

# Executive Summary

## Chapter 1: Trends in World Drug Markets

### 1.1. The Dynamics of the World Drug Market

#### 1.1.1 How is the drug problem evolving?

*What is the level of drug use in the world, and how is it changing?*

Some 200 million people, or 5% of the world's population age 15-64, have used drugs at least once in the last 12 months. This is 15 million people higher than last year's estimate but remains significantly lower than the number of persons using licit psychoactive substances (about 30% of the general adult population use tobacco and about half use alcohol). The number of cannabis users worldwide is now close to 160 million people or 4% of the population age 15-64. Estimates of the number of ATS users - 26 million people using amphetamines and 8 million using ecstasy - are slightly lower than those of last year's *World Drug Report* (WDR), reflecting declines of methamphetamine use in South-East Asia (notably Thailand) and of ecstasy use in North America (notably in the USA). The number of opiate users is estimated to have risen slightly to around 16 million people (11 million of which abuse heroin), mainly reflecting increasing levels of opiate abuse in Asia. No significant changes were observed in most other parts of the world. The number of cocaine users – close to 14 million people – rose slightly.

Unsurprisingly, the main problem drugs at the global level continue to be the opiates (notably heroin) followed by cocaine. For most of Europe and Asia, opiates continued to be the main problem drug, accounting for 62% of all treatment demand in 2003. In South-America, drug related treatment demand continued to be mainly linked to the abuse of cocaine (59% of all treatment demand). In Africa, the bulk of all treatment demand – as in the past – is linked to cannabis (64%).

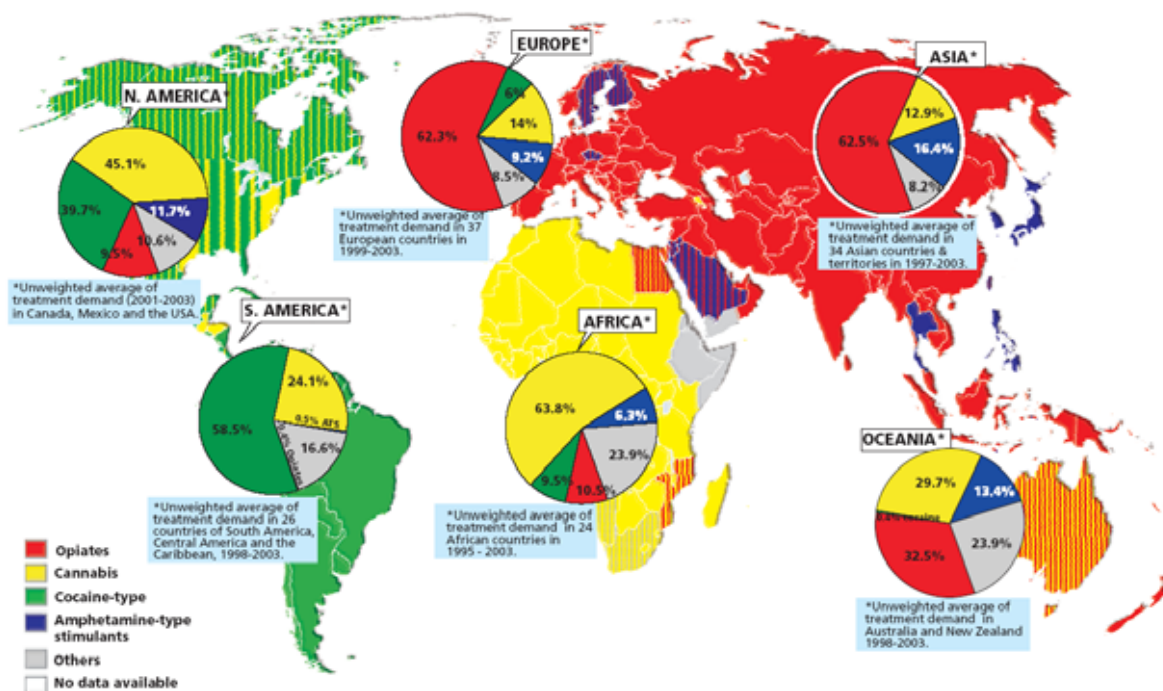
#### Extent of drug use (annual prevalence\*) estimates 2003/04 (or latest year available)

	All illicit drugs	Cannabis	Amphetamine-type stimulants		Cocaine	Opiates	of which heroin
			Amphetamines	Ecstasy			
(million people)	<b>200</b>	<b>160.9</b>	<b>26.2</b>	<b>7.9</b>	<b>13.7</b>	<b>15.9</b>	<b>10.6</b>
in % of global population age 15-64	5.0%	4.0%	0.6%	0.2%	0.3%	0.4%	0.23%

Annual prevalence is a measure of the number/percentage of people who have consumed an illicit drug at least once in the 12 month-period preceding the assessment.

Sources: UNODC, Annual Reports Questionnaire data, National Reports, UNODC estimates.

**Main problem drugs (as reflected in treatment demand) in 2003 (or latest year available)**

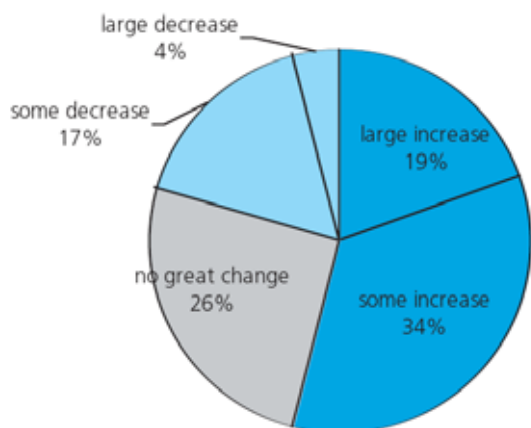


There have also been some important shifts in established patterns in recent years:

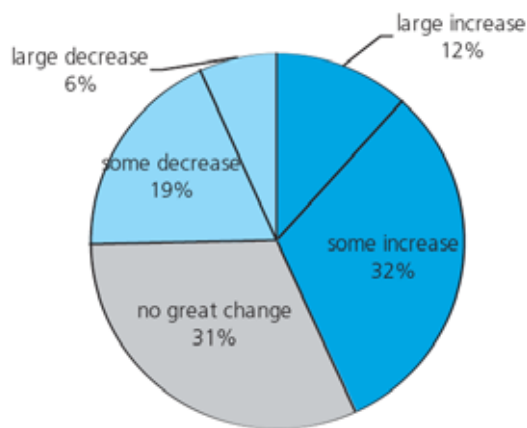
- *cannabis* in treatment demand in North America, Oceania, Europe, Africa and South-America has increased since the late 1990s;
- *cocaine* has declined in overall drug treatment demand in North America and is rising in Europe;
- *opiates* have declined in overall treatment demand in the Oceania region, a late consequence of Australia's heroin shortage in 2001; and
- *ATS* in treatment demand has increased in Asia, Europe, North America and Africa.

