

1.3 Coca / Cocaine market

1.3.1 Production

Table 5. GLOBAL ILLICIT CULTIVATION OF COCA BUSH AND PRODUCTION OF COCA LEAF AND COCAINE, 1990-2004

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CULTIVATION^(a) OF COCA BUSH IN HECTARES															
Bolivia^(b)	50,300	47,900	45,300	47,200	48,100	48,600	48,100	45,800	38,000	21,800	14,600	19,900	21,600	23,600	27,700
Colombia^(c)	40,100	37,500	37,100	39,700	44,700	50,900	67,200	79,400	101,800	160,100	163,300	144,800	102,000	86,000	80,000
Peru^(d)	121,300	120,800	129,100	108,800	108,600	115,300	94,400	68,800	51,000	38,700	43,400	46,200	46,700	44,200	50,300
Total	211,700	206,200	211,500	195,700	201,400	214,800	209,700	194,000	190,800	220,600	221,300	210,900	170,300	153,800	158,000
POTENTIAL PRODUCTION OF DRY COCA LEAF IN METRIC TONS															
Bolivia	77,000	78,000	80,300	84,400	89,800	85,000	75,100	70,100	52,900	22,800	13,400	20,200	19,800	18,500	25,000
Colombia	45,300	45,000	44,900	45,300	67,500	80,900	108,900	129,500	165,900	261,000	266,200	236,000	222,100	168,000	148,900
Peru	196,900	222,700	223,900	155,500	165,300	183,600	174,700	130,600	95,600	69,200	46,200	49,300	52,500	50,790	70,300
Total	319,200	345,700	349,100	285,200	322,600	349,500	358,700	330,200	314,400	353,000	325,800	305,500	294,400	237,290	244,200
POTENTIAL MANUFACTURE^(e) OF COCAINE IN METRIC TONS															
Bolivia	189	220	225	240	255	240	215	200	150	70	43	60	60	79	107
Colombia	92	88	91	119	201	230	300	350	435	680	695	617	580	440	390
Peru	492	525	550	410	435	460	435	325	240	175	141	150	160	155	190
Total	774	833	866	769	891	930	950	875	825	925	879	827	800	674	687

(a) Harvestable after eradication

(b) Sources: 1990-2002: CICAD and US Department of State, International Narcotics Control Strategy Report; 2003-2004: National Illicit Crop Monitoring System supported by UNODC.

(c) Sources: 1990-1998: CICAD and US Department of State, International Narcotics Control Strategy Report; 1999-2004: National Illicit Crop Monitoring System supported by UNODC.

(d) Sources: 1990-1999: CICAD and US Department of State, International Narcotics Control Strategy Report; 2000-2004: National Illicit Crop Monitoring System supported by UNODC.

(e) Amounts of cocaine that could be manufactured from locally produced coca leaf (due to imports and exports actual amounts of cocaine manufactured in a country can differ).

Global cultivation of coca is on the increase...

After three consecutive years of decline, global coca cultivation has increased slightly in 2004. The total area under coca cultivation in Colombia, Peru and Bolivia rose 3% to 158,000 ha. This is still 29% less than the peak of cultivation in 2000, but is a worrying reversal of the previous positive trend. The majority of all coca cultivation (50%) continues to take place in Colombia, followed by Peru (32%) and Bolivia (15%).

About 80,000 ha of coca were cultivated in Colombia in 2004, a year-on-year decline of 6,000 ha. The decrease of coca cultivation is consistent with the sustained level of aerial spraying and manual eradication that peaked at 139,200 ha in 2004. The continued implementation of alternative development projects also contributed to the success of the government's eradication efforts.

Unfortunately, the decline in Colombia was offset by increases in cultivation in both Bolivia and Peru. Cultivation in Bolivia increased 17% to 27,700 ha in 2004, reinforcing the rising trend of the past five years. In Peru cultivation rose 14% to 50,300 ha to its highest level since 1998.

...including in vital National Park regions and protected areas.

Coca cultivation continues to take place in areas that do not meet the ecological conditions for agriculture and should be protected or used exclusively for forestry activities. In Colombia, coca cultivation was found in 13 out of 50 National Parks. Coca cultivation in National Parks represented 7% of the total level of coca cultivation in 2004. A comparison of the location of the coca fields in 2003 and 2004 showed that about 60% of the coca fields were new, indicating the important mobility of this crop in Colombia. This trend is worrisome. In Bolivia, a total of 40% of the coca cultivation in the Chapare region (4,100 ha) was in two National Parks. In 2004, coca cultivation in these National Parks increased by 71%, to 4,100 ha. Similar developments

were observed in Peru. In 2004, 24% of coca was cultivated in protected areas, including national parks and biosphere reserves. The most important increase in 2004 took place in the Alto Huallaga region, where 52% of cultivation was in protected and forest areas.

Sustained eradication activities continued in all three countries...

The Colombian anti-drugs strategy includes a number of measures ranging from aerial spraying to forced or voluntary manual eradication, and includes both alternative development and crop substitution programmes.¹² The Colombian Anti-Narcotics Police (DIRAN) reported that spraying activities reached record levels in 2004, for the fourth consecutive year. The DIRAN sprayed a total of 136,551 hectares, up 3% from 2003, and the Army manually eradicated 2,589 ha of coca.¹³

In 2004, the Bolivian Government reported the eradication of 8,437 ha of coca fields¹⁴. Most of this took place in the Chapare region. In 2004, the level of reported eradication was 16% less than in 2003. In 2004, the Peruvian government reported the eradication of 10,257 ha of coca fields, 10% less than in 2003. It was the third largest level of eradication since 1999.

...but alternative livelihood options need further investment.

The budget for alternative development projects implemented at the municipality and department levels in Colombia increased to US\$78 million in 2004. Documenting the impact of this investment is not straightforward, and whereas the reductive effects of aerial spraying can be almost immediate, it takes longer to understand and assess the impact of alternative development. Aerial spraying and alternative development efforts were intense in Putumayo and Caqueta between 2000 and 2004, producing a decrease of about 80,000 ha of coca cultivation. However, between 2000 and 2004, coca cultivation increased in Nariño by about 5,000 ha, despite of intense aerial spraying and an

12 UNODC does not participate in or supervise spraying activities.

13 Once coca fields are sprayed, it normally takes 6-8 months to recover productive crops when the bushes are pruned or replanted. However, if heavy rains occur or if farmers wash the coca bushes immediately after spraying, the loss of coca leaf could be minimal.

14 In Bolivia, the eradication of coca cultivation is exclusively manual and no chemicals are used.

US\$11million investment in alternative development. In Meta, coca cultivation increased by about 7,600 ha during the same period, due to some extent to the absence of alternative development projects and the low level of aerial spraying of coca cultivation.

Peru has had remarkable results with alternative livelihood programmes. In the 1990s, a large proportion of the total coca cultivation in the country was grown in Aguayta and Lower Huallaga. By 2004, following the successful implementation of many such programmes coca cultivation had virtually disappeared from both regions. Only 11% of Peruvian farmers dependent on coca have access to sustainable livelihood activities.

Bolivia can also point to numerous alternative livelihoods schemes that have reduced the dependence of rural economies on coca cultivation. However, these programmes still do not reach enough coca growers and far too many people remain dependent on coca. In Chapare, the focus of alternative development projects was the region defined by the Ministry as 'multiple use forest'. Between 2003 and 2004, coca cultivation remained stable in this region. In contrast, areas with little or no alternative development intervention showed an increase in coca cultivation between 2003 and 2004.

The high prices of coca leaf continue in Bolivia and Peru...

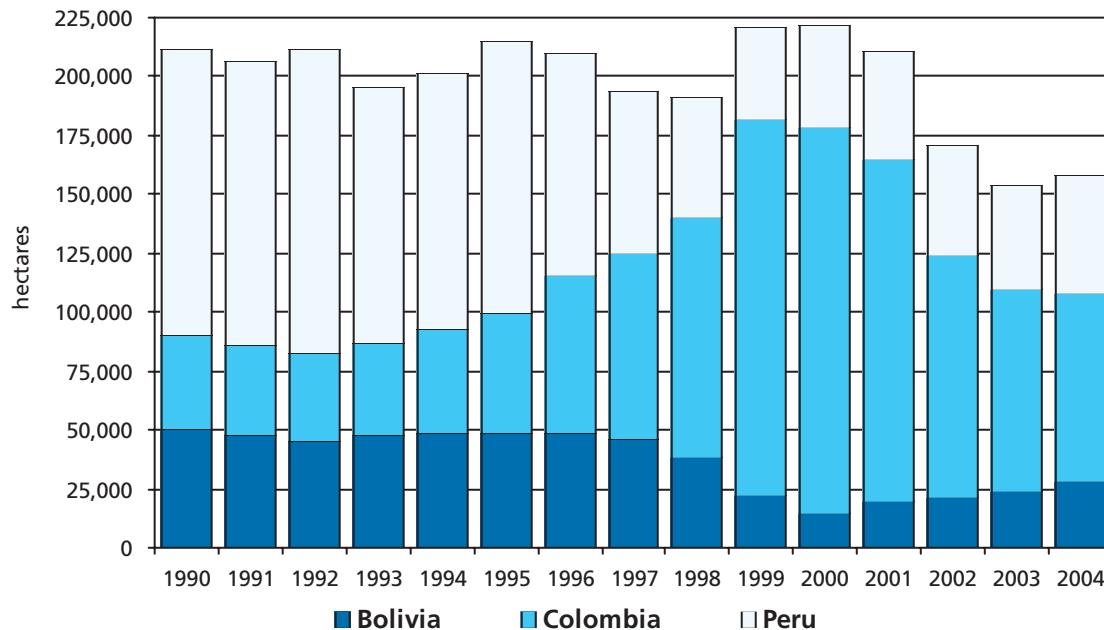
The sustained high price for coca leaf was the likely motivation for the farmers in Peru and Bolivia to increase coca cultivation in 2004. In Peru, the price has remained above US\$ 2/kg since 2000, compared to prices below US\$ 1/kg in 1996/1997. Prices in Bolivia are even higher at about US\$ 5/kg, creating an incentive for smuggling Peruvian coca leaf into Bolivia. Bolivian authorities seized 27 metric tons of Peruvian coca leaves, out of a total of 155 metric tons.

