the Netherlands.[23] In addition, criminal syndicates based in Malaysia and Singapore traffic ecstasy into Thailand by land and air.[24] Most ketamine is trafficked into Thailand across its borders with Cambodia and Malaysia. In 2010, police arrested seven Indian couriers and seized 150 kg of ketamine powder at Suvarnnabhumi International Airport.[25] Reported use of ecstasy and ketamine in Thailand, however, is declining.

The use of methamphetamine pills and crystalline methamphetamine has shown an upward trend since 2008. In 2010, more than 80% of all persons who received drug treatment in specialized treatment facilities and correctional institutions reported methamphetamine pills as the primary drug of use. Thailand is one of the few countries in the region that provides specialized treatment for ATS users.

18 ONCB, 2010b.
19 DAINAP; 2010, ONCB 2010b.
20 INCB, 2010a.
21 ONCB, 2010b.
22 ONCB, 2010b.
23 ONCB, 2010a.
24 ONCB, 2010b.
25 ONCB, 2010b.

Thailand: drug treatment admissions, 2010

DRUG TYPE	NEW ADMISSIONS			ALL ADMISSIONS		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Methamphetamine pills	73,530	6,940	80,470	89,822	8,225	98,047
Crystalline methamphetamine	939	691	1,630	1,214	805	2,019
Ecstasy-type (MDMA)	83	69	152	102	82	184
Cannabis	5,559	66	5,625	6,664	77	6,741
Cocaine	7	5	12	11	7	18
Heroin	500	18	518	1,276	62	1,338
Inhalants	3,064	88	3,152	4,037	115	4,152
Ketamine	3	5	8	6	5	11
Kratom	1,904	52	1,956	2,136	53	2,189
Opium	713	205	918	1,451	436	1,887
Total	**86,302**	**8,139**	**94,441**	**106,719**	**9,867**	**116,586**

Source: DAINAP

Thailand: drug treatment admissions, 2009

DRUG TYPE	NEW ADMISSIONS			ALL ADMISSIONS		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Methamphetamine pills	64,690	6,945	71,635	78,620	8,196	86,816
Crystalline methamphetamine	350	351	701	435	408	843
Ecstasy-type (MDMA)	155	96	251	181	103	284
Cannabis	6,610	89	6,699	7,794	104	7,898
Cocaine	10	2	12	15	4	19
Heroin	513	25	538	1,232	62	1,294
Inhalants	4,466	160	4,626	5,517	197	5,714
Ketamine	10	1	11	11	1	12
Kratom	1,385	35	1,420	1,527	34	1,561
Opium	795	261	1,056	1,482	485	1,967
Total	**78,984**	**7,965**	**86,949**	**96,814**	**9,594**	**106,408**

Source: DAINAP

Thailand: ATS and ketamine seizures, 2006-2010

DRUG TYPE (MEASUREMENT)	2006		2007		2008		2009		2010	
	No. of seizures	Quantity	No. of seizures	Quantity	No. of seizures	Quantity	No. of seizures	Quantity	No. of seizures	Quantity
Methamphetamine pills (pills)	36,252	13,820,000	73,014	14,340,000	113,877	22,115,911	105,916	26,640,206	125,195	48,587,522
Crystalline methamphetamine (kg)	734	92.2	1,258	47.4	1,960	52.9	2,507	209	6,602	733.02
Ecstasy-type (MDMA) (pills)	300	26,656	295	315,444	460	486,533*	296	58,024	147	16,081
Ketamine (kg)	95	22.7	63	2.8	140	18.1	130	18.9	154	172.03

** 2008 pill seizures converted into kg equivalents at 1 pill = 300 mg.*
Source: DAINAP

Lao People's Democratic Republic

Drug control authorities in the Lao People's Democratic Republic have identified the rapid spread of ATS and other synthetic drugs as the country's primary drug threat. Lao People's Democratic Republic has not reported any illicit methamphetamine manufacture since 1998. Recent seizure data indicate that methamphetamine increasingly transits the country from Myanmar to Cambodia, Thailand and Viet Nam, particularly along the Mekong River and the country's rapidly improving road network.[26] In 2008, 157 seizures of methamphetamine (about 81% of all methamphetamine seizures) were made en route from the Lao People's Democratic Republic to Thailand.[27]

Prior to 2008, annual seizures of methamphetamine pills in the Lao People's Democratic Republic amounted to between 0.5 million and 2 million pills, except in 2005 when almost 4.7 million pills were seized. In line with the spike in methamphetamine pill seizures in other countries in the Greater Mekong Subregion, the Lao People's Democratic Republic reported a more than four-fold rise in pill seizures from 84 cases in 2007 to 194 cases in 2008 and 357 cases in 2009. In 2010, methamphetamine pill seizures increased significantly, due to a single seizure in February of 21.8 million pills believed to have originated from Myanmar, evidently en route to Thailand.[28] It was one of the largest methamphetamine pill seizures ever in the Greater Mekong Subregion. The total was nearly ten times higher than the 2.3 million methamphetamine pills seized in 2009.

In addition, there are indications that transnational organized drug trafficking groups are increasingly smuggling precursor chemicals used in the manufacture of ATS through the Lao People's Democratic Republic.[29] In August 2009, law enforcement authorities seized large quantities of cold remedies being trafficked to Myanmar from Viet Nam through Lao People's Democratic Republic, which were intended to provide pseudoephedrine for methamphetamine manufacture.

The spillover of methamphetamine from Myanmar has impacted drug use patterns in the Lao People's Democratic Republic which were previously dominated by opium use. In 2005, government authorities in the Lao People's Democratic Republic reported the escalation of methamphetamine use along trafficking routes adjacent to the Mekong River and identified methamphetamine pills as the primary drug of use in the country. In the same year, the Lao People's Democratic Republic recorded its first crystalline methamphetamine seizure, indicating that the supply of methamphetamine entering the country was diversifying. Injecting use of methamphetamine was reported for the first time in 2008.

ATS use is highest in urban areas and is increasing among young drug users. UNODC estimates that in 2008, an estimated 1.4% of the population aged 15-64 had used methamphetamine at least once in the previous year.[30] There is also increasing ATS use in some rural areas that formerly cultivated opium poppy.[31] Over the past five years, more than 80% of all drug-related arrests and the majority of drug treatment admissions have involved methamphetamine in pill form,[32] representing a considerable burden on the limited law enforcement, judicial, prison and health care resources of the Lao People's Democratic Republic.

Lao People's Democratic Republic: seizures of methamphetamine pills, 2006-2010

DRUG TYPE	MEASUREMENT	2006	2007	2008	2009	2010
Methamphetamine pills	No. of pills	1,755,989	1,272,815	1,227,205	2,335,330	24,530,177

Source: DAINAP

Number of patients at Somsanga Treatment and Rehabilitation Center, 2003-2009

DRUG TYPE	2003	2004	2005	2006	2007	2008	2009
Total no. of patients	1,714	2,658	1,376	1,177	1,894	1,682	1,964
Females	0	0	25	28	137	105	118

Source: LCDC, 2010b

26 LCDC, 2010a.
27 WCO, 2009.
28 LCDC, 2011.
29 INCB, 2011a.
30 UNODC, 2011a.
31 LCDC, 2010a.
32 DAINAP.

Cambodia

Cambodia has a significant and increasing problem with the illicit manufacture, trafficking and use of ATS. In addition, the country is being targeted by transnational drug trafficking organizations as a transit route for ATS and other drugs to other countries both in and outside the region.

Official reports of illicit ATS manufacture in Cambodia first emerged in 2007 when police dismantled a large-scale laboratory in Kompong Speu province that was reported to have manufactured at least 1 mt of chloropseudoephedrine, an intermediate in the manufacture of methamphetamine. Illicit ATS manufacture in the country has since increased considerably. In 2009, Cambodia reported the seizure of five laboratories and precursor manufacturing sites.[33]

Seizures of substantial quantities of precursor chemicals used for illicit ATS manufacture have also been reported in Cambodia in recent years. In 2009, Cambodian authorities seized 886 kg of preparations containing pseudoephedrine, 2,814 kg of ephedra grass, 13 kg of ephedra seeds as well as 1,373 kg of unknown liquids.[34] In the same year, Cambodia reported its first seizure of an extraction site for ephedrine, in the Kompong Cham province, which was utilizing ephedra grass suspected to have been trafficked from northern China.[35]

In August 2010, drug law enforcement authorities in Cambodia recorded the largest single seizure of smuggled pseudoephedrine to date in the country. About 12.9 million tablets were seized in Banteay Meanchey province near the Thai-Cambodia border. The seizure was carried out in cooperation with law enforcement officers from the Republic of Korea and Thailand.[36] Significant seizures of pseudoephedrine tablets were also reported in December 2010 in Phnom Penh.

Safrole-rich oils (SRO),[37] have various licit commercial uses in the perfume and pesticide industry, but can be diverted for the illicit manufacture of ecstasy. SRO continue to be illicitly harvested and sold, although at far lower levels than in previous years.

While there is some indication that the domestic manufacture of ATS is increasing, most ATS found in Cambodia is trafficked from neighbouring countries. Previously, ATS entered Cambodia primarily through its border with Thailand, whereas over the past few years most ATS seized in Cambodia have been smuggled across its border with the Lao People's Democratic Republic, in particular through the remote northern provinces along the Mekong River. A large amount of the ATS and other drugs trafficked into Cambodia is destined for illicit markets in other countries.[38] Some of the methamphetamine trafficked into the country is re-tableted and sold on the streets as low purity methamphetamine pills.[39]

Since 2007, methamphetamine pill seizures in the country have declined, which may be an indication of increased domestic illicit ATS manufacture and a reduced need for the trafficking of the drugs into the country. In 2010, methamphetamine pill seizures in Cambodia totaled 82,746, nearly 40% lower than the 2009 total and nearly 30% lower than the 2008 total. At the same time, however, the 10kg of crystalline methamphetamine seized in the country in 2010 is more than twice the amount seized in 2009 (4.6kg) and represents the highest amount seized in the country since 2007.

Although the domestic use of methamphetamine in Cambodia remains high, government experts have reported two successive years of declining use. In 2009, users of methamphetamine in both pill and crystalline form accounted for about 70% of all illicit drug users. Cambodian authorities report that use of crystalline methamphetamine has overtaken the use of methamphetamine pills.[40] Preliminary data reported by Cambodia in 2011, however, indicates a possible spike in methamphetamine pill seizures.

33 NACD, 2009.

34 NACD, 2010a.

35 NACD, 2009.

36 NACD, 2010b; UNODC, 2010b.

37 Safrole is a substance listed in Table 1 of the United Nations Convention Against Illicit Trafficking in Narcotic Drugs and Psychotropic Substances of 1988, as well as in Cambodia's Drug Law. The International Narcotics Control Board defines safrole-rich oils as being 'any mixtures or natural products containing safrole present in such a way that it can be used or recovered by readily applicable means' (INCB, 2009b).

38 NACD, 2011.

39 NACD, 2010c.

40 DAINAP.

Cambodia: seizures of selected drugs, 2005-2010

DRUG TYPE	MEASUREMENT	2005	2006	2007	2008	2009	2010
Methamphetamine pills	No. of pills	351,651	428,553	420,287	116,772	137,249	82,746
Crystalline methamphetamine	kg	2	16.2	6.75	1.9*	4.6	9.9
Ecstasy-type (MDMA)	No. of pills	–	–	300	33	3,352	1,056
Ketamine	kg	–	–	–	495**	1.14	0.001

** Plus 15 'small packs' undefined weight. ** Small bottles, undefined weight.*
Source: DAINAP

Viet Nam

Viet Nam is becoming the next big market for methamphetamine manufactured in the region, partly due to its large, increasingly affluent and urban population. The use of heroin and opium continue to dominate in the country. The use of methamphetamine pills and ecstasy has increased every year since 2003.[41] Crystalline methamphetamine use, which was first reported in Viet Nam in 2008,[42] has since risen significantly, especially among young persons in urban areas.[43]

Methamphetamine manufacture in Viet Nam appears minimal, with the first manufacturing laboratory reported dismantled in June 2005.[44] However, the full extent of ATS manufacture and the trading of precursor chemicals in Viet Nam is difficult to assess due to the limited information available. The large number of chemical wholesalers, suppliers and manufacturers in Viet Nam provides an increasing opportunity for the diversion of precursor chemicals into illicit ATS manufacture. Some of the pseudoephedrine seized in Australia in 2008-2009 was reportedly shipped from Viet Nam.[45]

Seizures of ATS are not uniformly reported in Viet Nam, but the limited data show that in the first six months of 2010, a total of 22 kg and more than 83,000 pills of methamphetamine pills were seized.[46] Most of the methamphetamine found in Viet Nam and smaller amounts of heroin are sourced from Myanmar and are trafficked into the country by land from Cambodia.[47]

During the past few years, an increasing amount of synthetic drugs as well as hallucinogens which are not controlled by the Government of Viet Nam have been seized by police in major provinces and cities. The use of TFMPP (Trifluoromethylpennylpiperazine), BZP and 'Sea Water' (Gamma Hydroxybutyric Acid, or GHB), widespread in entertainment venues, has been identified by Vietnamese authorities as a new trend and several reports state that these drugs are available for sale on the Internet.[48]

China

ATS use in China had become increasingly widespread by the end of the 1990s and by the early 2000s ATS use had overtaken opium as the second most commonly used drug in the country. Ketamine use has also become increasingly prevalent since it was first reported in 2004, as the country is a major producer of the substance. The lack of nationally representative drug use prevalence estimates, however, remains a major challenge to the adequate monitoring of ATS trends in the country.

Most of the methamphetamine used in China is manufactured domestically. However, compared to other countries in the Greater Mekong Subregion, China experienced a surge in methamphetamine pills trafficked into the country from Myanmar in 2009 and 2010,[49] a trend reflecting the substantial and increasing seizures of methamphetamine pills in Yunnan province bordering Myanmar.[50] In 2009, more than 40 million methamphetamine pills[51] were seized in China, which

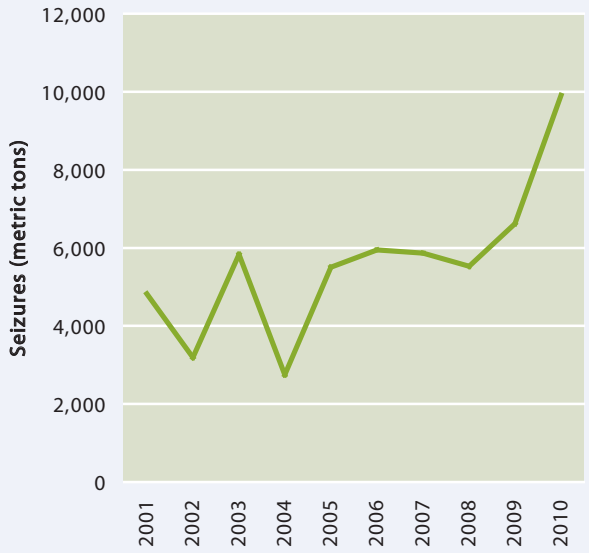
41 DAINAP.
42 DAINAP.
43 SODC, 2010a.
44 SODC, 2008.
45 INCB, 2011a.
46 DAINAP.
47 SODC, 2009.
48 SODC, 2010b.
49 NNCC, 2010a.
50 Methamphetamine seizures in the province rose from 2.2 mt in 2008 to 3.2 mt in 2009 and 4.6 mt in 2010 (NNCC, 2010b; NNCC, 2011a).
51 Figures for 'China' do not include additional significant seizures made in the Special Administrative Regions (SAR) of Hong Kong and Macao, and Taiwan Province.

accounted for roughly 40% of all the methamphetamine pills seized in the East and South-East Asia region during the year, as compared to only approximately 6 million pills seized in China in 2008. In 2010, the total number of methamphetamine pills seized amounted to over 58.4 million.

Despite the impact of the spillover of Myanmar-manufactured methamphetamine pills in 2009, aggregate seizures of methamphetamine (in both pill and crystalline forms) during the year (6.6 mt) remained within the range of the 6.1 mt and 6.8 mt seized each year during the 2005-2009 period. In 2010, aggregate seizures of methamphtamine increased to 9.9 mt, with large amounts seized in Yunnan province; a reflection of the diversification of ATS trafficking routes in the Greater Mekong Subregion.[52]

Seizures of illicit ATS manufacturing facilities in China have increased significantly since 2005 and a considerable number of ketamine manufacturing facilities have also been dismantled. China reports the highest seizures of ketamine in the world, having reported annual seizures of about 5.4 mt for the past four years. The 5.3 mt of ketamine seized in China in 2008 accounted for nearly two-thirds of the 8.2 mt seized globally during the year.[53]

China: ATS seizures, 2001-2010



Source: DAINAP

ATS manufacture in China is becoming more sophisticated and increasingly diversified with the synthesis of precursors and the different stages of manufacturing being divided across provinces, including Taiwan Province of China.[54] In 2010, a total of 378 illicit ATS manufacturing laboratories were detected[55] compared to 391 facilities in 2009[56] and 244 facilities in 2008.[57] Prior to 2006, most illicit ATS manufacturing activity in China occurred in the south-eastern provinces of Guangdong and Fujian. However, increased law enforcement efforts appear to have shifted some manufacture to central China. In 2009, most of the clandestine manufacturing laboratories seized were in Guangdong, Sichuan, Henan, Hunan and Hubei provinces and were manufacturing crystalline methamphetamine and ketamine.[58]

Significant seizures of precursor chemicals continued to be reported in China. In 2010, 234 such cases were reported, including the seizure of 869 mt of controlled precursor chemicals and 49 mt of uncontrolled chemicals. In 2009, China reported 1,366 violations of precursor chemical control and the seizure of approximately 3.2 mt of precursors, including the seizure of nearly 9 mt of hydroxylamine hydrochloride, a precursor used in the manufacture of ketamine.[59]

Hong Kong (Special Administrative Region of China)

Most clandestine ATS manufacture in Hong Kong, China has consisted of ecstasy-type tableting and repackaging operations.[60] However, Hong Kong police reported the seizure of two small-scale clandestine crystalline methamphetamine manufacturing facilities in 2009 and the dismantling of a larger crystalline methamphetamine manufacturing facility located in an industrial estate in 2010.[61]

Ecstasy use has declined in recent years, possibly due to the growing popularity of the significantly less expensive ketamine. Much of the ecstasy seized in Hong Kong, China contains substances other than MDMA, such as ketamine and methamphetamine and, more recently, trifluoromethylphenylpiperazine (TFMPP), which is currently not controlled in Hong Kong, China.[62]

52 NNCC, 2011b.
53 UNODC, 2010e.
54 NNCC, 2009.
55 NNCC, 2011b.
56 It has not been established whether all 391 illicit laboratories were related to ATS (NNCC, 2010b).
57 UNODC, 2010e.
58 NNCC, 2011a.
59 NNCC, 2010c.
60 HKNB, 2010.
61 HKNB, 2011.
62 HKNB, 2011.

Ketamine users account for nearly 38% of all drug users in Hong Kong, China. Among drug users below the age of 21 an estimated 84% have used ketamine.[63] Previously, most of the ketamine trafficked into Hong Kong, China was trafficked in small quantities across the land boundary with mainland China, by a large number of traffickers. By 2005, large, multi-kilo quantities of ketamine originating in India and transported into Hong Kong, China via South-East Asia were also detected. There are indications that criminal syndicates are increasingly procuring the precursor chemical hydroxylamine hydrochloride to manufacture ketamine in illicit laboratories rather than diverting the drug from the legitimate market.[64]

The use of methamphetamine, primarily in crystalline form, emerged in Hong Kong, China in the early 1990s, and has stabilized in recent years at about 10% of the drug user population and approximately 16-21% of reported drug users under the age of 21.[65] Seizures of crystalline methamphetamine have remained stable since 2007 at about 43 kg per year. Most of the crystalline methamphetamine trafficked into Hong Kong, China is trafficked from mainland China; some of it destined for overseas markets such as Australia.[66]

Taiwan Province of China

Taiwan Province of China is a source of methamphetamine manufacture and remains a source for pharmaceutical preparations containing pseudoephedrine that are destined for countries in Central America and Oceania.

In 2010, Taiwan Province of China reported its largest ever ketamine seizure of 850 kg which originated from mainland China, as well as an additional 480 kg of ketamine which was detected on board a fishing vessel. In November 2010, authorities seized 60 kg of amphetamine originating from mainland China with a street value of USD1.6 million at Taipei Port. During the year, authorities also reported the seizure of about 20 kg of pseudoephedrine pills and a manufacturing laboratory in Kaohsiung with a manufacturing capacity of approximately 1.5 mt of methamphetamine.[67]

Taiwan Province of China also seizes significant and increasing quantities of ketamine and methamphetamine that originate from mainland China. India also remains a source of diverted ketamine trafficked into Taiwan Province of China.

NORTH-EAST ASIA

The major drug control problem in North-East Asia continues to be the use of ATS, primarily crystalline methamphetamine. ATS manufacture remains limited in Japan and the Republic of Korea, although significant quantities of crystalline methamphetamine are manufactured in the Philippines.

Japan

In Japan, crystalline methamphetamine continues to be the main drug of use. The country first experienced widespread methamphetamine use in the 1950s, and again in the mid-1980s and late 1990s.[68] Manufacture of methamphetamine in Japan is extremely rare, but in June 2010, two Iranian nationals were arrested on suspicion of manufacturing methamphetamine in their home. In addition, Japan has reported several incidents involving the diversion of pharmaceuticals containing ATS precursor chemicals since 2003, with 66 such cases being reported in 2008. In 2010, authorities reported several incidents of domestic methamphetamine manufacture and seizures of liquid methamphetamine at various international airports in Japan,[69] pointing to the possible risk of expanding domestic illicit manufacture, especially as methamphetamine prices in the country are increasing.[70]

Traditionally, China has been the primary source of methamphetamine seized in Japan, but in recent years methamphetamine from other countries around the world has been trafficked into the country.[71] Much of the methamphetamine found in Japan is smuggled from overseas by international and Japanese drug trafficking organizations. More than half of the arrests related to methamphetamine during the past five years have involved local 'Boryokudan' ('Yakuza') organ-

63 HKSB, 2011.
64 HKNB, 2010.
65 HKNB, 2010.
66 HKNB, 2010.
67 INCSR, 2011.
68 JNPA, 2011.
69 INCSR, 2011.
70 JMHLW, 2009.
71 JNPA, 2010a; JNPA, 2010b.

Japan: ATS-related arrests, 2006-2010

DRUG TYPE	2006	2007	2008	2009	2010
Methamphetamine	11,606	12,009	11,025	11,655	11,999
Ecstasy-type (MDMA)	370	296	281	107	62

Source: JNPA, 2011

Japan: ATS seizures, 2006-2010

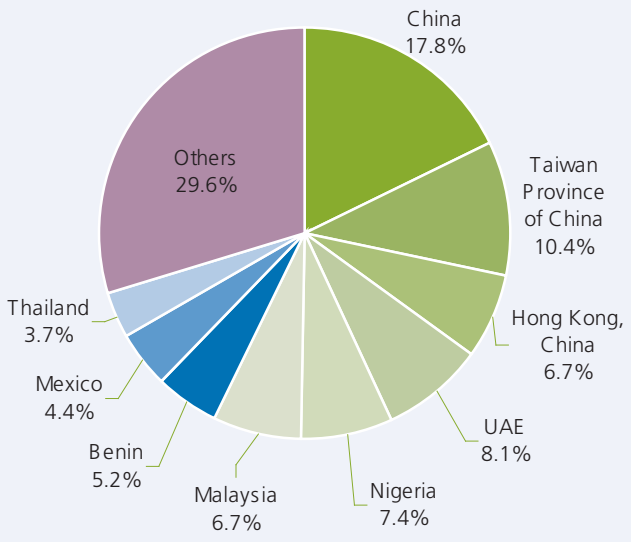
DRUG TYPE	MEASUREMENT	2006	2007	2008	2009	2010
Crystalline methamphetamine	Kg	126.8	339.3	397.5	356.3*	302.3
Ecstasy-type (MDMA) and other synthetic drugs	Pills	186,226	1,233,883	217,172	85,688	17,326

** UNODC, 2010d.*
Source: JNPA, 2011

ized crime members. As with many countries in Asia, many nationals from the Islamic Republic of Iran have been arrested in Japan in methamphetamine-related cases in the past few years, including 85 in 2009 and 50 in 2010.[72] Much of the methamphetamine trafficked into Japan consists of small packages carried by couriers who enter the country by air and sea. However, sophisticated trafficking networks are playing an increasing role in methamphetamine trafficking in Japan, which is reflected by the number of large seizures recorded in the country. Since 2008, Japan has reported an average of 352 kg of methamphetamine seized each year, slightly less than the amounts seized in the early part of the decade.[73]

Crystalline methamphetamine use in Japan has remained generally stable during most of the past decade. Injecting is the primary mode of administration for crystalline methamphetamine in the country. Methamphetamine pill use has not been reported in Japan. Use of ecstasy pills is more common but declining numbers of arrests and declining seizures of the drug over the past several years suggest that use has gone down.[74] During the past decade about 80% of all drug-related arrests in the country have involved methamphetamine. In addition, more than 50% of all drug-related treatment demand from clients in psychiatric treatment facilities was for ATS use (last reported in 2005).[75]

Sources of methamphetamine trafficking to Japan, 2010



Source: JNPA, 2011

Republic of Korea

Crystalline methamphetamine, commonly known locally as 'philopon' or 'hiroppon' in the Republic of Korea, remains the most commonly used drug and has accounted for about 60-70% of all drug-related arrests in the country since 2008. However, reported use and availability of the drug have since declined, which is also reflected by the continually declining seizures, from approximately 26 kg in 2008 to 11 kg in 2010, and steadily rising prices for the drug.[76] ATS users have accounted for more than 95% of all persons admitted to drug treatment in the country since 2008.

72 JNPA, 2011.
73 JNPA, 2011.
74 JNPA, 2010b.
75 JMHLW, 2007.
76 SPO, 2011.

Most of the crystalline methamphetamine found in the Republic of Korea has come from mainland China but increasing amounts of the drug are entering the country from Cambodia, Malaysia, South Africa and the Taiwan Province of China.[77] In recent years, several nationals of China and Thailand have been arrested in the Republic of Korea for trafficking methamphetamine.[78]

Limited illicit methamphetamine manufacture has been reported in the Republic of Korea since the late 1990s. However, in 2010 authorities reported the seizure of four small-scale 'kitchen-type' clandestine methamphetamine manufacturing operations.[79] In 2008 and 2009 there were no reported seizures of precursor chemicals in the Republic of Korea, although it has been indicated as one of the source countries for ephedrine trafficked to Australia.[80] In August 2010, approximately 12.8 million pharmaceutical preparations containing pseudoephedrine, originating from the Republic of Korea, were seized in Cambodia after having been trafficked across the land border with Thailand. However, it is unclear whether these products were intended for direct use or for use in illicit methamphetamine manufacture.[81]

Republic of Korea: ATS-related arrests, 2006-2010

DRUG TYPE	2006	2007	2008	2009	2010
ATS	6,006	8,521	7,457	7,965	6,771
Total	**7,709**	**10,649**	**9,898**	**11,875**	**9,732**

Source: SPO, 2011

Republic of Korea: ATS seizures, 2006-2010

DRUG TYPE	MEASUREMENT	2006	2007	2008	2009	2010
Crystalline methamphetamine	kg	21.5	23.7	25.5	15.2	11.8
Methamphetamine pills	No. of pills	0	196	151	1	5
Ecstasy -type (MDMA)	No. of pills	356	18,323	714	894	486

Source: SPO, 2011

Retail prices of crystalline methamphetamine in the Republic of Korea, 2006-2010

DRUG TYPE	MEASUREMENT	2006	2007	2008	2009	2010
Crystalline methamphetamine	Per gram	860	770	536	664	693

Source: SPO, 2011

Philippines

Crystalline methamphetamine ('shabu') has been the most commonly used drug in the Philippines for the past two decades and significant illicit methamphetamine manufacture and trafficking continue to occur. In 2009, crystalline methamphetamine users accounted for 62% of all drug users in the country and, since 2004, they have accounted for almost 63% of persons receiving drug treatment. Since 2008, about two-thirds of all drug-related arrests in the country have been related to crystalline methamphetamine. There is no reported use of methamphetamine pills in the Philippines.

In major cities the use of ecstasy is becoming increasingly popular among young nightclub goers. Ecstasy use, however, remains limited due to the high price and low availability. The use of synthetic substances, such as Benzylpiperazine (BZP), or 'mimic ecstasy', has also been noted.[82]

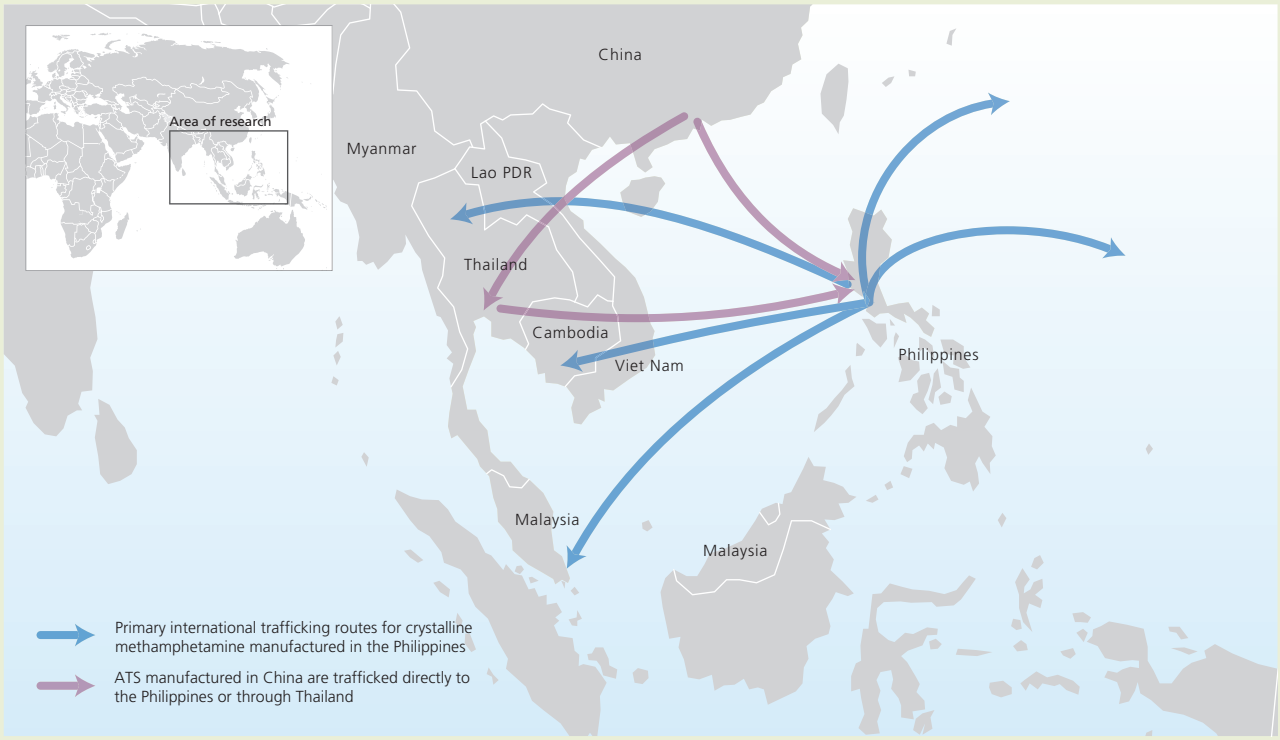
Profile of drug users in the Philippines, 2010

- poly-drug users
- more than six years duration of taking drugs
- 57.23% single
- 33.92% unemployed
- majority of the patients were only able to finish high school
- male to female ratio 9:1
- 20 to 29 years age bracket

Source: PDEA, 2011

77 SPO, 2010.
78 SPO, 2009.
79 SPO, 2011.
80 INCB, 2010a.
81 UNODC, 2010b.
82 PDEA, 2010.

Primary ATS trafficking routes for the Philippines



Source: PDEA, 2010
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Lines represent origin and intended destination, not necessarily the exact route used, and may include completed or stopped trafficking attempts.

Illicit crystalline methamphetamine manufacture in the Philippines was first reported in 1996, and in 1997, the first industrial-scale clandestine manufacturing facility was dismantled. From 2002 to 2010, a total of 72 clandestine crystalline methamphetamine laboratories were dismantled by drug law enforcement authorities.[83] Over the past few years, methamphetamine manufacture has shifted from large and medium-sized facilities to smaller 'kitchen type' laboratories in metropolitan areas and has been characterized by the manufacture of increasingly higher purity methamphetamine. Overall methamphetamine seizures have declined sharply in the Philippines since 2008, from 845 kg to 149 kg in 2009 and 64 kg in 2010.[84]

Domestically manufactured methamphetamine is also trafficked to countries in the region such as Cambodia, Indonesia and Thailand as well as to countries outside the region. The Philippines Drug Enforcement Agency reports that nine transnational criminal groups and 85 local groups are involved in drug manufacturing and trafficking in the country. [85] Methamphetamine is also trafficked into the country from China, primarily by maritime vessels.[86]

Philippines: rehabilitation centre admissions, 2006-2010



Source: PDEA, 2011

83 PDEA, 2011.
84 DAINAP.
85 PDEA, 2010.
86 PDEA, 2009.

SOUTHERN ARCHIPELAGO

As key transit countries for methamphetamine trafficking, both Indonesia and Malaysia have recently experienced increasing problems with the manufacture and use of ATS drugs, particularly methamphetamine in crystalline form.

Malaysia

Previously, Malaysia was a key transit country for small amounts of crystalline methamphetamine, ecstasy and ketamine en route to consumers in Australia, China, Indonesia, Japan, Singapore and Thailand, due to the high prices of these drugs in the aforementioned countries.[87] Over the past five years, Malaysia has also become a significant methamphetamine manufacturing location, demonstrating the speed with which shifts in patterns of clandestine manufacture, trafficking and use can occur.

Since 2008, authorities have reported the dismantling of more than 30 large and small-scale ATS manufacturing laboratories. In 2009, authorities seized 11 such facilities, primarily located in Kuala Lumpur and southern Malaysia, as well as a large quantity of precursor chemicals, including 80 kg of ephedrine and 80 kg of pseudoephedrine. In 2010, Malaysia reported the seizure of six large methamphetamine manufacturing laboratories, one large ecstasy manufacturing facility and one large ketamine producing operation.[88]

The country is also being targeted by Iranian drug trafficking organizations. In 2009 and 2010, more than 150 Iranian nationals were arrested for attempting to smuggle crystalline methamphetamine into Malaysia.[89] Myanmar is the primary source of methamphetamine pills trafficked into Malaysia and is also a source of some crystalline methamphetamine found in the country. Ecstasy is generally smuggled into the country from the Netherlands,[90] although seizures of the drug have declined sharply since 2008.

Ketamine is smuggled into Malaysia (mainly by Indian nationals) from Chennai, India, via air and sea routes.[91] Ketamine seizures doubled each year between 2007 and 2009, when nearly 1.1 mt of the substance were seized. In 2010, ketamine seizures dropped to 334 kg.

In 2008, crystalline methamphetamine seizures in Malaysia increased ten-fold from the previous year to 679 kg, and increased by another 70% in 2009 to 1,160 kg, due to a single seizure of 972 kg of crystalline methamphetamine in May 2009. Crystalline methamphetamine seizures dropped to 887 kg in 2010, but still represented the second highest seizure total ever reported in the country.

ATS use has increased considerably in Malaysia in the past few years. In 2010, an estimated 36% of all drug users in the country used ATS, compared with 18% in 2009 and 8% in 2008.[92] Injecting use of crystalline methamphetamine was reported for the first time in Malaysia in 2009.

Indonesia

Similar to Malaysia, Indonesia was formerly a transit country for ATS which has gone on to develop significant problems with ATS manufacture and use. By 2010, crystalline methamphetamine surpassed cannabis as the primary drug of use in the country.

For the past six years, Indonesia has reported a considerable number of seizures of large sophisticated illicit laboratories manufacturing crystalline methamphetamine and ecstasy. In 2009, drug law enforcement authorities in Indonesia dismantled a total of 37 ATS manufacturing operations, the highest figure reported to date. The seized facilities included 12 small-scale 'kitchen type' laboratories in private residences, suggesting that some ATS manufacturers are reducing the size of their facilities to avoid detection by the law.[93] Of the 26 illicit ATS manufacturing facilities dismantled in 2010, nine were small-scale crystalline methamphetamine manufacturing operations and 12 were ecstasy methamphetamine operations. An additional three ecstasy tableting facilities were also seized during the year.[94] The continuing high level of ecstasy manufacture in Indonesia raises concern that the country could replace Europe as the principal source of MDMA in the region.

87 RMP, 2010a.
88 DAINAP.
89 RMP, 2010b.
90 RMP, 2010a.
91 RMP, 2010a.
92 RMP, 2010c.
93 BNN, 2010.
94 DAINAP.

Although the illicit manufacture of large quantities of ATS has partially eliminated the need for the trafficking of ATS into the country, a significant amount of crystalline methamphetamine seized in Indonesia in 2009 was reported as having been smuggled into the country from the Islamic Republic of Iran by Iranian couriers, as well as from China. During the year, more than 25 Iranian couriers were arrested for methamphetamine smuggling at international airports in Indonesia. Authorities in Indonesia also report drug trafficking activity by West African criminal syndicates.[95]

ATS seizures in Indonesia have fluctuated in recent years but have shown an overall decreasing trend. Seizures of crystalline methamphetamine in 2008 totaled 710 kg but dropped to 238 kg in 2009 and 354 kg in 2010. Similarly, ecstasy seizures in 2009 and 2010 were approximately two-thirds below the amounts seized in 2007 and 2008 when over one million pills were seized in each year.

SOUTH ASIA

South Asia is located at the crossroads of drug supply between the sources in South-East Asia (formerly known as the 'Golden Triangle') and West Asia. Traditionally, the subregion has been affected by the illicit manufacture, trafficking and use of drugs, mostly opiates. Over the past few years, however, South Asia has become an area for illicit ATS manufacture and ATS trafficking. The fact that India has one of the largest chemical industries in the world and Bangladesh has a growing chemical industry has made South Asian countries increasingly vulnerable to potential exploitation by criminal organizations.

South Asia has witnessed several types of illicit ATS manufacture, ranging from small-scale 'kitchen-type' laboratories to larger scale manufacturing facilities. In addition, criminal organizations have engaged in the extraction of ephedrine or pseudoephedrine from pharmaceutical preparations or have developed new techniques for the illicit chemical synthesis of ephedrine. There has also been an increase of ketamine trafficking to neighbouring East and South-East Asia and outside Asia.

South Asia is also a transit region for the ATS trafficked from neighbouring South-East Asia. Trafficking of methamphetamine pills from Myanmar into India, Nepal and Bangladesh is on the rise.

India

India has one of the largest chemical industries in the world and is one of the major exporters of ephedrine and pseudoephedrine, the chemicals frequently used in the illicit manufacture of methamphetamine. The first known illicit ATS laboratory was detected and dismantled in Kolkata in May 2003. In 2004, a laboratory was seized in Hyderabad (south-eastern India), and another laboratory was seized in Gurgaon (northern India) in 2006. Several additional facilities or attempts to establish facilities for the illicit manufacture of ATS, mostly methamphetamine, were uncovered by law enforcement agencies between 2004 and 2010.