Member States provide UNODC with their perceptions of the development of the drug situation in their countries on a five-point scale (large increase, some increase, no great change, some decrease, large decrease). The statistical

Global drug use trends in 2000 (based on information from 96 countries)

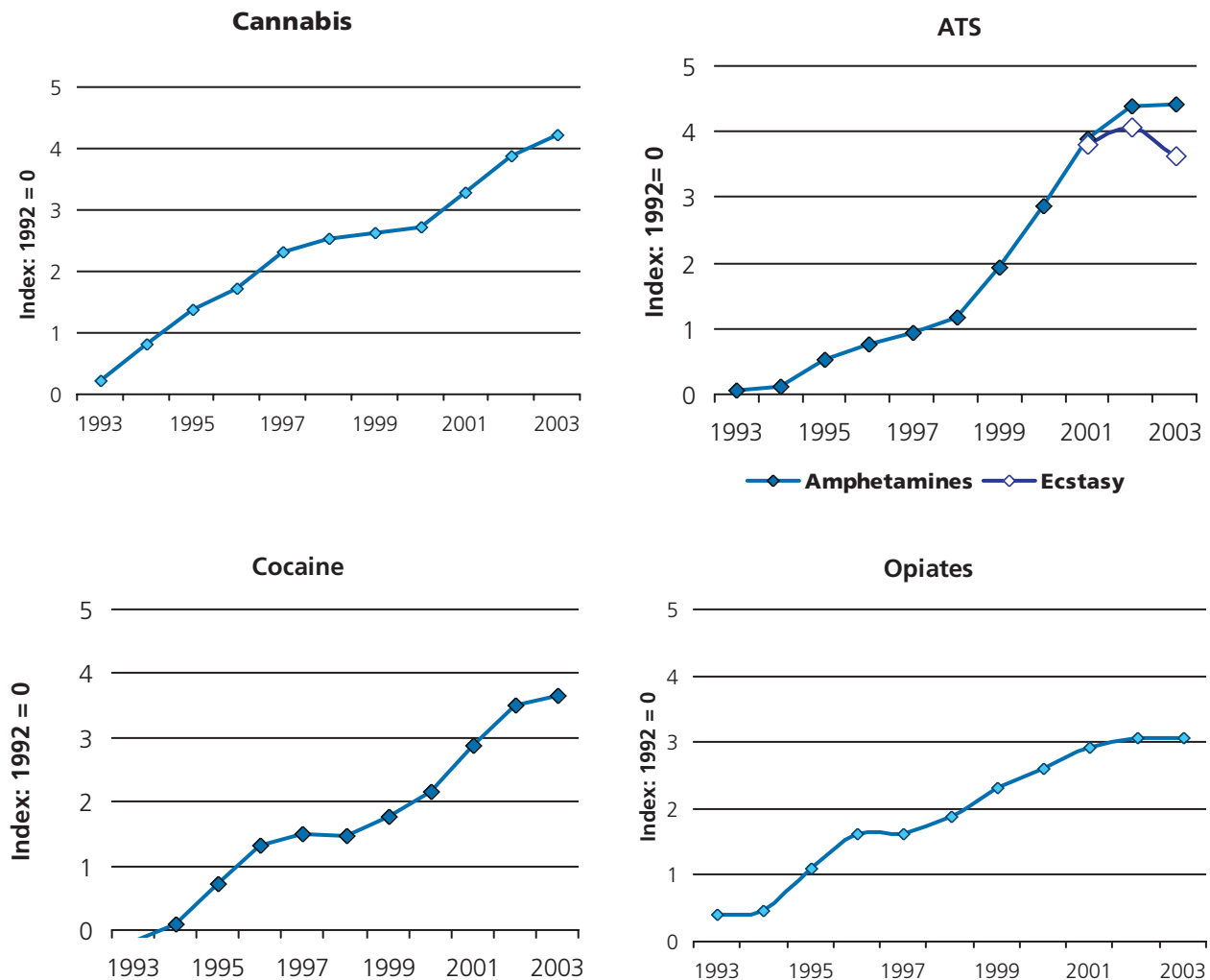


Global drug use trends in 2003 (based on information from 102 countries)



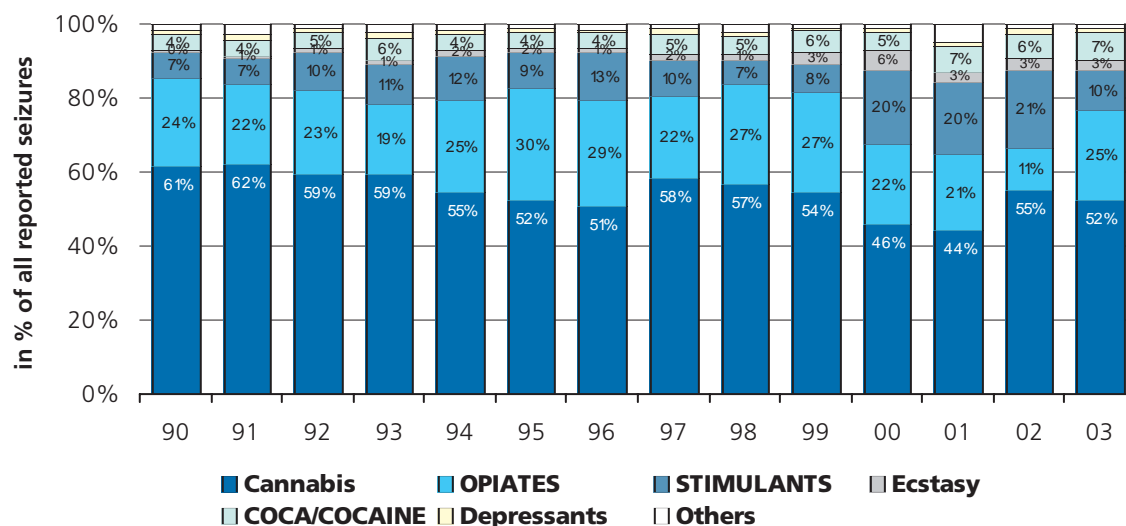
analysis of these responses suggests that overall drug consumption continues to spread at the global level. Although countries indicating rising levels of drug consumption continue to outnumber those with falling levels of drug use, the proportions have shifted in recent years in a slightly more positive direction. While in 2000 53% of all reporting countries saw rising levels of drug use, the corresponding proportion fell to 44% in 2003. In parallel, the proportion of countries seeing declines rose from 21% in 2000 to 25% in 2003.

#### Drug Use Trend Index (based on expert opinion: weighted by estimated number of users)



For the main drug categories, specific drug use trend indices were established. The indices are based on the trends reported by the competent authorities and partially weighted by the size of the countries' drug using population. This procedure gives a greater weight to countries with a larger drug using population, thus more accurately reflecting the overall trend at the global level. The methodological details are described in the methodology section. In 2003, these indices show (1) an ongoing increase in the use of cannabis, (2) some signs of stabilization for opiates and cocaine and (3) a stabilization/decline for ATS. Over the last decade, ATS, followed by cannabis, experienced the strongest increases.

## Proportion of seizure cases according to drug category, 1990-2003



A total of 95 countries reported the number of drug seizures made to UNODC in 2003. Between 1985 and 2003, the number of seizures increased four fold. In the last few years, with the exception of a dip in 2002, the number of seizures seems to have plateaued at about 1.3 million cases. More than half of these were cannabis seizures, about a quarter involved opiates; amphetamines were seized in 10% of the cases, and cocaine in 7%.

In the last decade, the most significant trend has been the increase in the number of seizures of amphetamine-type stimulants (ATS). In 2003, however, this trend reversed sharply, mainly as a result of the decline in ATS seizures from Thailand following a major crackdown on the drugs in the previous year. It is also estimated that ATS consumption dropped globally in the last year, so the reduction in seizures is probably more than just an artefact of changing enforcement patterns.

In contrast, the proportion of opiates seizures rose significantly in 2003, mainly reflecting the revival of Afghan opium production and more seizures in the countries surrounding Afghanistan. The number of cannabis cases has been on the rise since the early 1990s, and its rate of growth exceeded that of other drugs in 2002-2003, in line with a growth in global consumption. Cocaine has remained relatively stable.

The global production trend is rather stable for opium, declining for coca but seems to be increasing for cannabis as well as, following some declines, for ATS. Currently about 196,000 ha are under opium poppy and 158,000 ha are under coca cultivation worldwide.

Following strong increases in 1980s, opium production has been basically stable at around 4,000 – 5,000 metric tons since the early 1990s. Production stood at 4,765 and 4,850 metric tons in 2003 and 2004 respectively.<sup>1</sup> About 87% of opium for the illicit market is now produced in Afghanistan. The long-term trend has been towards rising levels of opium production in Afghanistan. This has largely offset the strong declines reported from Myanmar and Lao PDR in recent years, bringing global potential heroin production in 2004 to 565 metric tons.