Contrary to Bolivia and Peru, the market for coca leaf is not developed in Colombia because most farmers process the coca leaves into coca base. However, for the remainder who sold leaf, prices were much lower than in Peru and Bolivia, ranging between US\$ 0.4/kg and US\$ 1.8/kg. In 2004, the average price for one kg of coca base was about US\$807. Although production decreased in Colombia in 2004, coca leaf prices did not increase. Compared to 2003, the prices even decreased in Colombian pesos. One possible explanation of this, still to be confirmed, is that the reduction of coca leaf production in Colombia was offset by imports of coca paste/base.

The total farm gate value of potential global coca base production was US\$ 565 million in 2004.¹⁵

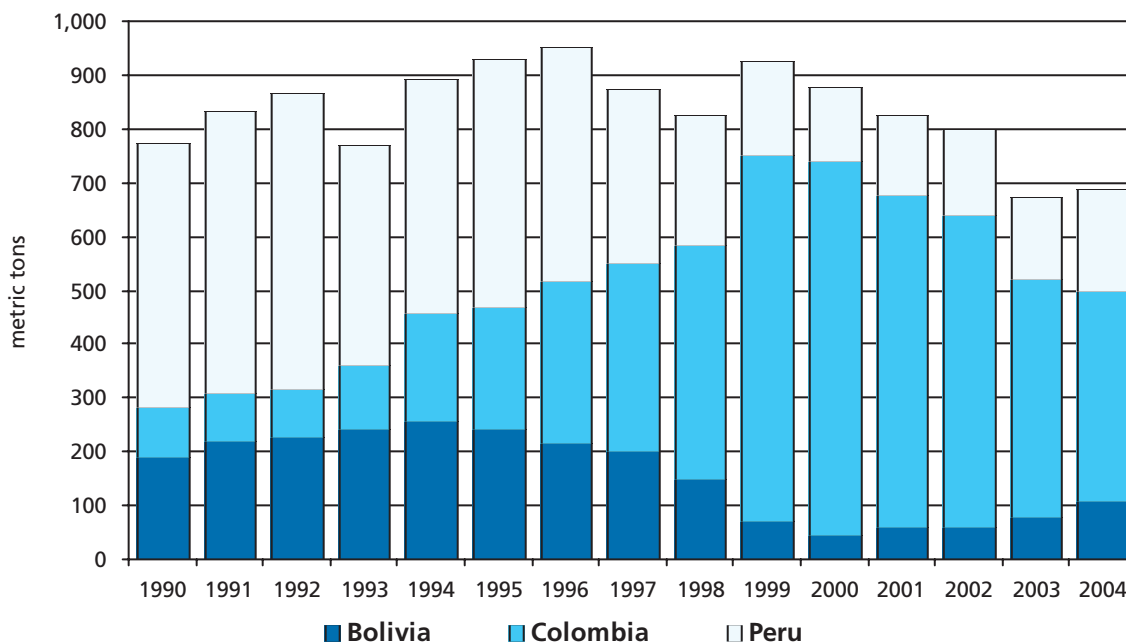
15 Using the average price for coca paste of US\$ 80/kg in 2004 and assuming a 1:1 conversion rate between coca base and cocaine, the total farm-gate value of the 390 metric tons of coca base produced in Colombia in 2004 would amount to about US\$315 million. In Peru, the potential production of cocaine was estimated at 190 metric tons. Using the 1:1 conversion rate between coca base and cocaine, the farm gate value of the potential coca base production was calculated at US\$ 122 million. The potential cocaine production in Bolivia is estimated to have amounted to 107 metric tons in 2004, which corresponded to an increase of 35% compared to last year potential cocaine production of 79 metric tons. The farm gate value of potential coca base production in Bolivia would amount to US\$ 128 million.

Fig. 18: Global coca bush cultivation, 1990-2004 (in ha)

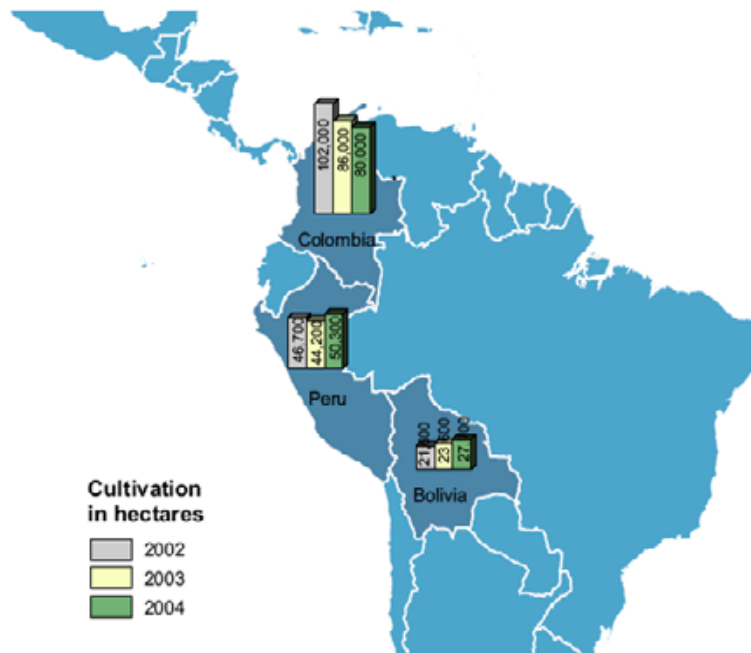


Estimates for Colombia for 1999 and subsequent years come from the national monitoring system established by the Colombian government with the support of UNODC. Due to the change of methodology, figures for 1999 and after cannot be directly compared with data from previous years.

Fig. 19: Potential cocaine production, 1990-2004 (metric tons)



Map 8. Coca bush cultivation (2002 - 2004)



Map 9. Potential cocaine production (2002 - 2004)

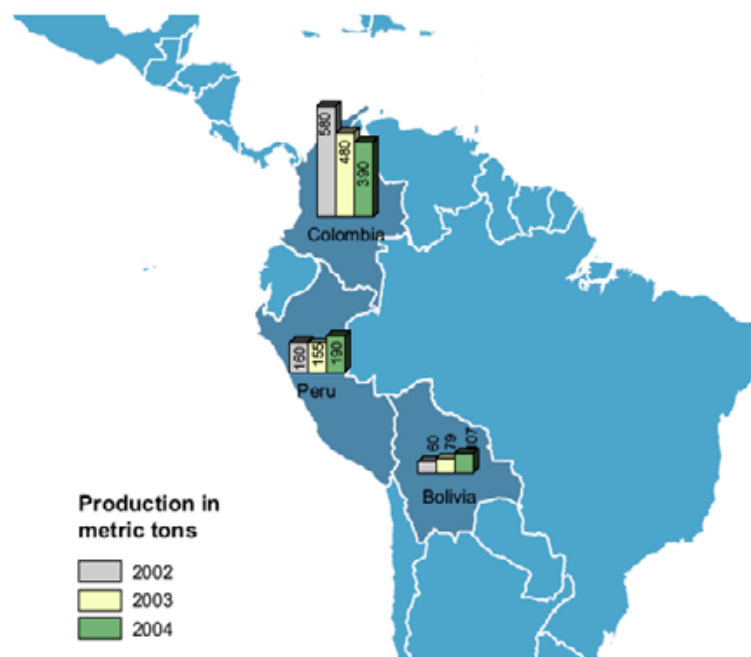
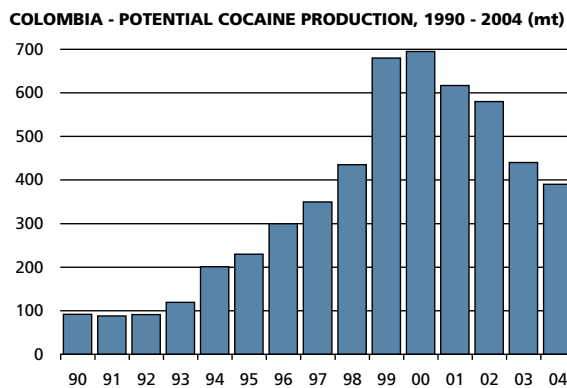
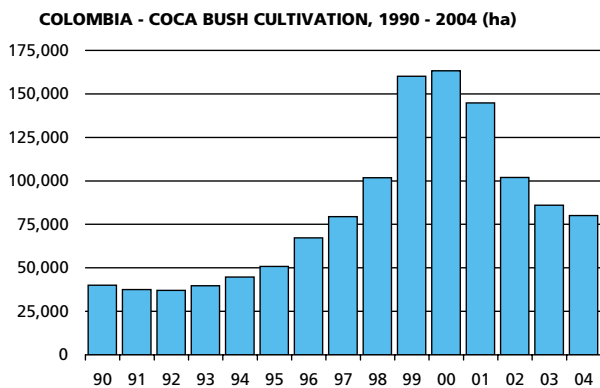


Fig. 20.
Annual coca bush cultivation and cocaine production in main producing countries, 1990 - 2004



Estimates for Colombia for 1999 and subsequent years come from the national monitoring system established by the Colombian government with the support of UNDCP. Due to the change of methodology, figures for 1999 and after cannot be directly compared with data from previous years.