In 2007, an illicit laboratory for the manufacture of methamphetamine and the extraction of precursors from pharmaceutical preparations was discovered in Mumbai. This discovery highlights the fact that traffickers have resorted to diverting pharmaceutical preparations to circumvent stricter controls over precursor chemicals in bulk form. This trend has continued and India reported seizures of 1.2 mt of ephedrine preparations to the International Narcotics Control Board in 2009. In addition, criminal organizations have also started to manufacture precursor chemicals illicitly as indicated by the discovery of a clandestine ephedrine laboratory in the northwest of India in 2009.

In 2010, two clandestine methamphetamine laboratories and two ephedrine laboratories were discovered, and large quantities of methamphetamine and its precursors ephedrine and pseudoephedrine were seized on the premises.[96]

Traditionally, ATS precursors were trafficked from India to Myanmar, but recently, precursors from India in bulk or in the form of pharmaceutical preparations have been seized in various regions, particularly in Central America, North America and Africa. Along with China, India is the most frequently mentioned source country of seized illicit shipments of ephedrine and pseudoephedrine.

ATS are routinely seized in India. Seizures of methamphetamine and amphetamine pills are predominantly made in the northeast of the country bordering Myanmar, which is also the source of these products. Methamphetamine powder, on the other hand, is primarily manufactured in India.

India has also become a significant source for ketamine, a hallucinogenic substance not under international control. Ketamine is manufactured legally in India. In recent years, ketamine of Indian origin has been smuggled into countries in

95 BNN, 2009.

96 India, MOHA, 2011.

East and South-East Asia where, it is often sold as ecstasy or mixed with methamphetamine as an adulterant. Seizures of ketamine increased from 60 kg in 2005 to more than 1 mt in 2009.[97] Most seizures of ketamine have been made in the south of India.

The prevalence of use of amphetamine-type stimulants in a country home to a significant part of the world's population is not known. The last household survey on drug use was carried out in 2000-2001 but ATS-related specific questions were not included. Anecdotal reports, however, suggest that ATS use is on the rise.

Bangladesh

Bangladesh borders India, which is a significant manufacturer of ATS precursors and Myanmar, a major source of methamphetamine pills. In addition, Bangladesh has a fairly large and growing chemical and pharmaceutical industry and over the past few years has emerged as a source for ATS precursors, mainly in the form of pharmaceutical preparations, which have been trafficked to destinations in Central America and the Caribbean. Several large seizures of pseudoephedrine preparations were reported in 2009 from the Dominican Republic (409,200 pills), Guatemala (700,000 pills) and Honduras (over two million pills).

ATS use has reportedly become widespread in urban areas of Bangladesh, particularly in the capital Dhaka. Methamphetamine pills are the most commonly used synthetic drug and there are signs that use of methamphetamine pills is replacing the use of codeine-based cough syrups. No representative household drug use survey has been undertaken in Bangladesh.

Nepal

No illicit ATS manufacture has been reported from Nepal. A seizure of 800 grams of methamphetamine at Kathmandu international airport, involving an Iranian national was reported in 2008. This could suggest that Nepal may be increasingly used as a transit point for ATS trafficking to destinations in South and East Asia. There was also one arrest in 2009 and one in 2010 involving Iranian-manufactured crystalline methamphetamine. Nepal does not produce precursors, but the pharmaceutical industry is developing fast and the absence of legislative controls on precursor chemicals increases the country's vulnerability to traffickers.

CENTRAL ASIA AND COUNTRIES OF THE CAUCASUS

The amount of information available from the Central Asian countries of the Caucasus related to ATS is sparse, but Government reports suggest that ATS expansion may be occurring, albeit from very low levels. The subregion has experienced some small-scale illicit manufacture of methcathinone, which was made from the naturally occurring ephedra plant. Georgia reported its first methamphetamine seizure in 2006 (2.42 kg), while Kazakhstan reported a seizure of 3.6 kg of ecstasy in 2005 and, most recently, a small seizure (0.03 kg) of amphetamine in 2009. Armenia and Kyrgyzstan also reported small seizures (less than one kg) of methamphetamine in 2009.

A 2009 survey of adolescents carried out in Tbilisi, Georgia, reported a 2% lifetime prevalence of ATS and noted that ecstasy was the second most available drug to young people, after cannabis. Illicit manufacture of methamphetamine and methcathinone from over-the-counter preparations containing ephedrine, pseudoephedrine and phenylpropanolamine has been observed. Methamphetamine is injected. In 2008, an increase was noted in the number of patients attending addiction clinics whose principal drug was methamphetamine or methcathinone.[98]

97 Directorate of Revenue Intelligence and Narcotics Control Board, India.

98 Source: Javakhishvili, et al., 2011.



OCEANIA

Oceania could be characterized as a region of a large maritime area, with enormous differences in the size, population and capacity of countries. Around three quarters of people in the region live either in Australia or New Zealand. This means that whatever occurs in these ATS markets accounts for the overall regional trend. The interpretation of the ATS situation in the Pacific island states and territories remains difficult due to the lack of ATS data.

The region's proximity to Asia and its chemical industry has been widely abused by criminal groups to obtain the necessary precursors for the manufacture of ATS. For the last few years, the primary embarkation points for seized precursors have been China and Thailand.

Methamphetamine in this region is largely manufactured for domestic consumption. Trafficking of methamphetamine as a final product has decreased over the years. On the other hand, ecstasy is trafficked into the region from other countries such as Canada. Some ecstasy is still manufactured locally but the purity has dropped over the past few years due to the shortage of the necessary precursors. Other synthetic substances like mephedrone, BZP or 4-MEC are often used.

After a strong increase in the number of dismantled laboratories in 2005 and seizures in 2007, figures remained stable. However, 2009 data show a significant increase in the number of dismantled laboratories. The increase of dismantled laboratories does not correspond with the level of ATS seizures which has remained at relatively low levels since 2007.

Australia and New Zealand have been characterized by fairly high levels of ATS use. The following is a summary of the main trends over the 2005-2009/10 period in Australia and New Zealand, supplemented with available information about the ATS situation in Pacific Island states and territories.

Oceania: ATS laboratories, seizures, and annual prevalence rates (2005-2009)

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	204	211	190	393	134
	Amphetamine	-	-	-	-	-
	Other synthetic/combined stimulants	370	355	328	-	297
	Ecstasy-group substances	10	7	19	11	20
	Total	**584**	**573**	**537**	**404**	**451**
Seizure (kg)	Methamphetamine	131.7	216.4	173.7	47.5	170.8
	Amphetamine	167.1	30.1	23.17	1	57
	Non-specified amphetamines	39	1,506.3	0.9	263.7	25.4
	Ecstasy-group substances	1,446.7	540.5	4,665.6	58.4	63.5
	Total	**1,784.5**	**2,293.3**	**4,863.3**	**370.6**	**316.7**
Annual Prevalence (15-64)	Amphetamines-group substances	2.9%	2.1%	2.4%	2.4%	2.4%
	Ecstasy-group substances	2.9%	3.2%	3.8%	3.8%	3.8%

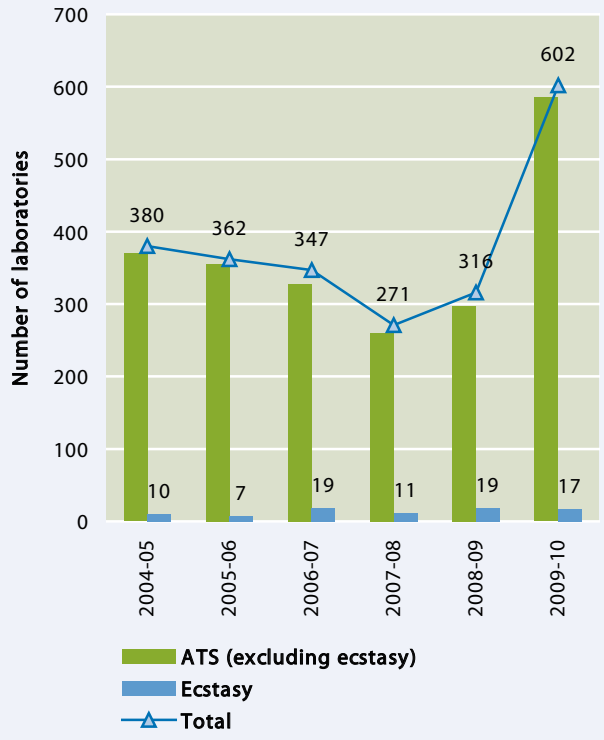
** From 2007 onwards, reported prevalence percentage is based on midpoint of range.*
- Not reported.
Source: UNODC ARQ/DELTA

Australia

The illicit ATS market in Australia consists of almost exclusively domestically manufactured methamphetamine and ecstasy, most of which is trafficked into Australia from overseas. Some amphetamine is also being manufactured.

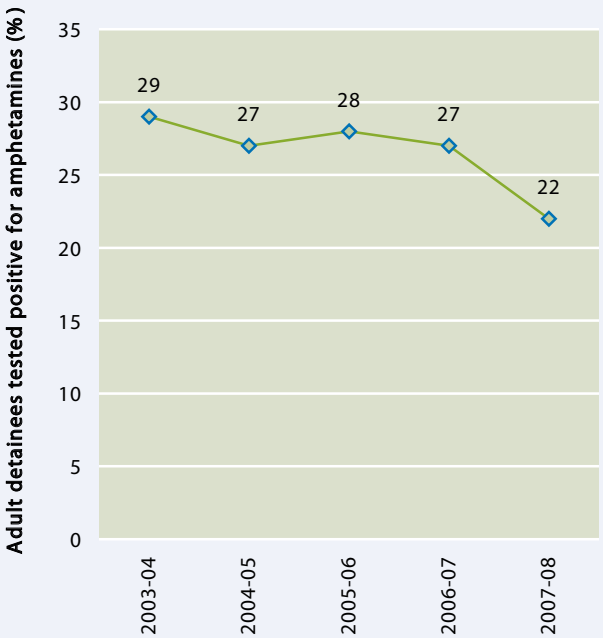
In 2009-2010, a total of 602 laboratories were seized in Australia, the highest number of seizures since 2004-2005, when 380 laboratories were reported dismantled. Most seized laboratories (251 out of 602) were reported from Queensland. Increases were also recorded in Victoria. While there were no detections in 2008-2009, in 2009-2010, 101 laboratories were seized.

Australia: number of dismantled ATS laboratories



Source: ACC, 2011
Note: Data are based on financial year (1 July-30 June).

Australia: adult detainees who tested positive for amphetamines (%), 2003-2008



Source: UNODC ARQ/DELTA
Note: Data are based on financial year (1 July-30 June).

The number of extraction laboratories for ephedrine and pseudoephedrine increased from 38 in 2008-2009 to 44 in 2009-2010.

The most common method of manufacture detected in ATS clandestine laboratories in Australia is the hypophosphorous method, followed by the Birch method, the red phosphorous method and the P-2-P method. With the exception of the P-2-P method, all other methods experienced a substantial increase. The number of seized laboratories using the red phosphorus method more than doubled, from 16 in 2008–09 to 51 in 2009–10.

The number of ecstasy laboratories decreased from 19 in 2008–09 to 17 in 2009–10. By far, the most laboratories are reported from New South Wales (12), followed by Queensland (3) and South Australia (2).

Australian law enforcement authorities also seized manufacturing equipment, notably pill presses. On 1 March 2010, a new regulation on the prohibition of importation of pill presses came into force and a total of 57 pill presses were seized in 2009–10, compared to 26 in 2008–09. Most pill presses were seized in New South Wales (30).

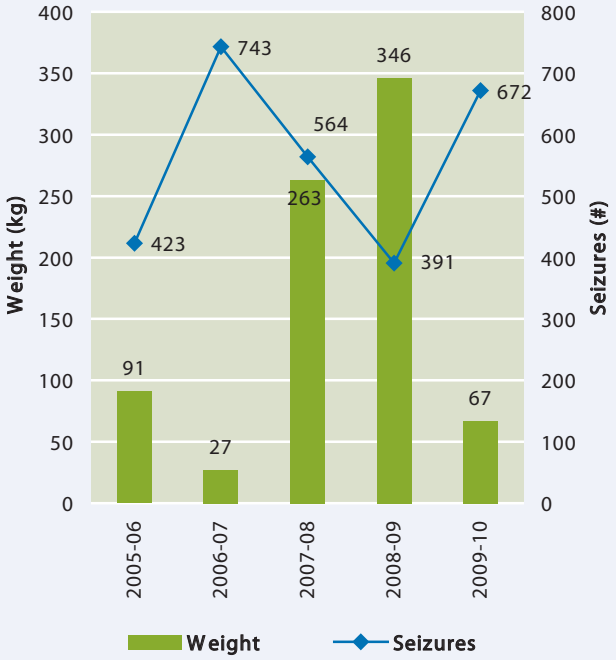
The number of ATS arrests decreased by 15% nationally, from 16,000 in 2008-09 to 14,000 in 2009–10 but still remain historically high. Compared to 2005–06, arrests are 40% higher. User offences accounted for 71% of the total ATS arrests in 2009–10. The percentage of detainees testing positive for amphetamines has been decreasing since 2006. In 2008, it was lower than at any point in time since 2000.

The number of ATS (excluding ecstasy) seizures increased by 71% in 2009–10, from 391 in 2008–09 to 672. The highest number of seizures reported in the last five years was 743 in 2006–07.

At 67kg, seizures of amphetamines declined significantly in 2009-2010, compared to 2008-2009 when 346 kg were seized. Of the 67 kg of total amphetamines seized, slightly more than half (35.8 kg) was in the form of crystalline meth-amphetamine. In 2009-2010, most of the seized amphetamines shipments came from Spain. South Africa was another important point of embarkation, accounting for 28% of seizures totalling more than 500 grams. China, including Hong Kong, was another embarkation point.

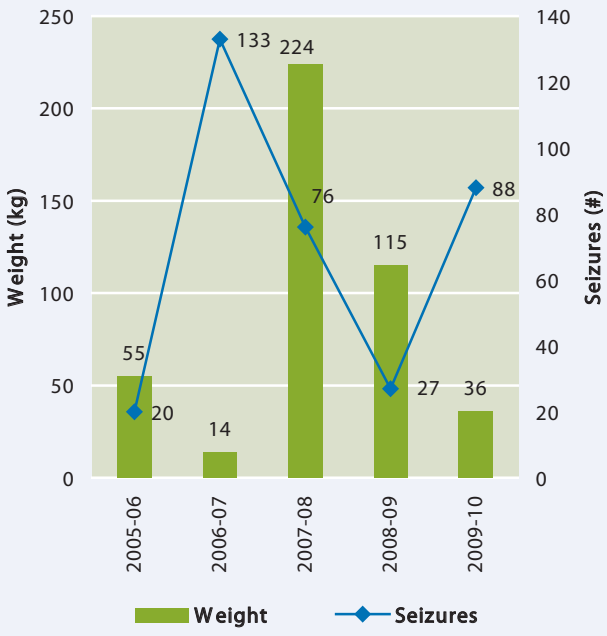
Ecstasy seizures have hit a five-year low in Australia, in terms of both seizures and weight. About 6 kg of ecstasy were detected at the Australian border in 2009-2010, half the amount seized in 2008-2009 (12 kg). It should be noted that all

Australia: ATS seizures (excluding ecstasy) by the Australian Customs Border and Protection Service, 2005-2010



Source: Australian Customs Border and Protection Service, 2010; Australian Customs Border and Protection Service, 2008
Note: Data are based on financial year (1 July-30 June).

Australia: total weight and number of seizures of crystalline methamphetamine detected by the Australian Customs Border and Protection Service, 2005-2010



Source: Australian Customs Border and Protection Service, 2010; Australian Customs Border and Protection Service, 2008
Note: Data are based on financial year (1 July-30 June).

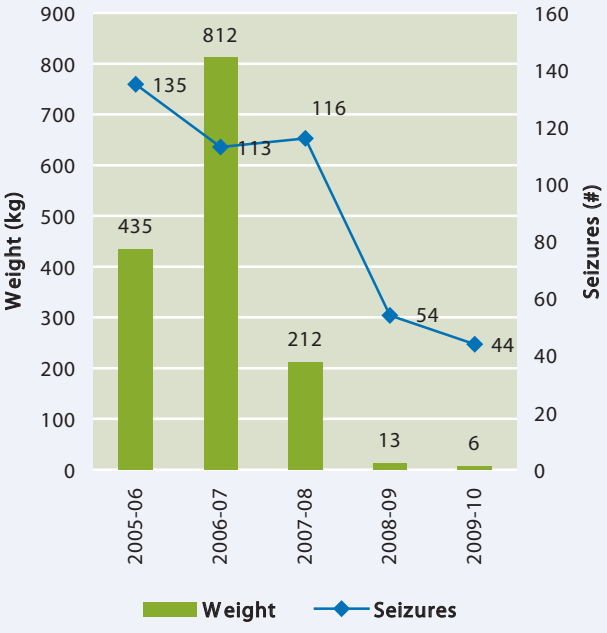
individual seizures of ecstasy made at the Australian border in 2009-2010 were below 1 kg. In terms of weight, parcel post accounted for about half of ecstasy seizures. Canada was a prominent embarkation country for ecstasy in terms of both weight and number.

Seizures of precursors (ephedrine, ephedra, P-2-P, phenylacetic Acid, phenylpropanolamine/norephedrine and pseudoephedrine) used in illicit ATS manufacture have shown a marked decline. In 2009-2010, only 562 kg were seized, compared to 2,097 kg in 2008-2009. During the last decade, 2008-2009 saw the highest amounts of precursors seized, with more than 50% of seizures being GHB precursors.

According to the National Drug Strategy Household Survey 2007, 20 to 29 year olds have consistently reported the highest proportion of amphetamine-group users in the population since 1998. Lifetime prevalence in this age group was 16% (470,000), last 12 months 7.3%, and 3.5% in the last month (2007 data).[1] Methamphetamine powder use in the age group of 14 years and older in the last 12 months decreased by 0.9% to 2.3% in 2007 compared to 3.2% in 2004. The use of ecstasy in the same age group in the last 12 months increased by 0.1% to 3.5% (608,400) and reached an all time high.

In a 2010 national study of regular drug users, the proportion of 80%, 78% and 82% respondents described meth-

Australia: total weight and number of seizures of ecstasy detected by the Australian Customs Border and Protection Service, 2005-2010



Source: Australian Customs Border and Protection Service, 2010; Australian Customs Border and Protection Service, 2008
Note: Data are based on financial year (1 July-30 June).

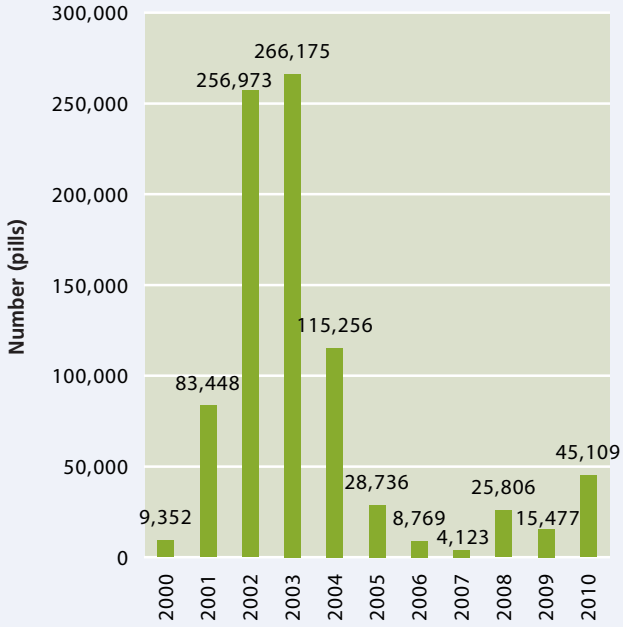
1 There is no updated information on the annual prevalence of amphetamines use among the general population since 2007.

New Zealand: dismantled ATS laboratories, 2000-2010



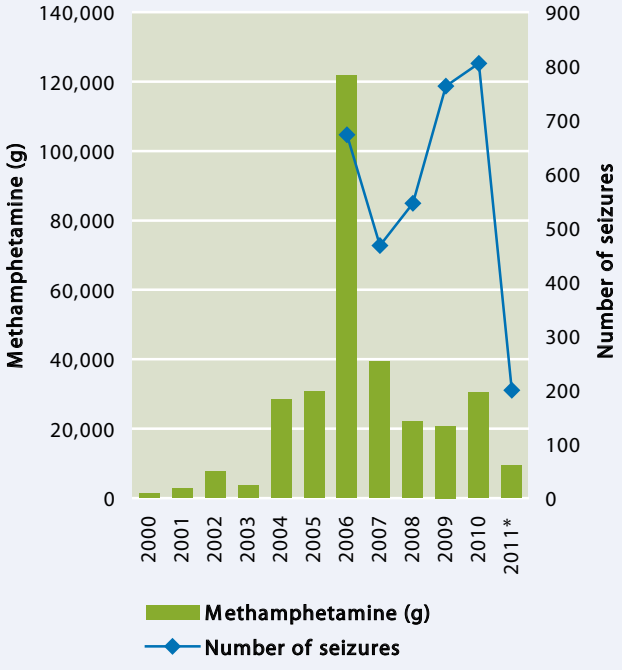
*2011 figures are for January to end March only.
Source: New Zealand, 2011

New Zealand: ecstasy pills seized, 2000-2010



Source: SHORE, 2010; UNODC ARQ/DELTA

New Zealand: methamphetamine seizures, 2000-2010



*2011 figures are for January to end March only.
Source: New Zealand, 2011

amphetamine powder (speed), base and ice as easy or very easy to obtain. Participants purchased all forms of methamphetamine from a variety of sources, most commonly through friends and known dealers.

The price[2] for a gram of all forms of methamphetamine in 2010 remained relatively stable compared to 2009. The average national price for speed and base increased from $250 to $300 and from $200 to $250 respectively. The price for crystalline methamphetamine remained stable compared to 2009 ($400).

During 2009–10, the median purity ranged from 4.4% in Tasmania to 17% in Western Australia. Western Australia has continuously recorded high purities in comparison to other jurisdictions over the past decade. The median purity of methamphetamine within Australia has been declining since 2006-07.

Ecstasy is considered as 'easy' or 'very easy' to obtain by 74% of regular ecstasy users. Significantly more participants in 2010 reported ecstasy to be difficult to very difficult to obtain compared to 2009 results (26% in 2010, 12% in 2009). Most jurisdictions reported the availability had remained stable.

The median price for a pill of ecstasy ranged from $23 in

2 A degree of caution should be exercised when considering these figures, as fewer than 10 participants in each jurisdiction reported recent purchase of different forms of methamphetamine.

South Australia to $35 in Western Australia. That is a slight increase compared to the price of $20 reported from most jurisdictions in 2009.

In 2009-10, the median purity of ecstasy-group substances ranged from 6.8% in South Australia to 23% in Western Australia. This is the greatest range recorded since 2000–01. All jurisdictions reported decreases in the median purity, apart from Western Australia which has remained relatively stable.

New Zealand

ATS manufacture in New Zealand is primarily related to methamphetamine (locally known as 'P') for domestic consumption. Methamphetamine is illegally manufactured mainly from imported pharmaceutical preparations containing ephedrine and pseudoephedrine (usually Contac NT from China). Domestic outlaw motorcycle gangs are heavily involved in the manufacture and distribution. There are also indicators of possible Vietnamese involvement in the manufacture of methamphetamine.

The number of dismantled clandestine ATS laboratories remains relatively stable. In 2010, 130 ATS laboratories were discovered. Most of these laboratories were manufacturing methamphetamine or were pseudoephedrine extraction laboratories. One 'combined ATS' laboratory was involved in the manufacture of methamphetamine and possibly ecstasy. This laboratory was allegedly established to meet local demand for ecstasy. The laboratory was using a pill press to produce ecstasy pills. There are currently no legislative or regulatory controls on the importation, possession, and use of pill presses in New Zealand.

All laboratories were using ephedrine or pseudoephedrine as the main precursor. The reported yield for both was 50%.

The majority of laboratories continue to be located on private premises on the Upper North Island. The shortage of ephedrine and pseudoephedrine has forced some manufacturers to extract ephedrine from the ephedra plant. A laboratory extracting ephedrine/pseudoephedrine from the ephedra plant was seized in July 2010.

For 2010, New Zealand reported seizures of 30.4 kg of methamphetamine, a 50% increase compared to 2009. More than half of this amount (19.5 kg) was seized at the border, mainly in the form of internal concealments and mail intercepts. Seizures of amphetamine remain relatively small. In 2010, only 0.5 kg of amphetamine were reported seized.

Primary embarkation points for detections of methamphetamine were Hong Kong, China, China, Indonesia and Australia. For amphetamine, the primary embarkation points were Thailand, China and the USA.

The median price for a gram of methamphetamine remains at the same level for the third year in a row (NZ$ 700). The mean price for a gram, however, has reportedly increased from NZ$ 738 to NZ$ 780 for a gram.[3]

The reported price for amphetamine powder was NZ$ 30 per point (0.1g) and for methamphetamine in powder/crystal form NZ$ 780 per gram.

The purity of methamphetamine in powder/crystal form remains stable at 74%. Methylsulfonylmethane (MSM)[4] is the usual diluent for methamphetamine in New Zealand.

Thirty-four % of frequent drug users reported that methamphetamine was 'very easy' to obtain whereas 2 % reported that it was very difficult.

In 2010, New Zealand authorities seized 45,109 ecstasy pills. That is an almost three-fold increase compared to 2009 when 15,477 pills were seized. The purity of the ecstasy pills remains low. The analyses in the majority of the cases identified the pills as containing either very little or no MDMA. Pills sold as ecstasy often contain substances like mephedrone, ketamine, 4-MEC, BZP, TFMPP, caffeine, Bk-MBDB (butylone), methenamine, methylone and cathinone.

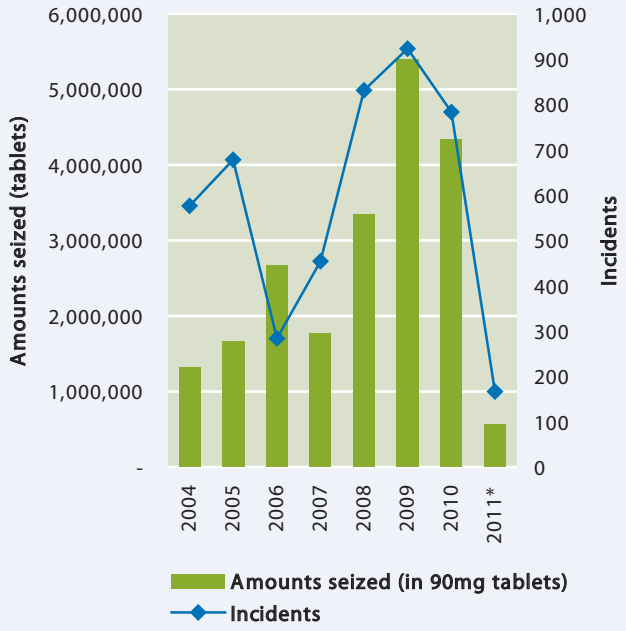
The price for one ecstasy pill ranges from NZ$ 40 to NZ$ 70 and remained stable compared to 2009. Frequent drug users reported the purity of ecstasy to be decreasing compared to 2006 and 2007. The availability of ecstasy was reported as being 'stable'/ 'more difficult' to obtain over the past six months in 2009.

The number of seizures of ephedrine and pseudoephedrine by New Zealand Customs has increased significantly since 2004. Seizures peaked in 2009, when almost 5.4 million pills (1,203 kg) were seized. In 2010, the number of seized precursors dropped by 20% to 4.3 (967 kg). Preliminary data for 2011 shows that seized quantities continue to decline in 2011. Asian organized crime groups are predominant in trafficking of ephedrine, pseudoephedrine, and methamphetamine.

3 SHORE, 2010.

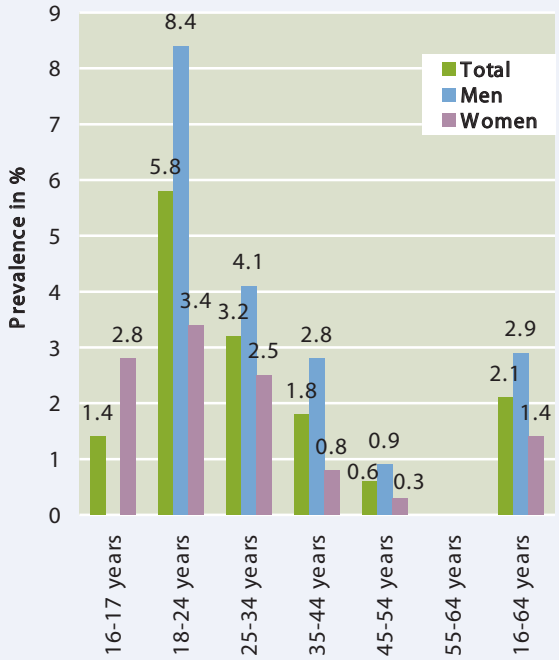
4 MSM is often sold as a dietary supplement.

New Zealand: border seizures of ephedrine and pseudoephedrine 2004-2010



*2011 figures are for January to end March only.
Source: New Zealand, 2011

New Zealand: annual prevalence rate of amphetamines among population aged 16-64, by age group and gender, 2007



Source: MoHNZ, 2010

Primary embarkation points for detections of ephedrine in 2010 were Thailand, United Arab Emirates and China. For pseudoephedrine the primary embarkation points were China, Hong Kong, China and the United Kingdom.

Seizures of methamphetamine at the border have increased considerably. In 2010, Customs seized 19.5 kg of methamphetamine which represents an 81% increase in seizures at the border compared with the previous year. Furthermore, in the first two months of 2011 alone, Customs seized another 6.1 kg of methamphetamine. Organized crime groups from the Islamic Republic of Iran and West Africa are involved in trafficking methamphetamine to New Zealand.

The lifetime amphetamines prevalence rate among the general population is 10.8%. Annual prevalence among the general population aged 16-64 years is 2.1%, one of the highest in the world. Men were significantly more likely to use all types of ATS than women. For both men and women, the prevalence of having ever used amphetamines peaked in the 18-24 years age group and decreased with increasing age thereafter.

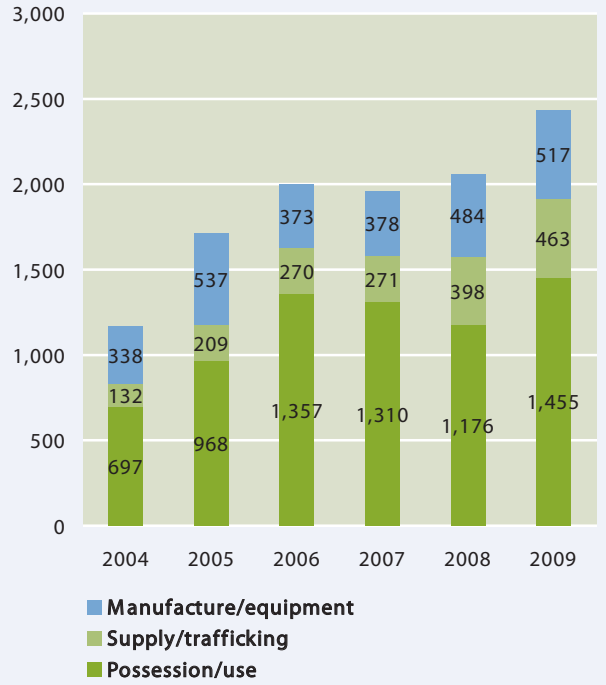
Methamphetamine-related convictions have been on the rise since 2004 when 1,167 people were convicted. In 2009, there were 2,435 convictions compared to 2,058 in 2008.

PACIFIC ISLAND STATES AND TERRITORIES

The Pacific Island region covers millions of square kilometers of ocean, strategically located between Asia, Australia and New Zealand. The countries and territories in the region are a mixture of independent states, associated states, integral parts of non-Pacific island countries and dependent states. Islands vary in terms of size and population, ranging from Papua New Guinea which has a population of about six million to Niue, with a population of less than 2,000.

The Pacific Islands are vulnerable due to their close proximity to major amphetamine-type stimulants (ATS) markets. There are millions of potential customers and the potential for spill-over effect exists. A similar spill-over effect has been observed in States and territories in the Caribbean which are used for the transshipment of cocaine from South America to North America or Europe. Good air and sea links to South-East Asia, long coastlines which are difficult to patrol, limited law enforcement capacity and a multitude of small islands increase the vulnerability. In addition, there is a growing risk of drug crimes from returning deportees with links to criminal organizations.

New Zealand: methamphetamine-related convictions, 2004-2009



Source: New Zealand, 2011

ATS awareness is low and very few drug monitoring systems exist in the region. Information related to ATS manufacture, trafficking and use in the Pacific Island States and territories is virtually non-existent. The very low rate of adherence to the United Nations drug control Conventions is an obstacle towards gaining an insight into drug-related issues. Only Fiji, Federated States of Micronesia and Tonga are parties to all treaties, making the Pacific the region with the lowest rate of treaty adherence. Of the 12 non-parties to the 1988 Convention, seven are located in Oceania. Most Pacific Island States and territories do not submit ARQs, none were submitted for 2009.

There have been reports of kitchen-scale methamphetamine laboratories seized in Guam and there are indicators that manufacture may be spreading to other islands. The most significant manufacturing case so far was reported in Fiji in 2004. It involved an industrial-scale methamphetamine laboratory. The laboratory was operated by Asian organized crime groups and purportedly contained 700 litres of liquid methamphetamine, 5 kg of finished crystalline methamphetamine and enough precursors, including thionyl chloride, on site for the manufacture of an additional 1 mt of methamphetamine. Production cycle estimates for this laboratory were between 500 and 1,000 kg of crystalline methamphetamine per week, making it one of the largest laboratories ever seized. There have been reports of ATS precursor seizures. The biggest seizure of ATS precursors was reported in 2002. Authorities of Papua New Guinea stopped a shipment containing ephedrine from India and pseudoephedrine from China and seized a total of 12 mt of precursor chemicals. There have been also reports of diversion of pharmaceutical preparations containing pseudoephedrine in Tonga, which were believed to be destined for New Zealand.

ATS, particularly methamphetamine, are seized throughout the region. In Tonga, 17.7 kg of methamphetamine believed to be destined for Australia were seized in 2009. Liquid methamphetamine was reported seized in French Polynesia (340 grams), five seizures of smaller quantities of methamphetamine were seized in the mail in Guam. In February 2011, 4 kg of a methamphetamine-cocaine mixture were found in a vehicle in Tonga. The United States Postal Inspection Service also reported that packages containing small amounts of methamphetamine had been sent through the postal system.

A recent ATS study of use among young people shows that the use rates in this region vary considerably, but most tend to be higher than those for Australia or New Zealand, with the highest in the Marshall Islands[5] (lifetime prevalence ATS: 15.4% men, 10.5% women) and Vanuatu[6] (lifetime prevalence ATS: 12.3% men, 3.4% women).[7] However, data are insufficient to establish any trends.

As countries often do not have the necessary legislation, infrastructure and enforcement capabilities in place to prevent, detect, seize or report the substances, the 'leakage' of substances into the domestic market might have significant consequences.

5 Youth Risk Behavior Surveillance System, School students sample 2007, (n=1522) (Howard at al., 2011).

6 Second Generation BSS 15–24, 2008, (n = 301) (Howard at al., 2011).

7 Howard at al., 2011.

NEAR AND MIDDLE EAST/ SOUTH-WEST ASIA

Regional overview

ATS trafficking and use in the Near and Middle East/South-West Asia continue to increase, with countries such as Saudi Arabia, the Syrian Arab Republic and Jordan witnessing substantial increases in ATS seizures since 2008. Since 2007, the only reports of illicit ATS manufacture have come from the Islamic Republic of Iran; the origin of the other significantly large seizures in the region remaining unidentified. The absence of manufacture reports is inconsistent with both the quantity of seizures and the availability of key ATS precursors in the region.

Historically, the Near and Middle East/South-West Asia has served as a corridor for trafficking drugs from eastern and southern Asia to illicit drug markets in Europe. For ATS, however, recent trends indicate a reversal of traditional trafficking trends in some areas. For example, whereas, up to 2007-2008, methamphetamine was trafficked to the Islamic Republic of Iran from China and Malaysia, of late, methamphetamine has been smuggled out of the Islamic Republic of Iran to markets in Asia and the Pacific, including Indonesia, Japan, Malaysia, New Zealand and Thailand.

With the exception of Israel, data on ATS use are sparse to the point of being non-existent.

Official reports to UNODC of illicit ATS laboratories manufacturing ATS in the region first emerged in 2007 when Lebanon reported the detection of a laboratory reported to have been manufacturing counterfeit Captagon pills containing amphetamine. Since then, there have been no further reports of illicit amphetamine laboratories, a fact which is inconsistent with the high seizures of amphetamine in the region. Reports of illicit methamphetamine manufacture have come exclusively from the Islamic Republic of Iran, while there have been no reports at all of illicit manufacture of ecstasy-group substances.

Near and Middle East/South-West Asia: ATS laboratories, seizures and annual prevalence rates (2005-2009)

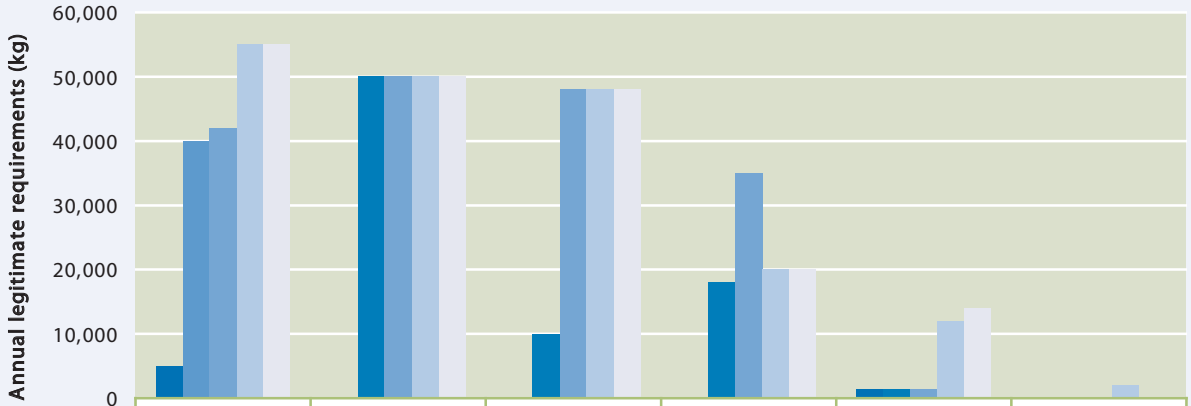
MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	-	-	-	4	6
	Amphetamine	-	-	1	-	-
	Other synthetic/combined stimulants	-	-	-	-	-
	Ecstasy-group substances	-	-	-	-	-
	Total	**0**	**0**	**1**	**4**	**6**
Seizures (kg)	Methamphetamine	3.4	239.6	41.0	1,472.9	719.8
	Amphetamine	10,309.9	15,613.8	19,167.9	19,638.7	24,771.6
	Non-specified amphetamines	832.0	2,070.5	21.3	89.5	69.0
	Ecstasy-group substances	64.5	2.0	272.1	28.8	9.2
	Total	**11,209.8**	**17,925.9**	**19,502.3**	**21,229.9**	**25,569.6**
Annual Prevalence (15-64)	Amphetamines-group substances	0.1%	0.2%	**	**	1.0%
	Ecstasy-group substances	<0.1%	<0.1%	**	**	-

** From 2007 onwards, reported prevalence percentage is based on midpoint of range. ** No estimate could be calculated due to lack of data.*
- Not reported.
Source: UNODC ARQ/Delta

Some countries in Near and Middle East/ South-West Asia have unusually high requirements of ephedrine, pseudoephedrine and P-2-P which could lead to the diversion of these chemicals from licit channels to illicit ATS manufacture.