<sup>1</sup> These figures represent potential rather than actual heroin or cocaine production. Potential production refers to the amount of heroin or cocaine produced if all of the raw material (opium/coca leaf) produced in a country were transformed into the end product. Actual heroin/cocaine production of a country may well differ. It would be lower if not all of the raw material were transformed into the end-products (e.g. as there is local consumption of the raw material) or it could be higher if raw material was imported from a neighbouring country, or if the manufacturing processes improved.

Potential cocaine production peaked in the second half of the 1990s (950 mt in 1996 and 925 mt in 1999), but has been declining significantly thereafter to 674 mt in 2003. In 2004, cocaine production increased marginally to 687 metric tons. Despite this, overall production remains 26% lower than in 1999. The declines of potential cocaine production in recent years were mainly the result of progress made in Colombia. The increase in 2004 was due to stronger coca leaf production in both Peru and Bolivia. Both countries had already made significant progress in cutting coca leaf production a few years earlier, however, and production is thus still lower than in 1998 or previous years.

More than 7,000 mt of cannabis resin and slightly more than 40,000 mt of cannabis herb were produced in 2003, exceeding last year's published estimate of an annual production of around 32,000 mt of cannabis herb. A global total of 332 mt of amphetamines (methamphetamine and amphetamine) and 90 mt of ecstasy were produced in 2003.

### 1.1.2 The outlook for world drug markets

Afghanistan will determine the size and development of the world's main opiate markets. As compared to last year, the situation looks slightly more positive for Afghanistan. Presidential elections were held in 2004 and the government is gradually strengthening its control over the country and those involved in the opium business. A Rapid Assessment conducted by UNODC earlier in 2005 indicated that the area under poppy cultivation has declined in 2005 as compared to the record levels in 2004. It is, however, not yet certain whether the reduction of the land under opium poppy cultivation would be sufficient to offset a possibly higher yield than observed in 2004.

In the meantime, the country's last opium harvest is still finding its way to the consumer markets of Europe and other regions. Purity levels of heroin in some European countries have already started to rise – a clear indication that there is sufficient and rising supply. Thus, while the mid-term prospects are rather positive, problems could still emerge in some of the main consumer markets this year.

Opium production in South-East Asia is now 78% lower than it was in 1996. Production in this sub-region is forecast to decline further in 2005. If the declines witnessed over the last few years are sustained, it would not be too far outside the realm of possibility that South-East Asia could become virtually free of illicit cultivation over the next few years.

The trend towards lower production of cocaine did not continue in 2004, as the area under coca cultivation rose in both Bolivia and Peru. This is a worrying loss of momentum for both countries, which had already made significant progress to curb coca production. The net results (+2%) were not a real problem in 2004. However, ongoing increases in these two countries could eventually weaken the progress the region has made in controlling coca supply. This is a vital juncture, and it will be important for the international community to continue to support alternative livelihoods programmes.

In parallel, the risk of a further dispersion of the cocaine markets continues. Europe is particularly vulnerable, having already seen a steady growth of its cocaine markets over the last decade. Even though there are signs of stabilization in some countries, consumption continues to increase in others. In 2003, 14 European countries reported an increase and 10 a stabilization. Not a single country experienced a decline in cocaine use. A particular challenge will be controlling the spread of crack-cocaine: 7 European countries reported an increase, 9 saw stable levels while, again, not a single European country identified a decline in 2003.

Cannabis continues to be the most widely produced, trafficked and consumed drug worldwide. All indicators – production, seizures and consumption – suggest that the market at the global level is expanding further. For the time being, there is no reason to believe that this expansion will stop.

Signals from the ATS market are complex. Although there are clear indications that the strong increases in ATS use observed in the 1990s were not continued into the first years of the new millennium, future increases cannot be discounted.

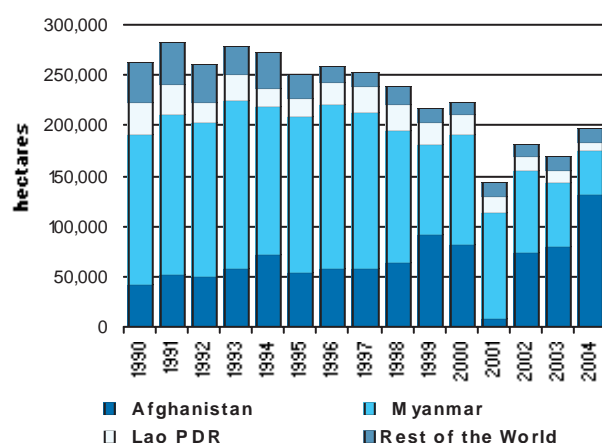
## 1.2 Opium/Heroin Market

### 1.2.1 Production

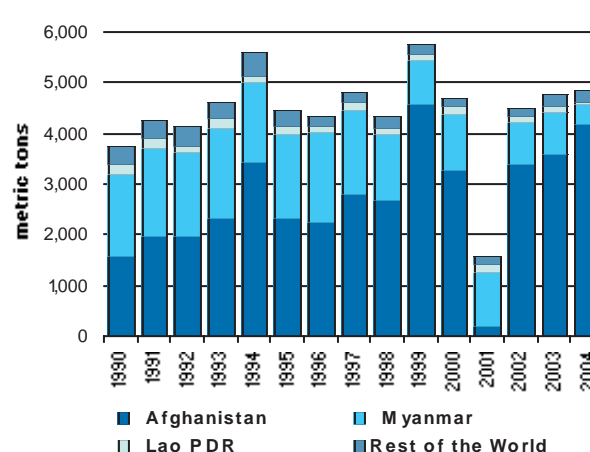
There are two distinct factors to keep in mind with regard to global production of opiates: the land area dedicated to growing opium poppy and the rate at which this crop is converted into drugs. While the total land area used for poppy cultivation increased in 2003, yields were small due to adverse climatic factors, and thus total production remained much the same as it has been since the early 1990s: about 4850 metric tons of opium in 2004, with the potential to produce about 565 mt of heroin.

The increase in land dedicated to opium cultivation was located almost entirely in Afghanistan, where an unprecedented 131,000 ha were under the crop, grown in all 34 provinces of the country. Fortunately, in the world's other major heroin producing region - Southeast Asia - cultivation has been in decline since 1998. In 2004, the area dedicated to poppy in Myanmar declined 23%, and in Lao PDR cultivation was down 43%. But these dramatic reductions were not enough to offset the increase in Afghanistan, resulting in a net increase in global cultivation area of 16% over the previous year. Bad weather negatively impacted yields in both major production areas, however, so total opium production only increased by about 2% over the previous year.

Global opium poppy cultivation 1990-2004 (ha)



Global opium production 1990-2004 (metric tons)

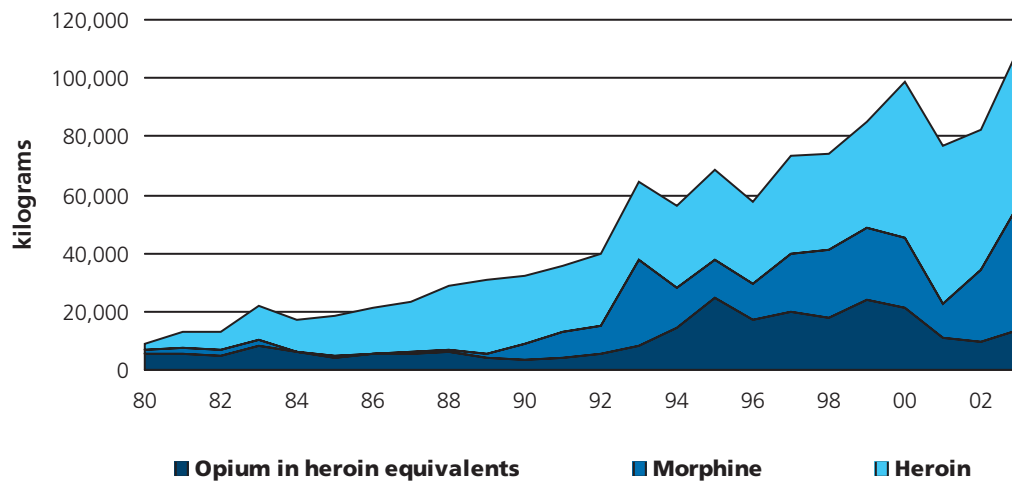


Not surprisingly, prices were inversely proportional to supplies, and Afghan opium farmers saw the value of their produce drop by 69% as compared to the previous year, to US\$92/kg of fresh opium. However, this is still two to three times higher than in the second half of the 1990s. In contrast, Southeast Asian poppy growers commanded higher prices: in Myanmar, US\$ 234/kg, an increase of 80%, and in Laos, US\$ 218/kg, an increase of 27% over 2003.