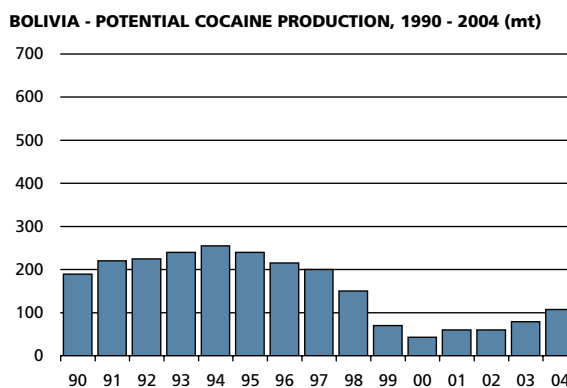
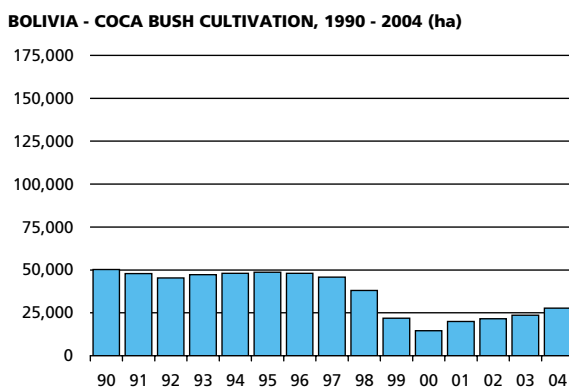
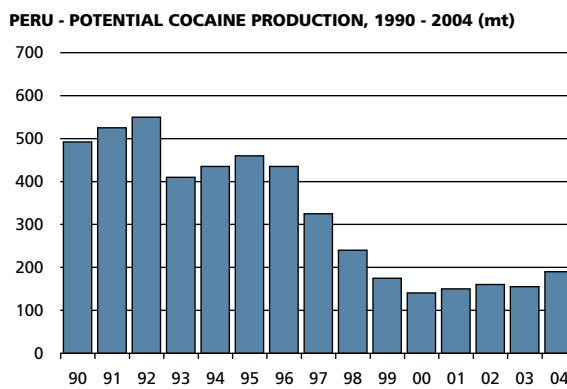
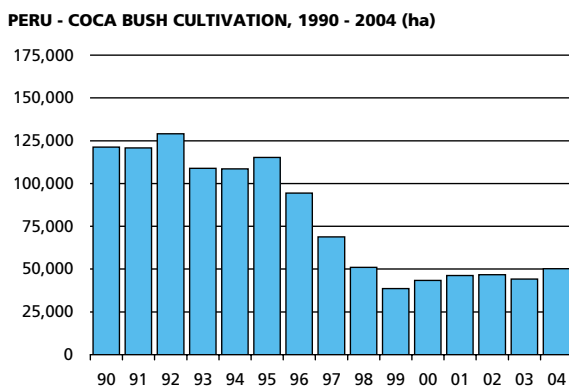


Fig. 21: Coca bush cultivation (in % of global total)

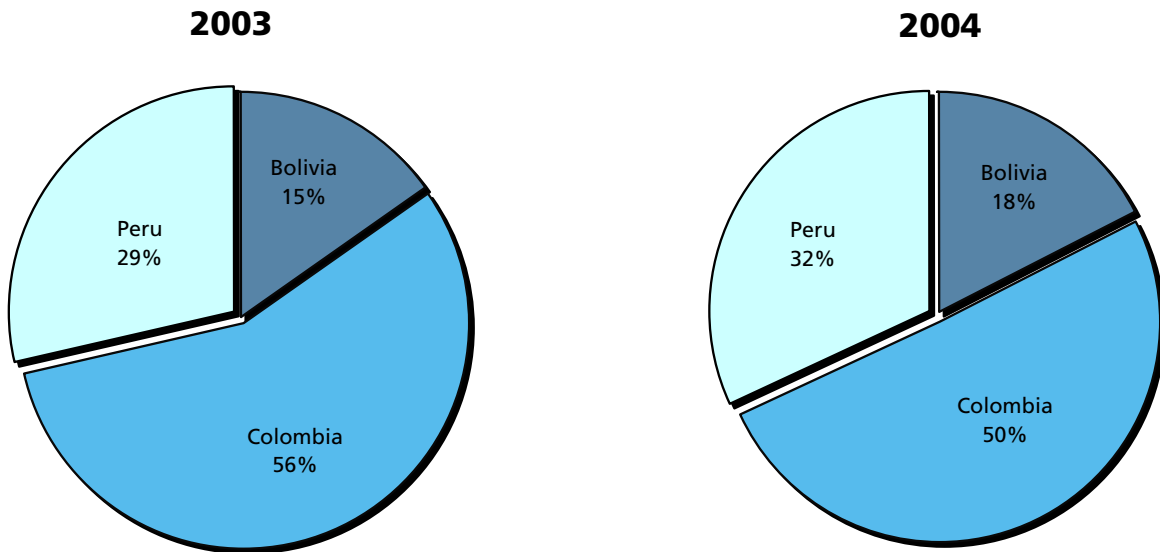


Fig. 22: Potential cocaine production (in % of global total)

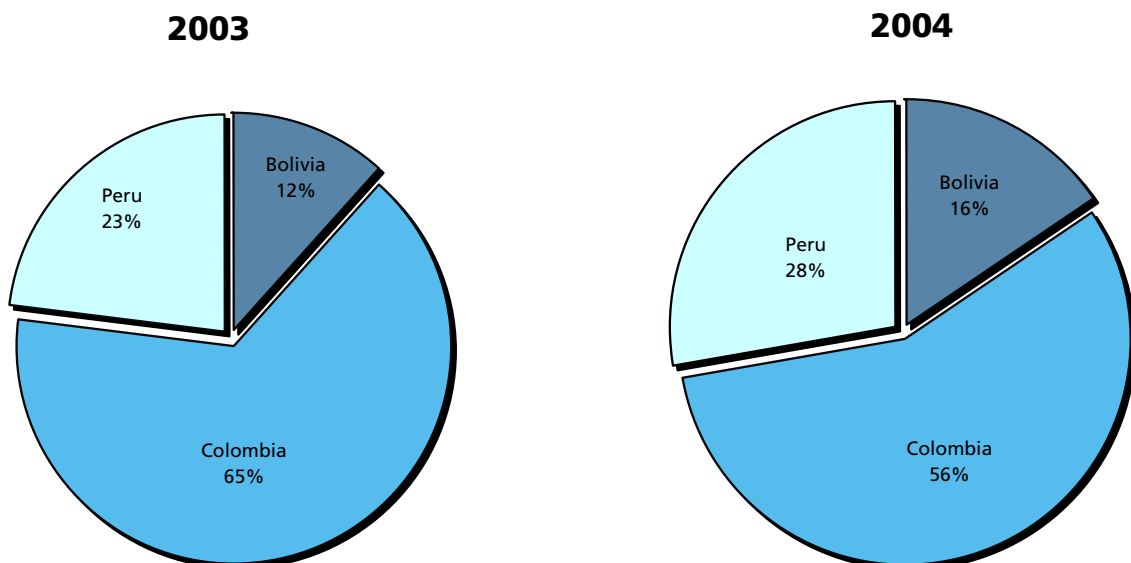


Table 5. Estimated farmgate value of coca base, 2004

	(UNODC estimates)		
	Farmgate price US\$ per kg	Production metric tons	Potential value millions of US\$
Colombia	810	390	315
Peru	640	190	122
Bolivia	1,200	107	128

Fig. 23: Estimated farmgate value of coca base, 2004 (millions of US\$)