Pseudoephedrine is among the most frequently used starting materials in the illicit manufacture of methamphetamine. Countries reporting very high estimates include the Syrian Arab Republic, Pakistan, Jordan, Iraq and Afghanistan.

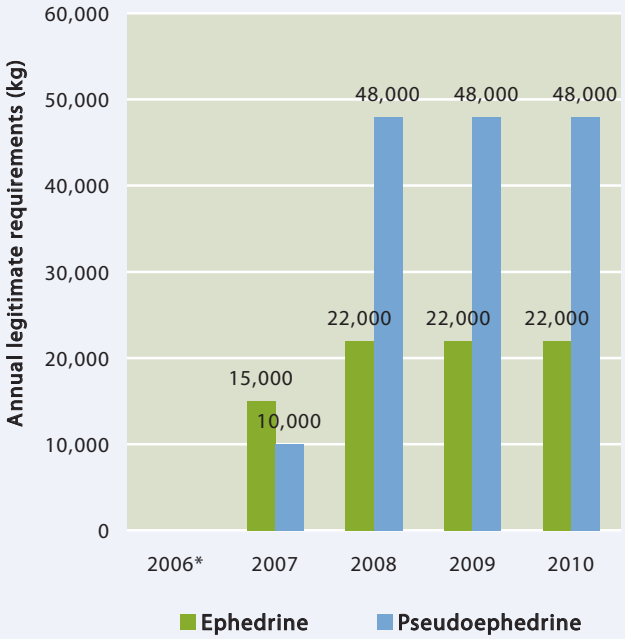
Near and Middle East/South-West Asia: annual legitimate requirements for pseudoephedrine, 2006-2010*



	Islamic Republic of Iran	Syrian Arab Republic	Pakistan	Jordan	Iraq	United Arab Emirates
2006	5,000	0	0	0	1,400	200
2007	40,000	50,000	10,000	18,000	1,400	200
2008	42,000	50,000	48,000	35,000	1,400	200
2009	55,000	50,000	48,000	20,000	12,000	2,000
2010	55,000	50,000	48,000	20,000	14,000	63

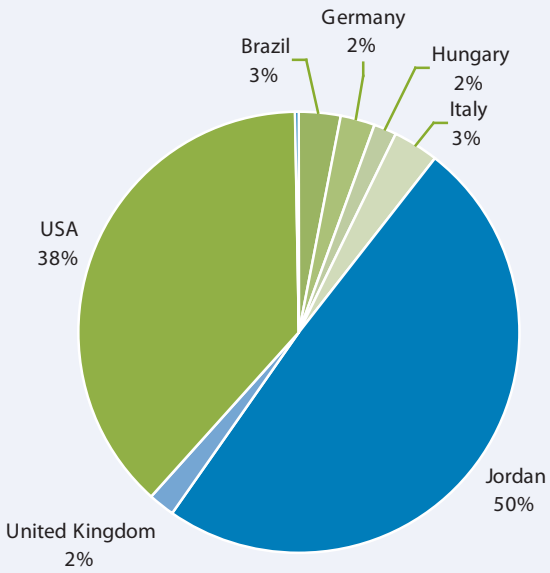
**Where years are missing, it indicates that no requirements were reported to INCB by countries that year.*
Source: INCB – Annual legitimate requirements reported by Governments for ephedrine, pseudoephedrine, 3,4 methylenedioxyphenyl-2-propanone, 1-phenyl-2-propanone and their preparations (Kilograms)

Pakistan: reported annual legitimate requirements for ephedrine and pseudoephedrine, 2006-2010



* No requirements reported.
Source: INCB 2009b, 2010b and 2011b

Global annual legitimate requirement for P-2-P reported by Governments



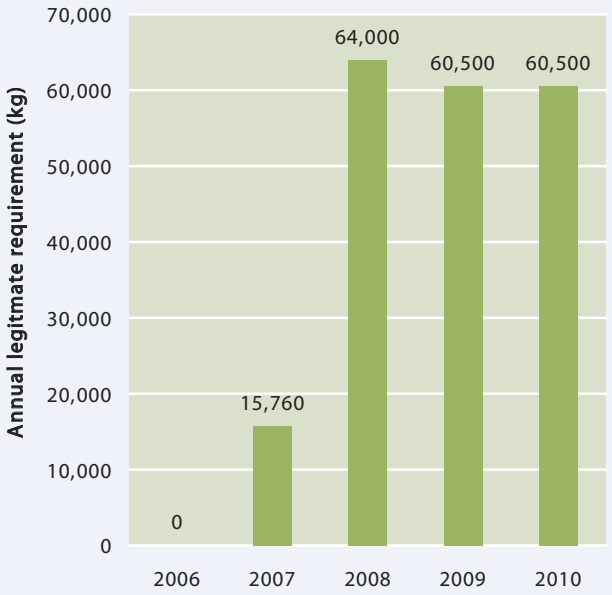
Source: INCB 2009b, 2010b and 2011b

For ephedrine, Pakistan currently reports the fourth highest legitimate requirement for ephedrine in the world (22,000kg); behind China, USA and the Republic of Korea. Countries with such high legitimate requirements can be attractive targets for precursor diversion.

For P-2-P, Jordan has reported the world's highest annual legitimate requirement, accounting for more than half of the global total. The high legitimate need is based on the purported formulation of P-2-P into 'cleaning and disinfection' products.[1] The International Narcotics Control Board (INCB) has pointed out that the volume represents a significant risk of diversion into illicit *Captagon* manufacture, particularly as P-2-P is not an essential ingredient in the formulation of cleaning and disinfection products and alternative chemicals exist.[2]

Total ATS seizures reported to UNODC from countries in the Near and Middle East/South-West Asia have more than doubled since 2005, from 11.2 mt in 2005 to 25.6 mt in 2009; representing over a third of global ATS seizures in 2009. Most seizures concern counterfeit Captagon pills, believed to contain amphetamine as the principal psychotropic ingredient.[3] The three countries reporting the highest seizures are Saudi Arabia, Jordan and the Syrian Arab Republic. At 24.8 mt, total seizures of amphetamine in 2009 from the region constituted 75% of global amphetamine seizures, up from 63% in 2008.

Jordan: reported annual legitimate requirement for phenyl-2-propanone (P-2-P)



Source: INCB – Annual legitimate requirements reported by Governments for ephedrine, pseudoephedrine, 3,4 methylenedioxyphenyl-2-propanone, 1-phenyl-2-propanone and their preparations (Kilograms)

The origin of the amphetamine sold as Captagon in the region is unknown. Traditionally, the substance was believed to have been manufactured illicitly in South-East Europe, notably Bulgaria, and trafficked to the region, often transiting Turkey by air or sea. Some countries in the region, e.g. the Syrian Arab Republic and Jordan, have named Turkey as a source. A recent report by the Turkish National Police concluded that criminal organizations have shifted Captagon manufacture to the Syrian Arab Republic.[4] This shift which would appear to be consistent with the significant decline in the amount of seizures in Turkey, which have fallen from almost 20 million pills in 2006 to 2.8 million pills in 2009.[5]

For methamphetamine, the Islamic Republic of Iran reports the highest seizures in the region. The five other countries reporting smaller seizures of methamphetamine between 2005 and 2009 were Bahrain, Israel, Kuwait, Saudi Arabia and the United Arab Emirates.

With 9 kg recorded in 2009, ecstasy seizures in the region remain comparatively low. Other countries such as Lebanon, Pakistan and Saudi Arabia have been reporting small quantities, between 2 kg and 29 kg, since 2006. The last large seizure was reported from Israel in 2007 (252.8kg).

The estimate of annual prevalence of ATS in the Near and Middle East/South-West Asia is calculated as being between 0.2% and 1.7% (between 0.5 and 4.3 million people) and the wide range reflects the limited prevalence data available for the region. The lack of adequate resources and monitoring systems has resulted in very limited information on the extent and patterns of and trends in drug abuse in the region which in turn hampers the ability of Governments to devise appropriate responses to the problem.

It is likely, however, that the plentiful supply of amphetamine in the region will have an effect on ATS use. Jordan, Pakistan and Qatar reported a perceived increase in the use of amphetamine-type stimulants over the past few years. Rising meth-

1 INCB, 2011a. Concerns about the legitimacy of the shipments to Jordan and their final destination, Iraq, were supported by the results of the laboratory analysis of the alleged cleaning product communicated to the Board, which showed no traces of P-2-P. (INCB, 2011b).

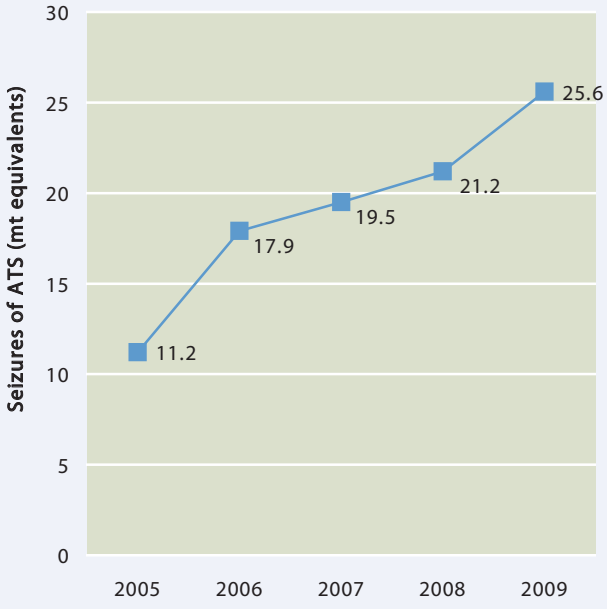
2 INCB, 2010b.

3 Captagon was originally the trade name for fenethylline, a synthetic stimulant. Analysis of seized Captagon pills show that most contain amphetamine and other ingredients such as caffeine and theophylline.

4 Turkey, 2011.

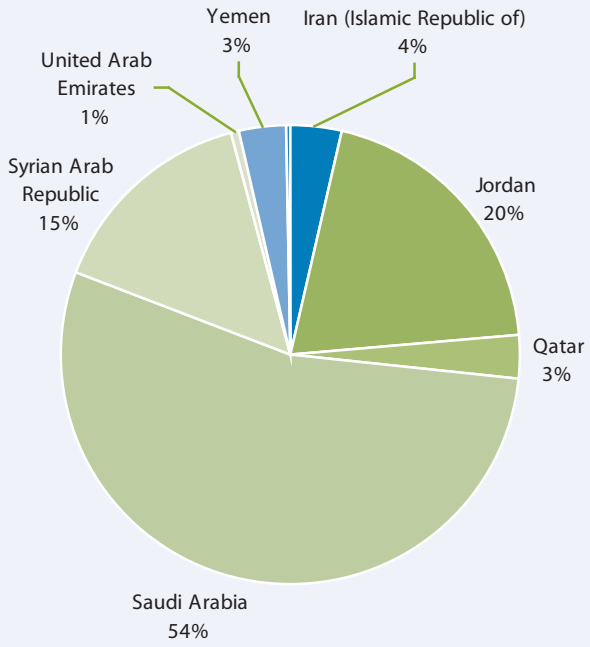
5 Turkey, 2011.

Total ATS seizures in the Near and Middle East, 2005-2009



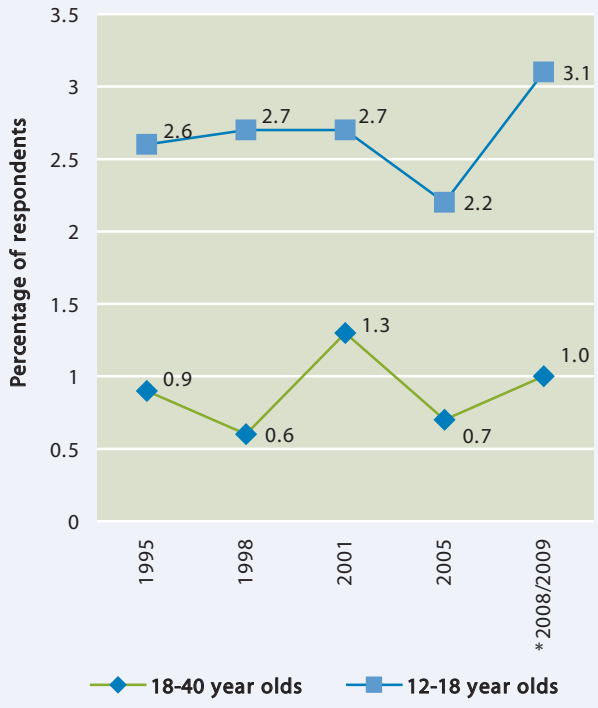
Source: UNODC ARQ/DELTA

Distribution of amphetamine seizures in the Near and Middle East/ South-West Asia, 2009 (by kg equivalents)



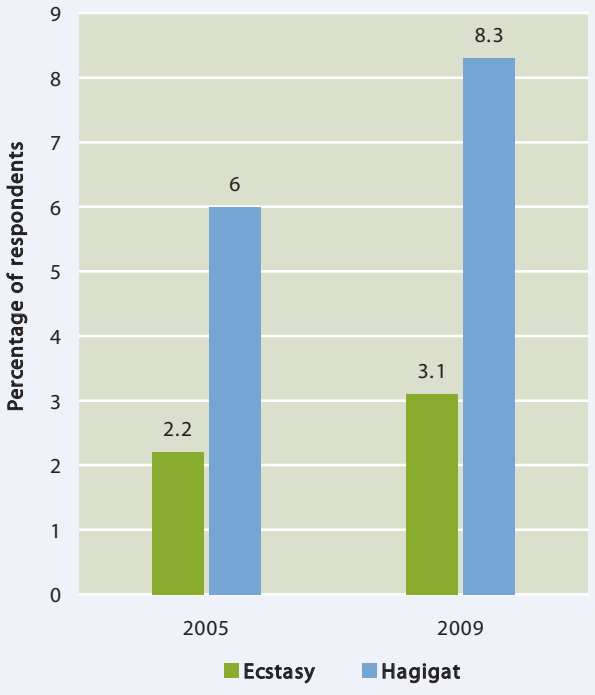
Source: UNODC ARQ/DELTA

Israel: rates of ecstasy use in the last year among 12-40 year olds: comparison of surveys



**Latest survey 18-40 year olds (2008) 12-18 year olds (2009).*
Source: Bar-Hamburger et al., 2009

Israel: rates of ecstasy and cathinone (hagigat) use in the last year (12-18 year olds): comparison of surveys



Source: Bar-Hamburger et al., 2009

amphetamine use has been confirmed by the Islamic Republic of Iran. Use of ecstasy and cathinone ("hagigat") has reportedly increased in Israel.[6]

Saudi Arabia

Saudi Arabia continues to be a major market for ATS in the Near and Middle East, and in 2009, was identified by other countries in the region as a major destination for amphetamine, specifically Captagon, trafficked on their territory. Following a significant increase in recorded seizures since 2003, seizures have shown the first signs of stabilization at an average of 13.2 mt since 2006. In 2009, seizures made in Saudi Arabia constituted about one third of global amphetamine seizures (33 mt) and almost one fifth of global ATS seizures (71 mt). The largest single seizure of amphetamine in 2009 (2.5 mt) was made at the border with Jordan. Saudi Arabia also reports seizures of methamphetamine, with 145 kg being seized in 2009.

Information on ATS use is hard to come by but scientific research suggests that 72.8 percent of patients treated for drug problems in Saudi Arabia are addicted to amphetamines.[7] Captagon and other amphetamines are reportedly used mainly by students, drivers, and employees seeking prolonged energy. The extremely high level of seizures is also an indicator that illicit manufacture might be taking place in the country but no detection of illicit laboratories has ever been reported to UNODC.

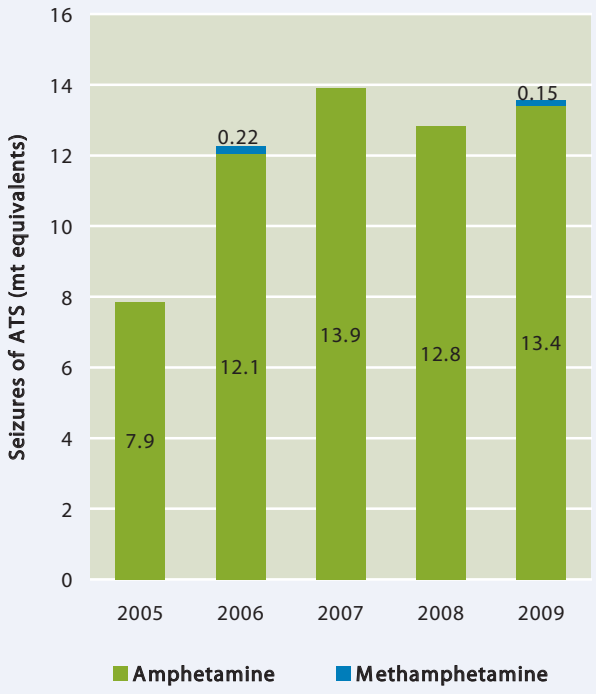
Syrian Arab Republic

ATS seizures in the Syrian Arab Republic have increased more than six-fold since 2005. Seizures of amphetamine, mostly in the form of Captagon pills, almost doubled between 2008 and 2009 to reach 3.7mt (22 million pills). Government reports to UNODC associate the increase in trafficking with large demand for the drug and attribute the increase in seizures to cooperation with neighbouring countries. The Government has never reported the detection of any ATS laboratories to UNODC.

Jordan

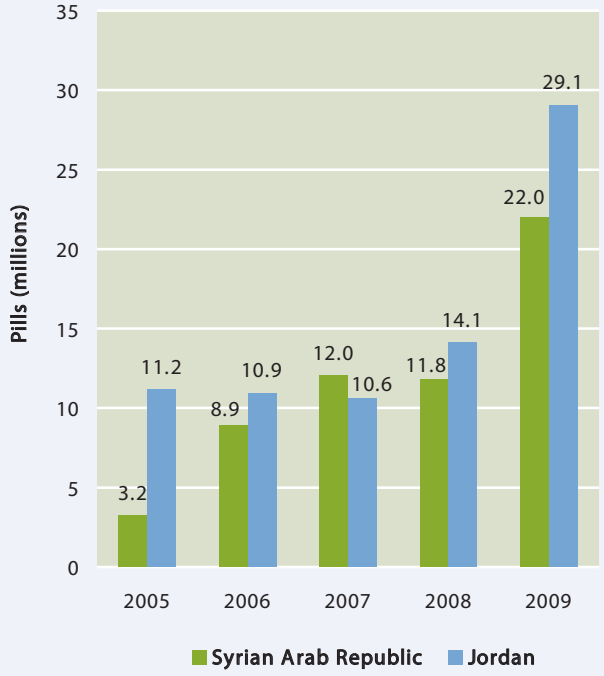
ATS seizures in Jordan have increased significantly in recent years. Between 2008 and 2009, seizures of Captagon doubled, from 2.4 mt (approximately 14 million pills) to 4.9 mt (29 million pills). Preliminary reports for 2010, however, indicate a substantial decrease in seizures. The increasing supply of Captagon may be spilling over into the illicit domestic drugs market and the Government has reported admissions to treatment of Captagon users.

Saudi Arabia: seizures of ATS, 2005-2009



Source: World Customs Organization

Syrian Arab Republic and Jordan: seizures of Captagon pills, 2005-2009

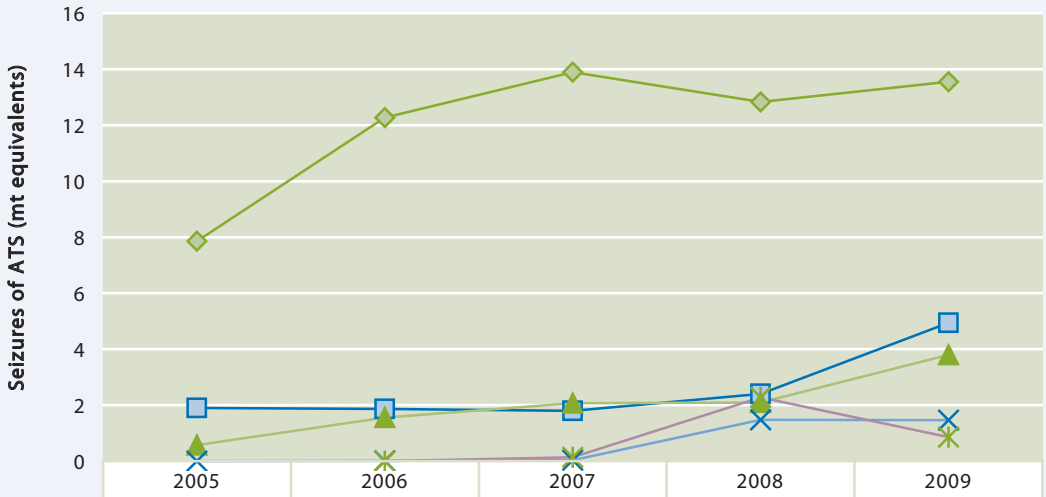


Source: UNODC ARQ/Delta

6 Bar-Hamburger et al., 2009.

7 Abu Madini et al., 2008.

Near and Middle East/South-West Asia: ATS seizures, 2005 - 2009



	2005	2006	2007	2008	2009
Saudi Arabia	7.9	12.3	13.9	12.8	13.6
Jordan	1.9	1.9	1.8	2.4	4.9
Syrian Arab Republic	0.6	1.6	2.1	2.1	3.8
Islamic Republic of Iran	0.0	0.0	0.0	1.5	1.5
Yemen		0.0	0.1	2.3	0.9

Source: UNODC ARQ/ DELTA

Islamic Republic of Iran

Illicit methamphetamine manufacture in the Islamic Republic of Iran was first reported to UNODC in 2008, when four laboratories were detected. Six laboratories were reported seized in 2009. Methamphetamine seizures have been increasing since 2005. However, whereas between 2005 and 2007, reported seizures of methamphetamine ranged between 2.3 kg and 38 kg, in 2008 seized quantities increased sharply. In the first nine months of 2010, seizures of methamphetamine were already up 55% (883 kg) from seizures for the same period in 2009 (571 kg).[8]

Since 2008, reports of an increasing number of Iranian nationals caught smuggling methamphetamine to other parts of Asia have been received. Traffickers from the Islamic Republic of Iran have been apprehended in Azerbaijan, Malaysia, Thailand, Japan, Sri Lanka and Uzbekistan, often transiting through countries such as Qatar, Turkey and the United Arab Emirates. Turkey has reported that methamphetamine is being smuggled overland from the Islamic Republic of Iran into Turkey and then trafficked by air to East and South-East Asia.[9] Indonesian and Philippine authorities also mentioned Iran as a country of origin for methamphetamine in 2009. Government authorities have reported further strengthening of control measures over precursors and other chemicals used in the manufacture of methamphetamine to prevent their diversion from licit channels.[10]

Research by the Iranian Drug Control Headquarters (DCHQ) has shown that abuse of stimulants, including amphetamine and methamphetamine, is on the rise.[11] In 2009, the Islamic Republic of Iran reported an increase in the prevalence of ATS as well as an increase in those receiving treatment for amphetamines-group substances.

Other countries

Other countries reporting large amphetamine seizures in 2009 include Yemen (854 kg) Qatar (758 kg) and the United Arab Emirates (129 kg), indicating that the trafficking of amphetamine is becoming more widespread. In August 2010,

8 DCHQ, 2011.
9 Turkey, 2011.
10 DCHQ, 2011.
11 DCHQ, 2011.

Qatar's Drug Combating Department (DCD) arrested members of an international criminal network engaged in drug trafficking, intercepting 2.2 million pills sold as Captagon during a controlled delivery.[12] The United Arab Emirates also reported multi-million pill seizures of Captagon in 2009 and 2010.

Small quantities of methamphetamine were seized in Afghanistan in 2010 and 2011. From January to June 2011, the Forensic Laboratory of the Counter Narcotics Police of Afghanistan analysed a total of 6 samples of crystalline methamphetamine, compared to one sample in 2010. It is believed that the methamphetamine was trafficked into Afghanistan from a neighbouring country.

Pakistan may become the next target for the manufacture of synthetic drugs. In March 2011, 245 kg of ephedrine, a precursor chemical used in the manufacture of methamphetamine, were seized from a container in Pakistan – the first registered seizure of that substance in the country. In April 2011, Pakistan authorities seized 4 kg of methamphetamine from a Malaysian national attempting to smuggle the drug into the country in his suitcase.

12 UNODC, 2010b.



Regional overview

Trends in illicit ATS manufacture and use in Europe continue to be largely stable but some notable new developments have emerged in recent years. While in most countries the main ATS of concern continue to be amphetamine and ecstasy-group substances, there is evidence that methamphetamine markets may be expanding. In addition, the appearance of new "designer drugs" on the market such as mephedrone constitutes a worrying new trend.

Europe: ATS laboratories, seizures, and annual prevalence rates (2005-2009)

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	311	477	406	605	361
	Amphetamine	150	122	102	41	44
	Ecstasy-group substances	14	11	10	4	1
	Total	**475**	**610**	**518**	**650**	**406**
Seizures (kg)	Methamphetamine	133.1	189.8	390.7	323.1	696.5
	Amphetamine	8,039.0	6,019.5	8,791.0	9,438.1	8,116.7
	Non-specified amphetamines	1,733.6	5,224.4	2,034.2	9.4	263.4
	Ecstasy-group substances	4,708.5	5,648.6	5,838.5	1,763.4	994.8
	Total	**14,614.2**	**17,082.3**	**17,054.4**	**11,534.0**	**10,071.4**
Annual Prevalence (15-64)	Amphetamines-group substances	0.5%	0.45%	0.5%	0.55%	0.55%
	Ecstasy-group substances	0.6%	0.54%	0.7%	0.7%	0.7%

**From 2007 onwards, reported prevalence percentage is based on midpoint of range.*
Source: UNODC ARQ/DELTA

At 406, the number of ATS laboratories dismantled in 2009 declined by almost 40% from 2008, to the lowest number of seized laboratories reported to UNODC from the region since 2003. The drop is largely due to the decline in the reported number of methamphetamine laboratories dismantled between 2008 and 2009.

Europe, notably West and Central Europe, continues to be an important market for amphetamine, in terms of both manufacture and use. Reported amphetamine manufacture remains concentrated in Europe, which accounted for all seized illicit amphetamine laboratories reported to UNODC in 2009 and for over 80% of laboratories reported in 2008. In 2008, there was a significant drop in the number of seized amphetamine laboratories reported to UNODC, from 102 in 2007, to 41 in 2008 and 44 in 2009.[1] Europol reports that, from 2002 to 2010, most of the illicit amphetamine laboratories seized in Europe were in Poland, followed by the Netherlands and Germany. Manufacturing sites differ by country, with larger-scale illicit manufacture taking place in the Netherlands and small to medium scale manufacture in Poland, Lithuania and Estonia.[2]

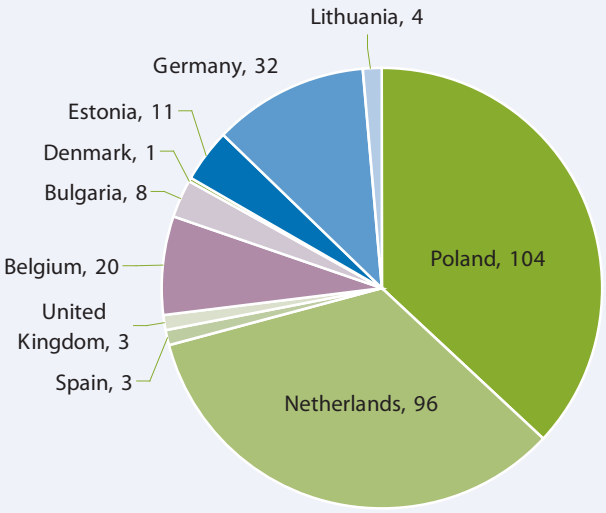
The countries of origin of amphetamine most frequently mentioned by national authorities are the Netherlands and Poland, while the most frequently mentioned destinations are Germany, the United Kingdom and the Scandinavian countries.

The decline in amphetamine laboratories reported since 2008 is not consistent with seizures of the drug which have remained high, averaging 8 mt between 2005 and 2009 and comprising about 11% of the global total seized in 2009. Between 2008 and 2009, Europe's share in the global seizure of amphetamine fell from about one third to just under one

1 The largest number of amphetamine laboratories reported in 2009 was by the Russian Federation (20), followed by Poland (8) and Germany (6).

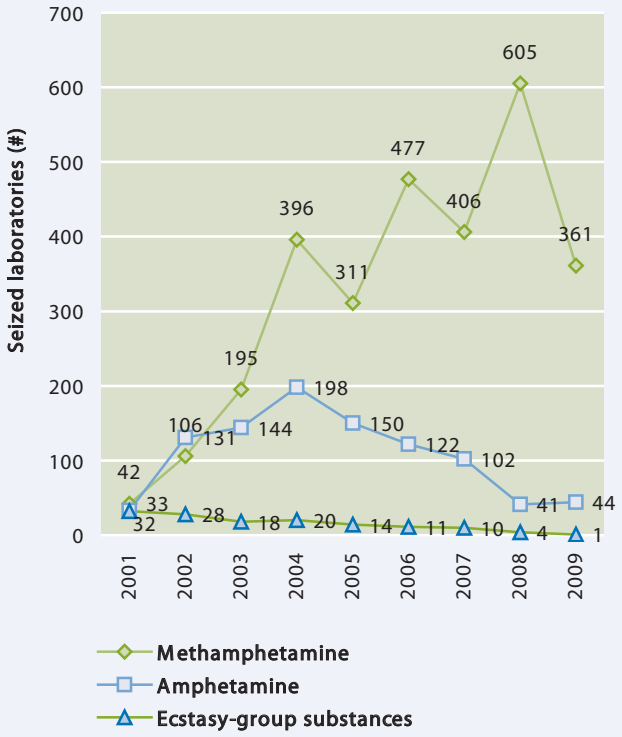
2 Europol, 2011b

Illicit amphetamine laboratories: seizures by country of origin, (2002-2010)



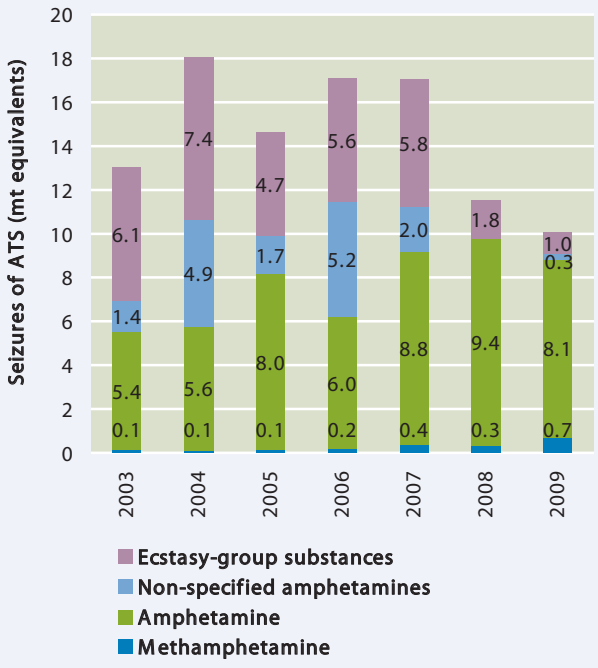
Source: Europol, 2011b

Europe: seizures of illicit ATS laboratories, 2001-2009



Source: UNODC ARQ/DELTA

Europe: total ATS seizures, 2003-2009



Source: UNODC ARQ/DELTA

quarter – largely due to increases in seizures in the Near and Middle East.

In 2008 and 2009, amphetamine seizures in Europe constituted about 80% of total ATS seizures in Europe – representing a significant departure from previous years when the seizure of ecstasy-group substances made up a substantial proportion of seizures.[3] This was due to the sharp decline in the seizures of ecstasy-group substances reported to UNODC since 2007 which contributed to the overall reduction in total ATS seizures in the region in 2008 and 2009. Ecstasy-group substances in the EU continue to be sourced almost exclusively from the Netherlands and Belgium,[4] with the Netherlands being the most frequently mentioned country of origin for ecstasy by European countries. Reports of both the seizures of ecstasy-group substances and the numbers of laboratories dismantled have been largely in decline since 2005, with only one illicit ecstasy laboratory being reported in 2009 by Belgium – a sign that manufacture of the drug formerly concentrated in Europe has started to shift to other regions of the world such as Australia and Indonesia.[5]

In 2011, Europol pointed to a significant reduction in ecstasy manufacture in recent years which it attributed to a

3 Ecstasy accounted for only 10% of ATS seizures in Europe in 2009, compared with 6% for methamphetamine (UNODC, 2011a).

4 Europol, 2011a.

5 The highest number of dismantled ecstasy laboratories in 2009 was reported from Asia and Oceania, namely Indonesia (18) and Australia (19).

shortage of the precursor chemical PMK; however, Europol predicts that ecstasy manufacture and trafficking will begin to increase again in the coming years.[6]

Reports of illicit methamphetamine manufacture in the form of mostly small-scale laboratories continued to emerge mainly from the Czech Republic and, to a lesser extent, Slovakia and Germany. In comparison to most other regions of the world, illicit manufacture of methamphetamine is fairly low. However, Austria, Belarus, Lithuania, Netherlands, Poland and Portugal have all recently reported first time seizures of methamphetamine laboratories which indicates that illicit methamphetamine activity may be spreading through the region.

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Europol point to a possible replacement of amphetamine by methamphetamine on the illicit market especially in some Nordic and Baltic countries.[7] EMCDDA reports that methamphetamine manufacture in Lithuania and Poland mainly serves illicit drug markets in Scandinavian countries, where the substance is possibly being sold as a replacement for amphetamine.[8] Like amphetamine, in Europe, methamphetamine is usually found in powder form.[9] Since 2004, Scandinavian countries have consistently accounted for over half of total annual European methamphetamine seizures. Together, Norway, Sweden, Lithuania and Russian Federation account for most methamphetamine seized in Europe.[10]

Overall, surveys show a relatively low annual prevalence of amphetamines-group substances in much of the region of between 0.5% and 0.6%, with prevalence being higher in West and Central Europe than in East and South-East Europe.[11] Within West and Central Europe, Czech Republic, Denmark, United Kingdom, Norway and Estonia remain the countries with the highest annual prevalence rates. In South-East Europe, Bosnia and Herzegovina and Bulgaria have high annual prevalence rates of amphetamines use. On average, 3.7 % of all European adults have used amphetamines at least once. Following general increases in the 1990s, reports of stabilizing or even decreasing trends in amphetamine and ecstasy use in the general population in Europe are supported by the most recent data.

Amphetamine is the more commonly used substance in most parts of Europe. At less than 5%, the proportion of problem amphetamine users is relatively small in the majority of European countries and trends in amphetamine users entering treatment between 2003 and 2008 have remained broadly stable in most countries.[12] In Sweden, Finland and Latvia, treatment for use of amphetamine as the primary drug is proportionally much higher.[13] Along with the Czech Republic, Estonia and Lithuania, these countries have also reported high rates of injecting use of amphetamine among primary amphetamine users in recent years (ranging from 52% to 82%).[14]

Until recently, methamphetamine use was largely confined to the Czech Republic and Slovakia but some countries in Northern Europe have begun to report the increased presence of methamphetamine on their markets.[15] Use of amphetamines primarily takes place in recreational settings, and lifetime prevalence rates vary, with rates as high as 30-70% recorded in some studies in Czech Republic, Hungary, Slovakia and the United Kingdom. There are indications, however, that amphetamines have become less widespread among party goers than cocaine, ecstasy and new substances such as mephedrone.[16]

The annual prevalence of ecstasy use in Europe is estimated at 0.7% of the adult population and is higher in West and Central Europe (0.8%) than in East and South-East Europe (0.6%). Most European countries are now reporting stabilizing trends of ecstasy use. The Czech Republic, Latvia, Slovakia and United Kingdom remain countries with high ecstasy use prevalence rates in the general population, with most users aged 15-34. Targeted surveys in nightlife settings in European countries suggest that the prevalence and patterns of stimulants and ecstasy use, together with alcohol, remains high.

6 Europol, 2011a.

7 EMCDDA and Europol, 2009.

8 EMCDDA, 2010a. Unlike many regions where crystalline methamphetamine and methamphetamine smoking are increasingly prevalent, methamphetamine in Europe is available almost exclusively in powder form, and so is difficult to distinguish from amphetamine (also in powder form) in both appearance and effect. (EMCDDA, 2010b).

9 EMCDDA, 2010b.

10 Norway reports the highest seizures of methamphetamine, followed by Sweden, Lithuania and the Russian Federation.

11 In most West and Central European countries, problem amphetamines use represents a small fraction of overall problem drug use, except for the Czech Republic and some of the Nordic countries. Those who report amphetamine as their primary substance account for less than 5% of drug users in treatment, on average, in Europe (UNODC, 2011a).

12 EMCDDA, 2010a.

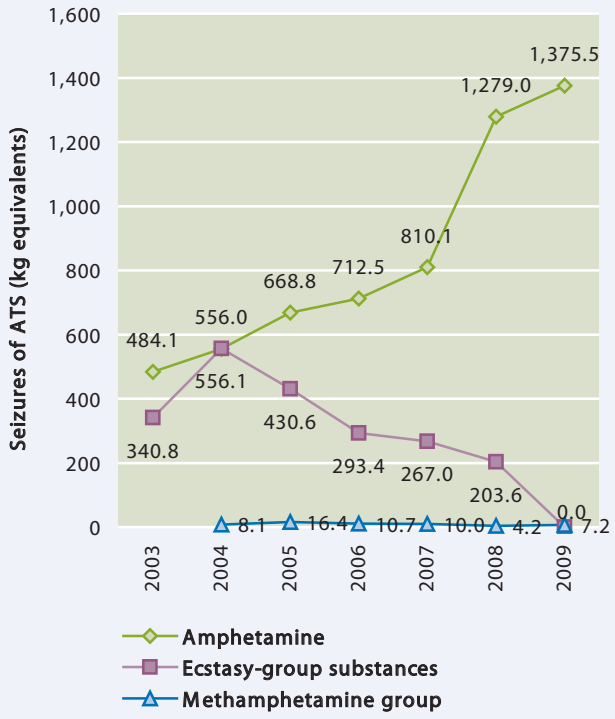
13 Sweden (32%), Finland (20%) and Latvia (15%). Five other countries (Belgium, Denmark, Germany, Hungary, Netherlands) report between 6% and 10% of treatment entries from clients citing amphetamine as their primary drug.

14 EMCDDA, 2010a.

15 EMCDDA, 2010a.

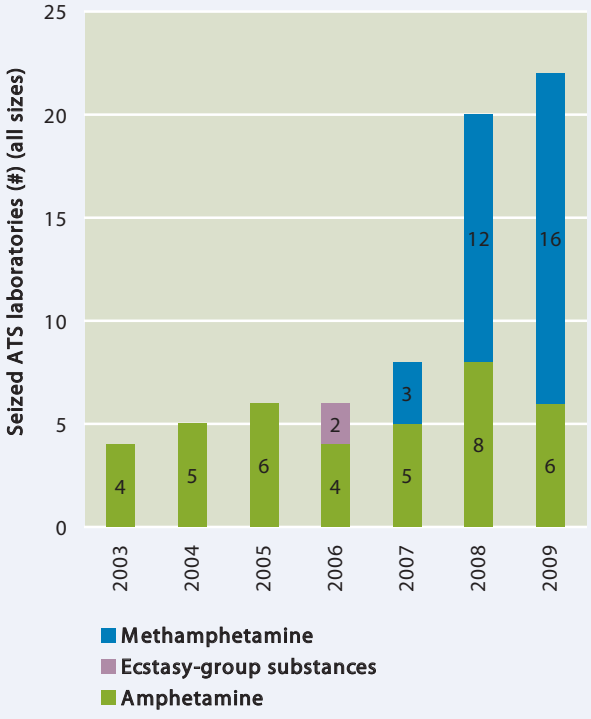
16 EMCDDA, 2010b.