### 1.2.2 Trafficking

Opiate seizures increased by a third in 2003 to achieve a record high of 110 metric tons. Comparing this figure to production estimates, it now appears that law enforcement is intercepting nearly a quarter of all the opiates produced. The most pronounced increase was in the countries immediately bordering Afghanistan, particularly Pakistan (34.7 mt) and the Islamic Republic of Iran (26.1 mt). This is reflected in the large share of seizures that were semi-processed products (opium or morphine, rather than heroin). In Europe, seizures declined by 13% to 19.4 mt in 2003.

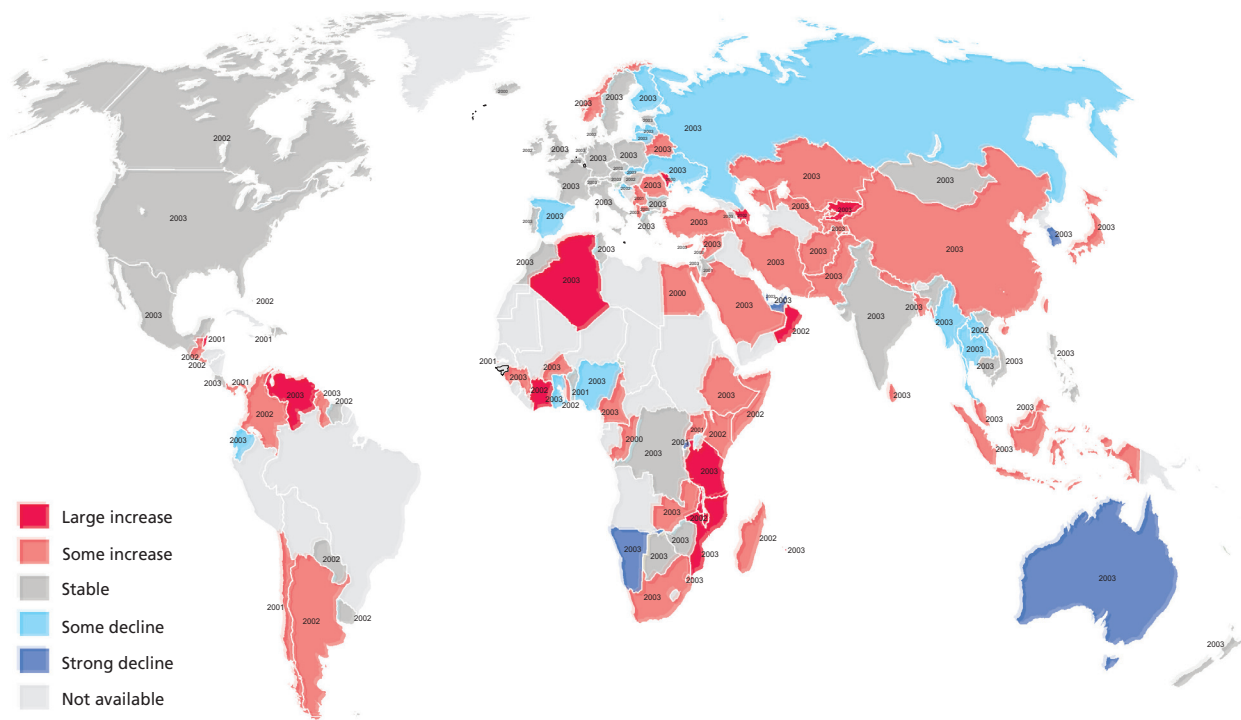
### Seizures of opiates (in heroin equivalents), 1980-2003



### 1.2.3 Abuse

A total of 16 million people worldwide use opiates, including some 10.6 million people who abuse heroin. More people (1.3 million) are treated for opiates abuse than for any other substance. Over 60% of treatment demand in Europe and in Asia is related to the abuse of opiates. In 2003, use levels remained stable globally, but some increases could be related to Afghan production going up.

### Changes in abuse of heroin and other opiates, 2003 (or latest year available)



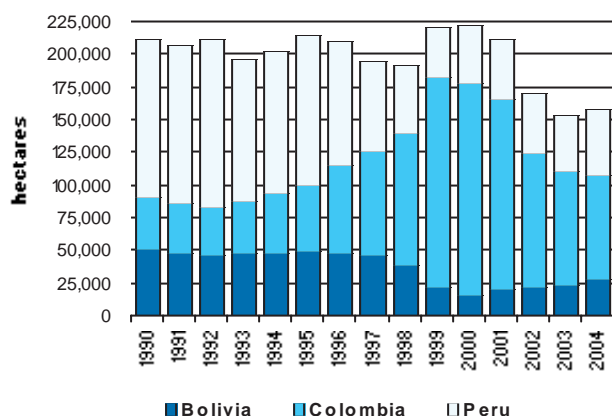


### 1.3 Coca/Cocaine Market

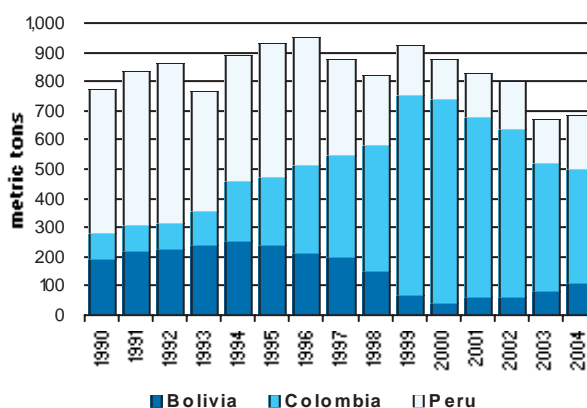
#### 1.3.1 Production

Most of the world's cocaine is produced in the just three countries: Columbia (50%), Peru (32%), and Bolivia (15%). In 2004, coca cultivation in Columbia decreased by 6000 ha, but this was more than offset by increases in Peru (up 14%) and Bolivia (up 17%). This resulted in a year-on-year global increase of about 3%, but that is still 29% less than the peak production year of 2000. The sustained high price for coca leaf was the likely motivation for farmers in Peru and Bolivia to increase coca cultivation in 2004. Prices for coca leaf have doubled since the mid-1990s in Peru, commanding US\$ 2/kg, and in Bolivia the price was even higher, at US\$ 5/kg.