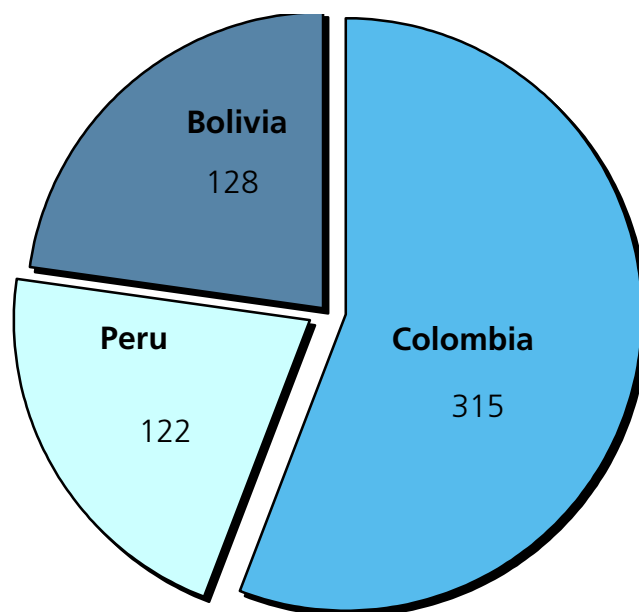


Fig. 24: USA: cocaine retail and whole sale prices, 1990-2003 (US\$/gram)

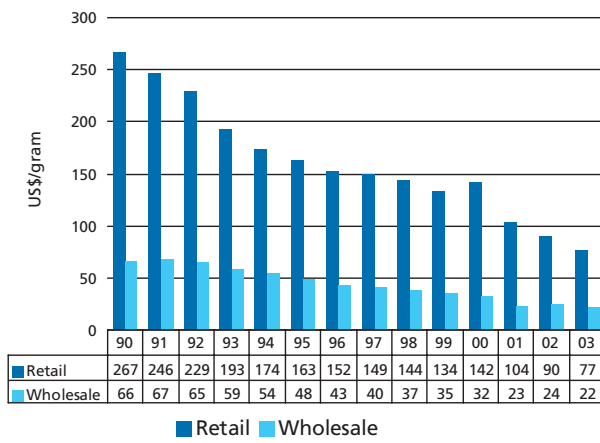


Fig. 25: Europe: cocaine retail and wholesale prices, 1990-2004 (US\$/gram)

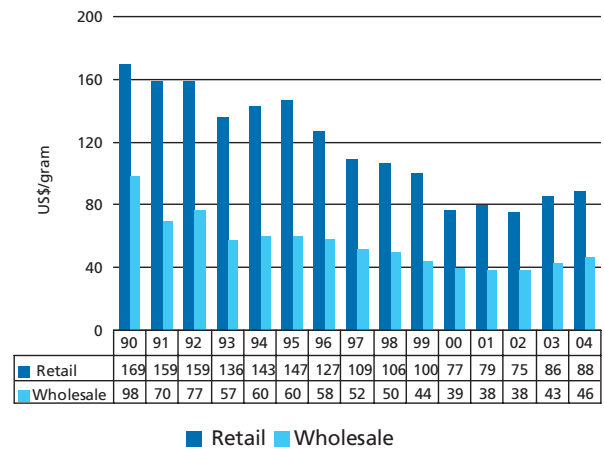


Fig. 26: Wholesale cocaine prices in Europe and the USA, 1990-2004 (US\$/gram)

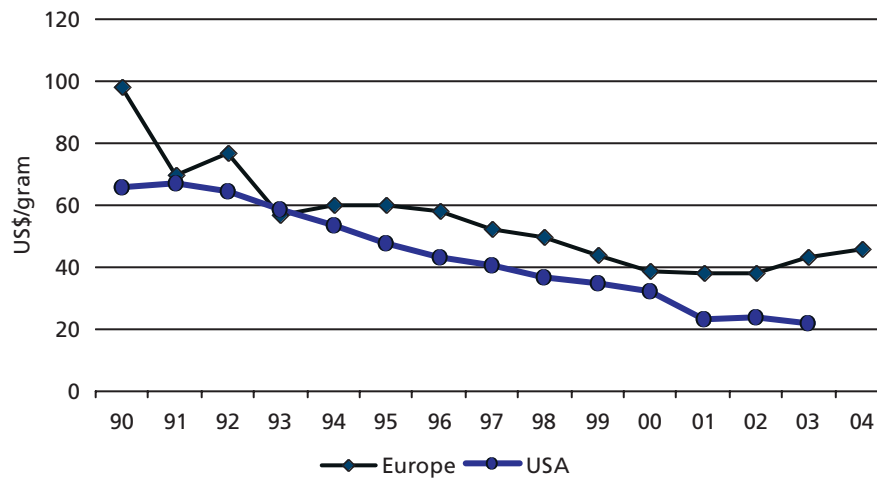


Table 7. Reported eradication of coca bush, in ha

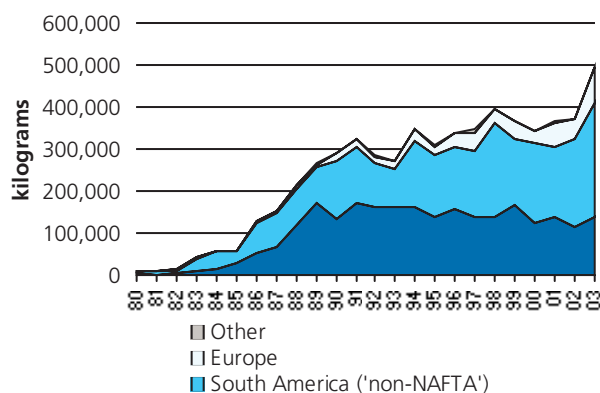
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bolivia	2,400	1,100	5,493	7,512	7,000	11,620	15,353	7,653	9,395	11,839	10,089	8,437
Colombia	946	4,904	25,402	23,025	44,123	69,155	44,157	61,574	95,898	126,933	136,828	139,161
Peru		240	7,512	7,512	3,462	17,800	13,800	6,200	3,900	7,000	11,312	10,257

1.3.2 Trafficking

Global cocaine seizures reached a record high in 2003...

Global cocaine seizures rose to 495 mt in 2003, a 33% increase as compared to a year earlier, and a new all-time high. Cocaine seizures increased by 20% in North America, 29% in South America, 80% in Europe and 77% in the rest of the world. Fifty five percent of total global cocaine seizures took place in South America, 28% in North America and 17% in Europe.

Fig. 27: Seizures of cocaine (base and HCL), 1980-2003

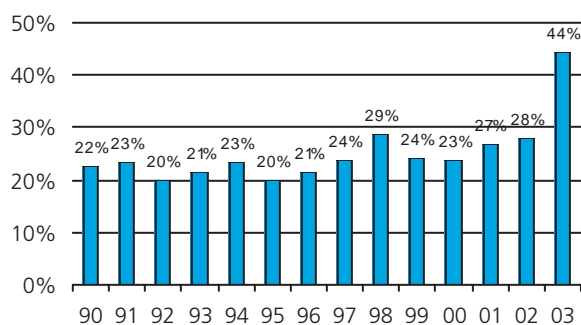


Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Given declining levels of cocaine production in 2003, such increases probably were due to improvements in international cooperation among enforcement agencies. Taking the purity of seized cocaine into account (around 60%), the cocaine interception rate rose to record levels from 28% in 2002 to 44% in 2003 (32% on average over the 2001-2003 period).

Contrary to expectations, however, the rising interception rate was not reflected in rising cocaine prices or falling cocaine purity levels. In fact, the average inflation adjusted wholesale cocaine price in the USA even declined marginally, from \$23,000 per kg in 2001 to \$22,000 per kg in 2003. In Western Europe, average wholesale prices increased slightly from \$38,000 per kg

Fig. 28: Cocaine interception rate, 1990-2003, based on 60% purity of seized cocaine



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

in 2001 to \$43,000 in 2003 and \$46,000 in 2004; however, expressed in local currency, inflation adjusted prices actually fell from €43,000 per kg in 2001 to €38,000 in 2003 and €37,000 in 2004. This gives rise to speculations that large stock-piles of cocaine in the Andean region, built up over the last few years, may still be entering the market. Other possible explanations could be higher yields on recent production, improvements in the cocaine manufacturing processes leading to more cocaine production, and/or new sources of cocaine manufacture which are currently unknown. Investigations into the possible causes of this disparity have already started.

... with the largest cocaine seizures reported from Colombia.

Seizures in the Andean region - notably Colombia - have shown a clear upward trend over the last few years, reflecting the increased determination of the authorities to fight the cocaine trade; as a consequence, the overall cocaine interception rate of the Andean region rose from 9% in 1999 to 18% in 2002 and 25% in 2003. For the second year in a row Colombia reported the world's largest cocaine seizures (145.6 mt, 29% of global seizures and 87% of the three Andean countries combined). The United States seized 117 mt or 24% of global seizures, and Spain 49.3 mt or 10% of global seizures.