Germany: ATS seizures, 2003-2009



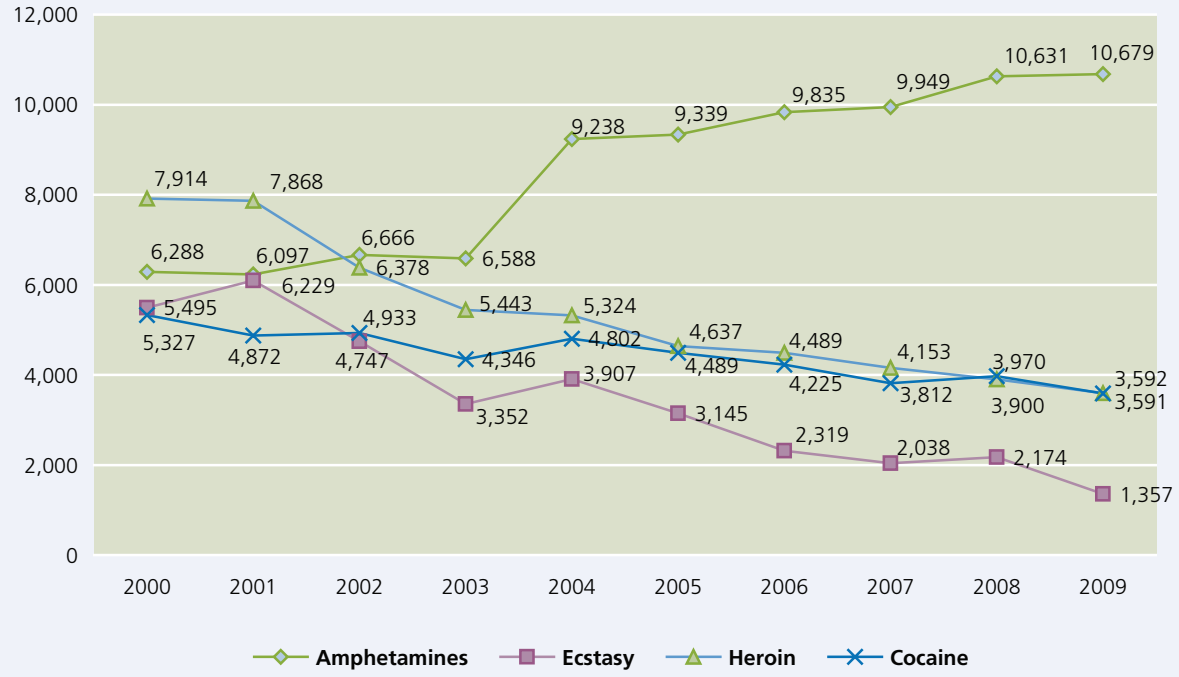
Source: UNODC ARQ/DELTA

Germany: seized ATS laboratories, 2003-2009



Source: UNODC ARQ/DELTA

Germany: number of drug users who came to the attention of the police for the first time 2000-2009



Source: National Reports (2001-2009) to the EMCDDA by the Reitox National Focal Point Germany

Some studies even suggest that drug use patterns among club-goers are becoming increasingly polarized, that is, showing ever higher prevalence rates, in sharp contrast to the situation among the general population.[17]

Europe continues to provide some of the best and most comprehensive information related to ATS use, trafficking and manufacture. The following sections focus on selected European countries and examine the latest ATS trends by sub region.

WEST AND CENTRAL EUROPE

Germany

Amphetamine seizures have been steadily increasing over the past decade, with seizures increasing almost three-fold from 484 kg in 2003 to almost 1.4 mt in 2009. In 2010, however, amphetamine seizures dropped to 1.2 mt (-13%). Seizures of methamphetamine (in the form of crystalline methamphetamine) averaged about 10 kg annually until 2010, while ecstasy seizures have continued to decrease, with no seizures reported in 2009.

In 2008, for the first time, more illicit methamphetamine laboratories were dismantled in Germany than amphetamine laboratories – a trend which continued in 2009. However, the laboratories continue to be small-scale and methamphetamine appears to be still not very common in Germany in comparison with other substances. Nevertheless, alongside the established trend of the trafficking of small quantities of methamphetamine manufactured in the Czech Republic to Germany, the manufacture of crystalline methamphetamine in illicit kitchen laboratories was found to have increased in 2008.

Most amphetamine seized in Germany was trafficked into the country from the Netherlands and, to a lesser extent, Belgium, Poland and the Czech Republic while the majority of seized ecstasy pills originated in the Netherlands. Approximately 64% of amphetamines seized in 2009 were confiscated in the provinces of Saxony and Bavaria, with smaller quantities of the drug also being seized in Thuringia. As in previous years, in 2009, crystalline methamphetamine was seized mainly in the regions close to the Czech Republic.[18] In 2010, a total of almost 27 kg of crystalline methamphetamine were seized, the largest ever total amount. While more than half of the total quantity was seized in Saxony and one fifth was seized in Bavaria, there were also some individual cases in North Rhine Westphalia and Hesse, areas which are not traditionally associated with the drug. In 2010, small amounts of amphetamines were seized at Frankfurt airport, with drugs in transit to Japan.[19]

There was an increase in the annual prevalence of amphetamines in 2009 (0.7%) over the previous national estimate in 2006 (0.5%), while the annual prevalence of ecstasy rate has remained at 0.4% (down from 0.8% in 2006). Recent research also indicates that substance use in Germany's clubbing scene is on the decline.[20] This increase in the prevalence of amphetamines and decrease in ecstasy use is reflected by data from the German Federal Criminal Police Office which shows that the number of amphetamine users who came to the attention of police for the first time grew substantially between 2000 and 2009 (outpacing all other drug groups combined), while there was a significant decline in the number of new police contacts for ecstasy.[21] The increase was even more pronounced for users of crystalline methamphetamine who came to the notice of the police for the first time. In 2010, there were 642 first time users of crystalline methamphetamine, up from 364 persons in 2009.

The Netherlands

The Netherlands remains a manufacturing country of both amphetamine and ecstasy. Following a decline in 2004, the number of laboratories seized remained fairly stable between 2005 and 2008 (16-18) with a peak in 2007. Although no data was reported to UNODC in 2009, a recent national report records the dismantling of 24 illicit manufacturing sites for synthetic drugs in 2009.[22] The increase in the seizure of illicit laboratories between 2008 and 2009 is attributed to a threefold increase in the detection of amphetamine laboratories in 2009. Illicit manufacturing facilities of other synthetic drugs such as mCPP, methamphetamine and 2C-B were also dismantled. Only one illicit ecstasy manufacturing site was reported in 2009.[23]

17 UNODC, 2011a and EMCDDA, 2010a.

18 Germany, 2011.

19 Germany, 2010b.

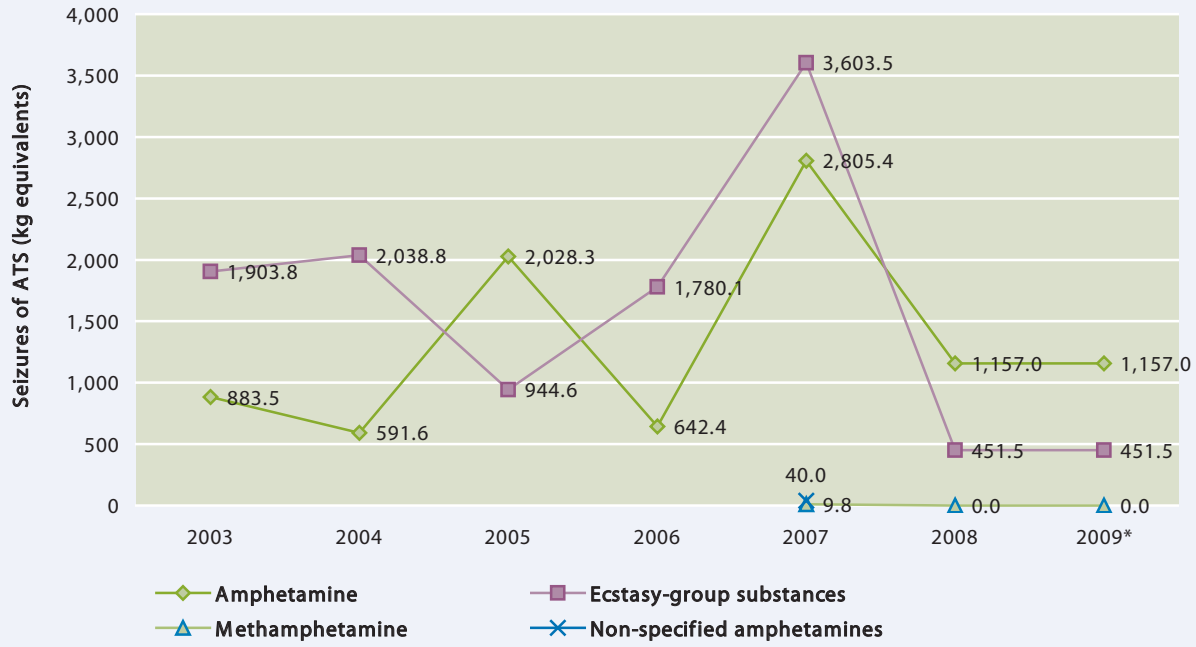
20 EMCDDA, 2010a.

21 UNODC, 2010a.

22 Netherlands, 2011.

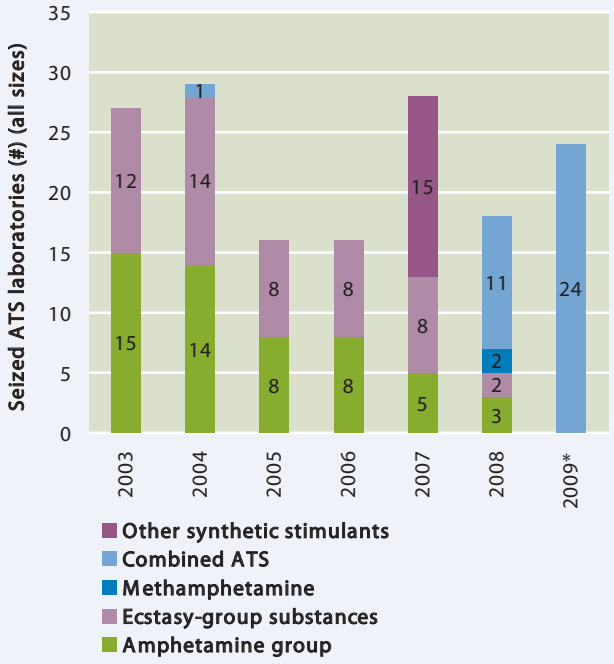
23 Netherlands, 2011.

Netherlands: seizures of ATS, 2003-2009*



*No data was reported for 2009 and therefore 2008 data was used.
Source: UNODC/ARQ DELTA

Netherlands: seized ATS laboratories, 2003-2009*



* No data was reported to UNODC for 2009. However, the Centre of Expertise on Synthetic Drugs and Precursors reports 24 seizures of manufacturing locations for synthetic drugs in 2009 (Netherlands, 2011).
Source: UNODC/ARQ Delta and Netherlands, 2011

Two illicit conversion laboratories of BMK from α-phenyl-acetonitrile (benzyl cyanide) were reportedly seized in the Netherlands at the end of 2010 and in early 2011.[24]

Illicit amphetamine manufacture appears to be mainly concentrated in the south of the country, and seizures of the drug are mainly in powder form. Seizures have strongly fluctuated since 2003. Despite the decline in seizures in 2008, police reports indicate that the ATS laboratories detected that year (principally in the west and south of the country) were bigger and more large-scale than before.

Changes in the manufacturing process of ecstasy were noted in 2008: the process is increasingly being divided into different stages in diverse locations (including mobile locations) in a possible attempt to reduce the risk of detection due to increased law enforcement.[25]

The decline in ecstasy seizures between 2007 and 2008 may be a direct result of a lower perceived availability of the drug in 2008, a fact which is supported by several studies pointing to a collapse of the ecstasy market in 2008 and the first half of 2009. During that period, the proportion of pills sold as ecstasy containing only MDMA-like substances decreased (to 71% in 2008), while the proportion of ecstasy pills containing miscellaneous substances increased to

24 Europol, 2011b.
25 Netherlands, 2010.

Netherlands: content of pills sold as ecstasy based on laboratory analyses, 2006-2010

	2006	2007	2008	2009	2010*
Number of pills analysed	2,523	2,319	2,183	2,181	1,186
Only MDMA-like substances	83.2%	84.6%	70.5%	70.8%	82.3%
(Meth)amphetamine	1.8%	0.7%	1.1%	4.9%	3.0%
MDMA-like substances and (meth)amphetamine	2.2%	1.3%	1.4%	1.3%	1.3%
Others**	4.5%	3.8%	7.4%	1.4%	1.4%
Miscellaneous***	8.3%	9.6%	17.7%	21.7%	11.9%

* Data for 2010 are from January-June.
** Category 'Others' may include samples with MDMA and for example, caffeine and other pharmacologically active non-scheduled substances.
*** In 2009, the category 'Miscellaneous' consisted mainly of mCPP (11.6%) and mephedrone (7.4%).
Source: Netherlands, 2011

18%.[26] Similarly, the concentration of amphetamine in the amphetamine samples decreased which might indicate a reduced availability of the precursor chemicals needed to manufacture ecstasy and amphetamine.

Though the trend appeared to continue during the first half of 2009,[27] there are signs of a recovery of the ecstasy market in the second half of 2009 and 2010. Europol reports a resurgence of ecstasy since mid-2010.[28] Purity of ecstasy reportedly increased in 2010. The resurgence of ecstasy could also have impacted on the availability of mephedrone, which seemed to disappear from the illicit ecstasy market in the Netherlands during the first half of 2010.[29]

United Kingdom

In 2009, amphetamine seizures in the UK dropped sharply from the high level of 2008 (3.5mt) to reach a level comparable to amounts seized in 2003-2007. Despite the decline, the quantity seized was the largest reported by any European country that year. Ecstasy seizures have continued to decline, reaching a low of 62.6 kg in 2009 – a 60% decline from 2008. Despite continued high seizures of amphetamine and high rates of ATS use, no reports of illicit manufacture have been submitted to UNODC since 2003, though some small-scale manufacture of amphetamine is said to take place in the UK.[30]

Annual prevalence rates of ATS in the UK remain relatively high, roughly double the European average in 2009. However, when compared with 2003/04, the annual prevalence rate for ecstasy among 16-59 year olds in England and Wales (1.6%) shows a 20% decline while the rate of annual amphetamines use (1.0%) has decreased by 33%. Scotland registers much higher annual prevalence rates of 1.4% for amphetamines (2009) and 2.5% for ecstasy (2009).[31]

Methamphetamine use was estimated for England and Wales for the first time in the 2008/09 British Crime Survey. In 2009/10, just 1% of 16 to 59 year olds reported lifetime use. Among 16 to 24 year olds, lifetime use was 0.9%, while recent use (last year) and current use (last month) were both 0%.[32]

Concurrent with trends in other European countries such as the Netherlands, the purity of amphetamines in the UK also fell in 2008, following several years of stable purity levels.[33] The MDMA content of ecstasy pills also fell sharply in 2008, with adulterants such as caffeine and BZP also detected in the pills.[34] In 2008 there were reports of users switching to the more expensive MDMA powder, which is a higher purity product.[35]

It is noteworthy that the proportion of pills analyzed by the Forensic Science Service in 2008 that contained MDMA only was 51%, falling from 73% in 2007 and 99.5% in 2005. This decline was mainly due to the presence of piperazines in a large proportion of the seizures.[36]

26 This was mainly due to an increase in pills containing mCPP but in 2009 other substances such as mephedrone and 4-fluoramphetamine were also found. (Netherlands, 2010).

27 During the first half of 2009, the percentage of ecstasy pills containing an MDMA-like substance decreased by 70%.

28 Europol, 2011b.

29 Netherlands, 2011.

30 United Kingdom, 2010.

31 According to a government source, annual prevalence rates in Scotland in 2006 were 2.2% for amphetamines and 3.2% for ecstasy, meaning prevalence rates in Scotland have also declined in recent years.

32 Home Office, 2010.

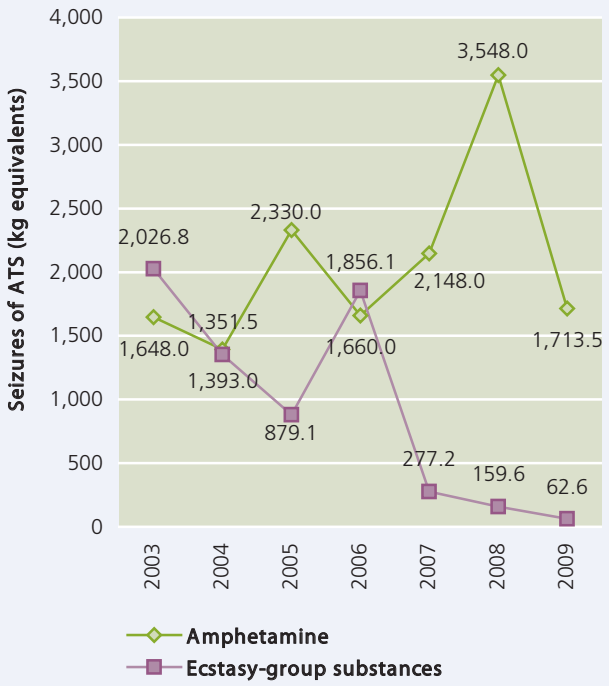
33 The Serious Organised Crime Agency (SOCA) reports that most street-level amphetamine seized through Project Endorse is under five per cent purity, sometimes as low as one per cent (SOCA 2009).

34 The majority of ecstasy pills analyzed by FSS and LGC Forensics in 2008 contained MDMA as the main drug with adulterants such as caffeine and BZP also detected. (United Kingdom, 2010).

35 ibid. The mean purity of MDMA powder at street level in 2008 was 62% and 79% at wholesale level.

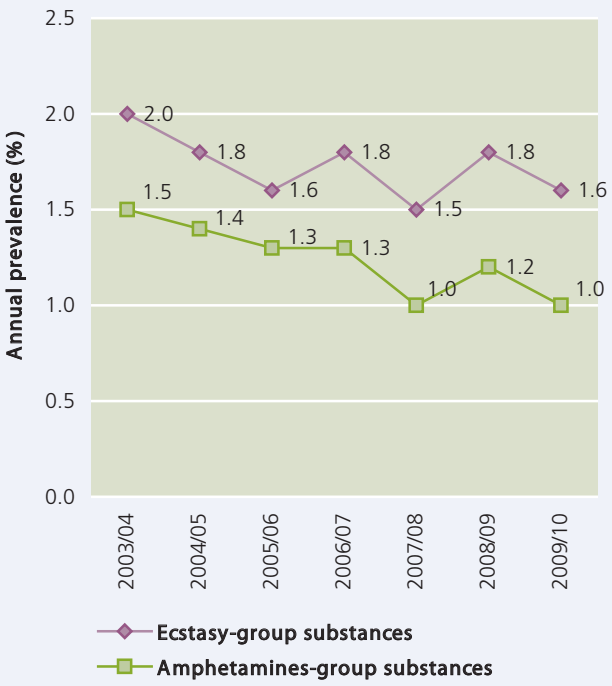
36 United Kingdom, 2010.

United Kingdom: seizures of ATS, 2003-2009



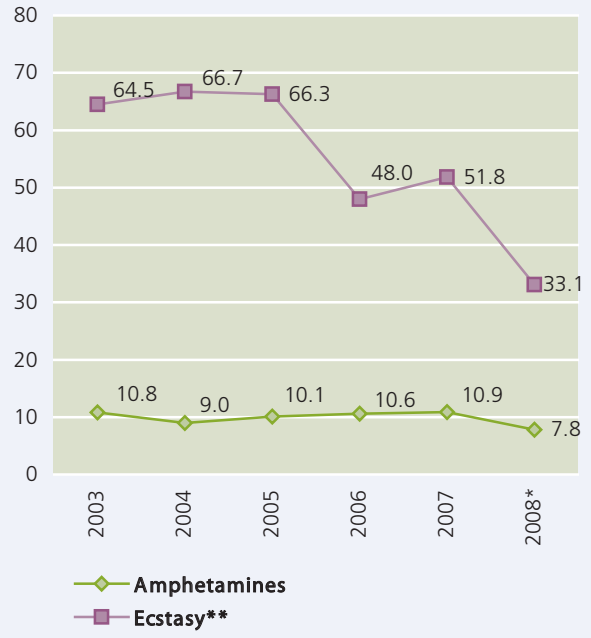
Source: UNODC ARQ/DELTA

England and Wales: annual prevalence of ATS among the general population*, 2003/04-2009/10



*Aged 16 to 59 years.
Source: Home Office, 2010

England and Wales: mean percentage purity of certain drugs seized by police, 2003-2008*



*From 2008 data have been provided from Forensic Science Service (FSS) and LGC Forensics. Previous data were from FSS only.
**mg of MDMA base per pill.
Source: United Kingdom, 2010

Czech Republic

Historically, manufacture of methamphetamine (in the form of Pervitin)[37] has been concentrated in the Czech Republic. Methamphetamine is also the primary ATS of use in the country, as well as the most frequently trafficked ATS. The Czech Republic accounts for most methamphetamine laboratories detected in Europe. The number of detected illicit small-scale laboratories peaked in 2008 at 434 and declined in 2009 to 342. Further decreases are reported for 2010. Most methamphetamine is manufactured for domestic use, smaller quantities are trafficked to neighbouring countries such as Germany and Slovakia.[38] The main method of sourcing precursors for illicit methamphetamine manufacture currently appears to be extraction of ephedrine and pseudoephedrine from over-the-counter medical preparations. Europol pointed to the reported manufacture of crystalline methamphetamine in the Czech Republic by an organized crime group from the Western Balkans – while it is possible that this was an isolated instance, there is a need to monitor this development and prevent a possible spread of crystalline methamphetamine trafficking and use in Europe.[39]

37 *Pervitin* used to be the trade name for a methamphetamine-containing pharmaceutical drug.

38 EMCDDA and Europol, 2009.

39 Europol, 2011a.

The Czech Republic currently has the highest annual prevalence rate for both amphetamines (1.7%) and ecstasy (3.6%) in Europe. Methamphetamine is reported as the primary drug by a large proportion of clients entering treatment in the Czech Republic (59%) and injecting is reported as the main route of drug administration by 80 % of methamphetamine users in the country.[40] The European Monitoring Centre for Drugs and Drug Addiction and Europol have suggested possible diffusion of methamphetamine from the stable chronic population into the recreational drug scene.

Sweden

While seizures of amphetamine in Sweden declined slightly between 2007 and 2009 when compared with 2004-2006, seizures of methamphetamine have been increasing, with the country confiscating a record 154 kg of methamphetamine in 2009. This reflects the increasing availability of methamphetamine on the illicit drugs market in Sweden. Recent research in the country finds that methamphetamine use is increasing and is prevalent in most of the country. As there is no illicit ATS manufacture in the country, amphetamines are thought to be smuggled into Sweden from either Estonia, Lithuania and Poland or Netherlands and Belgium.[41]

Sweden now reports an annual prevalence rate of amphetamines of 0.8%. At 32%, the proportion of drug users that reported entering treatment for use of amphetamine as the primary drug in Sweden is also over six times higher than the European average (less than 5%). Sweden also reports a high injecting rate for amphetamines users attending outpatient centres (67%).[42]

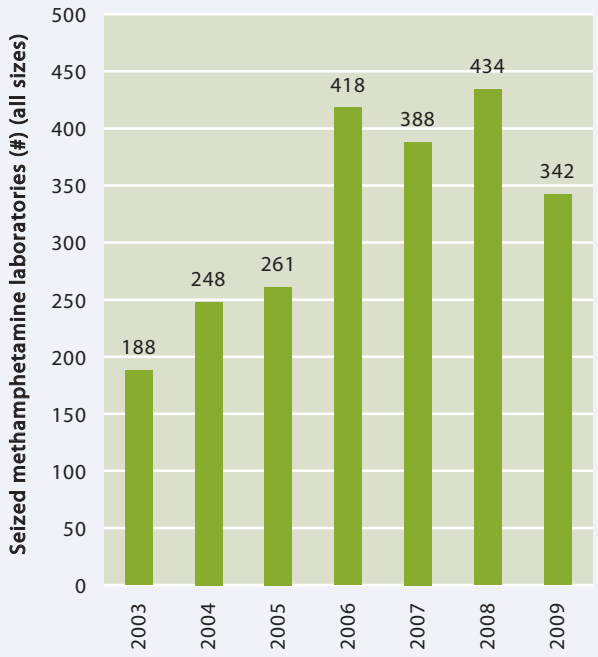
Norway

In Norway (as in Sweden), both amphetamine and methamphetamine are sold as white powder, making it difficult to distinguish between them.[43] Most amphetamines on the Norwegian market originate from illicit laboratories in the Netherlands, Russian Federation, Poland and Lithuania. The largest quantities seized come from the Netherlands and Poland, through Germany and Denmark and via Sweden.[44] No illicit manufacture has been reported from Norway since 2004 (when one amphetamine and one ecstasy laboratory were dismantled) and authorities estimate that manufacture, if any exists, is small-scale.

From 2006 to 2009, Norway recorded the largest seizures of methamphetamine in Europe, and apart from a dip in 2008, seizures have been steadily increasing since the beginning of the decade reflecting the increasing frequency

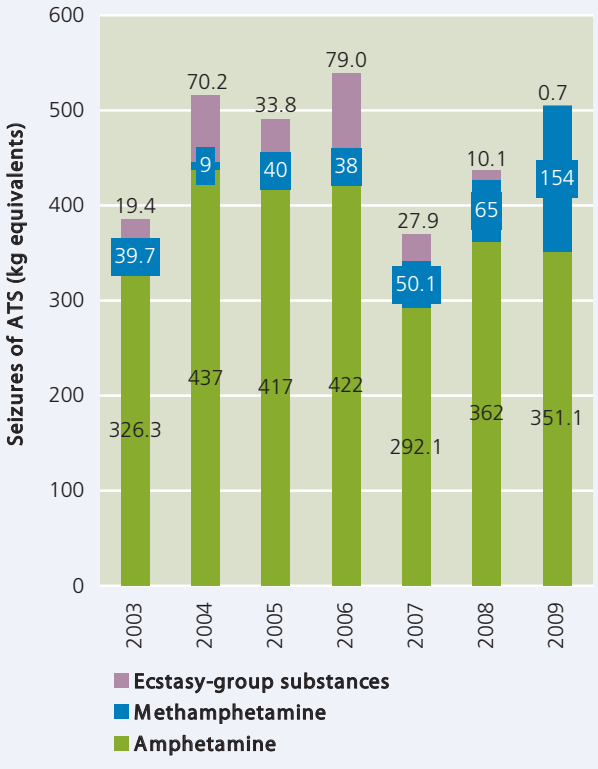
40 EMCDDA, 2010a.
41 EMCDDA, 2010a.
42 EMCDDA, 2010b.
43 Norway, 2010.
44 Norway, 2010.

Czech Republic: seized methamphetamine laboratories, 2003-2009



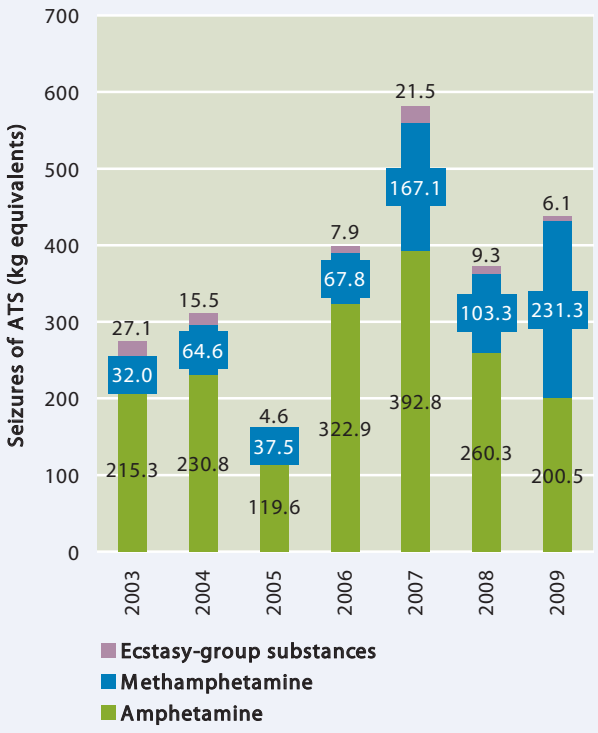
Source: UNODC/ARQ DELTA

Sweden: seizures of ATS, 2003-2009



Source: UNODC/ARQ DELTA

Norway: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

with which the drug is being trafficked to the country. Seizures of methamphetamine surpassed those of amphetamine for the first time in 2009, accounting for a total of 51% of ATS seized that year. For the first time, two seizures of crystalline methamphetamine chloride were made in 2009. Both seizures (6 and 7.7 grams respectively) had a purity of almost 100 per cent.[45]

Toxicological data from the National Institute of Public Health also provide evidence of the increasing presence of methamphetamine in Norway. In 2009, methamphetamine was the second most commonly found substance after alcohol in blood samples from drivers suspected of driving under the influence, found in 32% of the blood samples that were analyzed for alcohol, intoxicating medicinal drugs and narcotic substances – a fourfold increase since 2001.

The use of methamphetamine in Norway has increased over the past years and is now thought to be more widely used in the country than amphetamine. The reason for this shift from amphetamine to methamphetamine is thought to be the increasing availability of the drug.

In 2009, the average purity for amphetamine and methamphetamine was about 29% and 44% respectively, representing a decline in purity levels for amphetamine and an increase for methamphetamine.[46] The proportion of MDMA in ecstasy pills declined sharply from 2007-2009; while in 2006, nearly 100% of seized pills contained MDMA, this proportion had reduced to around 20% in 2009.[47]

Poland

Poland is one of the major European illicit amphetamine manufacturers and was one of the most frequently mentioned countries of origin for amphetamine in 2009. Poland dismantled eight amphetamine laboratories in 2009 (the lowest number of laboratories reported in ten years), and identified Germany, Scandinavia and the United Kingdom as the main destinations for amphetamine manufactured in Poland.

Seizures of amphetamine in Poland are relatively high, averaging about 400 kg per year (2005-2009). Traditionally, amphetamine in Poland was available in the form of white, beige or dark brown powder, but is increasingly distributed in pill form.[48] Poland seized almost 60 kg of ecstasy in 2009 (6% of the European total) and reported that some of the ecstasy on its territory originated in Poland as well as in the Netherlands.[49]

Despite the relatively stable number of illicit ATS laboratories dismantled each year (about 15), in 2009, authorities reported a worrying rise in the scale of these manufacturing facilities, usually detached houses located in small towns.[50] A further development of concern is that methamphetamine manufacture is reportedly taking place in Poland, with one illicit laboratory dismantled in 2007 and another in 2009.[51]

24.6% of patients admitted to drug treatment report using amphetamine as their primary drug of use. The most recent data indicate a fall in the purity of amphetamine (24% in 2009).

45 Norway, 2011.

46 Norway, 2010.

47 Norway, 2010.

48 The amphetamine powder often contains mixtures of amphetamine sulphates and different additives (e.g. glucose, caffeine, painkillers) which contain 20-30% of pure drug.

49 UNODC, 2011a.

50 Poland, 2010.

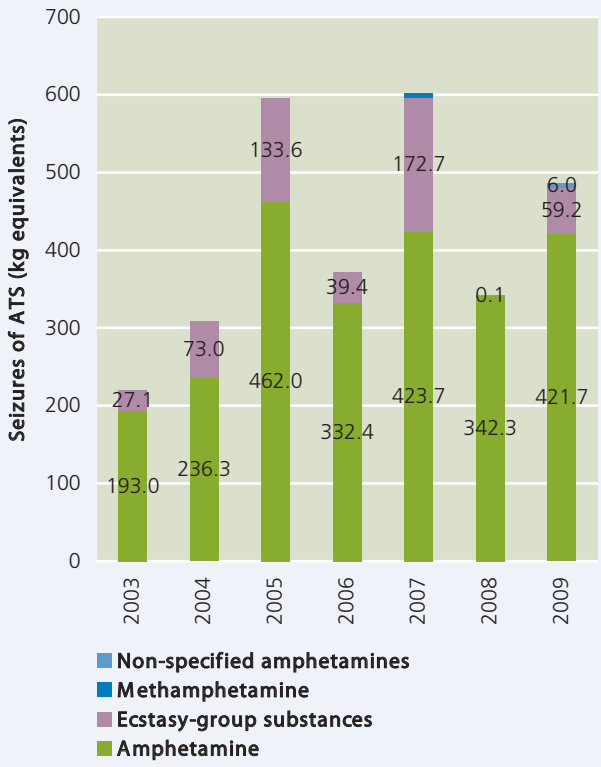
51 Poland, 2011.

Poland: seized amphetamine laboratories, 2003-2009



Source: UNODC ARQ/DELTA

Poland: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

BALTIC STATES

Estonia

Illicit ATS manufacture takes place in Estonia, where several laboratories are detected each year with annual seizures of about 50-55kg of amphetamine. The main ATS manufactured is amphetamine using P-2-P as the main precursor chemical which is smuggled mainly from the Russian Federation. Amphetamine is then trafficked from Estonia to Nordic countries and to the Russian Federation.

In 2008, a significant single seizure of 38kg of methamphetamine was made, indicating the possible expansion of the drug to the Estonian market. However, practically no seizures of methamphetamine were reported in the following year (0.02kg). Estonia reports that methamphetamine is being manufactured in the country, most likely from P-2-P sourced from outside the EU.[52]

The illicit manufacture of ecstasy has also been detected in Estonia but quality of the ecstasy is low. In 2008, 1,841 litres of safrole (a precursor for the manufacture of ecstasy) were confiscated in Estonia; almost 97% of global seizures of safrole in 2008.[53] Between 1 kg to 12 kg of ecstasy are seized each year (2005-2009).

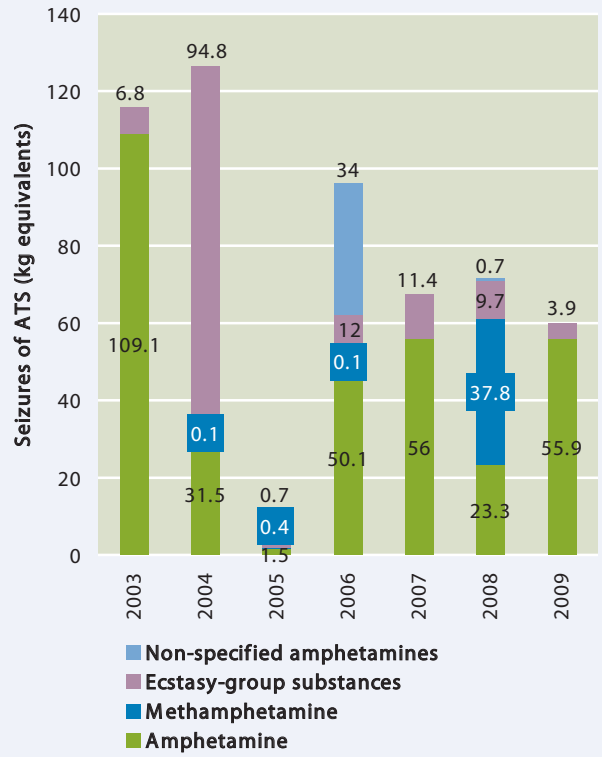
At 1%, the annual prevalence rate of amphetamines in Estonia remains high for Europe as does the annual prevalence rate for ecstasy (1.2%). The major ATS used is amphetamine, with methamphetamine use not being common or widespread. Injecting of amphetamines is an increasing problem in Estonia, as a recent study of injecting drug users in two cities found amphetamine injecting to be quite widespread. A third of injecting users surveyed in Tallinn considered amphetamine to be their primary drug, while more than two-thirds of prison inmates reported using amphetamine while incarcerated in 2006 and 2008.[54] One notable development in amphetamine use was that the annual prevalence rate for women increased sharply from 1.5% in 2003 to 2.7% in 2008, while the rate for men in the same age group decreased significantly, from 9.3% to 4.6%.

52 EMCDDA, 2010b.

53 Estonia, 2010.

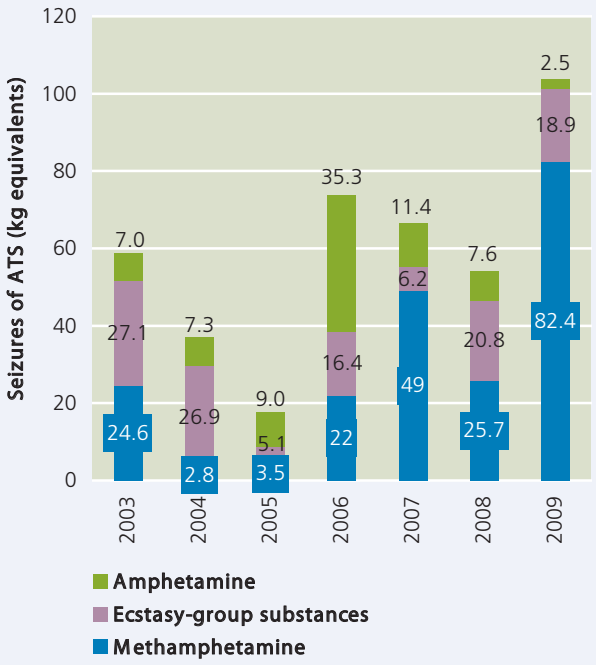
54 EMCDDA, 2010b.

Estonia: seizures of ATS, 2003-2009



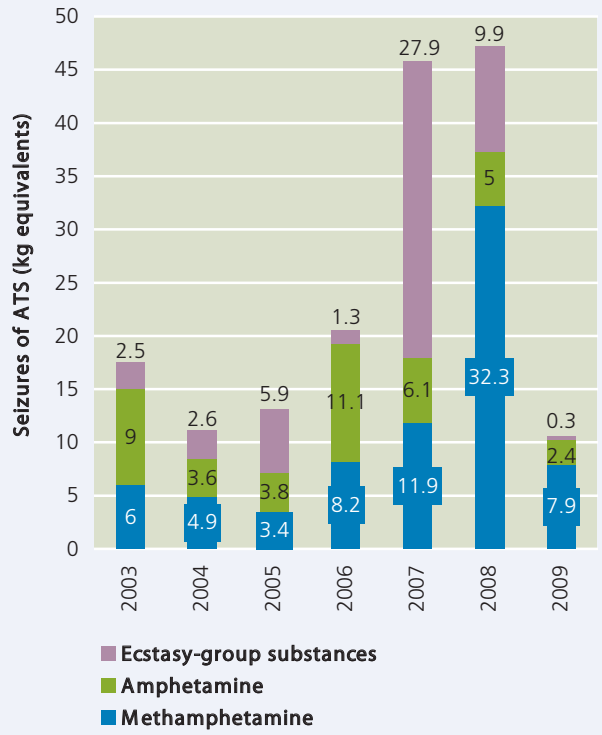
Source: UNODC ARQ/DELTA

Lithuania: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

Latvia: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

Lithuania

Lithuania has been playing an increasingly prominent role in the illicit manufacture and trafficking of ATS in Europe in recent years. Like Estonia, Lithuania reports that manufacture of methamphetamine is taking place, most likely from P-2-P sourced from outside the EU, in contrast to central European methamphetamine manufacturing methods (e.g. Czech Republic) which use ephedrine and pseudoephedrine as precursors.[55] In 2009, an illegal methamphetamine laboratory of medium capacity was detected in the Alytus district[56] (southern Lithuania). Manufacture of amphetamine is also being reported, and the substances are destined for markets in other European countries. Ecstasy shipments transit the country and are trafficked eastwards to destinations such as Belarus and the Russian Federation.