Global coca bush cultivation 1990-2004 (ha)



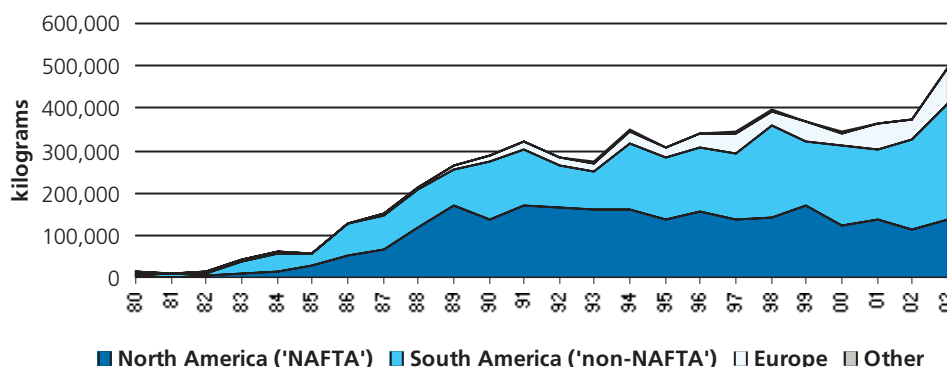
Global cocaine production 1990-2004 (metric tons)



#### 1.3.2 Trafficking

Global cocaine seizures increased by a third in 2003, to a record high of 495 mt, more than half of which were made in South America. Based on production estimates and taking purity into account, this represents an interception rate of 44%, also a record high. Columbia alone seized 146 mt, or 29% of global seizures. Oddly, rather than forcing prices up, prices dropped slightly in most of the major markets for the drug. It would appear that North American cocaine markets are in decline and that European ones are on the rise. Most of the cocaine smuggled into the United States transits Mexico or the Caribbean. Europe's supply is increasingly transiting Africa, in addition to traditional routes via Spain and the Netherlands.

Seizures of cocaine (base and HCL), 1980-2003

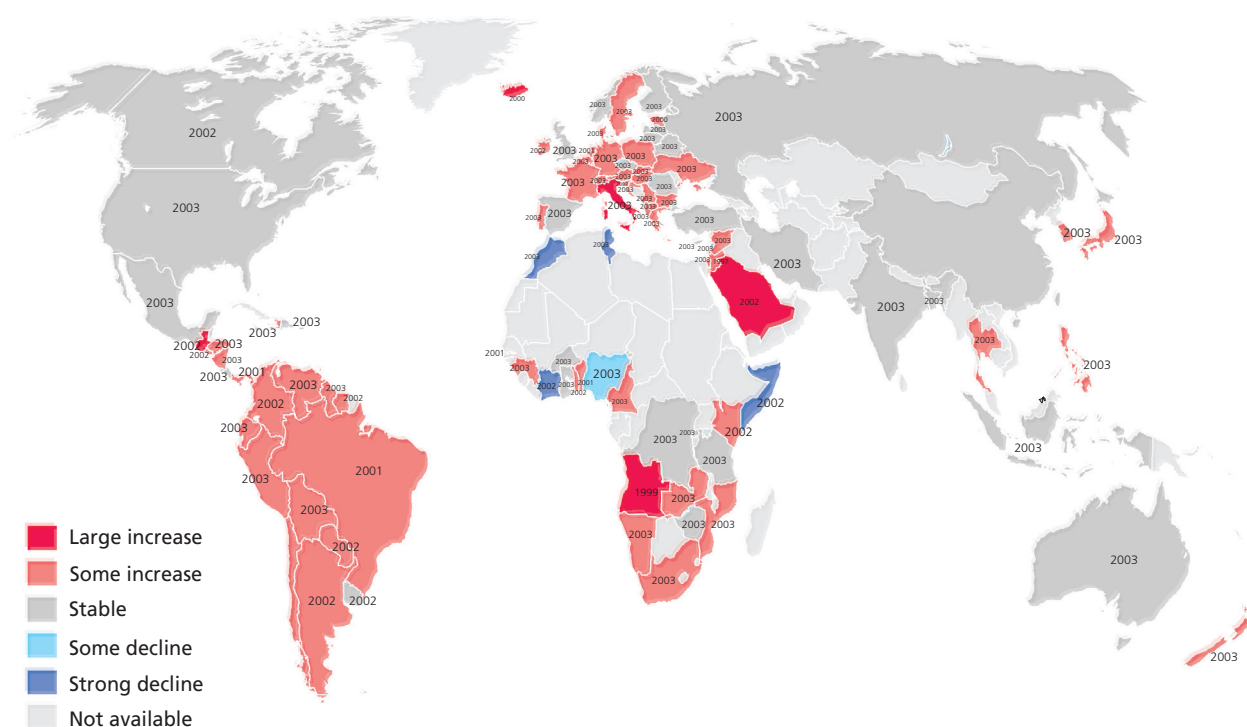




### 1.3.3 Abuse

There are an estimated 14 million cocaine users worldwide, with two-thirds residing in the Americas. Globally, cocaine use seems to have stabilised, after years of strong increases, although school surveys suggest a rising trend in Western Europe.

#### Changes in abuse of cocaine, 2003 (or latest year available)



## 1.4 Cannabis Market

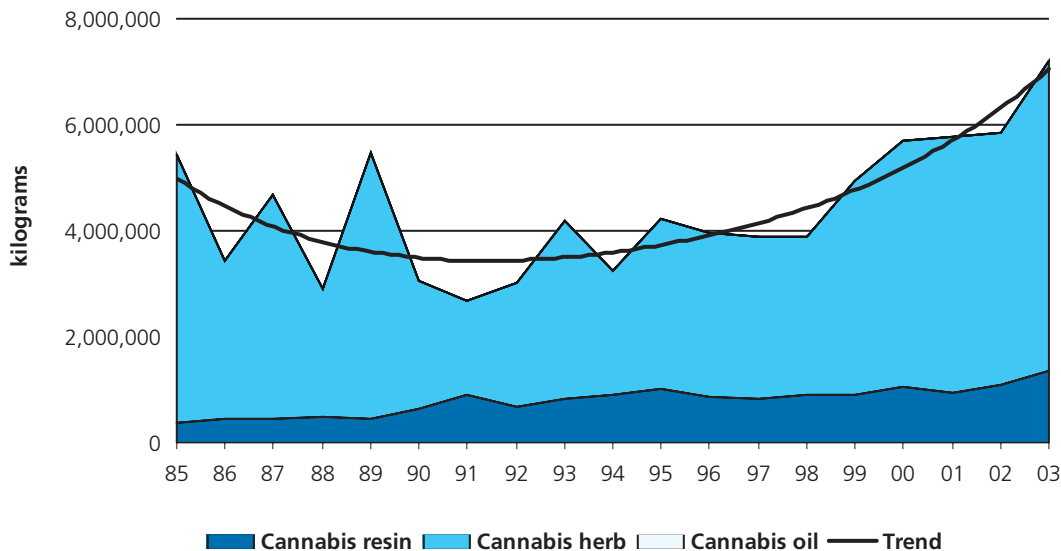
### 1.4.1 Production

Cannabis production has been rising and may have exceeded 40,000 mt in 2003. The production of herbal cannabis is extremely dispersed, and most Member States report some cannabis cultivation in their countries. Production of cannabis resin (hashish) on the other hand, seems to be concentrated in Morocco, which supplies 80% of the resin consumed in Europe, the world's largest resin market. The land dedicated to cannabis cultivation in Morocco declined between 2003 and 2004 by 10%. Pakistan and Afghanistan also contribute resin to the international market, for a total global production of about 7000 mt.

### 1.4.2 Trafficking

Cannabis herb is the most widely trafficked drug, and seizures rose again in 2003, to 5,845 mt, 58% of which occurred in North America, with Africa providing another 26%. Cannabis resin seizures also increased to a new all time high in 2003 - 1,361 mt - 70% of which was seized in Western Europe.