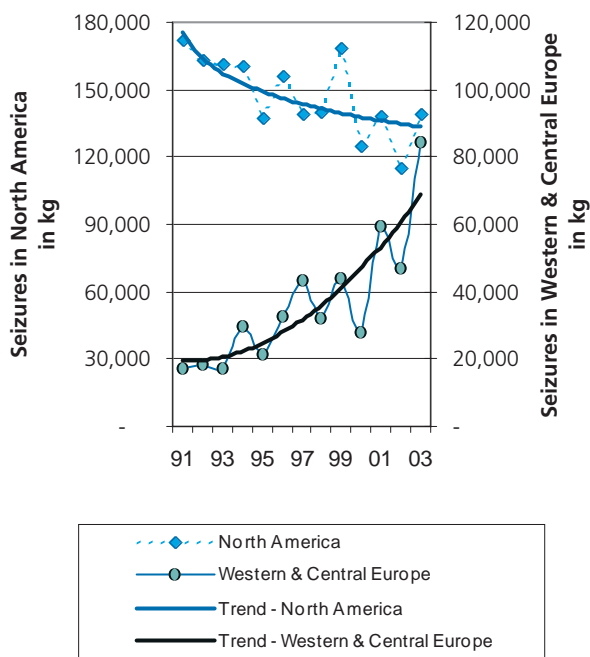
The long-term trend reveals a decline in North America and an increase in Europe...

According to UNODC's cocaine market model,¹⁶ North America, the largest cocaine market, was the destination of some 350 mt of cocaine in 2003, of which 280 mt were actually consumed. In the same year, Europe was the destination of some 140 mt of which some 110 mt were consumed.

Overall, cocaine seizures in North America over the last decade has been showing a declining trend, reflecting lower levels of cocaine consumption as compared to the second half of the 1980s. The share of global cocaine seizures that were made in North America ('NAFTA region') in global cocaine seizures declined from 47% in 1990 to 36% in 2000 and 28% in 2003.

Cocaine seizures in Western and Central Europe, in contrast, have been on the increase, reflecting rising

Fig.29: Cocaine seizures: North America and Western and Central Europe



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

levels of cocaine consumption. Western and Central Europe accounted for 3% of global cocaine seizures in 1980, 6% in 1990, 8% in 2000 and 17% in 2003. European data for 2003 include exceptionally high seizure figures reported from Spain.

... with Africa playing a more significant role in trafficking cocaine to Europe ...

Most of the cocaine destined for Europe enters through Spain or the Netherlands, though the entry of cocaine via other countries (notably countries with less well controlled airports) has also increased in recent years. Large amounts of cocaine are either shipped directly from the Andean countries to Spain or they transit Venezuela or Brazil. Cocaine entering Spain and the Netherlands is both for local consumption and for other destinations in Europe, including France and Italy. Most of the cocaine destined for the Netherlands transits the Caribbean region, notably the Netherlands Antilles. Much of the retail trade in Western Europe has been taken over by criminal groups of West African origin. Cocaine destined for the UK, one of the largest cocaine markets in Europe, transits the Caribbean region, notably Jamaica, but is also imported from Spain and the Netherlands.

New trends in cocaine trafficking include the rising importance of cocaine shipments from the Andean region through Western Africa to Europe.¹⁷ In this case the route goes from the Andean region to Brazil¹⁸ and then to countries of Southern Africa and increasingly to countries of Western Africa (Nigeria and other countries located around the Gulf of Guinea) from where cocaine is trafficked by couriers to various European countries. The trade is often organized by West-African crime groups. This diversion of the traditional trafficking route seems to be linked to better controls in the Netherlands (notably the port of Rotterdam and the airport of Schiphol) and along the northern coast of Spain. Another example of a diversion of trafficking routes is organized by Colombian groups that are now trafficking cocaine to Spain through the islands and countries off the coast of Senegal and Mauritania. Once reaching these islands the cocaine is taken over by cannabis resin trafficking groups of Moroccan origin for onward exports to southern Spain. In addition, various Balkan

¹⁶ The model, which is discussed in Chapter 2, uses data from 2002.

¹⁷ HONLEA Meeting, Vienna, February 2005.

¹⁸ Authorities in Brazil estimate that about 60% of the cocaine destined for or transiting Brazil originated in Colombia, 30% in Bolivia and 10% in Peru.

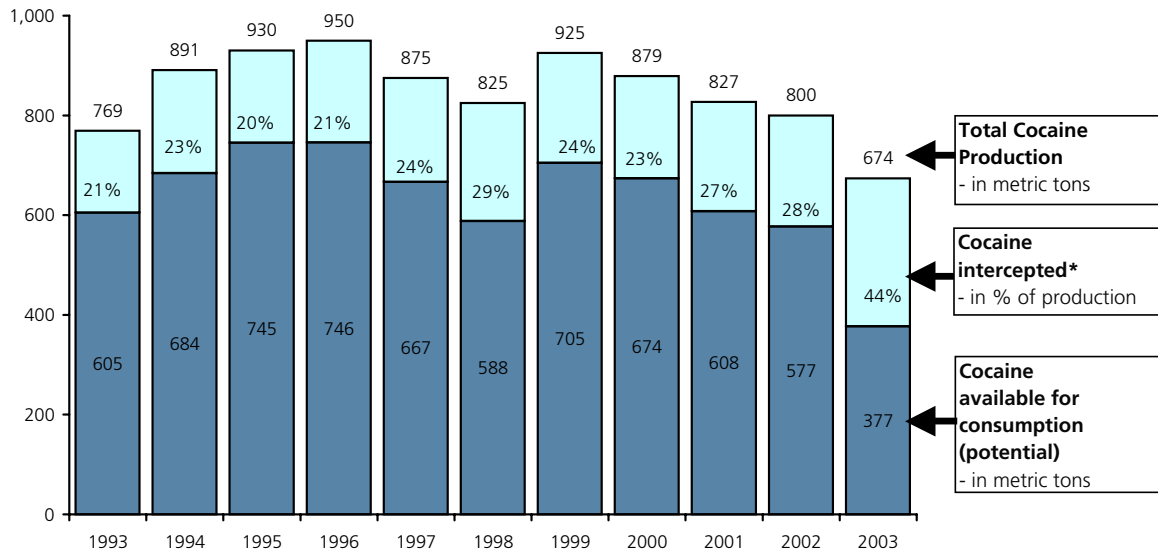
countries are being used for the onward shipment of cocaine by local drug trafficking networks to Western Europe.

.. while Mexico and the Caribbean remain the main transit points for cocaine to the USA.

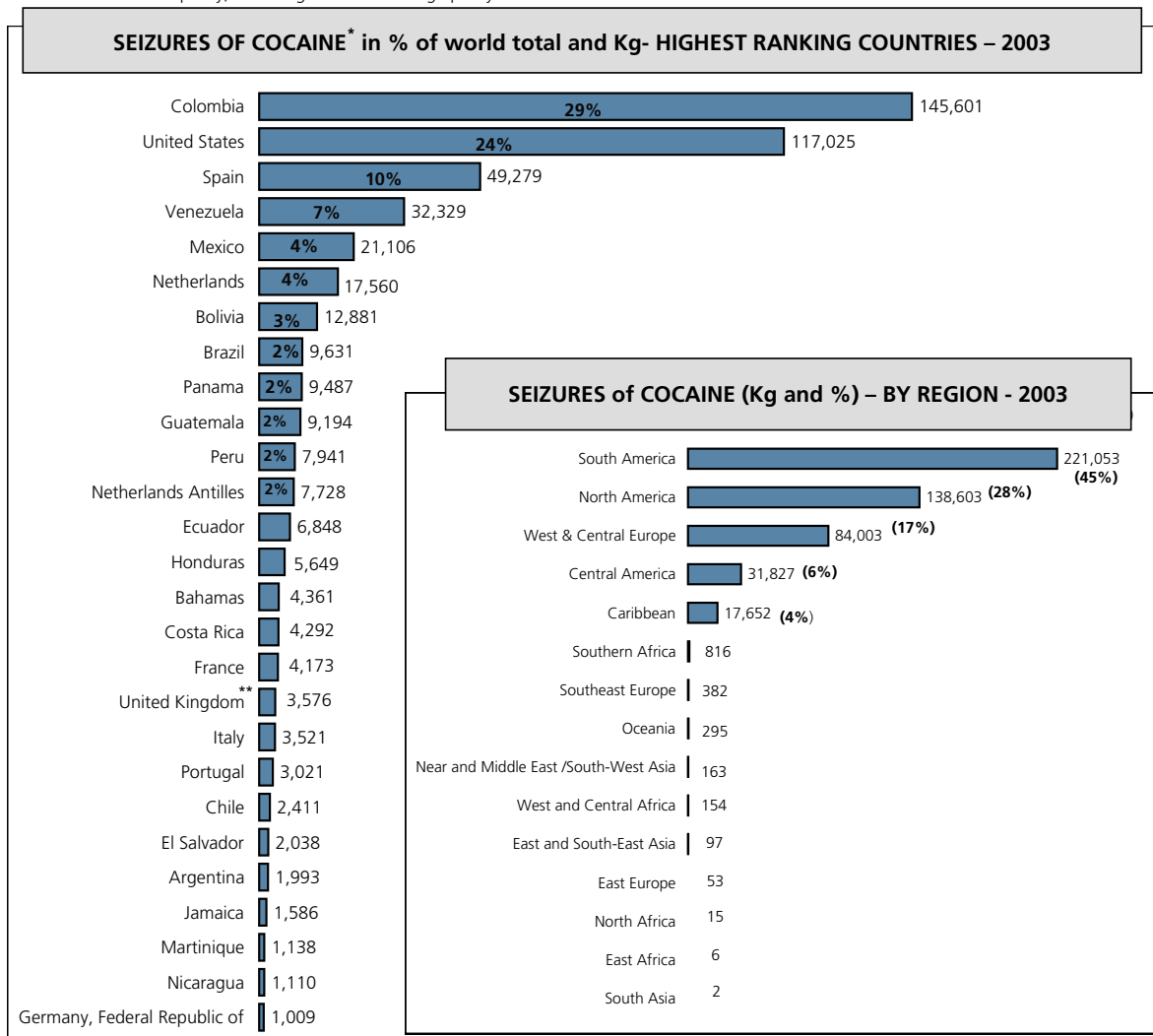
According to estimates by US authorities, 77% of the cocaine destined for the USA transited Central America and Mexico while 22% transited the Caribbean in 2003. About 90% of the cocaine detected departing South America and moving toward the United States in 2003 was transported in non-commercial maritime conveyances, particularly go-fast boats.