Lithuanian organized crime groups are believed to play a significant role in the supply and trafficking of ATS to the Russian Federation, Belarus, Scandinavia and the Baltic States.[57] Lithuania's geographical location leaves it well-placed to serve as a transit country for ATS trafficking from both East to West and West to East. ATS smuggling from Lithuania to Belarus (and vice versa) appears to be a well-established route for trafficking ATS and their precursors.

55 EMCDDA, 2010b.

56 Lithuania, 2011.

57 Europol, 2011a.

Amphetamines and ecstasy use are reportedly on the rise. The annual prevalence rate of ecstasy is estimated at 1% (up from 0.4% in 2004), while last year use of amphetamines more than doubled from 0.3% in 2004 to 0.7% in 2008. Country analysis suggests that methamphetamine is used more than amphetamine, although distributors often describe the drug they are selling as 'amphetamine' regardless of whether it is amphetamine or methamphetamine.[58]

Latvia

Latvia is mainly used as a transit country for transporting drugs to its neighbouring countries. According to the EMCDDA, synthetic drugs are brought into Latvia from Estonia, Poland, the Netherlands and Germany.[59] ATS (as well as synthetic cannabinoids)[60] are among the most frequently used drugs in Latvia.[61] As with other Baltic and Nordic countries, methamphetamine has recently appeared on the drug market where it seems to be partially replacing amphetamine. Latvia reports a very high proportion of drug-related offences related to methamphetamine (33%).[62]

ATS seizures remain fairly small. Between 2007 and 2009, there was a notable increase in the number of seizures of methamphetamine and a corresponding decrease in the number of seizures of amphetamine and ecstasy pills (although seizures of all three were low in 2009). The quality of methamphetamine was reportedly three times higher in 2008 than in 2007.[63]

At 1.5%, Latvia has a particularly high ecstasy annual prevalence rate for Europe (more than double the average), with the annual prevalence rate of amphetamines (0.9%) also being considerably higher than the European average. In 2008, amphetamines accounted for 26% of the most commonly used primary substances by first-time clients in treatment in Latvia; second only to heroin (34%).[64]

EASTERN AND SOUTH-EAST EUROPE

Bulgaria

Bulgaria continues to be associated with the manufacture of tabletted amphetamine (Captagon)[65] for markets in the Near and Middle East, with the detection of three illicit amphetamine-manufacturing laboratories being reported in 2009 – the most laboratories reported since 2006 (also three) – and three in 2010.[66] No illicit methamphetamine laboratories had been reported since 2001 but in 2010, two mobile methamphetamine laboratories were seized. Organized criminal groups operate in Bulgaria, manufacturing, tabletting and trafficking amphetamine out of the country to the Near and Middle East. Apart from Bulgarian citizens, national authorities have identified the involvement of nationals from Lebanon, the Syrian Arab Republic, the Islamic Republic of Iran, Serbia and Turkey. Ephedrine, a precursor chemical used in the manufacture of methamphetamine, was recently identified as the most frequently smuggled precursor chemical in Bulgaria.[67]

Following high amphetamine seizures in 2004 (1.45 mt) and 2005 (1.1 mt), the quantity of seized amphetamine has been falling, most notably in 2007 when seizures fell to less than a quarter of the 2006 total. National authorities point to a significant reduction in the trafficking of amphetamine directed to Turkey and Middle Eastern countries in 2007. While 2008 saw a considerable increase in amphetamine seizures, they remained far below the number of seizures during the period 2004-2006 and they fell again in 2009. Bulgarian authorities attribute this decline to a decline in illicit domestic manufacture and a shift towards amphetamine manufacture in the Middle East. Since 2004, authorities have reported sizeable annual seizures of ecstasy of up to 80kg.

In 2009, it was reported that the number of young people using amphetamines and ecstasy was increasing – between 2007 and 2008, the reported annual prevalence rate of amphetamines use doubled, from 0.5% to 1% of the population. The annual prevalence rate for ecstasy also rose from 0.5% in 2005 to 0.7% in 2008.

58 Europol, 2011a.

59 EMCDDA, 2010c.

60 Synthetic cannabinoids such as 'spice' are frequently sold on the internet and in specialized shops as a smoking mixture. The psychoactive constituents are synthetic additives such as the cannabinoid receptor agonist JWH-018 that mimic the effects of tetrahydrocannabinol (THC) in cannabis.

61 Latvia, 2010.

62 EMCDDA 2010a.

63 EMCDDA 2010a.

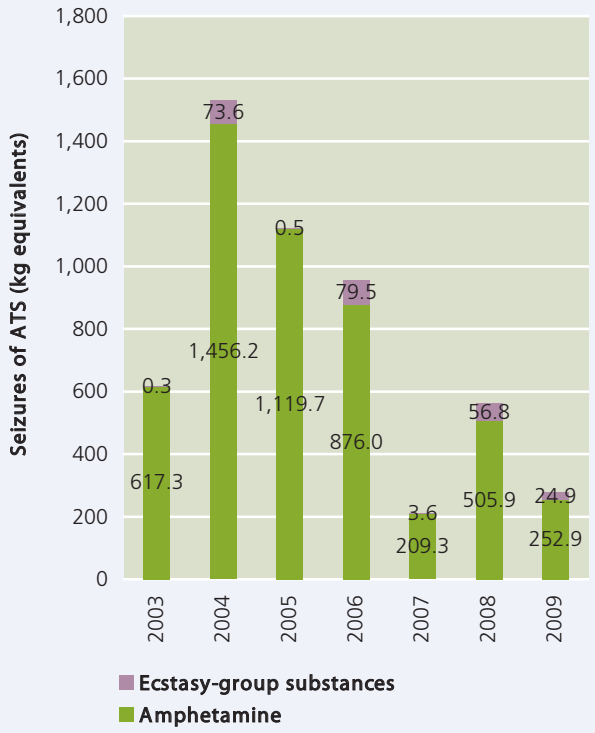
64 The treatment data collection system in Latvia does not distinguish between methamphetamine or amphetamine use. (Latvia, 2010).

65 Captagon was originally the trade name for fenethylline, a synthetic stimulant. Analysis of seized Captagon pills show that most contain amphetamine and other ingredients such as caffeine and theophylline.

66 UNODC, 2011c.

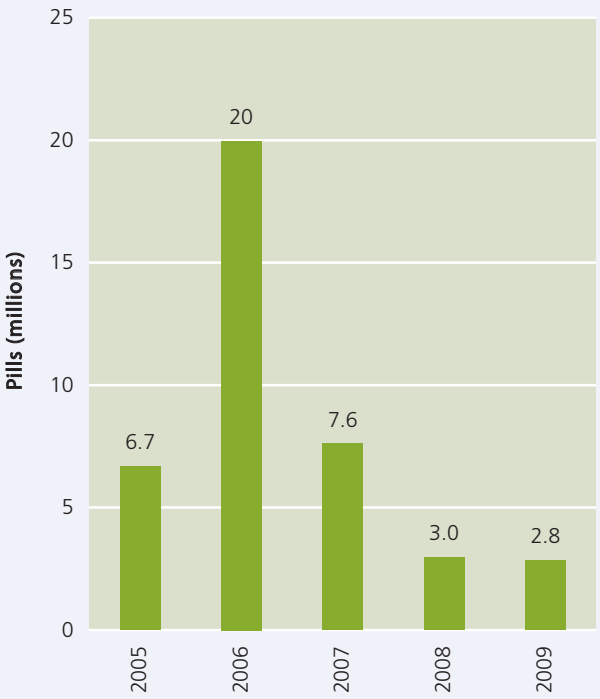
67 Bulgaria, 2010.

Bulgaria: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

Turkey: seizures of Captagon pills, 2005-2009



Source: UNODC ARQ/DELTA; Turkey, 2011

Turkey: Captagon Trafficking Routes



Source: Turkey, 2011
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Turkey: seizures of ecstasy, 2005-2009



Source: Turkey, 2011

Turkey

Illicit laboratory activity concerning the manufacture of Captagon continues to be reported by Turkey, though it appears to have decreased significantly. Following the record seizure of 12 illicit amphetamine (Captagon) laboratories in 2006, only one laboratory was reported in 2009. The laboratory, which was described by Turkish authorities as a pill pressing facility, was located in an industrial facility in Istanbul, and was seized in February 2009 along with over 2 million Captagon pills, press moulds and pill making machines.

Seizures of Captagon in Turkey declined sharply between 2006 and 2009, from almost 20 million pills in 2006 to 2.8 million pills in 2009[68]. Further decreases were reported for 2010, which might point to a decline of illicit manufacture in the country. A recent report by the Turkish National Police concluded that criminal organizations have shifted Captagon manufacture from South East Europe to countries closer to the Captagon market in the Near East and Middle East, such as the Syrian Arab Republic.[69] Captagon is not widely used in Turkey. Turkey remains a key transit country for the trafficking of Captagon, which Turkish authorities claim is now smuggled into Turkey from the Syrian Arab Republic and then shipped to Middle Eastern and Arabian countries, particularly Saudi Arabia.[70]

Turkey continues to be a destination country for ecstasy trafficked from Western Europe. Ecstasy seizures showed an upward trend until 2005 when they began to decline sharply. Despite decreasing to a quarter of the total number of pills seized in 2005, in 2009, Turkey recorded the largest ecstasy seizure in Europe (432,513 pills). In 2008, ecstasy seizures took place in 65 out of 81 provinces, showing that ecstasy is widely available in the country.[71] Preliminary figures for 2010 indicate a sharp increase in ecstasy seizures.

In recent years, many pills sold as ecstasy have been found to contain McPP (*meta*-Chlorophenylpiperazine)[72] or BZP (1-Benzyl piperazine) as an active ingredient instead of MDMA. Research suggests this may explain a possible reduction in demand for ecstasy, which could in turn account for the decline in seizures since 2005.[73]

Methamphetamine was seized in Turkey for the first time in 2009. Methamphetamine is being smuggled overland from the Islamic Republic of Iran into Turkey then trafficked by air to East and South-East Asian countries such as Japan, Malaysia, Indonesia and South Korea.[74]

Serbia

Evidence of ATS manufacture first emerged in Serbia in 2007, with the discovery of an illicit amphetamine laboratory in the Belgrade suburb of Krnjaca. In 2008, another laboratory was reported. ATS and their precursors are smuggled into Serbia through the Balkan Route, from western Europe. In 2009, almost 2 tons of phenylacetic acid – a precursor of the substance P-2-P used in the manufacture of amphetamines – were seized in Serbia. Two large illicit amphetamine laboratories were reportedly seized in Serbia in 2010. Bulgarian nationals were arrested for participating in the manufacturing process.[75]

Precursor chemical seizures & trafficking

Ephedrine and pseudoephedrine

While seizures of ephedrine and pseudoephedrine remain low in Europe, these precursor chemicals are being transshipped through Europe with increasing frequency; often via Amsterdam, Brussels, Frankfurt, London and Paris, destined for Mexico. In 2006-07 the Netherlands reported an attempted diversion of more than 200 tons of ephedrine and pseudoephedrine to Europol, while German authorities confiscated 14.5 tons of ephedrine and more than 1.6 million pseudoephedrine pills in 2008.[76] In 2010, the International Narcotics Control Board warned that pills containing ephedrine and pseudoephedrine, increasingly used to produce methamphetamine in Europe (and elsewhere) are probably being underreported.

68 Turkey, 2011.

69 Turkey, 2011.

70 72% of the Captagon seized in 2008 (2,145,000) were brought to Turkey from Syria through hiding in legal cargo and seized in Adana on its way to Saudi Arabia. This highlights Turkey's position as a transit country with regard to Captagon (Turkey, 2010).

71 Turkey, 2010.

72 A recreational drug and stimulant of the piperazine class.

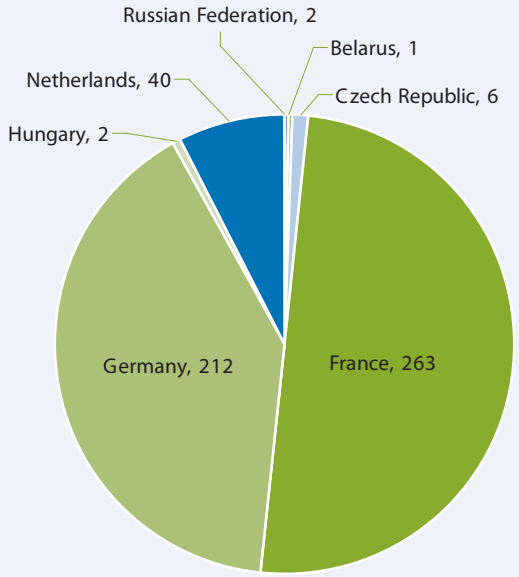
73 Turkey, 2010.

74 Turkey, 2011.

75 UNODC, 2011d.

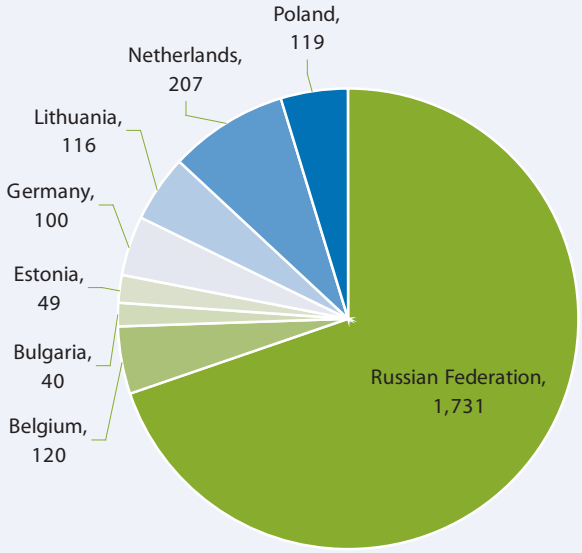
76 EMCDDA and Europol, 2009.

Europe: seizures of ephedrine (kg), 2009



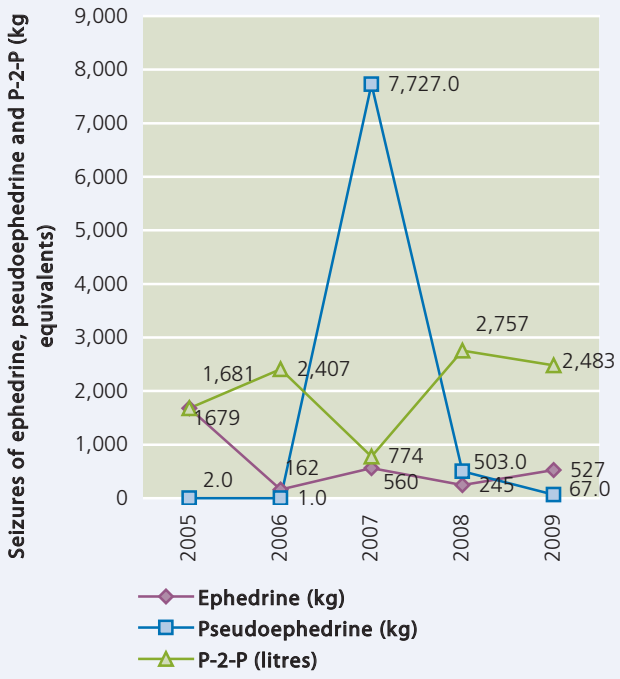
Source: INCB – Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board, 2005-2009

Europe: seizures of P-2-P (litres), 2009



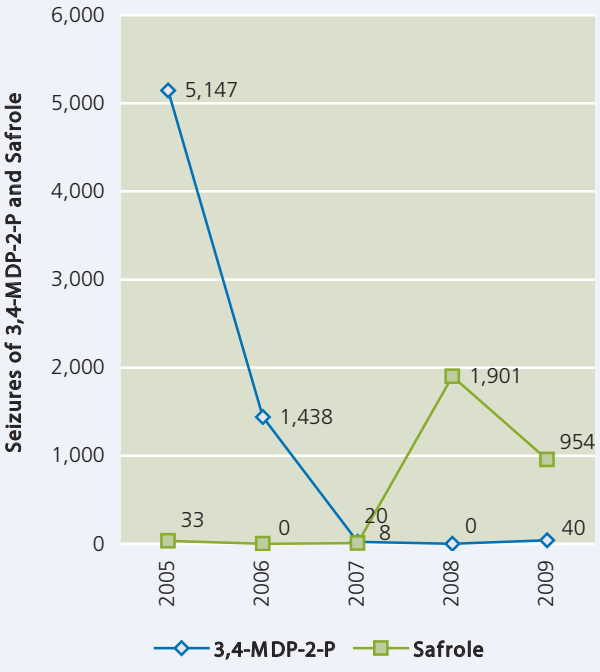
Source: INCB – Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board, 2005-2009

Europe: seizures of substances required for the manufacture of amphetamines-group substances, 2005-2009



Source: INCB – Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board, 2005-2009

Europe: seizures of substances required for the manufacture of ecstasy-group substances, 2005-2009



Source: INCB – Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board, 2005-2009

P-2-P

The Russian Federation is said to be the main source of P-2-P used in the illicit manufacture of amphetamines in Europe. In 2009, the Russian Federation reported a seizure of 1,731 litres of P-2-P – amounting to 70% of European seizures and about one third of that year's global seizures – while in August 2010, the International Narcotics Control Board was informed of a seizure of 5,000 litres of P-2-P in Belgium, a volume that matched the global total seized in 2009.[77] A relatively new trend in P-2-P trafficking is the 'masking' of the chemical (normally found in liquid form) as a powder known as P-2-P bisulphate prior to it being trafficked into Europe.

Phenylacetic acid

In some European countries where illicit amphetamine manufacture has been identified, such as Poland, P-2-P is manufactured from so-called 'pre-precursors' such as phenylacetic acid and benzyl cyanide.[78] In 2009, 1.9 tons of phenylacetic acid were seized in Serbia, accounting for the vast majority of global seizures that year. Increasing seizures of phenylacetic acid indicate that those involved in illicit ATS activity may be increasingly using this substance due to tighter controls of traditional precursors (such as ephedrine, pseudoephedrine and P-2-P).[79]

3,4-MDP-2-P and safrole

Precursors for ecstasy-group substances include safrole (including in the form of safrole-rich oils), isosafrole, piperonal, and 3,4-MDP-2-P, which are all controlled in Table 1 of the 1988 Convention. Reported global seizures of these precursors have strongly declined, reflecting the declining availability of ecstasy in Europe, one of the main markets for the substance. Seizures of 3,4-MDP-2-P in Europe have been practically non-existent since 2007, while the seizures of safrole-rich oil have increased since that time. In 2009, European seizures (954 litres) accounted for over 90% of global seizures of safrole, most of it in Lithuania (929 litres). Smaller amounts of safrole were confiscated in the Netherlands (20 litres) and the UK (5 litres). In 2008, Europe accounted for almost 100% of the global total (of which 1,841 litres were seized in Estonia).

77 INCB, 2011b. Significant recent seizures of P-2-P have also been made in Bulgaria, Estonia, Germany , Lithuania, Netherlands, Poland and Slovakia.

78 EMCDDA, 2010b.

79 INCB, 2011a.



AFRICA

Regional overview

The quality and availability of information on ATS trends including illicit manufacture, trafficking and domestic use remains scarce for most of Africa but the limited data that is available points to an increase in all these areas, particularly trafficking. South Africa reports most illicit ATS laboratories and illicit methamphetamine manufacture has been on the rise in that country since 2004. In North Africa, Egypt has a history of some stimulant manufacture, possibly methamphetamine in a form known locally as *Maxiton Forte*[1] prior to 2000 as well as one reported case of ecstasy manufacture in 2004. The most recent indication of illicit ATS manufacture was received in the form of an illicit methamphetamine manufacturing laboratory in Alexandria which was discovered and dismantled by Egyptian authorities in April 2010. In addition, the World Customs Organization reported a large seizure of 1.3 million ecstasy pills in Saudi Arabia in 2009 from a vessel originating in Egypt, demonstrating Egypt's potentially significant role as a departure country for ATS shipments to the Middle East.[2]

Evidence of methamphetamine manufacture emerged in June 2011, with the detection of a methamphetamine laboratory in Lagos, Nigeria. Other indications that ATS manufacture has spread to West Africa include the discovery of evidence of intended ATS manufacture in Guinea in July 2009. In 2010, the United States Government indicted members of a large international cocaine trafficking organization for, *inter alia*, the intent to establish a clandestine laboratory in Liberia for the large-scale manufacture of methamphetamine.[3]

ATS seizures reported to UNODC since 2008 continue to be small. The largest seizures are reported from South Africa (principally methamphetamine and methcathinone), Nigeria and Burkina Faso, with smaller quantities of ATS reported by Côte d'Ivoire, Egypt, Guinea, Morocco, Niger, Swaziland and Zambia since 2005. Reported seizures of ecstasy-group substances have remained low (below 10kg) since 2006.

The annual prevalence of amphetamines-group substances in Africa is estimated to be between 1.2 and 8 million people, with the highest annual prevalence rates being reported from South Africa. Nigeria, Burkina Faso, Côte d'Ivoire, Egypt, Ghana, Kenya, Senegal, Sierra Leone and several other African countries have reported ATS use in recent years. Use of methaqualone, a sedative-hypnotic, continues to be widespread in South Africa.

Africa: ATS laboratories, seizures, and annual prevalence rates (2005-2009)

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	11	17	12	20	10
	Amphetamine	-	-	-	-	-
	Other synthetic/combined stimulants	28	18	10	-	6
	Ecstasy-group substances	-	-	-	-	-
	Total	**39**	**35**	**22**	**20**	**16**
Seizures (kg)	Methamphetamine	-	9.1	13.4	-	37.0
	Amphetamine	0.04	8.4	5.4	47.3	50.3
	Non-specified amphetamines	2,084.8	833.1	701.8	3,445.0	11.0
	Ecstasy-group substances	3.7	74.5	9.2	0.1	-
	Total	**2,088.5**	**925.1**	**729.8**	**3,492.4**	**98.3**
Annual Prevalence (15-64)	Amphetamines-group substances	0.4%	0.4%	0,55%	0,6%	0.8%
	Ecstasy-group substances	0.04%	0.04%	0.25%	0.25%	0.2%

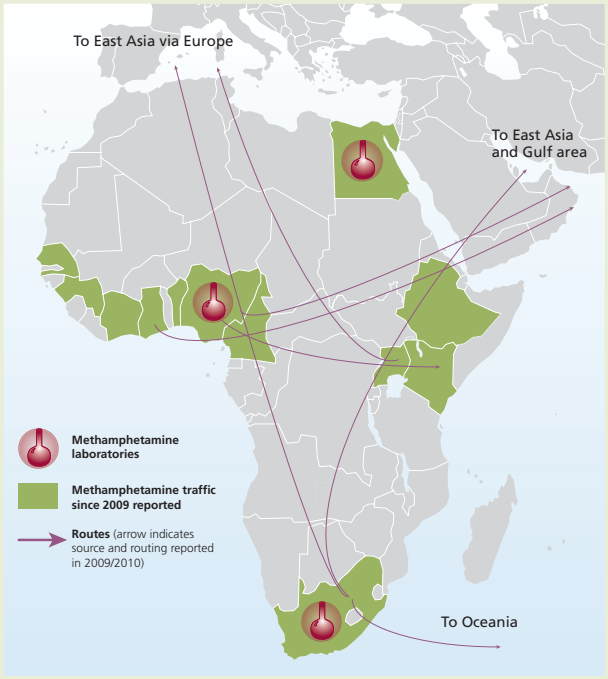
** From 2007 onwards, reported prevalence percentage is based on midpoint of range.*
- Not reported.
Source: UNODC ARQ/DELTA

1 Maxiton Forte is a trade name for a pharmaceutical preparation containing dexamphetamine, which is no longer manufactured.

2 The seizure was made by Saudi Arabian Customs at Dhuba seaport. The drugs had been concealed on board the vessel which arrived from Egypt (WCO, 2010).

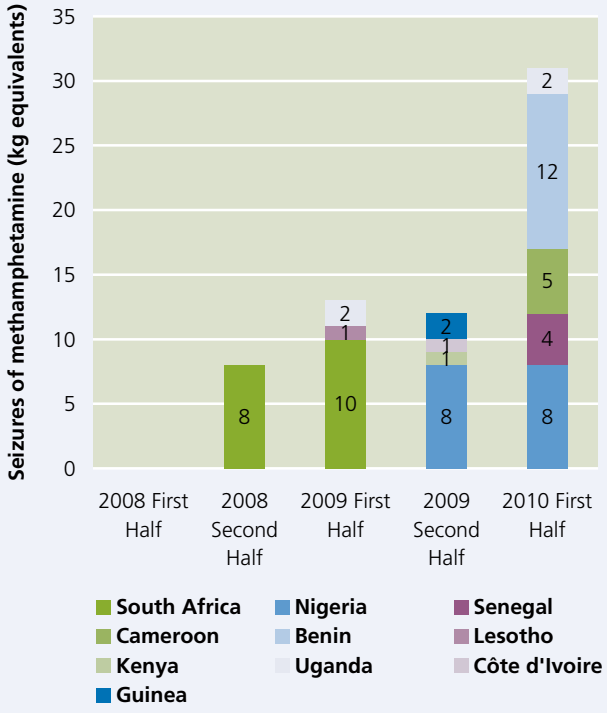
3 UNODC, 2010b.

Trafficking routes of methamphetamine in Africa



Source: UNODC, 2011a
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Lines represent origin and intended destination, not necessarily exact route, and include completed or stopped trafficking attempts. Modes of transport include by air, sea, overland, or any combination thereof.

Seizures of methamphetamine in Japan by African country of origin, 2008-2010



Source: JCITAC, 2010

Since 2006, fears have been growing that African countries are being used as trans-shipment points for shipments of precursor chemicals such as ephedrine and pseudoephedrine, the main chemicals used in the manufacture of ATS such as methamphetamine and methcathinone from Asia. The final destination of these chemicals are countries in Central and North America, and to a lesser extent, South Africa.

In 2008, INCB identified Africa as the region with the greatest number of diversions or attempted diversions of ATS precursor chemicals. Target countries of such diversions in recent years include Botswana, the Democratic Republic of the Congo, Ethiopia, Nigeria, Togo, Uganda, the United Republic of Tanzania and Zambia. However, despite the high number of attempted diversions of ephedrine and pseudoephedrine to or through Africa, hardly any seizures of these precursors have been reported by African countries. Between 2003 and 2008, ephedrine and pseudoephedrine seizures totaled 242 kg, with South Africa reporting most of these seizures.[4]

Since 2008, perhaps due to strengthened controls in certain countries, notably South Africa, and intensified screening by authorities of exporting countries of shipments of precursors destined for Africa, the mass smuggling of those substances (often in the form of pharmaceutical preparations) through Africa appears to have declined. The absence of attempted diversions and seizures of precursors does not necessarily point to a decline in illicit ATS manufacture and trafficking but highlights the flexibility with which criminal organizations operate as traffickers continue to search for alternative trafficking routes as well as substitute substances to use in the manufacture of ATS in response to stringent precursor controls and law enforcement legislation.

West and Central Africa

Since 2004, criminal organizations have been using West Africa as a transit area for smuggling cocaine from South America to Europe and North America, exploiting the region's many vulnerabilities to their advantage. There is growing evidence to suggest that criminal organizations involved in trafficking ATS, particularly methamphetamine, now exploit the region in a similar way to cocaine traffickers and look to avoid effective law enforcement to traffic ATS to other parts of the world, primarily East Asia.

4 For instance, between 2000 and 2008, ephedrine and pseudoephedrine seizures in Africa totalled only 242 kg, with South Africa accounting for most of those seizures (INCB 2009a).

Prior to 2008, no cases of methamphetamine trafficking from Africa to East Asia had been reported. However, following a small number of reported cases in 2008, 2009 saw both the number of seizures and quantities destined for East Asia originating in Africa, including West African countries such as Benin, Cameroon, Côte d'Ivoire, Ghana, Guinea, Senegal and Nigeria more than triple. The most common trafficking destinations have been Japan, followed by the Republic of Korea, with more recent reports emerging from Malaysia and Thailand. In 2009, Japanese Customs reported that stimulants from Nigeria, Uganda, Kenya, Lesotho and other African countries had been intercepted for the first time. In 2009, only 7.4% of seizures of methamphetamine trafficked to Japan were estimated to have originated in Africa; by mid-2010, this proportion had risen to 36%. Such trafficking cases are typically multi-kilo, transported by air hidden in luggage and typical of methods employed by West African syndicates for other drugs. Couriers transit via West Asia, East Africa and Europe.[5]

In 2008, almost 90% of global seizures of non-specified amphetamines were recorded in West and Central Africa, due in large part to the significant seizure reported by Burkina Faso that year (3,403 kg – reported as 'médicaments de la rue').[6] The unknown nature of the drugs seized highlights the need for a better understanding of the nature of drugs in the illicit market, particularly in this vulnerable region, as well as the urgent need for more complete and timely data in order to stem the growing danger of the region falling prey to organized crime groups involved in the trafficking and manufacture of ATS.

Nigeria

Nigeria is increasingly at risk of being exploited as a trafficking and potential manufacturing hub for methamphetamine.

Seizure reports from Nigeria have strongly fluctuated over the past five years. In 2007, Nigeria reported seizures of 530 kg of unspecified psychotropic substances, while in 2009, seizures of 712 kg of psychotropic substances were recorded. According to reports from the NDLEA, ATS, principally methamphetamine, are being trafficked with increasing frequency and in comparable amounts to other drugs such as heroin and cannabis. Between January and December 2010, 74.8 kg of amphetamines were seized at Lagos airport, making up almost one-fifth of the total quantity of drugs seized at that location.[7]

The number of major seizure cases of methamphetamine smuggling by Nigerian nationals intercepted by Japanese custom officials has risen sharply since 2009. From January to June 2010, cases of methamphetamine trafficking by Nigerian males represented a significant proportion (21%) of 24 major seizure cases.[8] From 2008 to 2010, Japanese Customs reported a total of 16 kg of seized methamphetamine found to have originated in Nigeria. A significant number of multi-kilo cases of the drug originating in South Africa, Benin, Cameroon and Senegal emerged in the same period.

In June 2011, the National Drug Law Enforcement Agency of Nigeria (NDLEA) seized an illicit methamphetamine laboratory on the outshirts of Lagos – the first evidence of methamphetamine manufacture in Nigeria. The laboratory had an estimated capacity of 160 kg - 200 kg of crystalline methamphetamine per week.



Source: NDLEA Official Communication, 2011

South Africa

ATS such as methamphetamine (known as tik), methcathinone (known as cat) and ecstasy continue to pose major threats to South Africa. Methamphetamine and methcathinone as well as methaqualone, a sedative hypnotic, are manufactured in the country for local use. Most ATS laboratories are small-scale operations, often located in residential areas.

Illicit manufacture of methcathinone was first reported in 2002. Historically, most methcathinone laboratories were seized in the Gauteng Province in the northeast of South Africa (93% in 2002). Since 2004, methamphetamine manufacture has become more prominent, as reflected by the growing seizures of the drug, as well as the growing number of clandestine laboratories found to be manufacturing methamphetamine. In 2007, the number of methamphetamine laboratories seized outpaced those of methcathinone for the first time and that trend continued through 2009.

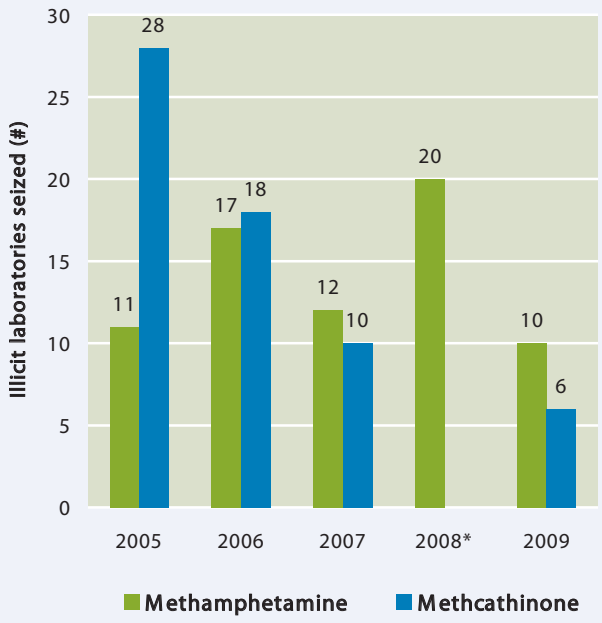
5 UNODC, 2010b.

6 There have been recent unconfirmed reports of mobile amphetamine laboratories in Burkina Faso run by Nigerian criminals but none have been discovered to date (INCSR, 2011).

7 NDLEA, 2011.

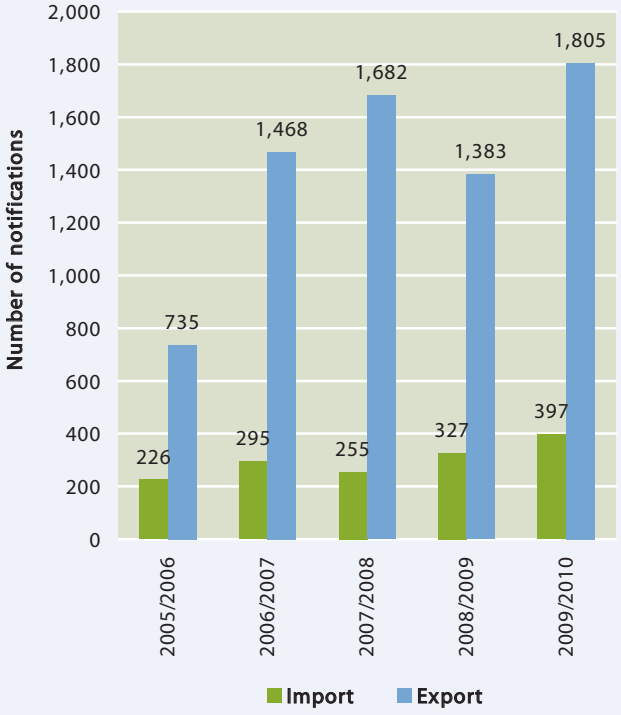
8 71% of the cases appearing on this list concern methamphetamine trafficking (Japan Customs, 2010).

South Africa: seizures of illicit methamphetamine and methcathinone laboratories, 2005-2009



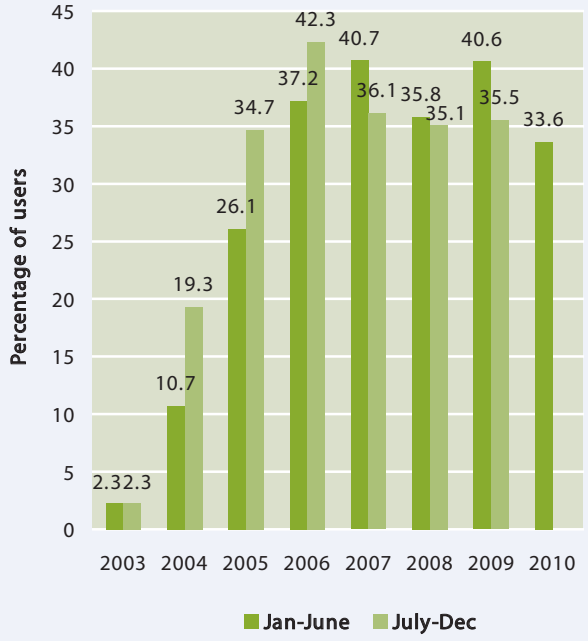
** No laboratory seizures were reported to UNODC in 2008 – however seizures of 20 clandestine laboratories manufacturing methamphetamine were reported by a government source.*
Source: UNODC/ARQ DELTA

South Africa: number of import and export notifications of precursor chemicals, 2005-2010



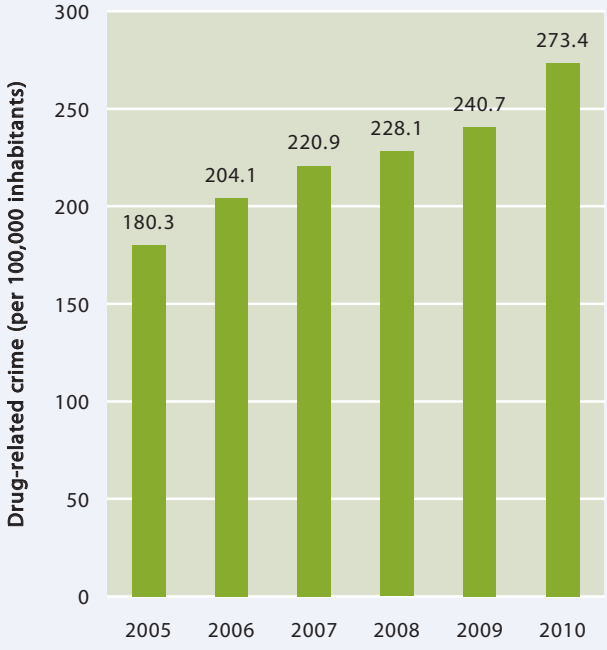
Source: South African Police Service Reports 2006-2010

South Africa: methamphetamine as primary substance of abuse: Western Cape,* 2003-2010



** From 2007, figures are for the whole Western Cape which includes Cape Town, Atlantis and Worcester. Up until 2007, figures denote the percentage of users in Cape Town alone.*
Source: SACENDU, 2010

South Africa: drug-related crime rate (per 100,000 inhabitants), 2005-2010



Source: South African Police Service Annual Reports 2006-2010

Since 2006, there has been a marked decrease in the total number of reported ATS laboratories. In 2007, 22 ATS laboratories were dismantled, compared to 35 in 2006. In 2008, the total number of ATS-related clandestine laboratories declined further, with a total number of 20 clandestine laboratories reported – a figure which remained stable through 2009.

The declining number of seized methamphetamine laboratories is inconsistent with the amounts of methamphetamine seized. In 2009, for example, while 37 kg of methamphetamine were seized in South Africa, the largest amount ever, the number of reported laboratories was only half as high as in 2008.

South Africa is a significant importer of ephedrine and pseudoephedrine, the main precursor chemicals used in the illicit manufacture of methamphetamine and methcathinone. The South African Government continues to strengthen legislation and reporting measures to prevent chemical diversion. Ephedrine, pseudoephedine and norephedrine can only be imported or exported with special permits and the prescription and distribution of pharmaceutical preparations containing ephedrine and pseudoephedrine are strictly controlled.

The number of import and export notifications of precursor chemicals has seen a sharp increase since 2005, with 397 import notifications reported in 2009/2010 (compared to 226 in 2005/2006) and 1,805 export notifications in 2009/2010 (compared to 735 in 2005/2006).[9] A direct result of such measures appears to be the decline in the number of identified and attempted diversions/attempted diversions of ephedrine and pseudoephedrine. No seizures of ephedrine, norephedrine or pseudoephedrine have been reported from South Africa since 2006.