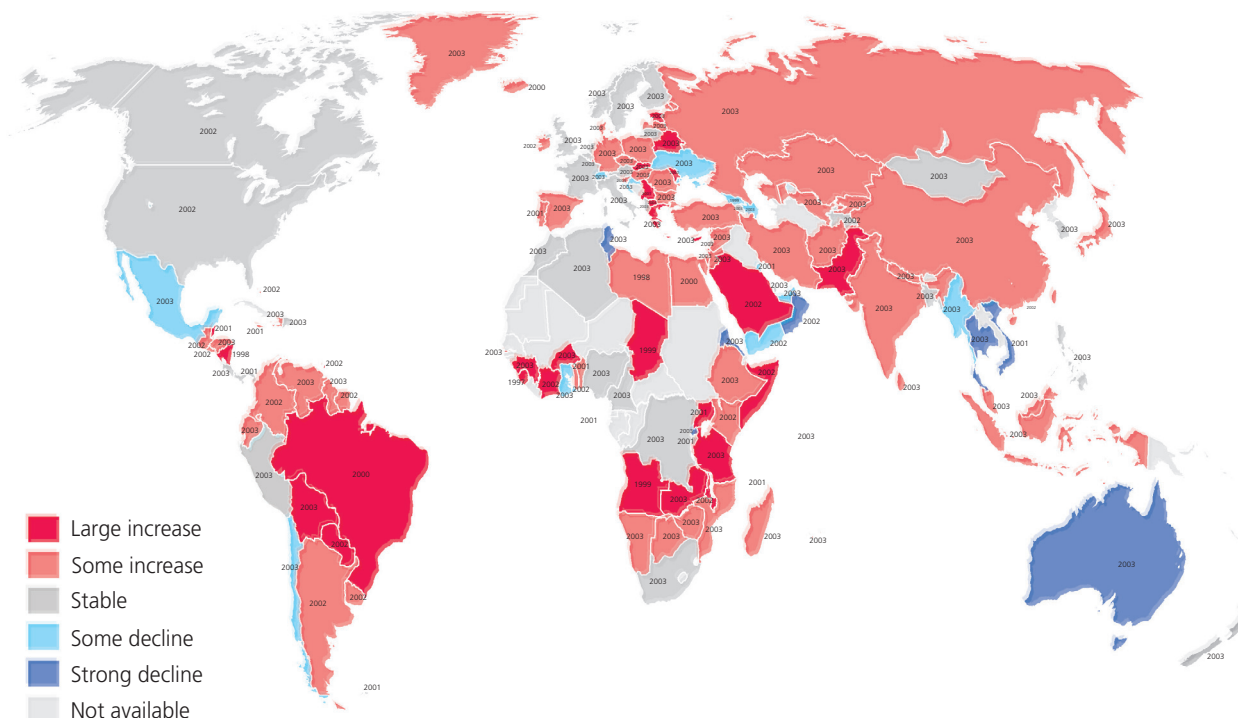
### Cannabis seizures, 1985-2003



#### 1.4.3 Abuse

Cannabis is far and away the most commonly consumed street drug in the world. An estimated 161 million people used cannabis in 2003, equivalent to 4% of the global population between the ages 15 and 64. According to expert opinions solicited from Member States, far more countries felt that cannabis use was increasing (46% of 101 countries responding) than declining (16%) in 2003. Use among students appears to be on the increase in Europe, though not in the United States or Australia.

#### Changes in abuse of cannabis, 2003 (or latest year available)



## 1.5 Amphetamine-type Stimulants Market

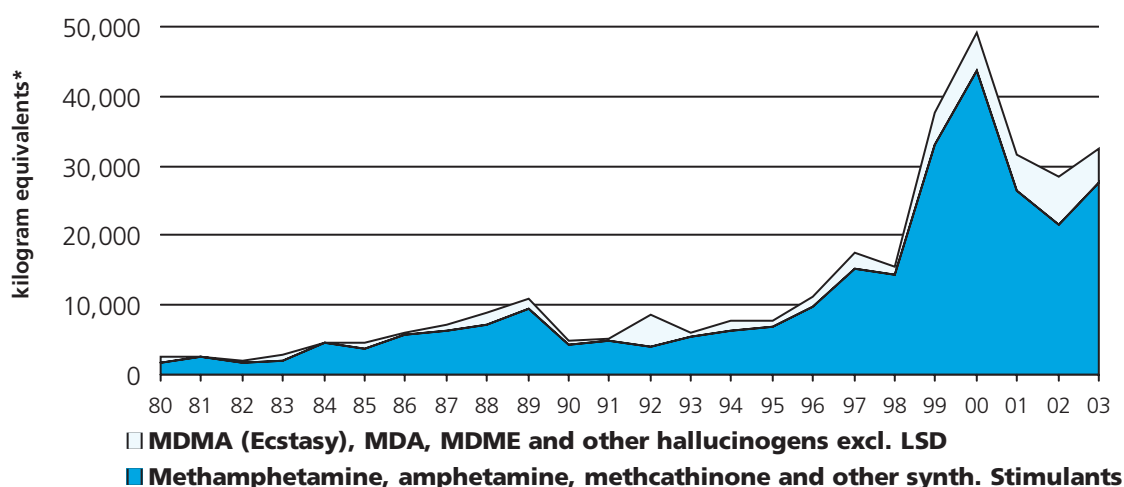
### 1.5.1 Production

Global ATS production is currently above 400 mt, three quarters of which is either methamphetamine or amphetamine and one quarter of which is 'ecstasy'. Production of amphetamines is concentrated in Europe; methamphetamine in China, Myanmar, the Philippines, and North America; and ecstasy in the Netherlands and Belgium.

### 1.5.2 Trafficking

After some years of decline, ATS seizures increased in 2003, with the largest volumes seized in Thailand (20% of the total), followed by China (18%), the United States (14%), the Philippines (10%), and the UK, the Netherlands and Australia (6% each). Methamphetamine seizures increased by 40% in 2003 though they are still 40% less than the peak year of 2000. The largest seizures of methamphetamine in 2003 were reported by Thailand (6.5 mt), China (5.8 mt), the United States (3.9 mt) and the Philippines (3.1 mt). Global amphetamine seizures (5.4 mt) are back to the levels reported in 1997/98, having increased by 22% in 2003. Amphetamine seizures continue to be concentrated in Europe (>90%), notably in West and Central Europe (79%). Ecstasy seizures in kilogram equivalents amounted to 4.3 mt, 37% less than in the peak year of 2002, and were made mainly in West and Central Europe (54%) and Oceania (26%).