Mexican, Colombian and Caribbean groups continue to control much of the wholesale distribution in the USA. Criminal groups of Mexican origin control most wholesale cocaine distribution in the Pacific, Southwest, and West Regions as well as in most areas of the Midwest and Southeast Regions of the United States. Colombian criminal groups control most of the wholesale cocaine distribution in the Northeast Region as well as wholesale cocaine distribution in Miami, Puerto Rico and some of the wholesale distribution in Houston, Dallas, Los Angeles, and New Orleans. In addition, a number of criminal groups from the Caribbean region are involved in wholesale distribution in the USA. Dominican wholesale cocaine distributors are prominent in the Northeast Region and control most wholesale cocaine distribution in Philadelphia and Washington, but also in Atlanta, Cleveland, Detroit, Houston and Milwaukee. Jamaican, Haitian, and Puerto Rican criminal groups control some wholesale distribution in large cities in the Southeast Region.

Fig. 30: Global illicit supply of cocaine 1993 - 2003



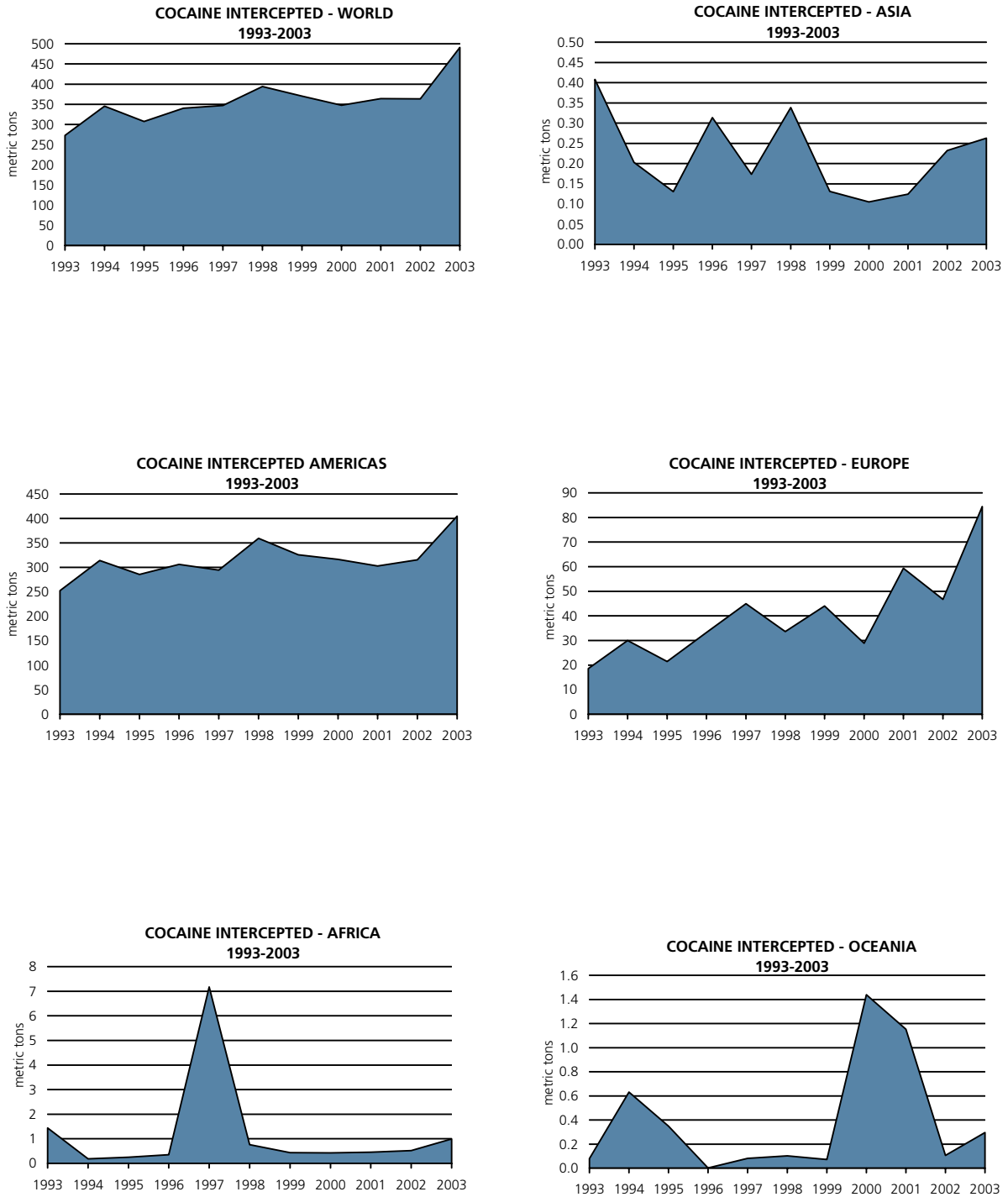
* Converted to 100% purity, assuming an actual average purity of 60%.



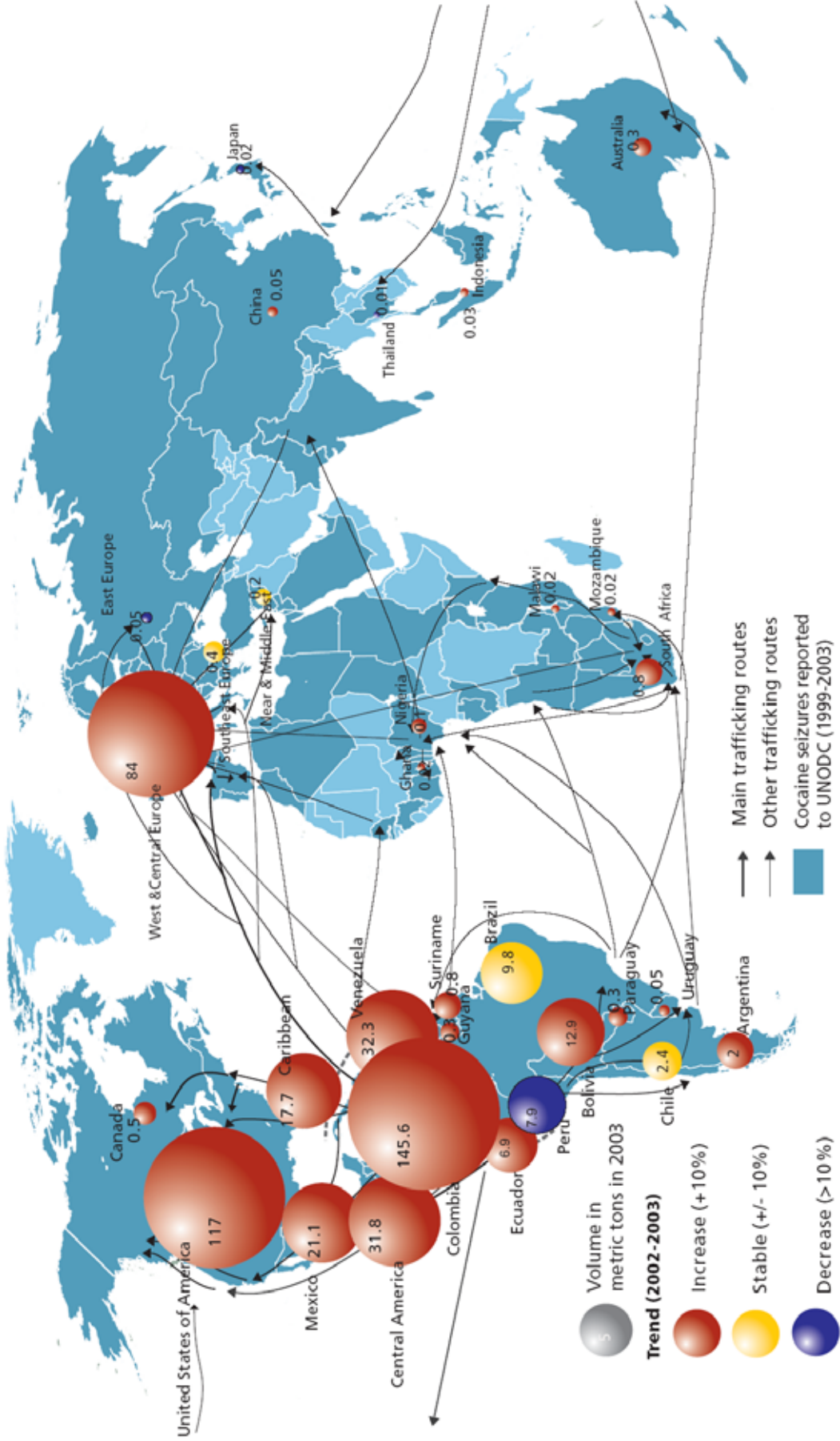
* excluding seizures in liquid form.