The decline in the total amount of ephedrine and pseudoephedrine involved in identified attempts at diverting to Africa in general could be due to a number of factors, which may include traffickers placing orders for smaller shipments of ephedrine and pseudoephedrine to avoid suspicion by national authorities. Organized crime groups reportedly have also shown a renewed interest in norephedrine, a precursor for amphetamine manufacture, as a potential alternative to ephedrine and pseudoephedrine.[10] While there have been no reports of seizures of norephedrine in South Africa, in 2009, Australian authorities intercepted 22.8 kg of the substance, concealed in machinery, which had originated in South Africa.[11] Furthermore, in 2007, South Africa informed INCB of attempts to produce ephedrine from N-methyl-DL-alanine, a non-scheduled substance.

South Africa's excellent financial, transportation (including direct air links with South America, Asia and Europe) and communications facilities provide crime syndicates with ample opportunities for regional and international trafficking in all forms, including ATS. All these factors make South Africa an attractive location for drug traffickers to warehouse their stocks before shipping them on to other countries. South Africa is used as a transhipment point for precursor chemicals and ATS. The Australian Crime Commission listed South Africa and Zambia among the main points of embarkation for ATS shipments seized in Australia. Detections from these two countries accounted for about 20% of the total amount of ATS detected at the Australian border in 2008/2009.[12]

The past decade has witnessed a steady increase in ATS use in South Africa, largely driven by the sharply increasing level of methamphetamine use in the Western Cape Province and more specifically, Cape Town. High use rates of methamphetamine have remained relatively stable in the Western Cape Province since 2006, with about one third of drug users reporting the drug as their primary drug of abuse and two thirds of drug users reporting it as a primary or secondary drug of abuse. Use of methamphetamine appears to be spreading to Pretoria and Port Elizabeth.[13]

The percentage of drug treatment patients in the Gauteng Province (in the northeast of the country), reporting methcathinone as their primary or secondary drug of abuse, high in comparison with other sites in South Africa, remains comparatively stable at 4%.[14] Few patients in other drug treatment sites across the country report using this drug.

Ecstasy use is low across South Africa, with between 1% and 4% of people attending specialist substance abuse treatment facilities in South Africa reporting the drug as a primary or secondary substance of abuse.[15] While smaller amounts of ecstasy were seized from 2001-2007, no seizures of ecstasy were reported in South Africa for 2008 or 2009.

ATS use is likely a contributing factor to increasing drug-related crime rates in South Africa. Research by the Institute for Security Studies has linked the increase in crime to the higher volume of illicit drugs in the market, highlighting the growth of the drug scene since the appearance of methamphetamine on the illicit market.[16]

9 SAPS, 2006-2010.

10 INCB, 2010b.

11 INCB, 2010b.

12 Methamphetamine was detected on 27 March 2009 in large metal rollers, consigned as air cargo from South Africa to Sydney, while amphetamine was detected on 26 August 2008 in plastic bottles in parcel post from Zambia to Sydney (ACC, 2010).

13 INCSR 2008 – 2011.

14 SACENDU, 2010.

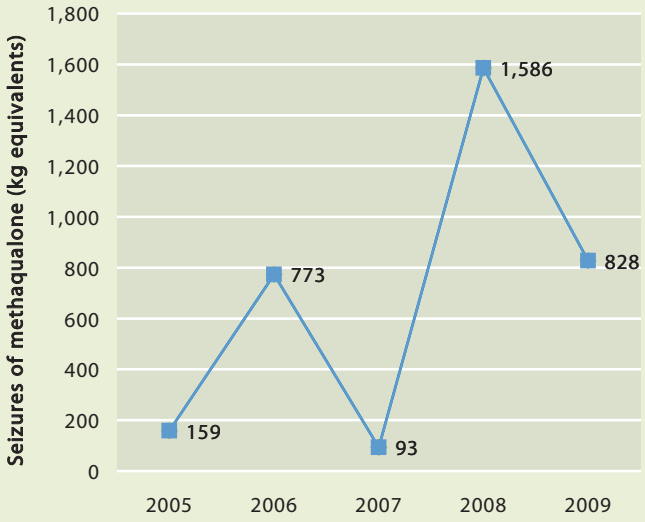
15 SACENDU, 2010.

16 ISS Africa, 2010.

METHAQUALONE

South Africa is possibly the world's largest consumer of methaqualone (known as mandrax). Methaqualone is a sedative-hypnotic often smoked in combination with cannabis (a form of drug abuse known as the "white pipe") and is smuggled into South Africa from China, India transiting countries such as Mozambique, Swaziland and Zimbabwe. Methaqualone is illicitly manufactured in South Africa (four laboratories were seized in 2009). Illicit methaqualone manufacture reportedly also takes place in clandestine laboratories in Mozambique, suggesting a desire to avoid better policed South African air and sea ports, as well as suggesting that the risk of detection may well be lower in neighbouring countries.

South Africa: reported seizures of methaqualone (kg), 2005-2009



Source: UNODC ARQ/DELTA



NORTH AMERICA

Regional overview

North America continues to be a significant market for ATS, particularly methamphetamine and ecstasy. With an estimated 3.5 million people who had used amphetamines-group substances at least once in the previous year, the region has a prevalence rate of 1.1% of the population aged 15 to 64.

The number of reported laboratory incidents in North America has increased slightly since 2006, from 8,218 to 9,641 in 2009 (+17%), after experiencing declines in 2007 and 2008. Over the past five years, Mexico has become an important manufacturing location, primarily for methamphetamine. In 2009, Mexico reported the dismantling of 191 laboratories, up from 21 in 2008 and the upward trend appears to have continued in 2010. Since 2008, Canada has emerged as a location for ecstasy, with 12 ecstasy laboratories being seized in 2009.

Methamphetamine seizures in North America remain high, due to continued high seizures in the United States as well as sharp increases in methamphetamine seizures in Mexico in 2009 and 2010. Seizures of ecstasy also increased significantly in the USA in 2009 in contrast to Canada where they declined for the second consecutive year.

North America: ATS laboratories, seizures and annual prevalence rates, 2005-2009

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	13,052	8,218	6,138	7,259	9,641
	Amphetamine	9	29	3	3	-
	Combined amphetamines	-	-	-	4	-
	Ecstasy-group substances	37	35	27	14	12
	Total	**13,098**	**8,282**	**6,168**	**7,280**	**9,653**
Seizures (kg)	Methamphetamine	7,207.3	7,810.4	6,837.2	8,087.0	15,592.5**
	Amphetamine	57.2	38.6	45.4	428.4	182.8
	Non-specified amphetamines	157.8	1,377.5	163.9	35.5	0.6
	Ecstasy-group substances	2,227.1	3,008.0	3,981.1	3,279.5	3,816.3
	Total	**9,649.4**	**12,234.5**	**11,027.7**	**11,830.4**	**19,592.2**
Annual Prevalence (15-64)	Amphetamines-group substances	1.3%	1.3%	1.3%	1.05%	1.1%
	Ecstasy-group substances	0.8%	0.8%	0.9%	0.8%	1.1%

** From 2007 onwards, reported prevalence percentage is based on midpoint of range. ** Cuarto Informe de Ejecución, 2011; NDIC, 2010b.*
- Not reported.
Source: UNODC ARQ/DELTA

Canada

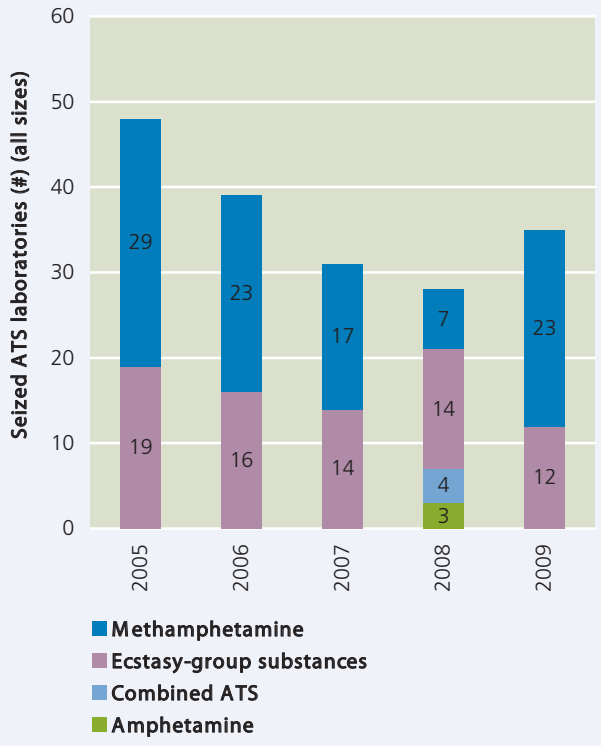
Canada continues to be a significant source for ATS manufacture and trafficking, principally for ecstasy-group substances but also methamphetamine. Illicit manufacture of amphetamine was reported in 2008 for the first time in about a decade.

Organized crime groups in Canada are the main source of ecstasy on the North American market and the primary market for ecstasy manufactured in Canada is the USA. Canadian police reported that smuggling of ecstasy across the border into the USA increased significantly between 2008 and 2009, with smuggling activity being reported from the provinces of British Colombia, Ontario and Quebec; a trend which continued from previous years.[1]

Over the last decade there has been a sharp increase in the illicit manufacture and trafficking of both ecstasy and methamphetamine in Canada. While the number of illicit laboratories detected in Canada remained stable from 2006 to 2009 (at between 30 and 40 per year), there are indications that illicit ATS activity in the country is on the increase, driven by

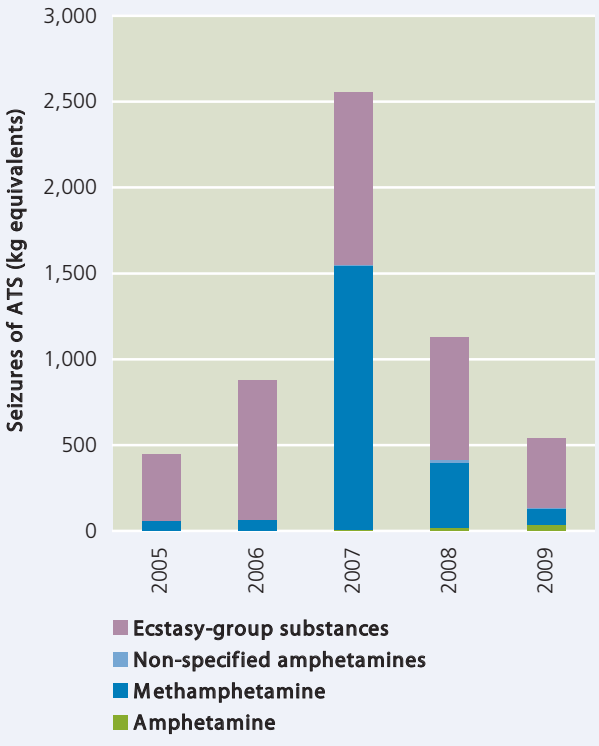
1 RCMP, 2010.

Canada: seized ATS laboratories, 2005-2009



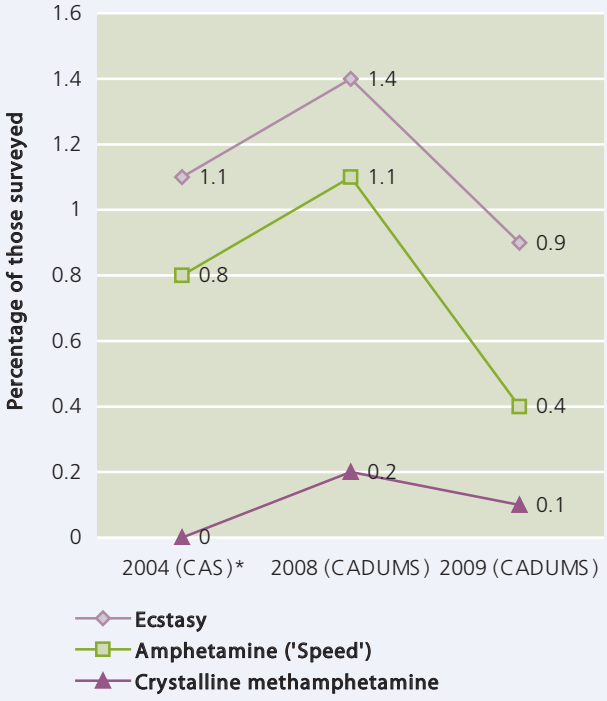
Source: UNODC ARQ/ DELTA

Canada: seizures of ATS, 2005-2009



Source: UNODC ARQ/ DELTA

Canada: past year ATS use, 2004-2009



* No data was provided for crystalline methamphetamine use in the 2004 survey.
Source: Health Canada, 2009

expanding international markets and the growing involvement of organized crime groups.

ATS laboratories seized in Canada are typically large industrial-style facilities run by organized crime groups, primarily with links to East Asia. Canada continues to strengthen ATS legislation and precursor control measures to address the issue.

In 2009, two thirds of the laboratories seized were methamphetamine laboratories while one third was for the manufacture of ecstasy. The number of methamphetamine laboratories seized in Canada more than tripled between 2008 and 2009, from 7 to 23.

Increases in the manufacture of ecstasy in Canada have coincided with a reported decline in manufacture of the drug in Europe (mainly the Netherlands and Belgium), driven in part by larger demand for ecstasy in North America. Crime networks with links to East Asia, primarily situated in British Columbia and Ontario, continued to dominate the Canadian illicit ATS drug trade in 2009. Organized crime groups with links to Asia (Viet Nam), South Asia (India), and Eastern Europe were identified in 2009 as continuing and emerging players in the domestic synthetic drug landscape. Mexican crime groups operating in Quebec were also identified as being involved in the illegal ATS drugs trade in Canada.

The shortage of ecstasy precursors such as 3,4-MDP-2-P

reported from Europe in 2008 and 2009 appears not to have affected ecstasy manufacture in Canada. In Europe, effective precursor controls curtailed the availability of the precursor used in the manufacture of ecstasy. This had resulted in a significant decline in the number of seizures of laboratories as well as seizures of ecstasy, storage and dump sites related to large-scale ecstasy manufacture.[2]

A recent trend is the increasing use of BZP to manufacture pills falsely sold as ecstasy. In 2009, BZP was available in large supply and a strong increase in cross-border smuggling of BZP pills from Canada to the USA was noted.[3]

Organized crime groups based in Canada continue to manufacture methamphetamine for both the domestic and global markets. While domestic demand for methamphetamine in Canada is reportedly stable, illicit manufacture of the drug in Canada is on the rise driven by expanding international demand. Methamphetamine is increasingly being trafficked outside the region to destinations such as Japan and Australia. Seizures of illicit methamphetamine laboratories more than tripled between 2008 and 2009, from 7 in 2008 to 23 in 2009. Methamphetamine manufacture in Canada takes place in urban areas, primarily Vancouver, the greater Toronto area and the Montreal region.

The rate of cross-border methamphetamine trafficking from or to Canada and the USA continues to be low compared to cross-border ecstasy trafficking. The vast majority of methamphetamine seized in Canada originates from domestic laboratories. However, a slight increase was noted in the number of methamphetamine shipments intercepted in Canada (both to and from the USA) in 2009.[4]

While there was a significant decline in the total amount of ecstasy-group substances seized in Canada between 2007 and 2009, several new trends were noted in 2009, including increased incidences of powder ecstasy shipments destined for foreign countries, indicating the expansion of international markets for Canadian-manufactured ecstasy.

The Pacific region, specifically British Colombia, is the primary smuggling corridor for ecstasy trafficking from Canada to the USA, as well as appearing to be the main site of illicit manufacture in the country. In 2009, a record amount of 2.6 million units of ecstasy were seized in the region. Cross-border smuggling activity was noted in other provinces, such as Manitoba, which appears to have become an important transit point for inter-provincial trafficking. An increase in domestic trafficking was also noted in 2009, reflected by significant seizures in regions which had previously reported only small amounts.

Ecstasy is also trafficked to countries in Asia and Oceania. Shipments from Canada destined for the Philippines were first noted in 2008, and continued to be detected in 2009. Mexico and Jamaica were also identified as destinations for ecstasy. While ecstasy trafficked across the border to the USA is mainly smuggled via land transport, shipments destined for Asia usually consist of smaller quantities trafficked via postal/courier services and airline passenger luggage.[5]

Estimates of the annual prevalence rate of ecstasy use among the population aged 15-64 in Canada declined significantly in 2009, to 1.1%, down from 1.7% in 2008. The annual prevalence among young people, aged 15-19, was 3% in 2009.[6] The highest rates of ecstasy use are reported from the provinces of Saskatchewan (1.6% in 2009) and British Colombia (1.3% in 2009).[7]

The 2008 British Colombia Adolescent Health Survey reported that the percentage of students who had ever used amphetamines (including crystalline methamphetamine) decreased between 1998 and 2008. In the same survey, 7% of students reported they had used ecstasy and 2% reported that they had used crystal methamphetamine.[8]

Following increases of ATS use between 2004 and 2008, the Canadian Alcohol and Drug Use Monitoring survey [9] also showed a sharp decline in past year use of ecstasy and amphetamine between 2008 and 2009, as well as an overall decline since the comparable Canadian Addiction Survey (CAS) carried out in 2004.

2 RCMP, 2010.

3 RCMP, 2010.

4 RCMP, 2010. In the Annual Reports Questionnaire for 2009, Canada reports the seizure of 20kg of methamphetamine transported from Mexico to British Columbia via the USA.

5 RCMP, 2010.

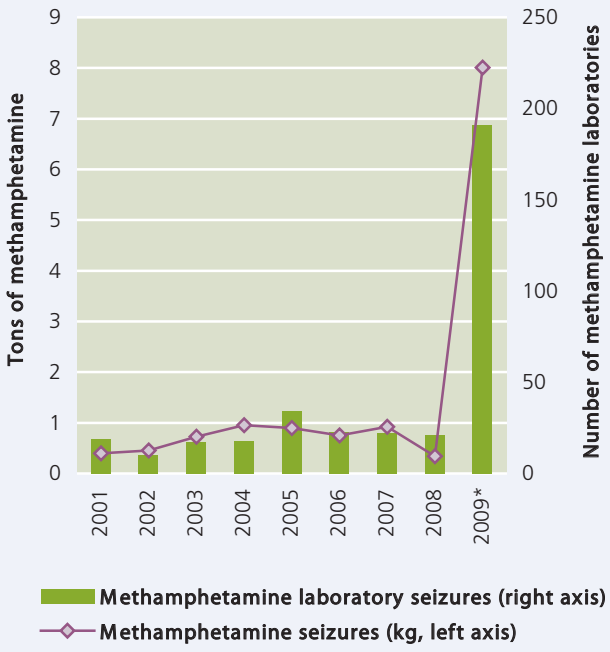
6 UNODC, 2011a.

7 Health Canada, 2009.

8 McCreary Centre Society, 2009.

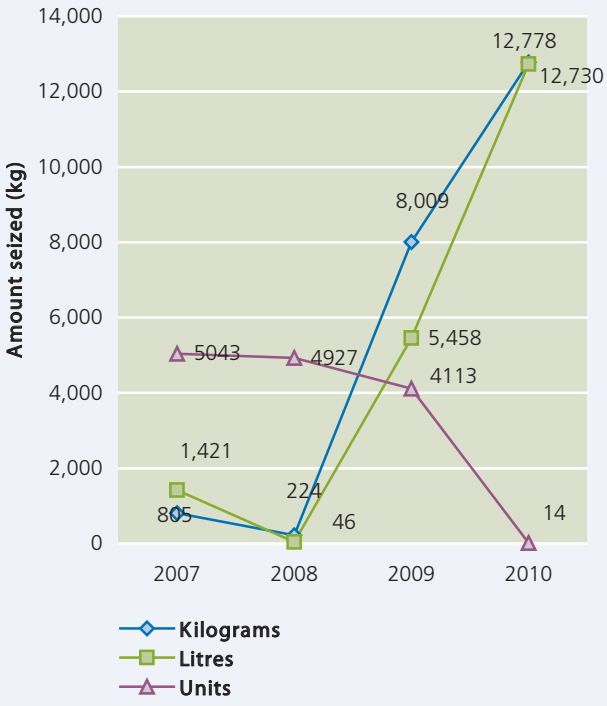
9 In 2008 and 2009, over 13,000 Canadian nationals aged 15 and older took part in the survey which was based on the previously carried out 'Canadian Addiction Survey' (CAS).

Mexico: seizures of methamphetamine laboratories and methamphetamine, 2001-2009



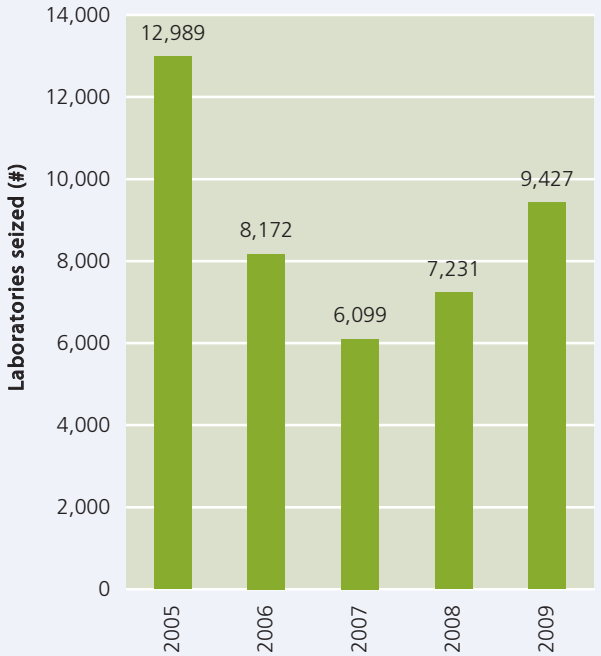
* Cuarto Informe de Ejecución, 2011
Source: UNODC DELTA

Mexico: seizures of methamphetamine, 2007-2009



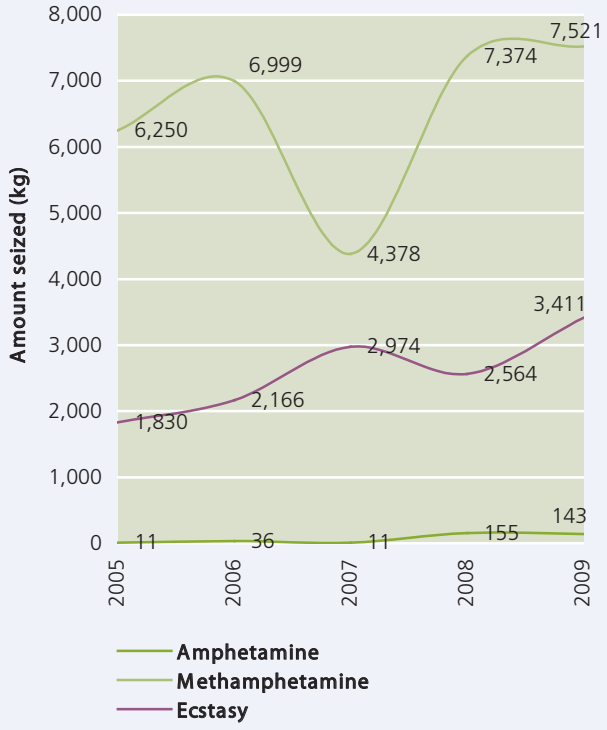
Source: Cuarto Informe de Ejecución, 2011
Data for 2010 are preliminary.

USA: methamphetamine laboratory incidents, 2005-2009



Source: UNODC DELTA

USA: ATS seizures, 2005-2009



Source: UNODC DELTA

Precursor chemicals for the manufacture of ATS are smuggled into Canada primarily from India and China, with large amounts of P-2-P and significant quantities of ephedrine being seized each year.[10] 2009 saw the resurgence of several unique synthetic drug manufacturing methods which required the acquisition of new or historically used chemicals. Safrole, for example, a chemical previously used in older manufacturing methods for ecstasy, appeared to make a comeback in 2009.[11] In addition, phenylacetylcarbinol (L-PAC) emerged. L-PAC is a chemical used solely to produce ephedrine which has only been used by the pharmaceutical industry in the past. This is evidence of organized crime groups diversifying their methods of obtaining ephedrine for the illicit manufacture of methamphetamine.[12]

Mexico

Since the mid-2000s, Mexico has emerged as an important source of methamphetamine to the USA, following strengthened enforcement and precursor control measures in the USA. Strong increases in the illicit manufacture of methamphetamine were reported from 2008 to 2009. In 2009, Mexico reported 191 methamphetamine laboratories, up from 21 in 2008. Most laboratories were discovered in the central Pacific region (in particular, the states of Michoacan, Jalisco and Sinaloa). Between 2007 and 2009, seizures of methamphetamine by United States authorities along the border with Mexico increased by 279%, as the total for 2009 amounted to 5,197 kg (compared with 1,860 kg in 2007).

The Government of Mexico has made numerous efforts to stem the trafficking of precursor chemicals to the country to reduce illicit manufacture of methamphetamine. Restrictions over the import of pseudoephedrine and ephedrine resulted in lower levels of methamphetamine manufacture in 2007 and 2008. The Government of Mexico announced a prohibition on pseudoephedrine and ephedrine imports into Mexico for 2008 and a ban on the use of both chemicals in Mexico by 2009. Since that time, reports of illicit methamphetamine laboratories have been increasing in Central America and South America.

Due to the stricter controls over ephedrine and pseudoephedrine, traffickers have resorted to alternative methods for the manufacture of methamphetamine. Such techniques either synthesize these chemicals from others more easily available or bypass their use entirely. One example is the 1-phenyl-2-propanone (P-2-P) method, or its pre-precursor, phenylacetic acid. The product obtained from the use of phenylacetic acid or P-2-P is a less potent racemic 'd/l methamphetamine'. The loss in potency of this product can be compensated by higher purity levels. There have also been indications that traffickers have added an additional purification step to obtain the traditional 'd-methamphetamine.'

Mexico made large seizures of phenylacetic acid (31 mt) in 2009, which can be used to obtain P-2-P, as well as other closely related chemicals, including some which are not under international control (such as esters of phenylacetic acid in 2008 and phenylacetyl amide in 2009). In 2010 and 2011, Mexican authorities continued to make seizures of esters of phenylacetic acid.

In Mexico, while there has been no update in the annual prevalence of amphetamines-group substance use since the last household survey in 2008, the expert perception in 2009 indicates stable trends for amphetamines use but a great increase in the use of methamphetamine over the past year. In 2009, among school students aged 12-19 in Mexico, the reported lifetime prevalence of amphetamine and methamphetamine use was 1.9% and 0.7% respectively. In previous years, however, the lifetime prevalence among youth aged 12-17 was reported.

United States of America

Methamphetamine laboratory incidents in the USA rose for the second consecutive year, from 6,099 in 2007 to 9,427 in 2009. This is a 54% increase in a period of two years. There is a growing prevalence of small-scale ('one-pot', 'shake and bake') laboratories.

'One-pot' is a variation of the lithium ammonia method of manufacture. Instead of manufacturing methamphetamine through a series of sequential steps, the one-pot method is concluded in a single reaction vessel and all ingredients are mixed together at the outset. The mixture is left to react, naturally producing the necessary ammonia, which then reacts with the lithium metal to convert the pseudoephedrine into methamphetamine.[13]

The availability of domestically manufactured methamphetamine has increased. Seizures of methamphetamine increased to 7.5 mt in 2009, compared to 7.4 mt in 2008. Methamphetamine is also reportedly at its purest level since 2005.

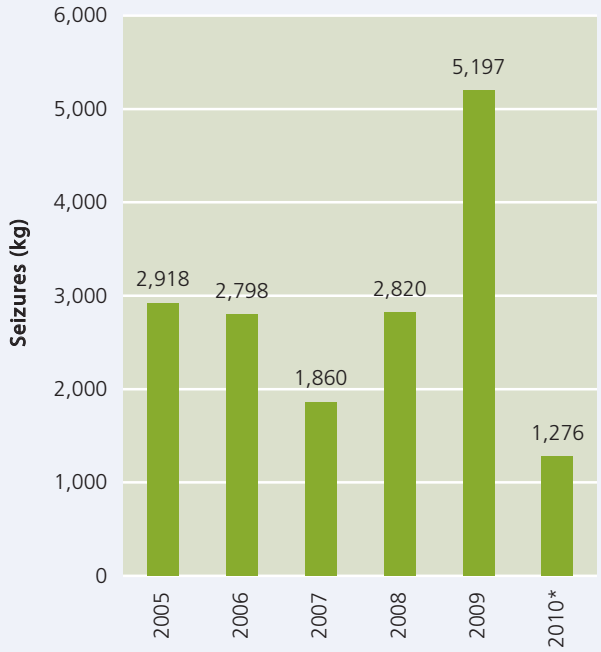
10 For example, Canadian authorities reported the seizure of over 6 tons of P-2-P in Vancouver and 550kg of ephedrine in late 2010 (UNODC, 2011c).

11 RCMP, 2010.

12 RCMP, 2010.

13 NDIC, 2010b.

USA: methamphetamine seizures along the southwest border, in kilograms, 2005-2009



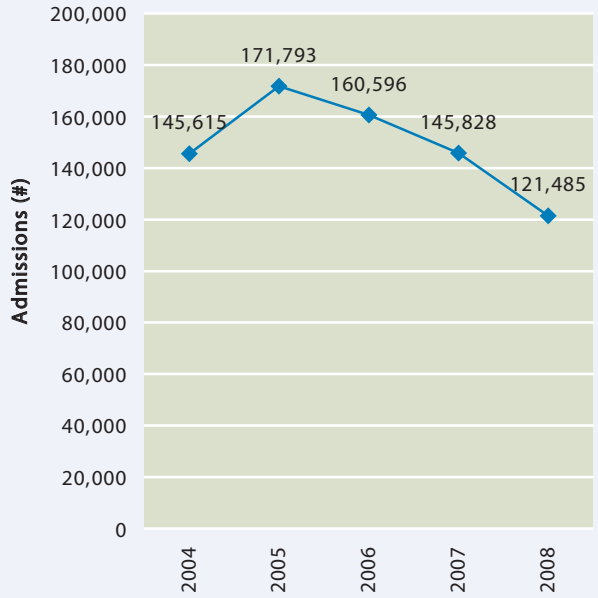
*Partial-year data.
Source: NDIC, 2010b

USA: annual prevalence of stimulants and methamphetamine use in the population aged 12 and older, 2005-2009



Source: SAMHSA, 2010a

USA: methamphetamine-related treatment admissions, 2004-2008*



* Treatment Episode Data Set (TEDS) is an admission-based system, the admissions do not represent individuals, hence one person admitted twice over a year is counted as two admissions.
Source: SAMHSA, 2010b

The main source for the manufacture of methamphetamine is the diversion of over-the-counter pharmaceutical preparations containing pseudoephedrine. Such preparations are often obtained by 'smurfing'[14] and several states in the USA have made efforts to address the issue by establishing control measures and restrictions on the sale of pharmaceutical preparations containing these precursors. Prior to 1976, prescriptions were required federally for all preparations containing pseudoephedrine.

Methamphetamine availability in the USA seems to be closely related to methamphetamine manufacturing trends in Mexico, where, following precursor restrictions in 2007, manufacture seems to have rebounded based on the seized manufacturing facilities using non-ephedrine-based methods. Seizures of methamphetamine increased significantly in Mexico from some 340 kg in 2008 to 8 mt in 2009. Criminal organizations from Mexico do not only organize trafficking of methamphetamine into the USA but have also established their own operations in the USA, mainly in the state of California.

Seizures of ecstasy are at a five-year high in the USA. In 2009, 3,411 kg were reported seized, a 15% increase compared to 2008. With a total of 114 manufacturing facilities

14 Smurfing is a method used by some methamphetamine traffickers to acquire large quantities of precursor chemicals by purchasing quantities at or below the legal threshold from multiple retail locations. Traffickers often enlist the assistance of several friends or associates in these operations.

being dismantled from 2000 to 2009[15], illicit ecstasy manufacture in the USA appears to be limited. Most seized facilities were small in scale. Ecstasy is predominantly trafficked into the USA from Canada, where Asian transnational organized crime groups are believed to be responsible for the expansion of trafficking to the USA.

In 2009, the annual prevalence rate of amphetamines-group substances was reported as 0.5% of the population aged 12-64, an increase compared to 0.3 in 2008. The number of methamphetamine-related treatment admissions showed a decline in 2007 and 2008, although there are indications that they increased in 2009.

For 2008, a total of 1,900,000 substance abuse treatment admissions aged 12 and older were reported by 48 States, the District of Columbia, and Puerto Rico.[16] Out of the total admissions, 7.2% (121,485) were methamphetamine-related.[17]

Methamphetamine-related treatment admissions peaked in 2005, when they reached 70 per 100,000, and subsequently declined every year through 2008.

The distribution, sale and use of unregulated synthetic stimulants marketed 'bath salts' is a cause for concern in the USA. Preliminary data from the American Association of Poison Control Centers showed that number of calls related to exposures to 'bath salts' increased from 303 in 2010 to 3,740 in 2011 (as at 30 June 2011). Most 'bath salts' are believed to contain MDPV or mephedrone.

15 There were no reports of ecstasy-group manufacturing facilities in 2008 and 2009.

16 Alaska and Georgia did not report admissions for 2008.

17 SAMSHA, 2010b.

SOUTH AMERICA, CENTRAL AMERICA AND THE CARIBBEAN

Regional overview

Drug control efforts in South America, Central America and the Caribbean have traditionally focused mostly on cocaine and its derivatives and cannabis. Illicit manufacturing, trafficking and use of ATS have not been perceived as a significant threat. ATS awareness tends to be low, and lack of data on the illicit manufacture, trafficking and use of ATS is one of the main challenges in assessing the situation in these subregions. Close proximity to major ATS markets (such as North America) render countries in these regions vulnerable to the risk of being used as manufacturing bases and transit points for the illicit transhipment of ATS as drug traffickers increasingly look to avoid the ever-stricter controls enforced in North America, particularly with regard to precursor chemicals used in the manufacture of ATS.

Illicit manufacture of ATS has recently emerged in countries in Central and South America which had little or no previous history of reported manufacture, such as Argentina, Belize, Brazil, Guatemala, Nicaragua and Suriname. A record high of six laboratories was reported from the region in 2009, including two methamphetamine laboratories in Brazil and Nicaragua, one ecstasy laboratory in Brazil and three combined amphetamine and ecstasy group laboratories in Guatemala.

South America, Central America and Caribbean: ATS laboratories, seizures and annual prevalence rates 2005-2009

MEASURE	DRUG GROUP	2005	2006	2007*	2008	2009
Laboratory (#)	Methamphetamine	-	-	-	1	2
	Amphetamine	-	-	-	-	-
	Other synthetic/combined stimulants	-	-	-	-	3
	Ecstasy-group substances	1	-	-	3	1
	Total	**1**	**0**	**0**	**4**	**6**
Seizures (kg)	Methamphetamine	0.2	-	-	30.4	0.0
	Amphetamine	35.6	57.6	496.7	10.5	162.9
	Non-specified amphetamines	104.6	29.1	22.7	0.4	25.8
	Ecstasy-group substances	140.8	52.8	102.5	46.4	54.5
	Total	**281.2**	**139.5**	**621.9**	**87.7**	**243.2**
Annual Prevalence (15-64)	Amphetamines-group substances	0.7%	0.7%	0.9%	1.0%	1.0%
	Ecstasy-group substances	0.2%	0.3%	0.2%	0.3%	0.3%

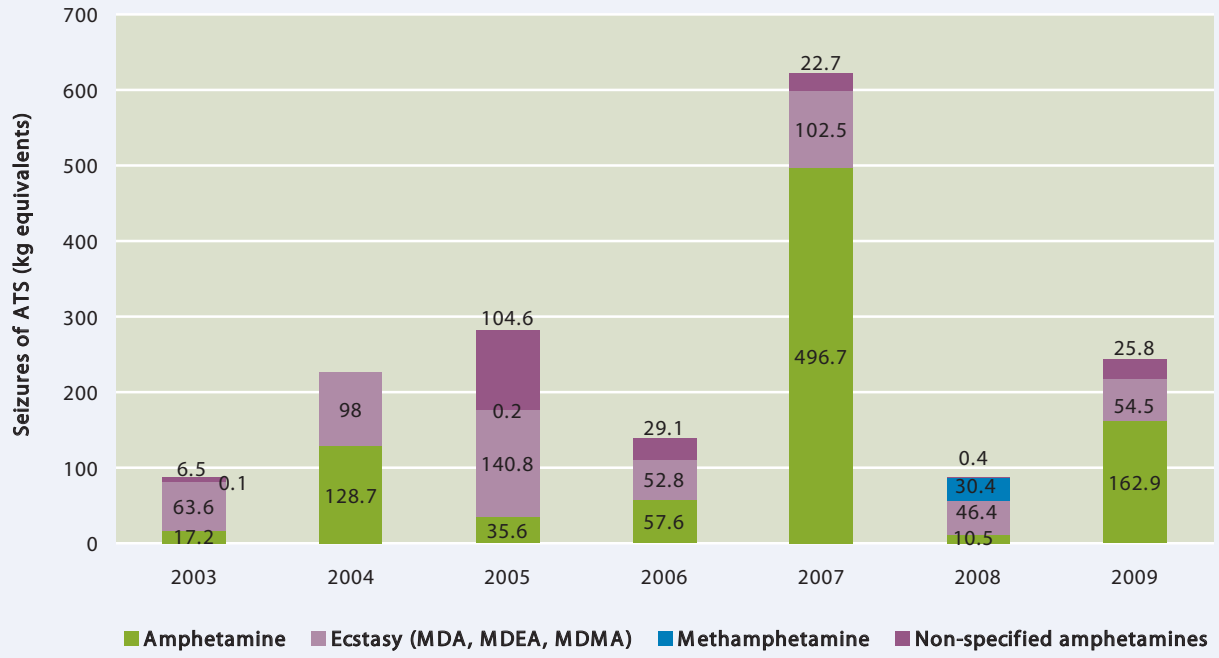
**From 2007 onwards, reported prevalence percentage is based on midpoint of range.*
- Not reported.
Source: UNODC ARQ/DELTA

ATS seizures in the region fluctuated between 2003 and 2009, reaching a peak of 622 kg in 2007, largely due to the high quantity of amphetamine seizures reported that year by Colombia (490 kg), dropping to 88 kg in 2008 and increasing again to 243 kg in 2009. Amphetamine and ecstasy-group substances have dominated ATS seizures, with only two significant seizures of methamphetamine being reported by Argentina (20.2kg) and the Dominican Republic (10.2kg) in 2008. In 2009, most ATS seizures in the region concerned amphetamine.

Concern over rising levels of use of synthetic drugs such as ecstasy among South American youths has been growing in recent years. Use of amphetamines-group substances in South America is close to the world average, with 0.5 to 0.7% of the population aged 15-64 reporting having used the drug at least once a year. Brazil, the Bolivarian Republic of Venezuela and Argentina report the highest prevalence rates of amphetamines use in South America.