#### Seizures of amphetamine-type stimulants 1980-2003

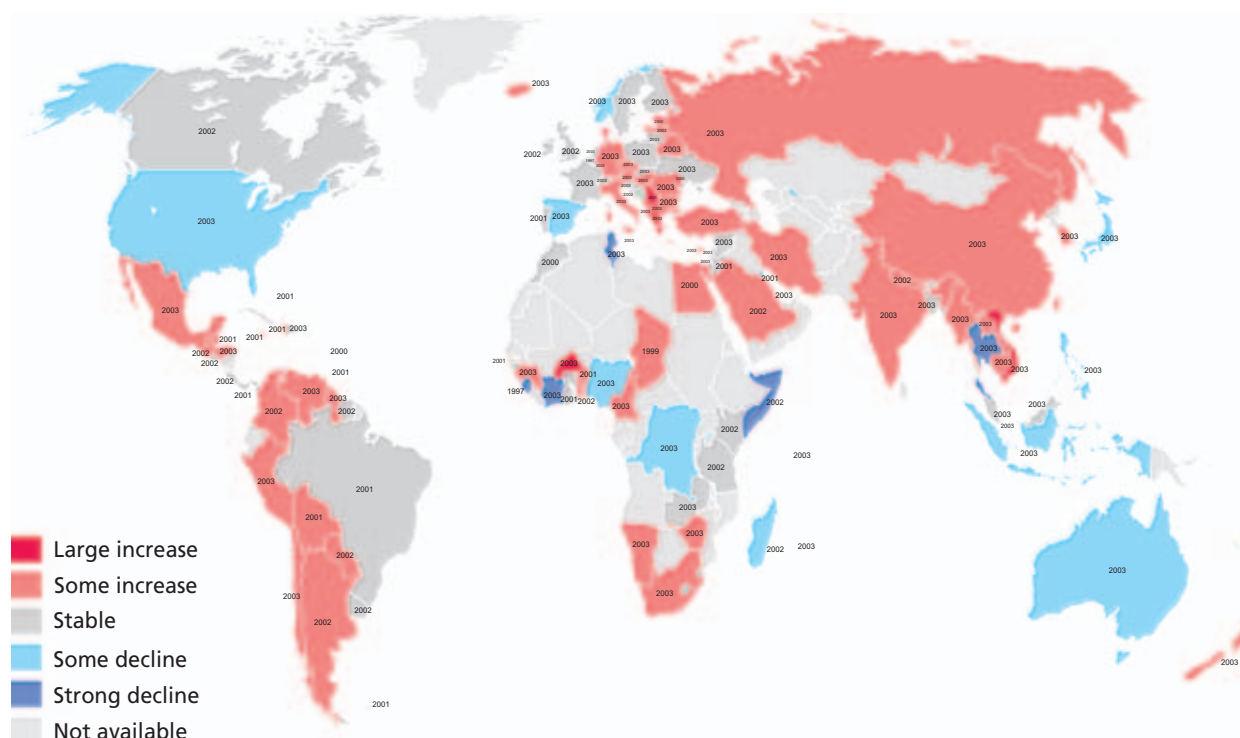


\* Seizures reported in kilograms and in units; a unit ('pill') of ecstasy was assumed to contain on average 100 mg of MDMA; a 'unit' of amphetamine / methamphetamine was assumed to contain 30 mg of amphetamine / methamphetamine.

### 1.5.3 Abuse

An estimated 26 million people used methamphetamine, amphetamine, or related substances in 2003, while about 7.9 million people used ecstasy. After the opiates, ATS are the main problem drugs in Asia, and in some countries they have overtaken heroin in terms of their contribution to treatment demand. Almost two thirds of the world's amphetamine and methamphetamine users reside in Asia, most of whom are methamphetamine users in East and South-East Asia. Prevalence of ecstasy use is highest in the Oceania region (3.1%), followed by West and Central Europe (0.9%) and North America (0.8%).

### Changes in consumption of amphetamines, 2003 (or latest year available)



## Chapter 2: Estimating the value of illicit drug markets

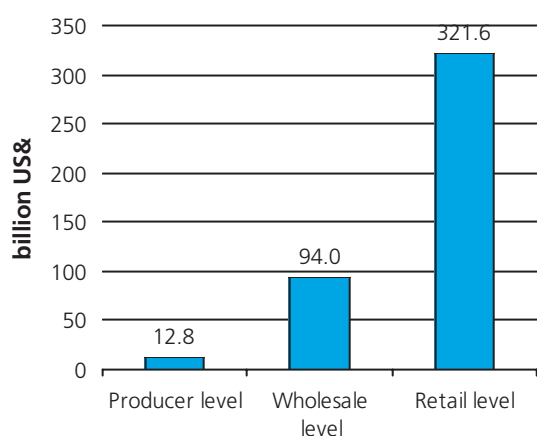
The illicit drug industry operates outside the law. Its ‘companies’ are not listed on the stock exchange, they are not valued by any private accounting firm, and the dynamics of the drug industry are not regularly pored over by analysts, economists and forecasters. Yet the overall size of the illicit drug industry is known to be huge.

The obscurity of the global illicit drug market makes the exercise of estimating its size extremely difficult. This is not because the drug market does not behave like most others in terms of supply and demand - there is a growing acceptance that it does. It is rather because the most basic inputs which are needed for such an estimation – data on production, prices, quantities exported, imported and consumed – are themselves often estimates and are frequently based on less than complete data.

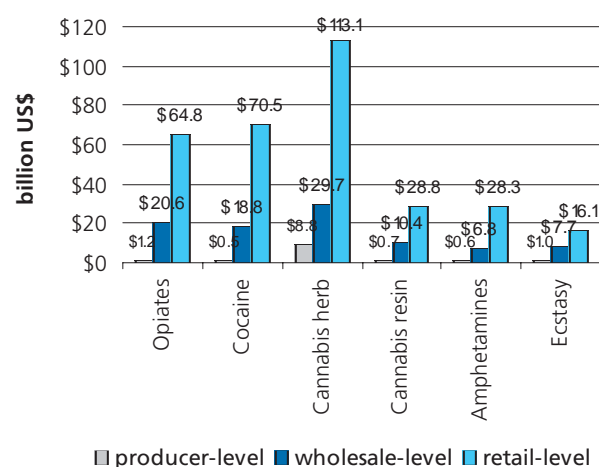
This year UNODC presents an estimate of the value of the illicit market. Three guiding principles were applied to this exercise: first, only readily available data were used; second, the methodology and the model were kept straightforward and the assumptions transparent; and third, it was ensured that the model, by distilling the market down to its most basic economic rules, would be easily updateable. In addition, the methodology chosen tries to combine, as far as possible, the top-down with the bottom-up approach.

The value of the global illicit drug market for the year 2003 was estimated at US\$13 bn at the production level, \$94 bn at the wholesale level (taking seizures into account), and US\$322 bn at the retail level (based on retail prices and taking seizures and other losses into account).

## Size of the global illicit drug market in 2003



## Size of the global illicit drug market in 2003 by substances

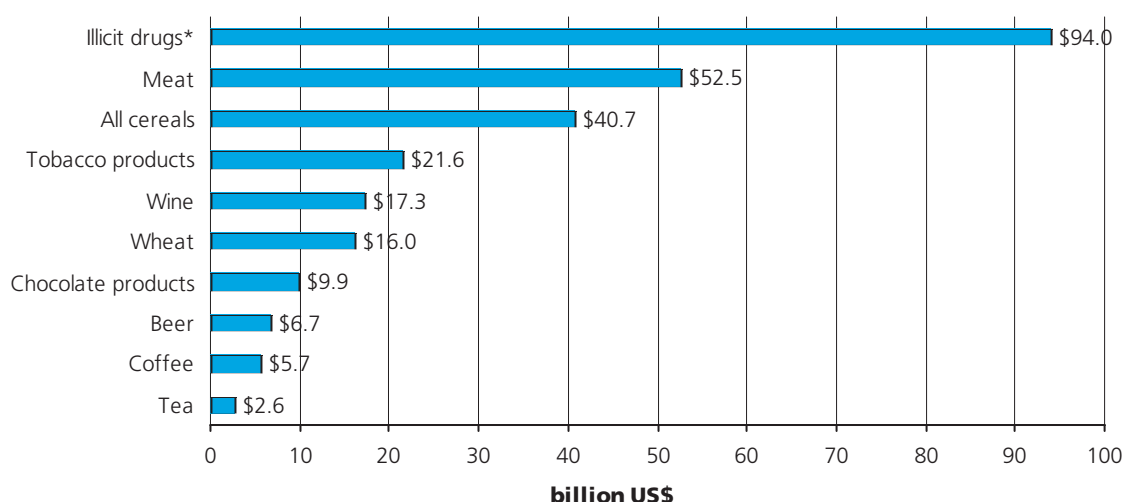


The size of the global illicit drug market is substantial. The value, measured at retail prices, is higher than the GDP of 88% of the countries in the world (163 out of 184 for which the World Bank has GDP data) and equivalent to about three quarters of Sub-Saharan Africa's total GDP (US\$439 bn in 2003). The sale of drugs, measured at wholesale prices, was equivalent to 12% of global export of chemicals (US\$794 bn), 14% of global agricultural exports (US\$674 bn) and exceeded global exports of ores and other minerals (US\$79 bn) in 2003. Such sales of drugs were also higher than the combined total licit agricultural exports from Latin America (US\$75 bn) and the Middle East (US\$10 bn) in 2003<sup>2</sup>.

The largest market, according to these estimates, is cannabis herb (with a retail market size of \$113 bn), followed by cocaine (US\$71 bn), the opiates (US\$65 bn) and cannabis resin (US\$29 bn). The ATS markets together (methamphetamine, amphetamine and ecstasy) amount to US\$44 bn. The valuation does not take into account the value of other drugs.