** data refer to 2002

Fig. 31: Global seizures of cocaine, 1993-2003



Map 10: Cocaine* seizures 2002 - 2003: extent and trends (countries reporting seizures of more than 0.01 mt (10kg.))



* Cocaine seizures presented in this map do not include seizures in liquid form.

Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

1.3.3 Abuse


Cocaine is the primary problem drug of the Americas. More than 900,000 people were treated in 2003 for cocaine dependence, with more than 90% coming from the Americas. In South America, close to 60% of all treatment demand is for cocaine, and in North America the figure is close to 40%. About 7% of all cocaine users are currently in treatment, and five out of every 10,000 people who use cocaine will die as a result each year. In terms of creating dependence and causing death, cocaine ranks second only to heroin in the dangers it poses.

There are an estimated 14 million cocaine users worldwide, with two-thirds residing in the Americas. The USA continues to be the world's largest cocaine market, although about a quarter of global users are found in Europe, especially in Spain and the United Kingdom but also in the Netherlands, Belgium, Ireland, Italy and Switzerland. Of the global population between the ages of 15 and 64, only 0.3% use cocaine, but the figure is higher in North America (2.3%), West and Central Europe (1%), Oceania (0.9%) and South America (0.8%).

Globally, cocaine use seems to have stabilised, after years of strong increases. Expert opinion from member states suggest use has levelled out in the important market of North America, as well as in Oceania, most of Asia, and most of Eastern Europe. But perceived increases were reported in South America, West and Central Europe, South-East Europe, and a number of countries in South-East Asia.

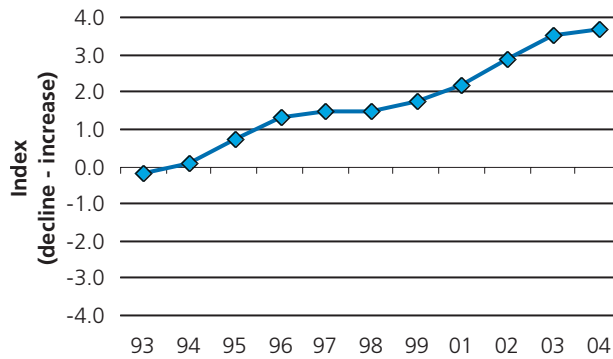
Key to global cocaine use trends is the situation in the United States, where use among the general population is some 50% lower, and use among high-school students is now about 60% lower, than in the mid-1990s. In 2003, cocaine consumption remained stable in the USA. In contrast, surveys in Europe, for both the general population and for students, have shown an upward trend in cocaine use over the last few years. The upward trend – as shown in student surveys - was, however, limited to Western Europe in recent years; in Central and Eastern Europe cocaine use remained stable. There has been a creeping upward trend in the spread of crack-cocaine in recent years, notably in the Americas, Europe and in Africa, but this appears to have lost momentum in 2003.

Table 7. Annual prevalence of cocaine use, 2003/04 or latest year available

	Number of users	in % of population 15-64 years
EUROPE	3,421,000	0.6
West and Central Europe	3,224,000	1.0
South-East Europe	70,000	0.1
Eastern Europe	127,000	0.1
AMERICAS	8,930,000	1.6
North America	6,548,000	2.3
South America	2,382,000	0.8
ASIA	246,000	0.01
OCEANIA	183,000	0.9
AFRICA	946,000	0.2
GLOBAL	13,726,000	0.3
 <ul style="list-style-type: none"> Cocaine abuse above global average Cocaine abuse around global average Cocaine abuse below global average 		

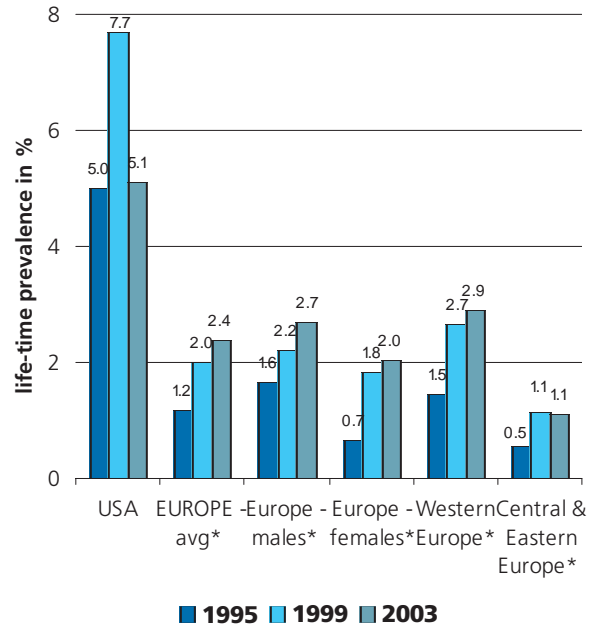
Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

Fig. 32: Global Drug Use Trend Index - Cocaine - based on expert opinions (country results weighted by estimated number of cocaine users), 1993-2003



Sources: UNODC, Annual Reports Questionnaire Data and UNODC estimates on the number of cocaine users.

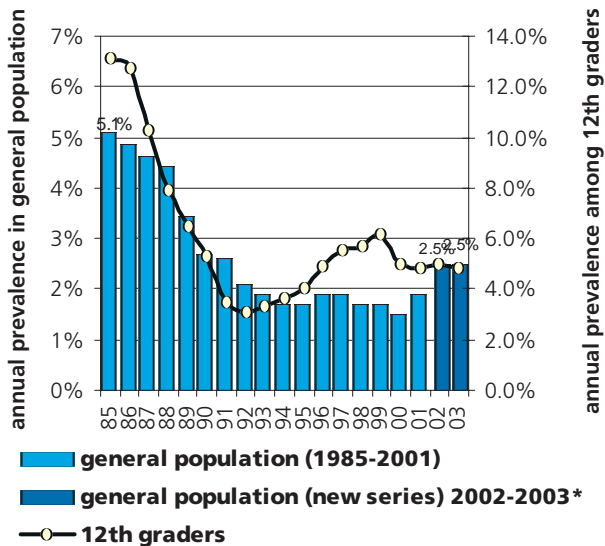
Fig. 34: Life-time prevalence among 15-16 year old students in the USA and in Europe**



* Average weighted by population age 15-19
 ** Country results weighted by population age 15-19.

Sources: NIDA, Monitoring the Future and Council of Europe, The 2003 ESPAD Report, Alcohol and Other Drug use among students in 35 European countries and previous ESPAD survey reports, Govt. reports.