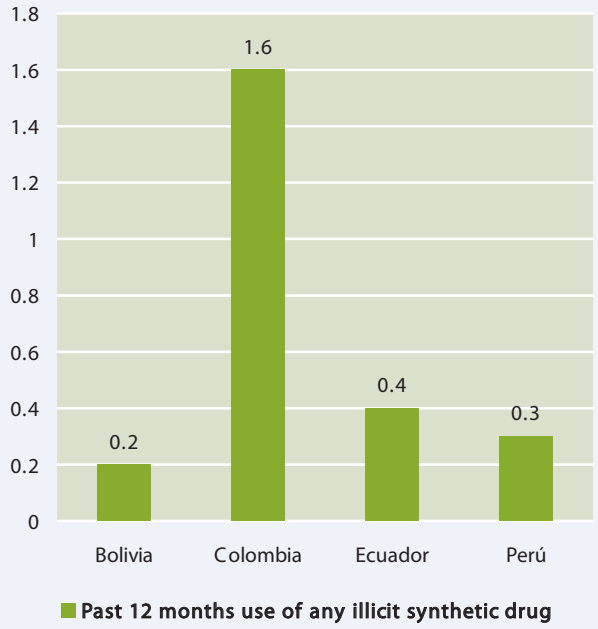
Some countries in Central America have comparatively high prevalence rates of amphetamines-group substance use, with El Salvador (3.3%), Belize (1.4%) and Costa Rica (1.3%) reporting the highest annual prevalence rates among the general population. Numerous studies carried out among various segments of general population show that the use of pharma-

South America, Central America and the Caribbean: ATS seizures, 2003-2009



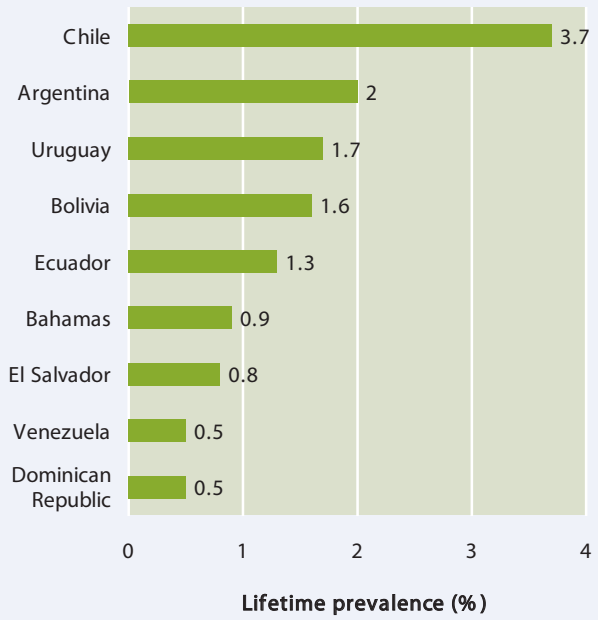
Source: UNODC ARQ/DELTA

Past 12 months use of any illicit synthetic drug among undergraduates in Bolivia, Colombia, Ecuador and Peru, 2009



Source: DROSICAN and EU/Andean Community, 2009

South and Central America and the Caribbean: lifetime prevalence of ecstasy use among youth, 2008 or 2009



Source: UNODC ARQ

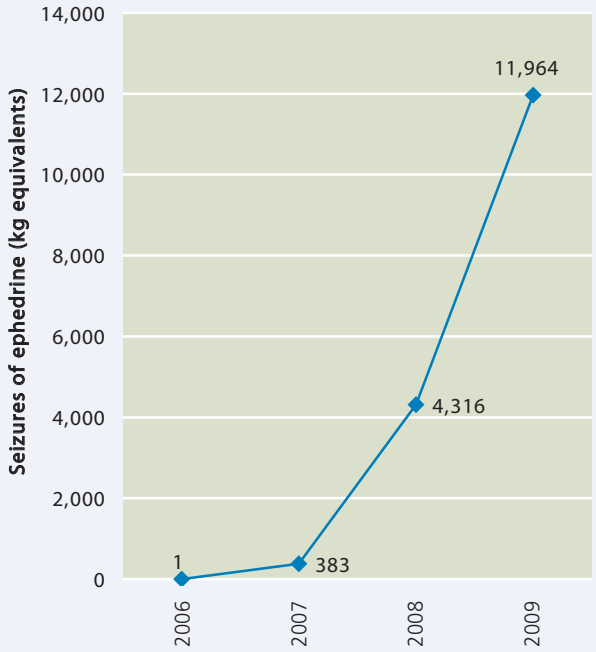
ceutical preparations containing stimulant substances is widespread in the region.

For ecstasy use, the highest annual prevalence rate in the region was reported from Argentina (0.5%). Several countries in the region, for example, El Salvador, Peru and Trinidad and Tobago reported a perceived increase in ecstasy use in 2009. A recent national survey conducted among university students in Brazil 2009 showed an annual prevalence of 3.1%.

An epidemiological study on ATS use among 22,000 students from Bolivia, Colombia, Ecuador and Peru carried out in 2009 showed a high rate of past 12 month use of synthetic drugs in Colombia (1.6%). The most frequently used drug in Colombia was found to be ecstasy, although use of LSD was also prevalent.

Ephedrine and pseudoephedrine, the main precursors used in the illicit manufacture of methamphetamine, are routinely seized in countries in Central and South America. In the Caribbean, only the Dominican Republic has been reporting seizures. Seizures of ephedrine, in particular, have shown an increasing trend. While no or insignificant seizures of ephedrine were reported in 2005 and 2006, quantities have increased significantly since then, to almost 12 tons in 2009.

South and Central America: seizures of ephedrine, 2006-2009



Source: INCB 2011a

In 2009, Argentinian authorities seized a total of almost 10.5 mt of ephedrine, accounting for about 25% of global seizures. Although manufacture in Argentina cannot be ruled out, it is likely that the large quantity of this precursor chemical was intended for other destinations, possibly Mexico.[1] Seizures of ephedrine destined for Mexico were also reported by Paraguay and Chile in 2009. Chile reported total ephedrine seizures of almost 1.2 mt in 2009.[2] In July 2010, Guatemalan police reportedly seized over half a million capsules containing ephedrine close to the Honduran border.[3]

Seizures of pseudoephedrine have also been increasing since 2005, with large quantities being confiscated in Central American countries in recent years.

Between the second half of 2009 and the first half of 2010, authorities in El Salvador reportedly confiscated over 42 mt of pseudoephedrine.[4] Significant seizures were also reported from Belize, Guatemala, Honduras and the Dominican Republic.[5] In Belize, pseudoephedrine is reportedly combined with cocaine and cannabis into packaged shipments for onward transit. In 2009, 423 kg of pseudoephedrine were seized in Belize. In addition, more than 40 mt of phenylacetic acid, a chemical used in the manufacture of methamphetamine, were reportedly seized by Belize Customs officials in 2010.

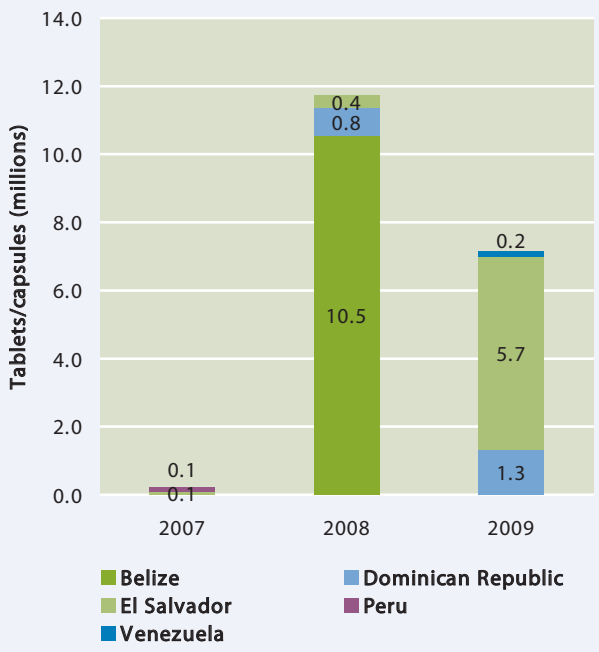
Along with Mexico, countries in Central America and the Caribbean such as Belize, the Dominican Republic and Jamaica were identified as destination countries for suspicious shipments of ephedrine and pseudoephedrine in 2009. Illicit shipments of ATS precursors have also transited Panama. European countries such as the Netherlands, Spain, Germany and the United Kingdom are also used as transit points for precursors destined for the region.

Many countries in the region have recently strengthened legislation to prohibit the import of pseudoephedrine and ephedrine in an attempt to prevent illicit ATS activity occurring on their territories.

Between 2007 and 2009, several countries in the region reported seizures of pharmaceutical preparations containing

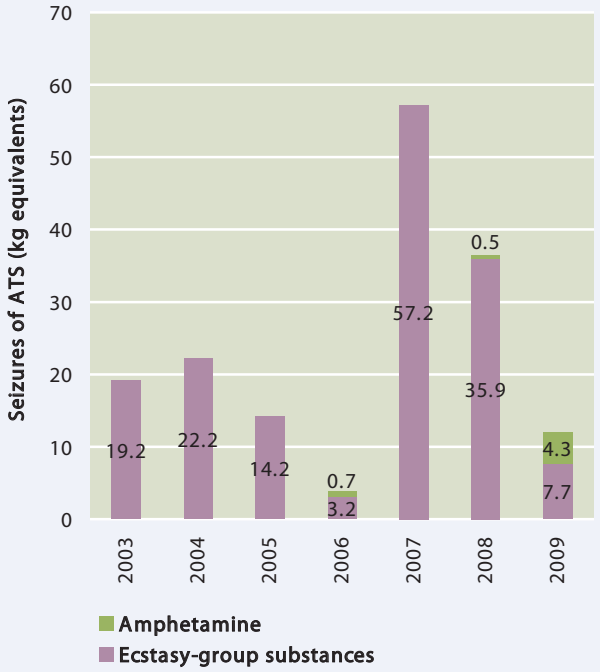
1 UNODC, 2009b.
2 INCB, 2011b.
3 UNODC, 2010b.
4 UNODC, 2010b.
5 UNODC, 2010b.

South America, Central America and the Caribbean: seizures of pharmaceutical preparations containing pseudoephedrine, 2007-2009



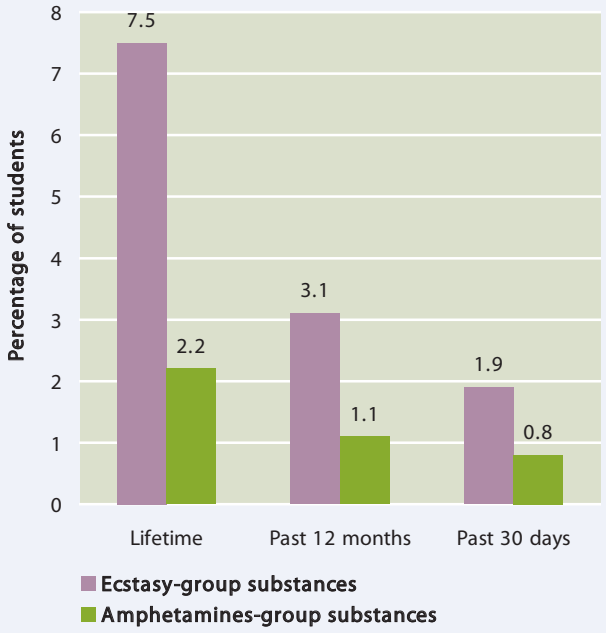
Source: OAS/CICAD/MEM, 2011

Brazil: seizures of ATS, 2003-2009



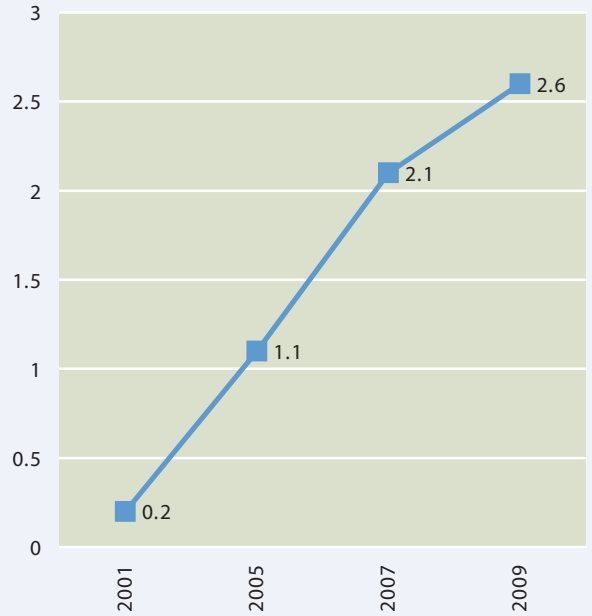
Source: UNODC ARQ/DELTA

Brazil: use of ecstasy-group substances and amphetamines-group substances among undergraduates, 2010



Source: SENAD, 2010

Argentina: trends in lifetime use of ecstasy (%) among students



Source: OAS/CICAD/MEM, 1999-2009

pseudoephedrine (in pill and capsule form), with quantities totaling over 19 million pills or capsules.[6]

Norephedrine, a precursor used in the illicit manufacture of amphetamine, was reported seized in 2009 in Costa Rica, totaling 30 kg and allegedly destined for Mexico. The precursor had entered the country through Panama but its origin was unknown.[7]

SOUTH AMERICA

Brazil

Recent reports indicate that illicit ATS manufacture is taking place in Brazil. Brazilian authorities seized ecstasy laboratories in 2008 and 2009 as well as one methamphetamine laboratory in 2009. In 2010, Brazil seized 2,740 ecstasy pills and 5,910 units of methamphetamine.

Reports point to a continuous air passenger and cargo flow of the drugs from Europe to Brazil. In 2009, the Federal Police of Brazil reportedly dismantled a significant drug courier organization that transported cocaine to Europe and ecstasy and LSD to Brazil.

In Brazil, a 2009 survey among undergraduates in the 27 state capitals in Brazil revealed that lifetime use of ecstasy was 7.5%, while use within the past 12 months and past 30 days was reported as 3% and 2% respectively. The same survey reported a 2% lifetime rate of amphetamines use and about 1% for use in the past 12 months and 30 days. Nearly 4% of amphetamine users were classified as being at moderate risk of drug dependence, second only to cannabis users (7.8%).[8]

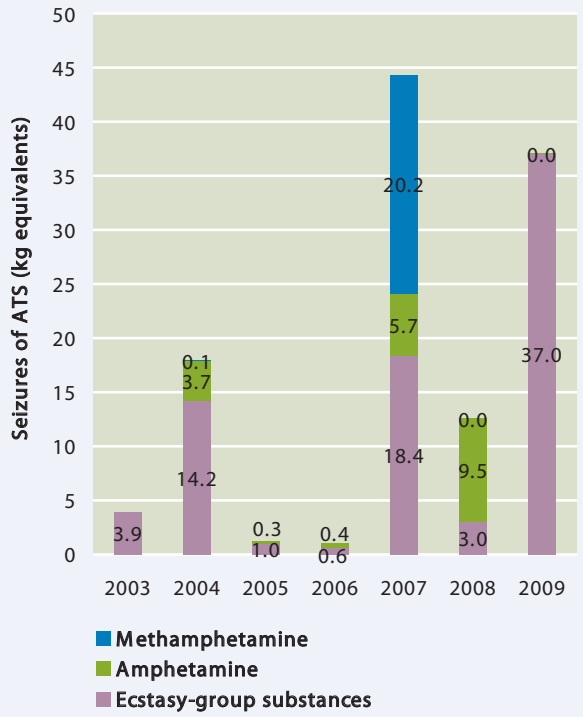
Argentina

ATS seizures in Argentina have fluctuated over the past seven years. In 2009, seizures of ecstasy pills increased more than 10 fold, from 11,072 in 2008 to 136,550 in 2009. Methamphetamine both in powdered form as well as methamphetamine pills are seized regularly. In 2008, Argentina reported the seizure of one ecstasy laboratory.

Chile

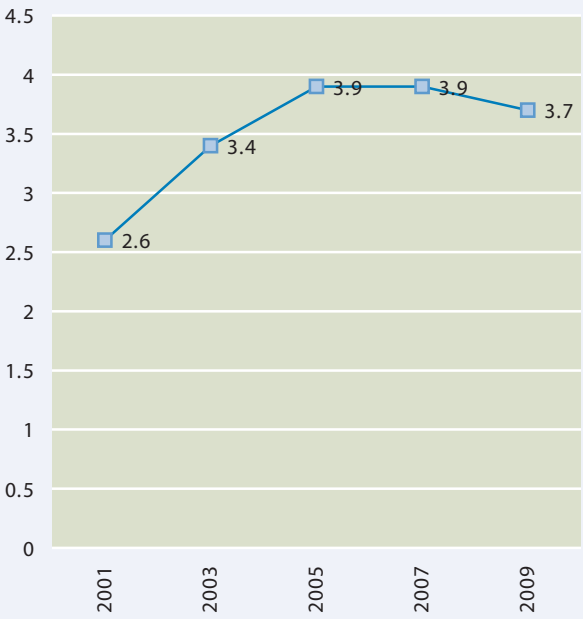
No illicit ATS laboratories have been reported to UNODC to date, but in 2009 Chile reported the seizure of one illicit laboratory manufacturing the hallucinogen mescaline. Ephedrine has been trafficked from Chile to Mexico for the illicit manufacture of methamphetamine. Reported seizures of ecstasy pills in Chile showed a decline of almost 40% from 4,153 in 2006 to 2,590 in 2008, with no seizures being reported in 2009.

Argentina: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

Chile: trends in lifetime use of ecstasy (%) among students, 2001-2009



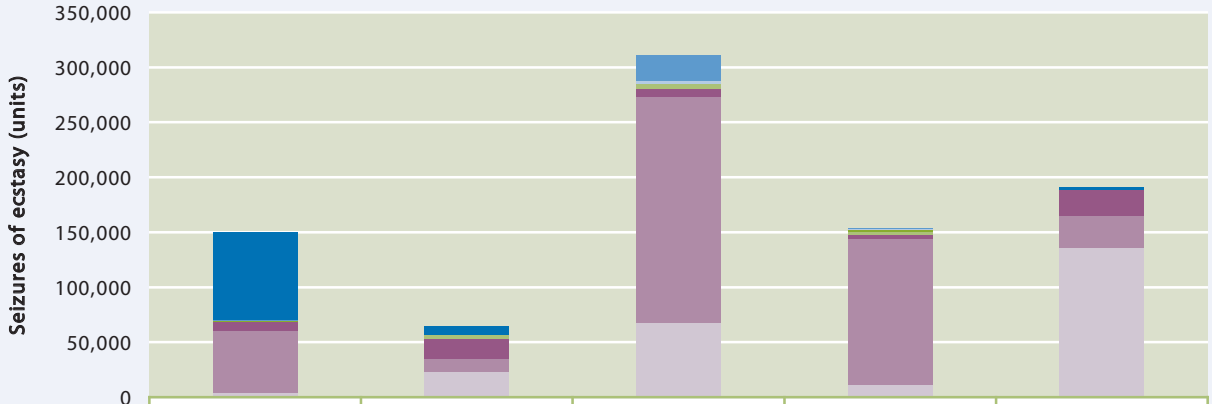
Source: OAS/CICAD/MEM, 1999-2009

6 OAS/CICAD/MEM, 2011.

7 INCB, 2011a

8 SENAD, 2010.

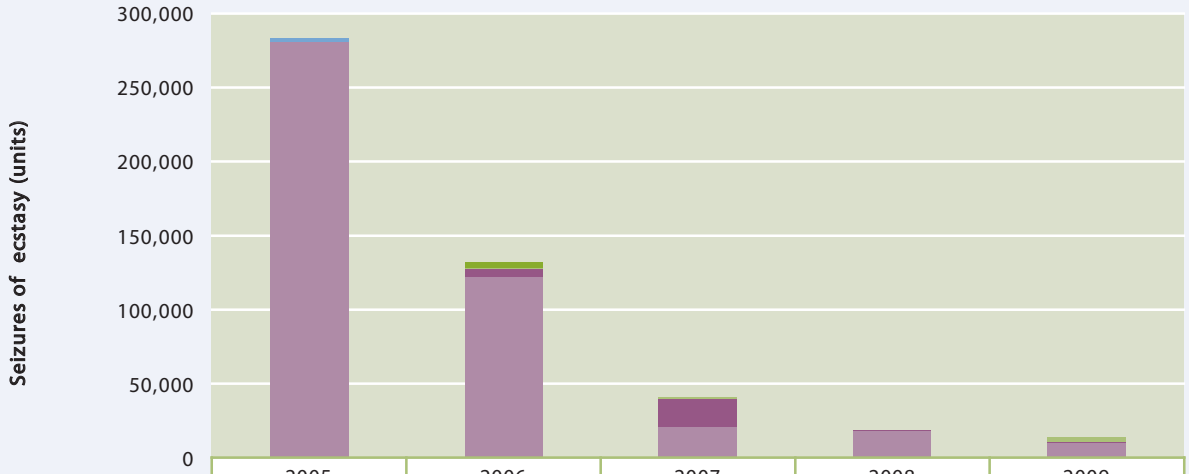
South America: seizures of ecstasy, 2005-2009*



	2005	2006	2007	2008	2009
Venezuela	79,260	7,616			2,097
Uruguay	857	0	23,474	556	0
Suriname		24	3,154	785	0
Peru	158	71	179	1,619	112
Chile		4,153	3,799	2,590	
Colombia	8,533	17,752	7,745	3,737	23,477
Brazil	57,015	11,826	205,448	133,013	28,312
Argentina	3,570	23,075	67,755	11,072	136,550

** Where years are missing, it indicates that no reports were received.*
Source: OAS/CICAD/MEM, 1999-2009

Central America and the Caribbean: seizures of ecstasy, 2005-2009*



	2005	2006	2007	2008	2009
Panama		3,448			
Jamaica		500	1,023		2,785
Bahamas		5	0	19	160
Barbados	2,445	0			
Costa Rica	138	5,968	19,021	346	416
Dominican Republic	280,722	121,882	20,861	17,885	10,116

** Where years are missing, it indicates that no reports were received.*
Source: OAS/CICAD/MEM, 1999-2009

Colombia

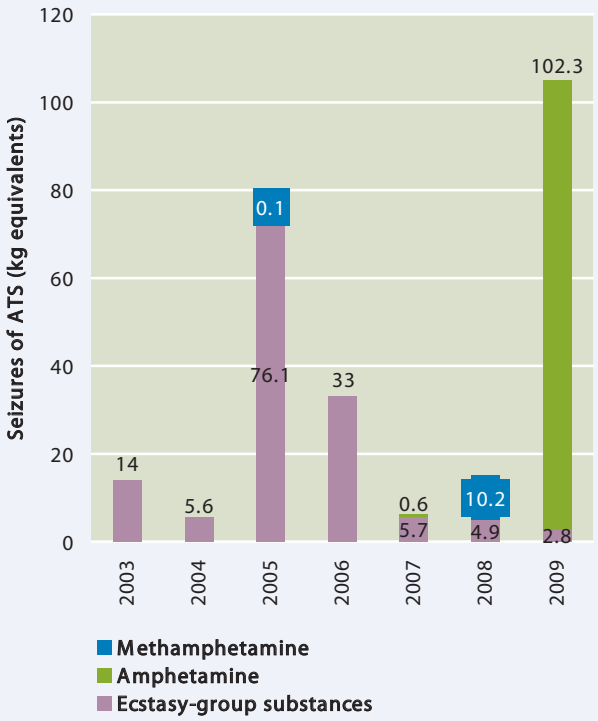
Colombia seized 126,573 ATS pills in 2009, including 23,477 ecstasy pills. In addition, a shipment of 15 million ecstasy pills seized in Poland and intended for Colombia suggested that Colombian syndicates were accepting payment for cocaine in the form of ecstasy pills illicitly manufactured in Europe.[9]

CENTRAL AMERICA AND THE CARIBBEAN

Following stricter legislative and control measures in North American countries, there is concern that illicit ATS manufacture might shift towards countries in Central America. Several countries in Central America have reported incidents related to illicit ATS manufacture. Guatemala reported the seizure of one ATS laboratory in 2008 and three in 2009, as well as the seizure of 12 mt of pseudoephedrine in 2009. In 2008, Honduran authorities dismantled some establishments used for extracting pseudoephedrine. In Nicaragua, police discovered a laboratory manufacturing illicit synthetic drugs in February 2010, and seized a small quantity of amphetamine.[10] Central American countries accounted for two thirds of illicit ATS laboratories seized in the region in 2009.

Smaller quantities of ATS seizures have been reported by several countries in the region. In 2009, small quantities of amphetamine-type stimulants were seized in Bahamas (ecstasy), Costa Rica (methamphetamine and ecstasy), Chile (amphetamine and ecstasy), Cuba (methamphetamine and unspecified ATS) and El Salvador (amphetamine). Significant quantities of ecstasy have been seized in the Dominican Republic but these declined in 2009.

Dominican Republic: seizures of ATS, 2003-2009



Source: UNODC ARQ/DELTA

Dominican Republic

In the Dominican Republic – for years an important transshipment location for ecstasy – seizures of ecstasy pills fell from 20,861 units in 2007 to 17,885 in 2008 and 10,166 in 2009. The country reported its first significant seizure of amphetamine in 2009 (102.3kg). Following a significant seizure of methamphetamine in 2008, no further seizures of the drug were reported in 2009.

Pseudoephedrine, mostly in the form of pharmaceutical preparations, has been routinely seized. In August 2009, authorities in the Dominican Republic intercepted more than 409,000 pseudoephedrine pills in a shipment en route to Guatemala and originating in Bangladesh.[11] In December 2008, authorities arrested three men in connection with the trafficking of nearly 800,000 pseudoephedrine pills falsely labelled as vitamins and destined for Honduras.

9 UNODC, 2010f.

10 UNODC, 2010a.

11 UNODC, 2009b.

ATS MARKETS: PRECURSORS AND PRODUCTION



PRECURSOR TRENDS

The starting materials or precursors that are used in illicit ATS manufacture provide an invaluable source of information that assists in the operation of law enforcement authorities in Member States. The changing trends in the use of precursor chemicals as well as the trends in their licit trade and diversions, seizures and trafficking allow an insight into the global nature of the illicit manufacture and, ultimately, the use of ATS. This chapter outlines the changing ATS trends, examines the key starting materials, discusses current manufacturing methods and the available end products in illicit markets. Specifically, the chapter looks at ephedrine and pseudoephedrine as well as 1-phenyl-2-propanone (P-2-P), phenylacetic acid and emerging trends related to these substances. With regard to precursors of ecstasy-group substances, trends and developments focus on safrole (including safrole-rich oils), isosafrole, piperonal and 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), all of which are under international control. Special attention is given to developments in the use of non-controlled substances.

Precursor trends

Illicit ATS manufacture requires several chemicals but is, to a certain extent, highly flexible. As a result of the strengthening of controls on the trafficking of the most commonly used precursors, illicit manufacturers have changed their approach. This can range from using alternate types of precursors and chemically modified precursors not under international control to the development of more complex diversion routes in the illicit manufacture and trafficking of ATS.

There are a number of measures in place that allow the monitoring of the international trade in precursor materials as well as the reporting of suspicious shipments and seizures. These measures have been implemented by Member States, often in cooperation with INCB, including seizure data reported by Governments and Pre-export Notifications (PEN), an online system which facilitates the reporting of monitoring of international trade in precursors.

One example of a successful precursor control initiative is Project Prism, an international operation initially designed to address the diversion of bulk chemicals such as ephedrine and pseudoephedrine used in the illicit ATS manufacture. From 2002 to 2010, the operation resulted in the investigation of suspicious shipments and the seizure of 66.5 mt of precursors intended for the illicit manufacture of ATS. Project Prism was extended in 2008 to include pharmaceutical preparations containing ephedrine and pseudoephedrine.

Sources of precursors

The main source of precursor chemicals for illicit ATS manufacture is their diversion from licit markets or trade routes. While not a reflection of illicit trafficking, information on importing and exporting countries of precursors allows a view of global trade routes and thus possible routes that could be targeted for diversion by traffickers. Data from INCB and the Global Trade Atlas illustrate import and export trends for the main countries involved in the trade of ephedrine and pseudoephedrine.

In 2009, India, Germany, the USA, Singapore and Taiwan Province of China were the top exporters of ephedrine with India responsible for 63% (88,416 kg) of global trade. The major importing countries of ephedrine in 2009 were Egypt and Nigeria. Imports of ephedrine into Egypt have shown an increasing trend: none were reported before 2008 to 7,258 kg in 2008 and 64,763 kg in 2009. India reported 50% (533,838 kg) of global exports of pseudoephedrine in 2009; the other main exporters were Germany, Taiwan Province of China, Singapore and Switzerland. The USA was the leading importer of pseudoephedrine (186,099 kg) in 2009, followed by Singapore and Taiwan Province of China. Under the PEN system, ephedrine and pseudoephedrine shipments were reported by 34 countries exporting to 125 countries in 2009 and 46 countries exporting to 146 countries in 2010.

With regard to the legitimate trade of other ATS precursors, there have been some notable trends from 2008 to 2010. According to INCB, P-2-P is mainly exported to two countries in West Asia which were responsible for 75% and 95% of total exports in 2008 and 2009, respectively. The main importer of phenylacetic acid from 2008 to 2010 was Mexico with 2,472 mt in 2009 and 132 mt in 2010. The legitimate trade of the ecstasy-group precursor safrole has shifted towards

Precursor seizures

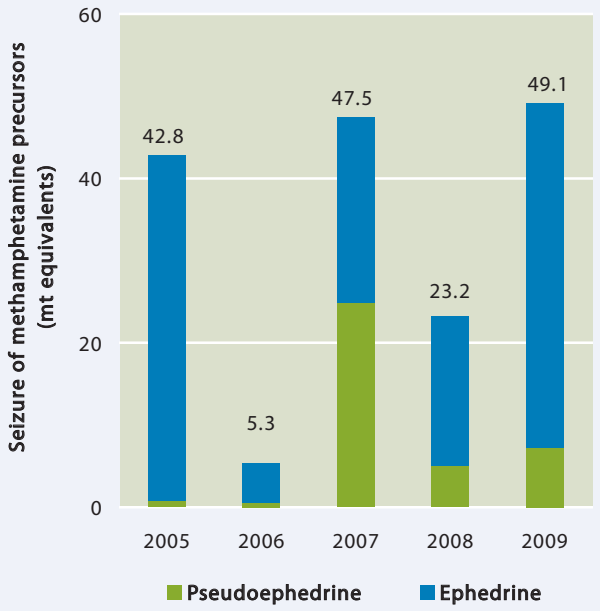
Precursor seizure data are typically used to illustrate that illicit manufacture is taking place in a given country or region. It is, however, important to recognize that seizure data can only provide a partial (and qualitative) picture of precursor availability. Diversions and stopped shipments following regulatory interventions are not included in the traditional seizure statistics; neither are domestic diversions, followed by onward smuggling. This applies also to diversions of pharmaceutical preparations containing controlled precursors (e.g. ephedrine and pseudoephedrine), including the numerous small-scale diversions or purchases of over-the-counter preparations, which provide the raw material for the thousands of clandestine methamphetamine laboratories seized in the USA and Oceania. Finally, substitute chemicals and pre-precursors not under international control are not widely recorded, although the number of reported seizures is on the increase.

In general, precursor seizure successes may be accounted for by better focus and/or capacity of law enforcement authorities and better regulatory control, possibly related to greater awareness of the ATS problem as a whole. Varying law enforcement strategies in different countries may also account for differences in reported precursor seizures and the extent of illicit activity.

Precursor seizure statistics therefore tend to show more the impact from national and regional initiatives, major seizures, and the qualitative development of local drug markets, versus providing a quantitative measure of precursor availability. Some recent examples of qualitative changes include:

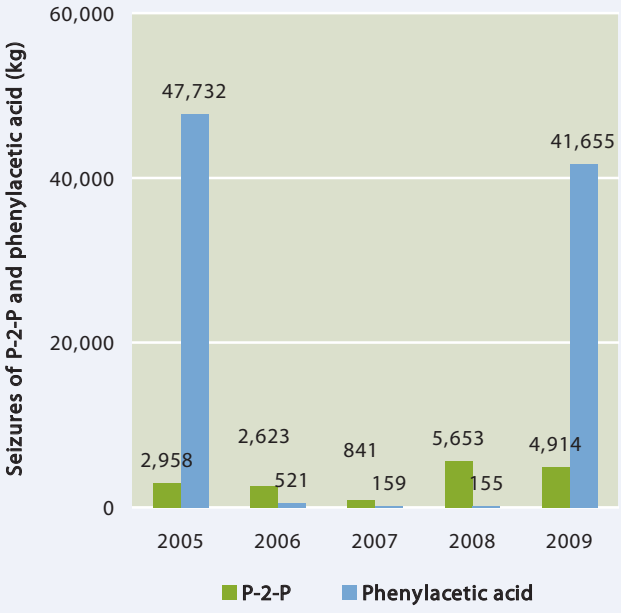
- The more frequent use of different forms of controlled precursors in clandestine ATS manufacture, including,
  - pharmaceutical preparations containing ephedrine and pseudoephedrine
  - natural raw materials such as safrole-rich oils (containing ecstasy-group precursors)
- The appearance of a number of substitute chemicals of controlled precursors, including methyl, ethyl, isobutyl, amyl esters of phenylacetic acid (precursor of P-2-P), and the methyl glycidate derivative of the ecstasy-group precursor 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P)
- The impact of chemical controls in an increasing number of traditional transit countries is forcing the establishment of new trafficking regions that are less well prepared (e.g. Africa), as evidenced by increasing reports of diversion and smuggling in countries of those regions.

Global seizures of methamphetamine precursors, 2005-2009



Source: INCB, 2009b, 2010b and 2011b

Global seizures of 1-Phenyl-2-propanone(P-2-P) (Litres) and phenylacetic acid (kg)



Source: INCB, 2009b, 2010b and 2011b

sassafras oil and other safrole-rich oils. In 2010, 39 shipments of 101,840 litres of safrole-rich oils were recorded, compared to 185 litres in 2008.

Precursors for methamphetamine and amphetamine

Methamphetamine precursors: *ephedrine and pseudoephedrine*

Ephedrine and pseudoephedrine are the main precursors for methamphetamine and can be converted to the drug by a number of relatively simple reductive synthetic methods. Both substances, in their bulk form, are under international control and are also precursors for the stimulant methcathinone, synthesized through a simple oxidation process.

Global seizures of ATS precursors have fluctuated significantly, continuing the trend seen from 2001 to 2006. In 2007, 23 countries seized 21.8 mt of ephedrine with the top three being Panama (10 mt), followed by China (5.8 mt) and Mexico (3.7 mt). These totals decreased in 2008 with 23 countries reporting seizures of 18.2 mt and Mexico reporting the most seizures of 2.8 mt. There was an increase in total global seizures in 2009 to 41.9 mt and China accounted for 65 % of seizures with 28 mt of ephedrine. The amounts of pseudoephedrine seized from 2007 to 2009 decreased with 15 countries reporting the seizure of 25.3 tons in 2007; most of the substance being seized by Mexico (12.2 mt). For Mexico, the decrease to 5.1 mt in 2008 and 7.2 mt in 2009 coincides with strenghtened Governmental monitoring of shipments of bulk ephedrine and pseudoephedrine and the resulting increase in the complexity of diversion routes used by traffickers. The decline may also be attributed to the continuing trend in the shift in metamphetamine precursors away from bulk raw materials to pharmaceutical preparations containing ephedrine and pseudoephedrine, which are not subject to similar international controls.

However, there has been a significant increase in the monitoring of the shipment of pharmaceutical preparations containing ephedrine and pseudoephedrine and a number of countries have introduced stricter control measures in recent years. The success of these measures is evidenced by the increased percentage of methamphetamine precursor seizures reported to the INCB that contain pharmaceutical preparations. Of the 35 cases reported under *Operation Crystal Flow* in 2007, 11% concerned pharmaceutical preparations containing ephedrine and pseudoephedrine. This percentage increased to 67% of reported cases in 2009 and 2010, providing further evidence of this shifting trend in the identity of precursors.

In 2007, 19 kg of pharmaceutical preparations containing ephedrine were seized and this increased to 861 kg in 2008 and 2.9 mt in 2009. Similarly, seizures of pseudoephedrine preparations increased. While the total amount seized in 2007 was 395 kg, a single notable seizure of 3,768 kg was reported for Mexico alone in 2008 and Thailand seized over 700,000 pills containing pseudoephedrine in two separate instances. This upward trend continued in 2009 with 12 countries reporting seizures of pseudoephedrine preparations with a total weight of 1,075 kg. In addition, large seizures of pills containing pseudoephedrine were again reported by Thailand (1.7 million pills) and Cambodia (13 million pills).

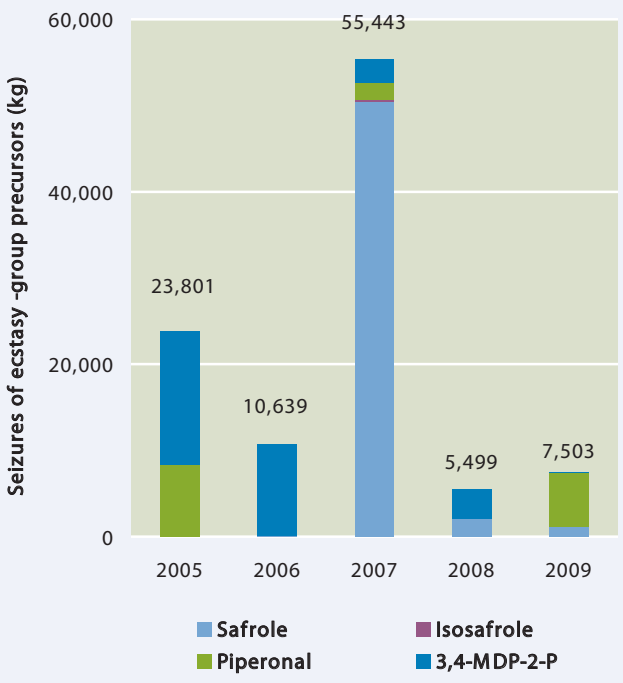
Further evidence of the effect of tightening controls on ephedrine and pseudoephedrine is provided by recent increases in seizures of an alternative precursor, norephedrine. Global seizures of norephedrine have increased from 8 kg in 2005-2006 to 1,575 kg over the 2007-2009 period. Another instance of the changing patterns in illicit trafficking can be seen in the case of the naturally occuring plant, ephedra, a source of both ephedrine and pseudoephedrine. In 2005/06, almost 900 mt of this precursor were seized. However, the amounts seized have decreased dramatically in recent years to 2,265kg in 2009 and 3,645kg in 2010.

Amphetamine and methamphetamine precursors: *1-Phenyl-2-propanone(P-2-P) and phenylacetic acid*

The internationally controlled substances 1-Phenyl-2-propanone (P-2-P), also known as Benzyl methyl ketone (BMK), and its precursor phenylacetic acid can be used for the synthesis of both amphetamine and metamphetamine. Reported seizures of P-2-P in the period 2007-2010 increased from 836 litres in 2007, to 5,619 litres in 2008 and decreased to 4,885 litres in 2009. Most P-2-P seizures in 2009 were made in Europe, with both the Russian Federation and Lithuania reporting significant seizures. Belgium reported a seizure of 5,000 litres of P-2-P in 2010. In 2009, China also reported the destruction of 8.7 mt of P-2-P that had been accumulated over a number of years.