While UNODC is reasonably confident with its estimations on opiates, cocaine and the ATS, the degree of certainty is far lower for cannabis, notably for cannabis herb, as information for production and consumption of this substance is highly contradictory. If better information becomes available, a major revision cannot be ruled out.

## Value of Illicit drugs at wholesale level (in billion US\$) compared to the export values of selected agricultural commodities in 2003



\* illicit drugs measured at the wholesale level, used as a proxy for the export price.

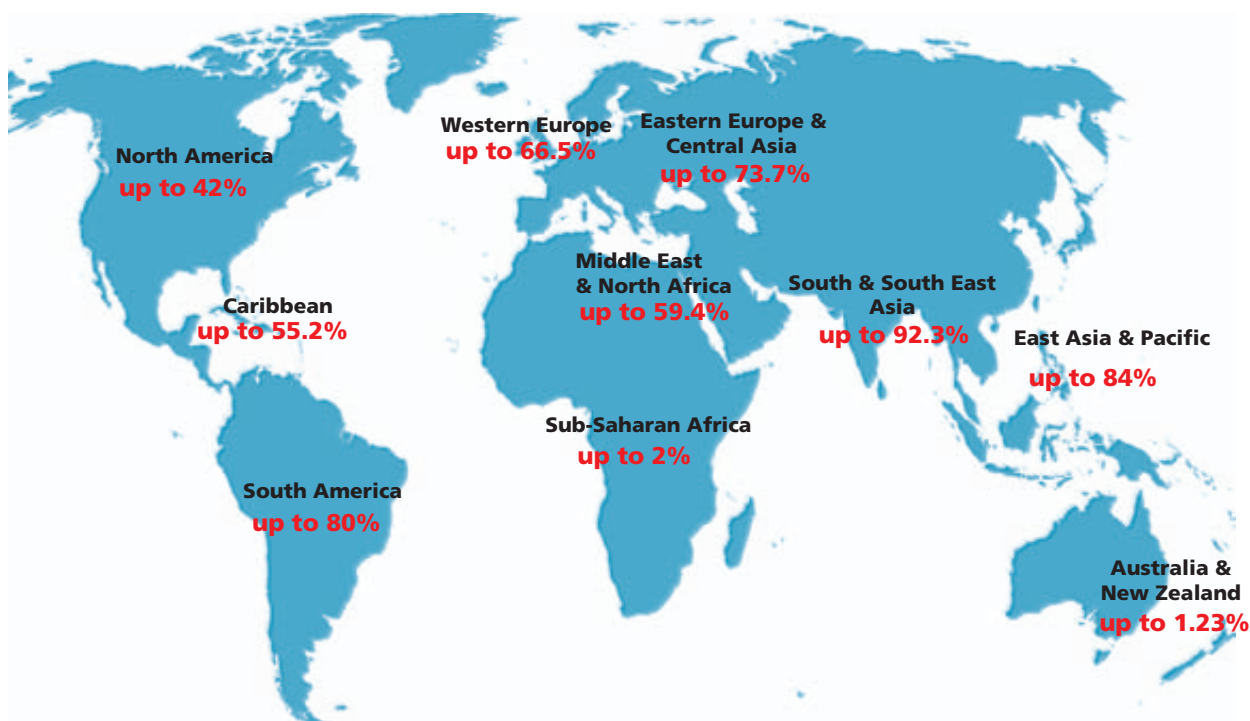
2 World Bank, World Development Indicators database, April 2005.

## Chapter 3: HIV/AIDS and Drugs

Globally, sexual transmission of HIV continues to be the most common way the virus is spread, but drug use is contributing to the pandemic in at least four ways. First, the most common and best-researched method of transmission is via the use of contaminated injection equipment between people who inject drugs. Second, there is sexual transmission of the virus between those who inject drugs and their sexual partners. The dual transmission risk in the case of sex workers who also inject drugs leads to epidemics that expand quickly and act as a bridge to the rest of the population. Third, non-injecting use of drugs such as cocaine and amphetamine-type stimulants leads to high-risk sexual behaviour. And finally, HIV can be transmitted from an infected mother to her child.

In the early stages of the pandemic, HIV/AIDS among injecting drug users was largely viewed as self-limiting, affecting injectors and their immediate sexual partners but not leading to a more generalised spread of the virus. Recent work on the Asian and Eastern European HIV/AIDS epidemics has proven this perspective to be incorrect.<sup>3</sup> Globally, it is estimated that 5% -10% of all HIV infections are attributable to injecting drug use, mostly via the use of contaminated injection equipment.<sup>4</sup> In many countries of Europe, Asia, the Middle East and the Southern Cone of Latin America, the use of non-sterile injection equipment has remained the most important mode of HIV transmission, accounting for 30%-80% of all reported infections.

### HIV/AIDS prevalence (%) among injecting drug users (1998- 2003)



<sup>3</sup> WHO/ UNAIDS/ UNODC Advocacy Guide: HIV/AIDS Prevention Among Injecting Drug Users, WHO, 2004.

<sup>4</sup> UNAIDS, Institute OS, Agency CID. The Warsaw declaration: A framework for effective action on HIV/AIDS and injection drug use. 2nd International Policy Dialogue. Warsaw; WHO/ UNAIDS/ UNODC. Advocacy Guide: *op.cit.*



Epidemics driven by injecting drug use have different characteristics than epidemics where sexual transmission is the main mode of infection.<sup>5</sup> Most importantly, the efficiency of HIV transmission per injection is almost six times higher than for heterosexual acts. Most studies also found that heroin injectors inject about 1-3 times per day, and cocaine users even more frequently, so the number of possible exposures is also greater. Due to the greater efficiency and higher frequency of risk-exposure associated with injecting drug use, these epidemics tend to spread more rapidly than those driven by sexual transmission. Soon after HIV is introduced into a community of injecting drug users, infection levels in these populations can rise from zero to 50–60% within 1–2 years.<sup>6</sup>

Despite insufficiencies of data, particularly on non-injecting drug use, there is no doubt that the use of drugs, whether injected or taken otherwise, increases the risk of becoming infected with HIV. If injected, the use of contaminated injection equipment can lead to the rapid spread of the virus in the injecting community and beyond. Certain drugs that are not injected can also increase HIV transmission due to their impact on sexual risk-taking behaviour. The sexual partners of drug users, whether drugs users themselves or not, can spread the virus to the larger community, particularly if they are commercial sex workers.

## Chapter 4: Towards the creation of an Illicit Drug Index

The "drug problem" has so far not found a representation that goes beyond the existing mosaic of perceptions and statistics, and encompasses them into a single standard measure. Entrusted by Member States to promote and support a coordinated and multilateral response to the world's drug problem, UNODC has been striving to improve the analytical tools at the disposal of governments and the international community to develop increasingly effective control measures.

In this context, UNODC has been working with governments and a variety of organizations to establish norms and standard indicators; to improve data collection and reporting systems; and to facilitate the dissemination of data and information on the nature, extent and evolution of the drug problem and its various dimensions. As part of the ongoing effort to expand the knowledge base that informs policy making, UNODC is now working towards developing a global Illicit Drug Index (IDI).

The Illicit Drug Index would provide a single, standard and comparable measure of a country's overall drug problem, weighted by the size of its population. The Illicit Drug Index combines all the main categories of illicit drugs by converting them into a hypothetical reference drug. It also combines the extent of illicit drug production, trafficking and abuse into a single measure of potential harm that moves along the market chain. Once refined the index could reflect the extent of the drug problem affecting a particular country in comparison with others, weighted by the size of its population.

5 Pisani E, Garnett GP, Grassly NC, Brown T, Stover J, Hankins C, Walker N, Ghys PD. Back to basics in HIV prevention: focus on exposure. *BMJ* 2003;326:1384-7.

6 WHO Training Guide for HIV Prevention Outreach to Injection drug users. Geneva. 2003