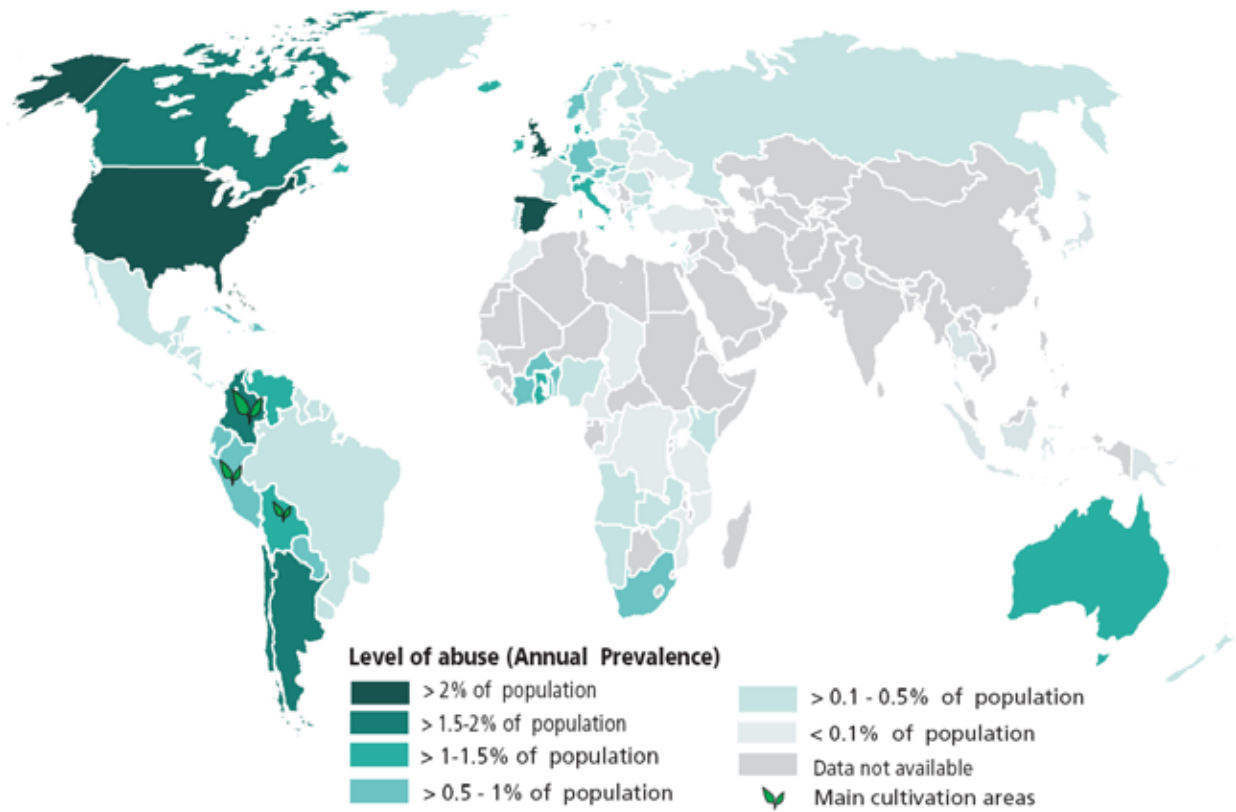
Fig. 33: Cocaine use in the USA: 1985-2003 Annual prevalence rates among the general population, age 12 years and above, and among high-school students (12th graders)



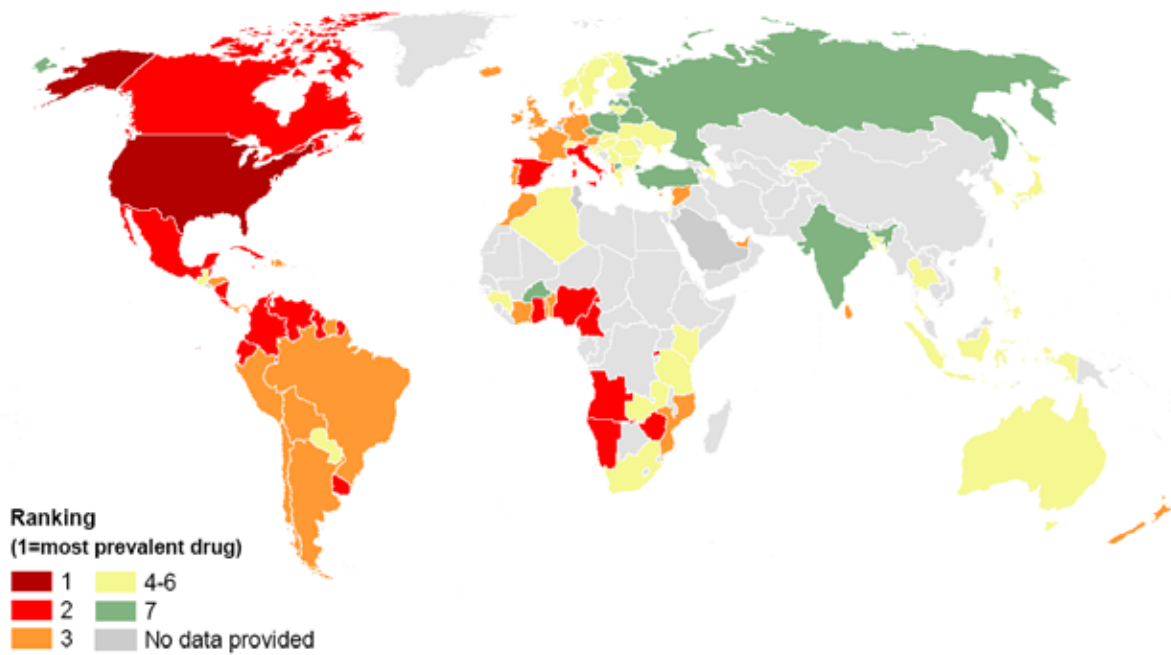
* Given changes in the methodology used, general household survey data for 2002 and 2003 are not comparable with results of previous surveys conducted in previous years.

Sources: SAMHSA, National Household Survey on Drug Use and Health and NIDA, Monitoring the Future.

Map 11: Use of cocaine 2002 - 2004 (or latest year available)

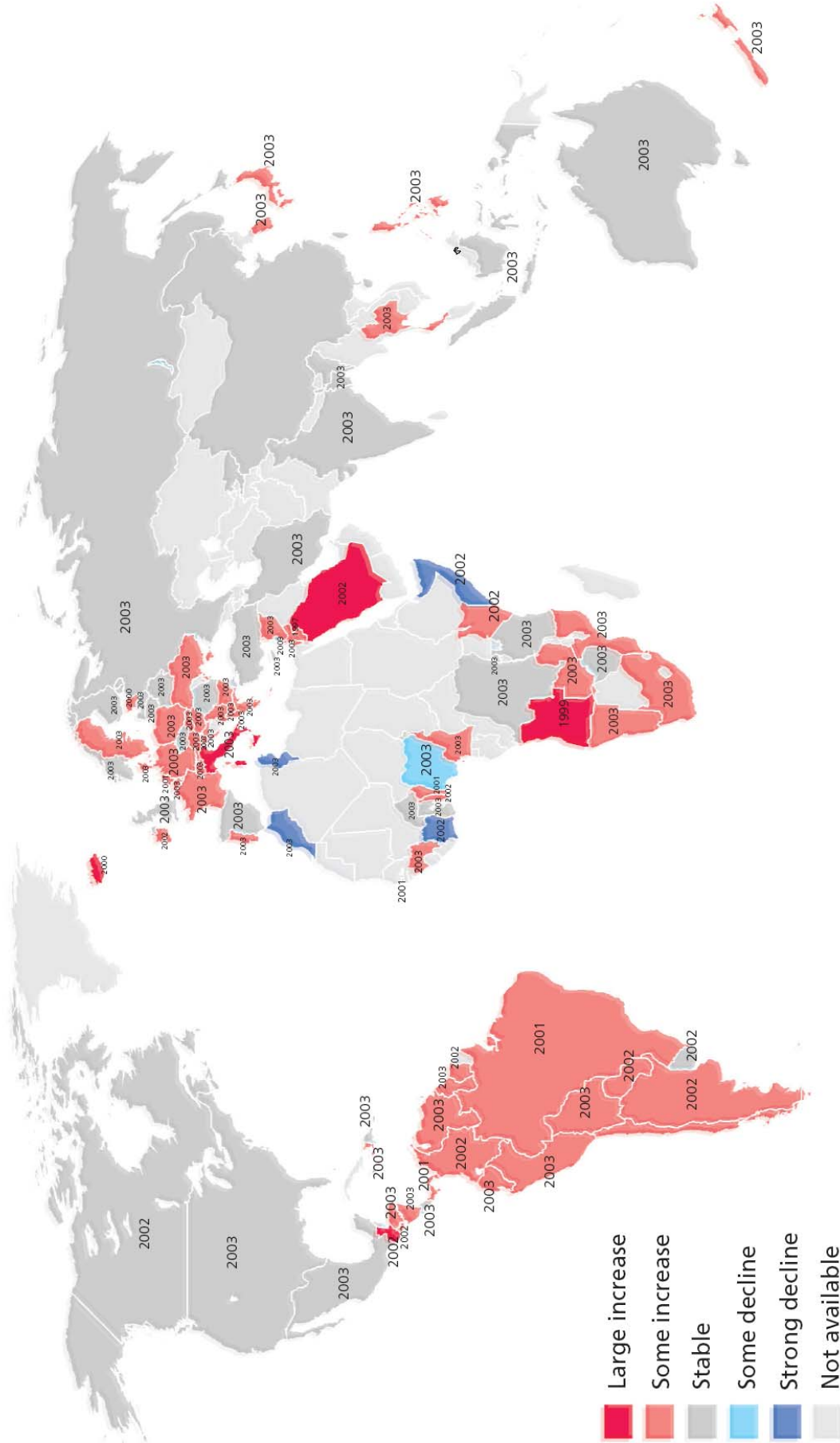


Map 12: Ranking of cocaine in order of prevalence in 2003



Sources: UNODC Annual Reports Questionnaires data, SAMSHA US National Household Survey on Drug Abuse, Iranian Ministry of Health, Rapid Assessment Study and UNODC ARQ, Council of Europe, ESPAD.

Map 13: Changes in consumption of cocaine, 2003 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup), December 1999, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report, 1999; Bundeskriminalamt (BKA) and other Law Enforcement Reports, SACENDU (South African Community Epidemiology Network) July - December 1998, UNODC and Ministerio de Educacion, Estudio Epidemiologico 1999, CEDRO, Epidemiologia de Drogas en la poblacion urbana Peruana - 1995, INCB, Annual Report for 1999.