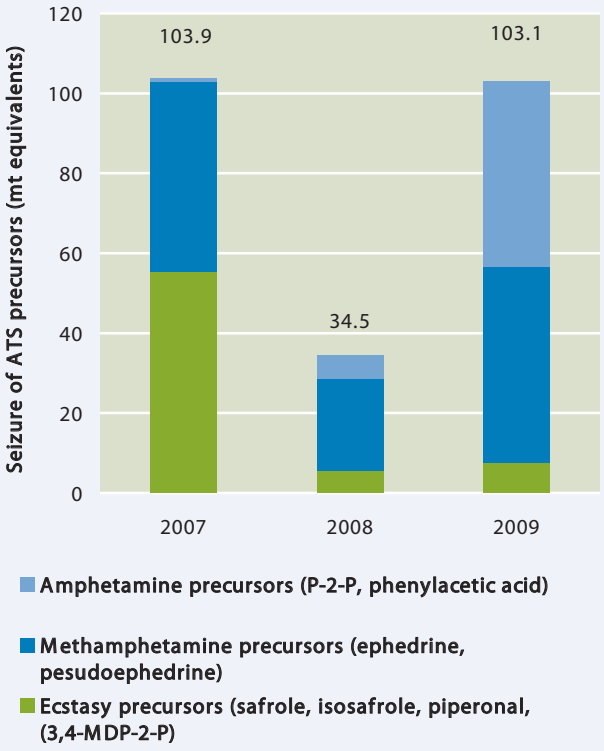
Seizures of phenylacetic acid have increased over the same period: from 159 kg in 2007 to over 41 mt in 2009, with Mexico (30.6 mt), China (8.5 mt) and Serbia (1.9 mt) accounting for most of recent seizures. Following strengthened controls by Mexico over phenylacetic acid and its salts and derivatives in 2010, seizures of esters of phenylacetic acid have been reported more frequently, including one shipment of 45 mt of ethyl phenyl acetate in Belize. These substances can be easily converted to phenylacetic acid and as such, these and other possible "masked" precursors are expected to appear more frequently in future seizures.The investigation and analysis of chemicals seized during the dismantling of illicit laboratories provides a crucial early indicator into the latest trends in illicit manufacture.

Global seizures of ecstasy-group precursors, 2005-2009



Source: UNODC calculations based on INCB data taken from INCB, 2009b, 2010b and 2011b

Global seizures of ATS precursors, 2007-2009



Source: UNODC calculations based on INCB data taken from INCB, 2009b, 2010b and 2011b

Precursors for ecstasy group substances: *3,4-MDP-2-P, safrole, isosafrole, piperonal*

The main ecstasy-group substances are 3,4-methylenedioxymethamphetamine (MDMA), and its analogues, including 3,4-methylenedioxyamphetamine (MDA) and 3,4-methylenedioxyethylamphetamine (MDE). The precursors for ecstasy-group substances include safrole (including in the form of safrole rich oils), isosafrole, piperonal, and 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P; piperonyl methyl ketone (PMK)) which are all under international control.

There were fluctuations in the seizures of precursors for ecstasy-group substances from 2007 to 2009. Notable seizures of a single substance include the 45,970 litres of safrole reported by Thailand in 2007-2008. In general, the reported quantities of seized precursors do not reflect the corresponding amounts of MDMA pill seizures and this is attributed to the probable synthesis of the main precursor 3,4-MDP-2-P in illicit laboratories. In 2008, four countries reported stopped shipments of 1,904 litres of safrole, mostly in the form of safrole-rich oils, with Estonian authorities responsible for over 96% of seizures. It is noteworthy that Cambodia separately reported the seizure of 5.2 mt of sassafras oil in 2009 and the destruction of 13,600 litres of seized safrole-rich oils in 2010.

Piperonal is produced from safrole/isosafrole and is a known precursor of 3,4-MDP-2-P. It is an aromatic aldehyde used mostly in the perfume and fragrance industry and licit trade in piperonal totaled 2,123 mt in 2009-2010. While seizures of piperonal fluctuated from 2005 to 2010, it should be noted that 6,300 kg seized in 2009 represented the highest total seizure of any ecstasy-group substance precursor in that year.

Non-scheduled substances used in the illicit manufacture of ATS

From 2007 to 2010, there was an increase in the number of seizures of non-scheduled substances that could be used as alternate precursors of ATS. Mexico reported seizures of significant amounts of methyl, ethyl, isobutyl and amyl esters of phenylacetic acid in 2008. L-PAC, a substance used in the industrial-scale synthesis of ephedrine, was detected in 2008 and 2009 in Canada and Mexico. The chemical masking of precursors continued as evidenced by seizures of the non-scheduled bisulfite adduct of P-2-P in 2009 and also by further seizures of methyl 3-[3'4'-(methylenedioxy)phenyl]-2-methyl glycidate (MMDMG) in 2010. MMDMG, which was first seen in Australia in 2004, is a non-controlled chemical, which is made from piperonal and a precursor of 3,4-MDP-2-P. The increase in seizures of these non-controlled 'pre-precursor' substances reflects the response of drug traffickers to the tighter controls placed on the traditional ATS precursors.

Trafficking trends

Trafficking routes for the precursors of ATS have become more complex. In addition to trafficking precursor chemicals in bulk, traffickers are increasingly targeting pharmaceutical preparations containing ephedrine and pseudoephedrine. This is evidenced by increased seizures in Europe of pills in transit. For example, authorities in the Netherlands seized 11 million pseudoephedrine pills in transit from Viet Nam to Guatemala. Similarly, other European countries including France as well as the United Kingdom and the USA seized shipments of preparations in transit from Asian countries destined for South and Central America.

Other examples of the increasing complexity of trafficking in precursors include the increasing use of masked precursors not under international control and the creation of new trafficking routes as a result of increased controls on precursors. For example, as a result of the restrictions on ephedrine and pseudoephedrine put in place by Mexican authorities in 2008 and 2009, there has been an increase in manufacturing and trafficking in countries in Central and South America. The main precursor of ecstasy-group substances, 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-P-2-P), is mostly manufactured in illicit laboratories as evidenced by decreased levels of seizures in recent years. As a result, there has been increased trafficking in precursors of 3,4-MDP-P-2-P such as piperonal and safrole-rich oils and increased manufacture of ecstasy-group substances in regions of Asia where these starting materials are produced.

MANUFACTURING METHODS

The practical information for manufacturing ATS is widely available as several synthetic routes for ATS are described not only in the scientific literature but also on the Internet. The structural similarity between most types of ATS makes it possible for manufacturers to easily adapt methods used to manufacture, for example, amphetamine to make methamphetamine.

Central to the variety of synthetic routes that can be used for the manufacture of ATS is a chemical reductive transformation*[1] of the precursor or intermediate molecule. This reduction can be facilitated by a range of chemicals. The use of these chemicals depends on the availability of the necessary chemicals and equipment, the desired product and the skills of the operator - thus providing manufacturers with a degree of flexibility. The chemicals used include organic solvents such as acetone or ether, various reducing agents such as hypophosphorous acid/iodine and other chemicals used for purification and crystallization. While some of the chemicals required are difficult to obtain on the open market, others can be obtained from commercially available materials e.g. ammonia and lithium strips from batteries can be used for the manufacture of methamphetamine. In general, for methamphetamine/amphetamine syntheses, there are additional requirements depending on whether ephedrine/pseudoephedrine or phenyl-2-propanone (P-2-P)/phenylacetic acid (PA) is the precursor used. For example, using either P-2-P or PA for ATS produces a mixture of isomers (called d and l), which requires an extra purification step to make a product with the same potency as that obtained using ephedrine or pseudoephedrine.

Most commonly used manufacturing methods and their yields

END PRODUCT	PRECURSOR (1 KG OR 1 LT.)	SYNTHESIS METHOD (METHOD)	PRACTICAL YIELD
Amphetamine	P-2-P (lt.)	Ammonium formate (Leuckart)	55%
Amphetamine	P-2-P (lt.)	Formamide (Leuckart)	67%
d,l-Methamphetamine	P-2-P (lt.)	Formic acid (Leuckart)	60%
d-Methamphetamine	Pseudo/ ephedrine (kg)	Red phosphorus / iodine	47%
d-Methamphetamine	Pseudo/ ephedrine (kg)	Red phosphorus / hydriodic acid	54%
d-Methamphetamine	Pseudo/ ephedrine (kg)	Lithium / ammonia ('Birch')	55%
d-Methamphetamine	Pseudo/ ephedrine (kg)	Hypophosphorous acid / iodine	76%
d-Methamphetamine	Pseudo/ ephedrine (kg)	Thionyl chloride (Emde)	70%
Methcathinone	Pseudo/ ephedrine (kg)	Potassium permanganate	50%
MDA	Sassafras oil* (lt.)	Hydrogen peroxide/ sodium cyanoborohydride	12%
MDA	3,4-MDP-2-P (lt.)	Sodium cyanoborohydride	37%
MDA	Piperonal	Nitroethane	41%
MDMA	Sassafras oil* (lt.)	Hydrogen peroxide/ aluminium amalgam	31%
MDMA	Sassafras oil* (lt.)	Hydrobromic acid	48%
MDMA	3,4-MDP-2-P (lt.)	Formic acid (Leuckart)	66%
MDMA	Sassafras oil* (lt.)	Methyl nitrite/ aluminium amalgam (Wacker)	68%
MDMA	3,4-MDP-2-P (lt.)	Aluminium amalgam (reductive amination)	95%

* at 75% safrole.

Source: Royal Canadian Mounted Police and Health Canada; Suravina, L. G. and Voronenko, L. A. (1994). Forensics Investigation of Narcotic and Drastic Substances Obtained from Ephedra Grass Using Home Production Methods. Ministry of Justice of the Republic of Kazakhstan, Kazakhs Scientific Research Institute; DEA, Methamphetamine Synthesis #7 (1997).

1 Methcathinone is synthesized from ephedrine/pseudoephedrine using a simple oxidation process.

Safrole-rich oils*

Safrole-rich oils are the main raw materials for the manufacture of safrole for commercial purposes. They are marketed worldwide in large quantities as starting materials for the fragrance and pesticide industries.

There are a number of safrole-rich plant species that constitute the starting materials for the extraction of safrole; they are found in North America, South America, East Asia and South-East Asia. Safrole can be present in their essential oils at concentration levels of more than 90%.

Safrole-rich oil tree species grow naturally and/or are cultivated for commercial purposes. To produce the oil, the trees are typically felled and the oil distilled from the timber, the root and stump. Oil yields from the distillation process typically range between 1% and 3.5%. However, many of these operations remain unregulated and as a consequence, there are not only concerns from the point of view of diversion into illicit drug manufacture, but also concerning environmental aspects, ecology systems and forestry.

A recent survey in six countries in East and South-East Asia found 361 plants that contain essential oils rich in safrole, most of which were of the *Cinnamomum* species. Other plant species rich in safrole include the North American *Sassafras albidum* (~80% safrole) and the Brazilian *Ocotea pretiosa* (~80% safrole) and *Piper hispidinervum* (~90% safrole).





The reported global licit trade of safrole-rich oils for 2009-2010 was estimated at 101,840 litres.

* Safrole-rich oils are defined as “any mixtures or natural products containing safrole present in such a way that it can be used or recovered by readily applicable means” (INCB, 2011b).

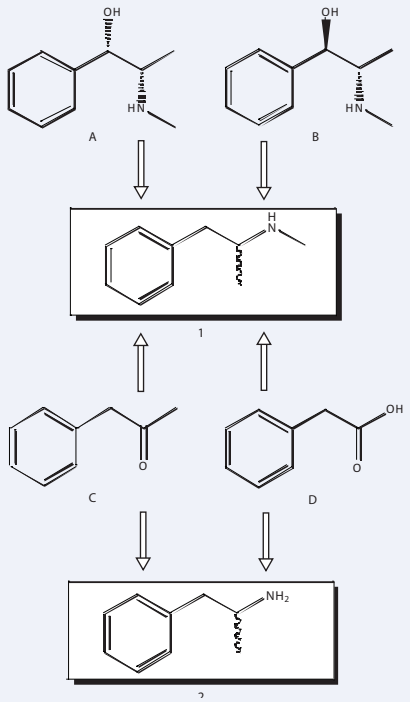
The most common synthetic methods used for the manufacture of ATS are shown below. The three most common methods used in Europe as reported by the EMCDDA in 2009 are the lithium-ammonia, hypophosphorous acid/iodine and hydroiodic acid/red phosphorus methods. All these methods necessitate the use of ephedrine and pseudoephedrine precursors and are 1-step synthetic methods. Two other less commonly detected methods in Europe are the Leuckart and reductive amination method.

As can be seen from the table, the efficiency of the transformation from precursor to product (practical yield) varies significantly depending on the method used. There is an inherent difference in yields based solely on the different reagents used. The manufacture of ATS under improvised clandestine laboratory conditions by operators of varying skills results in even greater yield variation. However, it is to be expected that yields within a particular clandestine laboratory may increase over time as a result of improved manufacturing methods and skill of the operators, and increased sophistication of laboratories. While the choice of method is largely determined by the availability of precursors and other reagents and chemicals, the scale of the illicit laboratory also limits the use of certain synthetic routes.

Regional trends in ATS manufacture and products

There are regional preferences for the use of certain synthetic methods for the manufacture of ATS substances. In Australia, methamphetamine synthesis involving the reaction of pseudoephedrine with hypophosphorous acid/iodine was the preferred method in 38% of laboratories in 2009-10, although the Birch method (dissolving metal reduction using lithium/sodium and anhydrous ammonia) was the predominant method in Western Australia where 97 of 112 Australian laboratories using this method were located. Also of note in Australia over the period 2009-10 was the increase in the number of laboratories using the red phosphorus route in the synthesis of methamphetamine - from 16 laboratories in 2008-09 to 51 laboratories in 2009-10. In New Zealand, where 135 clandestine laboratories involved in the manufacture of ATS were detected in 2009, the most commonly detected chemicals indicated a preference for the red phosphorus route for methamphetamine synthesis.

In Europe, the use of the hydroiodic acid/red phosphorus method for the manufacture of methamphetamine was reported mainly in the Czech Republic, Slovak Republic, Germany and the Netherlands, while methamphetamine seized in Lithuania was shown to have been produced using P-2-P as a precursor. An alternate amphetamine manufacturing method was detected in a clandestine laboratory in Hungary in 2009 involving the use of the non-controlled substances benzaldehyde



This figure shows the molecular structures of methamphetamine (1), amphetamine (2) and their main precursor substances, pseudoephedrine (A), ephedrine (B), phenyl-2-propanone (P-2-P)(C) and phenylacetic acid (D). The arrows indicate the flexibility of the ATS manufacturing process and illustrate the similarities of the precursors and relative simplicity of the transformations required to convert precursor to product.

and nitroethane as precursors. In general, ATS manufacture in the Czech Republic is carried out in smaller-scale laboratories compared to the larger industrial-type facilities used for ATS manufacture in parts of Asia.

In North America, large numbers of illicit laboratories were detected in 2009 including 9,420 in the USA and 191 in Mexico. Most of the laboratories in the United States are small-scale laboratories, where operators are noted to often purchase pharmaceutical preparations containing ephedrine/pseudoephedrine in small quantities from multiple retail outlets. The number of laboratories detected in Mexico increased from 21 in 2008 to 191 in 2009 and the range of chemicals seized indicated the use of a variety of synthetic routes. The chemicals seized included over 30,000 kg of phenylacetic acid, its sodium salt and the pre-precursor phenylacetamide. Tartaric acid, which is used to purify the crude products of ATS synthesis using P-2-P/PA as precursors, was also seized.

In 2009, Canada reported the discovery of novel synthetic methods in a number of illicit laboratories. These included the discovery of drums of l-PAC, a precursor of ephedrine, suspended in toluene. In another laboratory producing ecstasy, chemicals associated with the Wacker oxidation synthetic process, a method not recently found in Canada, were detected.

ATS products

ATS are available in a range of forms (e.g.liquid, crystalline, powder) and the purities of the substances can vary significantly from one country to the next. It is difficult to accurately estimate the content and purity of substances seized as both these factors can vary depending on the degree of adulteration which is related to the point of seizure (customs or illicit laboratory or final street product). However, it is possible to discern certain trends in content/purity from data on regional preferences. While ecstasy-group substances remain a global phenomenon, the popularity of amphetamine and methamphetamine use varies regionally with amphetamine being most common in Europe and West Asia and with methamphetamine the ATS of choice in North America and East Asia.

For amphetamine, 100% of all manufacturing sites discovered in 2009 were discovered in Europe and 98.7% of global seizures were in the Near and Middle East/South-West Asia and Europe. Amphetamine in the Near and Middle East/South-West Asia continues to take the form of pills known as Captagon which contain amphetamine and other components such as caffeine. The source of these pills remains unknown.

Amphetamine purity in Europe varies from less than 10 % to 25% depending on whether the samples are seized before or after adulteration. For example, in the UK, the purity of amphetamine seized at points of entry to the country was 17-21% and while this indicates a large amount of adulteration, the purity of retail samples in the UK was in the range 1-6% with caffeine making up over 80% of the content.[2] It is also noteworthy that the amphetamine products seized at points of entry to the UK were not in the form of powders but rather as pastes contaminated with chemicals from the manufacture process.

Methamphetamine is a colourless oil in its free-base form, but is commonly commercially available as its hydrochloride salt which is a white or off-white powder, depending on purity and quality. The pure crystalline salt form takes the appearance of crystals and has a number of common names including "glass" and "Ice". Methamphetamine purities in Europe in 2008 ranged from 22 to 80% with Belgium (80%) reporting the highest levels, followed by the Czech Republic and Slovakia both reporting purities of 64%. The high purity of methamphetamine compared to amphetamine is a direct result

2 SOCA, 2011.

of the crystalline nature of the product. In the United States, purities of methamphetamine in 2006 and 2007 were 55% and 52% respectively after a high of 78% the previous year.[3] Within the Asian market and indeed globally, the increasing use of methamphetamine can be related to two product-related factors: the increased potency of crystalline methamphetamine and the comparatively low cost of methamphetamine in pill form.

With regard to the nature of the products of ecstasy-group substances, they are available as powders but generally take the form of pills containing the active substance as its hydrochloride or phosphate salt plus bulking agents or adulterants. Purities of ecstasy in Europe declined in 2008 and 2009, but preliminary data for 2010 showed an increase in purity in 2010. Pills sold as ecstasy commonly contain amounts of piperazines, ketamine or mephedrone. Substances detected in pills sold as ecstasy in Australia 2009 contained methamphetamine, BZP and TFMPP.

Unregulated products sold in ATS markets

Several unregulated substances have appeared in established ATS markets at an unprecedented pace, as manufacturers and traffickers exploit the lack of controls. These substances often have chemical and/or pharmacological properties and effects similar to a known illicit substance. As these substances are not controlled by the United Nations international drug control treaties, they are marketed as "legal highs". Substances are frequently labelled "plant food", "bath salts", "incense" or "scented sachets". They are often sold in online shops: the EMCDDA found that the number of online shops selling such substances increased from 170 to 277 from 2010 to 2011.

Piperazines are often sold on illicit markets as 'ecstasy' and they may also be included as adulterants in pills. Piperazines are typically taken orally, but can also be smoked or snorted. The most commonly reported piperazine is benzylpiperazine (BZP), others include 1-(3-chlorophenyl)piperazine (*m*CPP) and 1-(3-trifluoromethyl-phenyl) piperazine (TFMPP).

Ketamine[1] is often sold as 'ecstasy' or 'amphetamine' in the form of a bottled liquid or as a whitish powder. Its use has been reported in Asia, Americas, Europe and Oceania and it is under national control in several countries.

Synthetic cathinones are analogues to, or derivatives of, the internationally controlled substance cathinone, one of the psychoactive substances in the khat plant. Some of the most widespread synthetic cathinones are: mephedrone, methylenedioxypyrovalerone (MDPV- "bath salt"), methedrone, 4-fluoromethcathinone, 3-fluoromethcathinone, methylone. Some of the synthetic cathinones like mephedrone are under national control in several countries, particularly in Europe.

Synthetic cannabinoids are typically synthetic cannabinoid receptor agonists that function similar to delta-9-tetrahydrocannabinol (THC), the principal psychoactive component in cannabis. In 2008, several synthetic cannabinoids were detected in herbal smoking blends (e.g. 'spice', 'yucatan fire') and include homologues of the nonclassical cannabinoid CP-47,497[2] and the aminoalkylindole JWH-018 [e.g. JWH-122], which are potent cannabimimetics.

Plants with psychoactive properties sold in ATS market include:

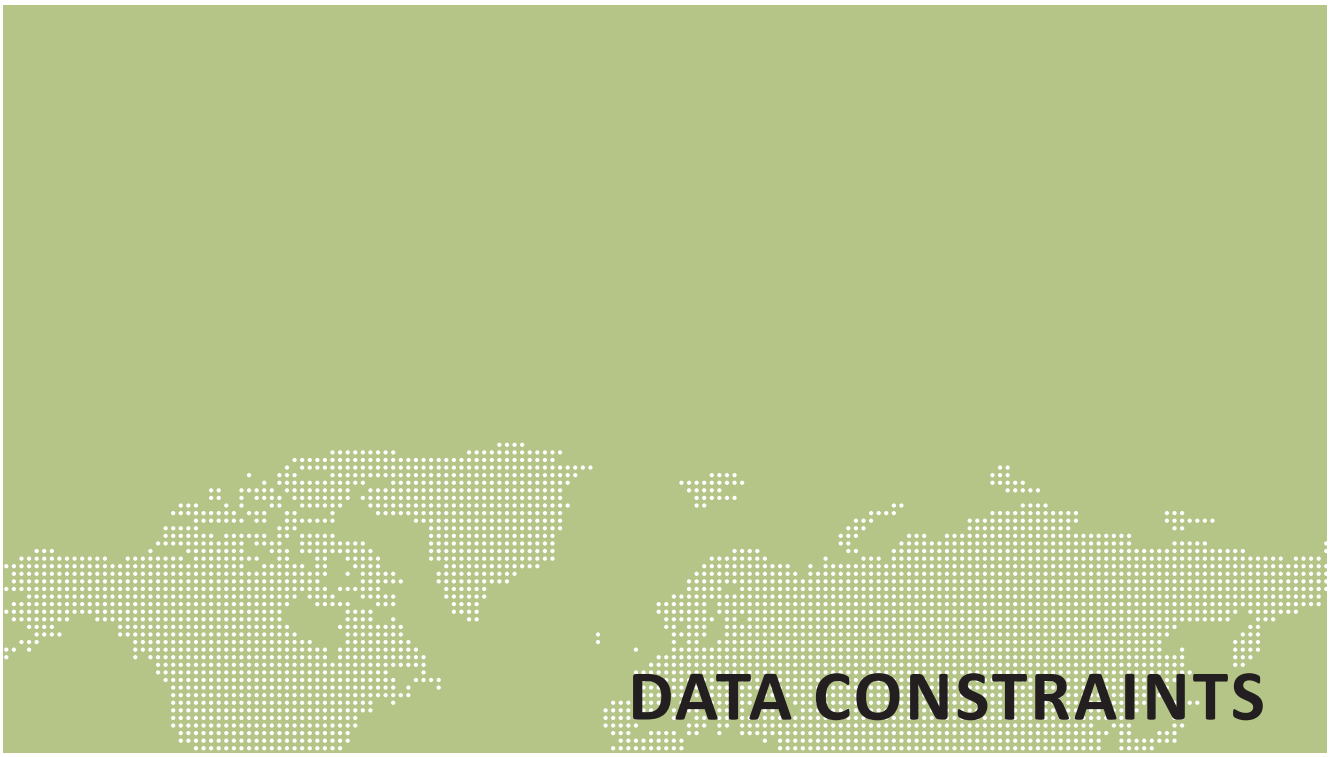
Kratom *(Mitragyna speciosa)* - a plant indigeneous to South-East Asia that contains the alkaloid mitragynine. The most frequent mode of administration is making tea out of the dried leaves. It is a controlled substance in several Asian and European countries.

Salvia divinorum - a plant which contains the hallucinogen salvinorin A. The substance is administered by chewing the fresh leaves or by drinking the juices of freshly crushed leaves.

1 Chemically: (±)-2-(2-chlorophenyl)-2-(methylamino)-cyclohexanone.

2 Auwärter, V., et al., 'Spice' and other herbal blends: harmless incense or cannabinoid designer drugs? J Mass Spectrom, 2009. 44(5): p. 832-7.

3 NDIC, 2010.



DATA CONSTRAINTS



DATA CONSTRAINTS

Analysing ATS markets and developing an evidence base for action against ATS requires accurate, comparable and timely data. Changes in ATS drug markets - the specific substance and form, their manufacture, trafficking and use - occur very rapidly, and there are clear indications that they are expanding in developing regions of the world, the same regions where data and understanding are most limited. The less data are available, the greater the reliance upon assumptions and generalization which can lead to inaccurate estimates that allow the problem to proliferate. While some progress has been made in the availability of ATS-related data in some regions of the world, lack of robust information on the illicit manufacture, trafficking and use of ATS remains a significant challenge to Member States and the international community in designing effective policy and programme interventions.

To develop an accurate and comprehensive picture of the global ATS situation requires data from Member States. Data are utilized from a variety of sources including: the UNODC Annual Reports Questionnaire (ARQ); technical reports from the International Narcotics Control Board (INCB); Government reports and reports from intergovernmental organizations such as ICPO/Interpol, the World Customs Organization, regional organizations such as the European Monitoring Centre on Drugs and Drug Addiction (EMCDDA), Europol as well as regional data collection mechanisms such as the Drug Abuse Information Network for Asia and the Pacific (DAINAP) managed by the Global Synthetics Monitoring: Analyses, Reporting and Trends (SMART) Programme.

Pursuant to the provisions of the United Nations drug control Conventions, the 1961 Single Convention on Narcotic Drugs, the 1971 Convention on Psychotropic Substances and the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Member States are formally required to provide national drug control-related information to the Secretary-General of the United Nations. The Commission on Narcotic Drugs, the principal drug policy making body in the United Nations, developed the Annual Reports Questionnaire (ARQ) to collect such information.

For the purposes of assessing the ATS situation, the questionnaire on drug use and the questionnaire on the illicit supply of drugs are most relevant.

The ARQ is sent out by UNODC to 194 States and 15 territories to gather standardized information on the drug control situation and received 107 replies to its questionnaire on drug abuse and 106 replies to its questionnaire on the illicit supply of drugs relating to 2009. The proportion of questionnaires that were returned by region in 2009 and 2010 for the reporting year 2009 were: Europe (80% demand and 88% supply), Asia (64% and 62%), Americas (59% and 53%); Africa (27% and 25%) and Oceania (12% for both demand and supply).[1] There are Member States and regions that consistently provide either no data or incomplete data (i.e., they provide less than 50% of the minimum critical data necessary in the ARQ) largely as a result of a lack of infrastructure to generate, manage, analyse, and report drug information.

These are also regions with relatively limited resources and capacity and where there are concerns about expansion of the ATS problem. For example, there is irregular and/or incomplete reporting in parts of East and South-East Asia, South Asia, the Near and Middle East, subregions within the Americas, much of Africa and most island nations of Oceania.

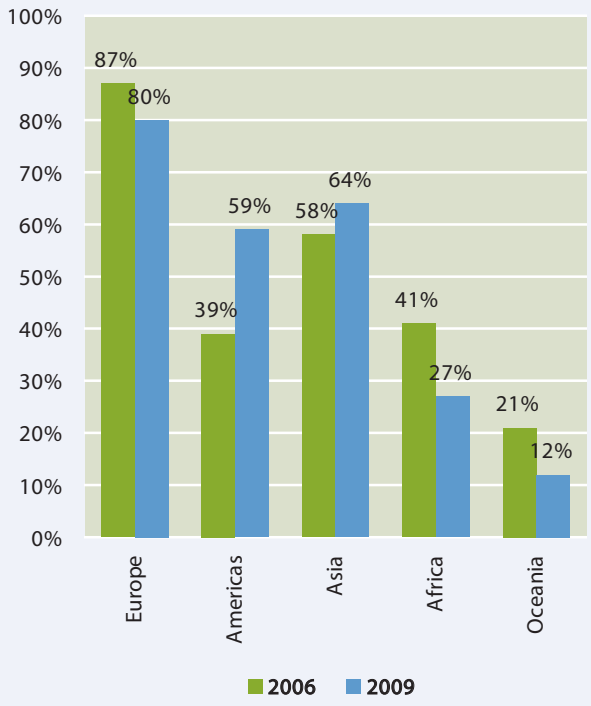
Challenges in analysing ATS data

Seizure data

Global seizures of ATS end-products are based largely on available data from Member States. Seizure totals compile reported seizures weights in mass (gram or kilogram), volume (ml/ lt.) or "units" (e.g., pills, ampoules, doses, etc.) and convert them into standardized kilogram equivalents.

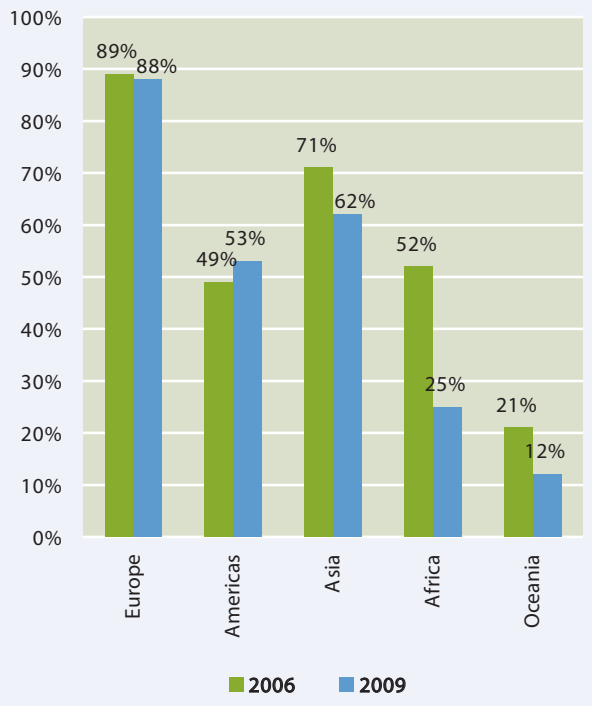
1 More questionnaires are returned and data are more complete for illicit supply of drugs, because data reflect law enforcement reporting which are generally more readily available.

ARQ responses by Member State, by completeness: Drug Demand



Source: UNODC ARQ

ARQ responses by Member State, by completeness: Drug Supply



Source: UNODC ARQ

Many Member States do not have the capacity to carry out forensic work and profiling on seizures. Therefore, analysis of seizure data requires many assumptions to be made. One of the assumptions is that seizures were in fact tested and properly identified - versus 'assumed to be a certain substance', as is often the case. There is also little information on the active ingredient of ATS seizures. Pills sold as ecstasy may not always contain MDMA but amphetamine, ketamine, mephedrone or other substances. There is also little knowledge about the amount of active ingredient.

Like most markets, the ATS market is dynamic and constantly changes. The end product that is sold to the user, often undergoes significant changes in terms of active ingredient and shape. Laboratory analysis of seized ecstasy pills in Canada, for example, found that between 2001 and 2007 the MDMA content declined precipitously from 69% to only 3%, with concurrent increases in the proportion of methamphetamine and other active ingredients. Similar changes are also reported from other regions, e.g. Europe.

Precursor seizures

As discussed previously, there is mounting evidence that ATS manufacture, specifically methamphetamine, is occurring via diverted pharmaceutical preparations and other chemicals not under international control. For example, based on an initial 2007 snapshot, pharmaceutical preparations accounted for a significant proportion of seized pseudoephedrine. Additionally, increased utilization of Pre-Export Notifications (PEN) has quite probably stopped or suspended some diversions and suspected shipments from getting into the illicit market, thus contributing to lower total seizure amounts. Precursors that are diverted from national distribution channels (i.e., domestic diversions within a country) are also not reported. The lack of data on the extent of domestic diversions most likely results in an underestimation of the precursors available for illicit manufacture.

The assumptions related to manufacture also do not account for improvements in manufacturing methods or regional variations in clandestine conversion ratios (yields). For example, in 2001, Canada reported average clandestine laboratory yields for pseudoephedrine-based methamphetamine of 50%, and 38% for sassafras oil-based MDMA.[2] By 2006, reported yields had increased substantially to 71% and 80%, respectively. These increases were likely due to changes in manufacturing methods, greater operator skills and/or greater laboratory sophistication. Additionally, there are some

2 UNODC, 2003.

variations within regions even when using similar manufacturing methods; the difference between Slovakia and the Czech Republic for reported yields for methamphetamine using the same precursors was 14% in 2009.

Consumption estimates

One of the main challenges in assessing the demand for ATS is the fact that countries with significant populations have little if any national household survey estimates of annual drug prevalence or other types of estimates (e.g. national school surveys) that could be extrapolated into national or regional estimates. Moreover, existing surveys often vary substantially in their quality and timeliness. For example, the *World Drug Report 2008* reported *amphetamine and ecstasy-group* prevalence estimates for 166 countries and regions,[3] with an average estimate that was 3.3 years old at the time of publication. In the World Drug Report 2011 the number of countries and regions has decreased to 120, with the data being 4.6 years old on average. While some improvements have been seen, other regions still fall far behind.

Most ATS estimates have been submitted from Europe (87%), followed by the Americas (72%), Asia (46%), Oceania (25%) and Africa (16%). However, even though 72% of countries in the Americas have reported ATS estimates, these are on average 5.1 years old, only slightly more recent than estimates from Africa (5.2 years old on average). Countries in the Near and Middle East, where most of the world's amphetamine is seized, have some of the oldest prevalence estimates available, even dating back to 2001.

There are several subregions (e.g., East and South-East Asia, the Near and Middle East, etc.) which encompass multiple countries where household surveys or other prevalence estimates are outdated, lacking in completeness or quality, or simply do not exist.

Price and purity data

Price and purity data, if properly collected and reported can be useful indicators of market trends. Short-term changes in the market are often first reflected in purity changes. However, particularly where ATS are concerned, reporting on these indicators is not consistent and there are several difficulties in calculating global average prices since ATS prices - like illicit drug prices in general - differ strongly within countries as well as across countries and regions. Additionally, on only very few occasions are the corresponding price and purity data sets available. All of this is because many Member States do not have - as yet - reliable monitoring systems to register price and purity data that would be required for market value estimates as well for understanding the behaviour of drug markets and the impact of supply and demand interventions.

The above methodological and other characteristics of the ATS market, such as the speed and flexibility with which patterns of manufacture, trafficking and use are shifting, coupled with the lack of data from significant geographic regions, create a series of challenges related to assessing the ATS situation. The absence of accurate and timely data in turn poses a challenge to Member States' law enforcement, judicial, prison and health care systems, which need information to respond adequately to the current ATS situation and prevent its future spread.

3 For example, regions include Scotland, Northern Ireland, Gibraltar, Taiwan (Province of China) and Hong Kong (SAR of China).



CONCLUSION



CONCLUSION

After cannabis, ATS are the second most widely used drugs and the number of ATS users has stabilized at high levels: UNODC estimates that the annual prevalence for amphetamines-group substances ranged between 0.3% and 1.3% in 2009, or some 14 to 57 million people aged 15-64. For the ecstasy group, global annual prevalence is estimated at between 0.2% and 0.6% of the population aged 15-64, or some 11 to 28 million past-year users. The scale of the problem is underreported, as some large countries such as China or India have never conducted a nationally representative survey to collect data on ATS use.

The report has shown that the ATS problem keeps spreading to new regions and countries not previously affected by the phenomenon. It is a dynamic problem characterized by rapid changes in regional trends in the levels of manufacture, trafficking and use. And it is a complex problem, with a great variety of substances sold in a number of different forms- as powders, pills or high purity crystals.

Due to the complexity and dynamic nature of the ATS phenomenon, the capacity to monitor the illicit manufacture, trafficking and use of ATS is a sizeable and often enormous challenge for many Governments. Attention to the ATS problem remains uneven across the world. Functional drug monitoring systems that provide data on all aspects of the phenomenon are few and far between, and, to a large extent, located in developed countries.[1] Australia and New Zealand have established extensive monitoring mechanisms to gauge the phenomenon. In Canada and the USA, attention to ATS use and its consequences has renewed interest in better monitoring the problem. The European Monitoring Centre on Drugs and Drug Addiction has a system for monitoring drug markets and the emergence of new psychoactive substances.

In East and South-East Asia – a region confronted with a significant methamphetamine problem as well as use of ecstasy and manufacture, trafficking and use of other synthetic substances such as ketamine – a monitoring system has been established, with the assistance of the UNODC Global Synthetics Monitoring: Analyses, Reporting and Trends Programme (SMART). The extension of Global SMART to Latin America in 2010 is expected to further strengthen monitoring efforts of Governments in that region to assess the extent, patterns and trends of the ATS problem.

There is a need, however, to establish and further develop ways to assess the ATS situation in other regions. In the Near and Middle East, the region with the highest seizures of amphetamines, there is a strong need to broaden the information and knowledge base. Data on ATS use are almost non-existent and little is known about the origin of the pills which are seized in large quantities in most countries in the region. Africa, increasingly associated with trafficking of precursors and expanding ATS manufacturing capacity, is another region which would benefit from investment into drug-related problems. At present, few countries in Africa (South Africa being the notable exception) have drug use monitoring systems. Most Pacific Island States and territories lack infrastructure to collect and provide information on ATS yet are increasingly associated with trafficking of precursors and the transit of ATS. Unfortunately, worsening ATS problems often coincide with lack of infrastructure, resources and experience with ATS markets.

It has often been observed that criminal organizations target vulnerable countries close to developed markets for illicit manufacture operations or to transit ATS. The growth in illicit activity in these locations is reflected in increasing seizures as well as levels of use, the latter being a result of the spill-over of ATS to previously unaffected regions and countries.

The exact relationship between 'supply-push' and 'demand-pull' factors remains unclear, and many of the recent trends are not understood well enough or quickly enough to enable the design of the required strategic interventions and responses by national law enforcement, judicial, regulatory and health care systems. Developing an evidence base of actionable information to counter the challenge of ATS relies on a variety of comparable and timely data but despite many efforts made by Governments, data gaps remain. While data and other intelligence on the size and sophistication of illicit ATS laboratories or forensic profiles of the substances sold in illicit ATS markets exist in some countries, such information

1 There is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system. See United Nations Standard country or Area Codes for Statistical Use. Series M, No. 49, Rev. 4 (United Nations publication, Sales No. M.98.XVII.9). Therefore, for the purposes of this analysis, "developed countries" are the member countries of the Organisation for Economic Co-operation and Development (OECD).

is often not comparable between countries and regions or between years. As shown above, data on ATS use is elusive for some of the largest countries in the world. Other gaps are specific to certain regions or countries.

Next steps

Addressing the problem requires, first and foremost, a better understanding of the ATS phenomenon at the global level and in selected key regions which are particularly vulnerable to the ATS phenomenon. Such an evidence base will provide a foundation for improved understanding and effective assessment of the ATS situation and the patterns and distribution of their use. Data will also be useful to Governments in planning effective operational interventions and other responses to the ATS problem.

A wide range of targeted practical measures is required. Action will include strategies to raise awareness of ATS manufacture, trafficking and use among law enforcement, health and regulatory authorities as well as the general public; advancing the systematic collection of data on ATS use, the diversion of precursors and preparations containing ATS and using the data in implementing appropriate responses to the problem; assessing the health, safety and environmental implications related to illicit manufacture; and developing and implementing measures to address the demand and provide treatment services for ATS users.

The international community has recognized, most notably in the 1998 UNGASS *Action Plan on ATS* as well as in the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem adopted in 2008, that ATS continue to pose a serious and constantly evolving challenge to international drug control efforts, a challenge, which threatens the security, health and welfare of the population, especially youth and has called on Member States to take comprehensive national, regional and global responses.

To properly respond to the ATS problem, further investments in ATS information systems that provide accurate, timely and actionable information with detail at the subregional or national level, remain among the highest priorities for action.

Emerging ATS markets need to be monitored and addressed proactively before they are established and become a significant added burden to national health and justice systems. UNODC will continue to identify and communicate information on emerging trends to assist relevant Government authorities in their understanding of the ATS market.

Illicit ATS manufacture needs to be targeted at the origin by further increasing the effectiveness of precursor control. Such efforts should also include preventing the diversion of preparations containing ATS precursors and of derivatives specially designed to circumvent existing controls.

Finally, it is evident from this report that a worsening ATS problem is correlated with a lack of infrastructure and resources, and priority must therefore be given to those vulnerable countries and subregions where ATS are spreading most rapidly and where data are known to be lacking or insufficient.



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