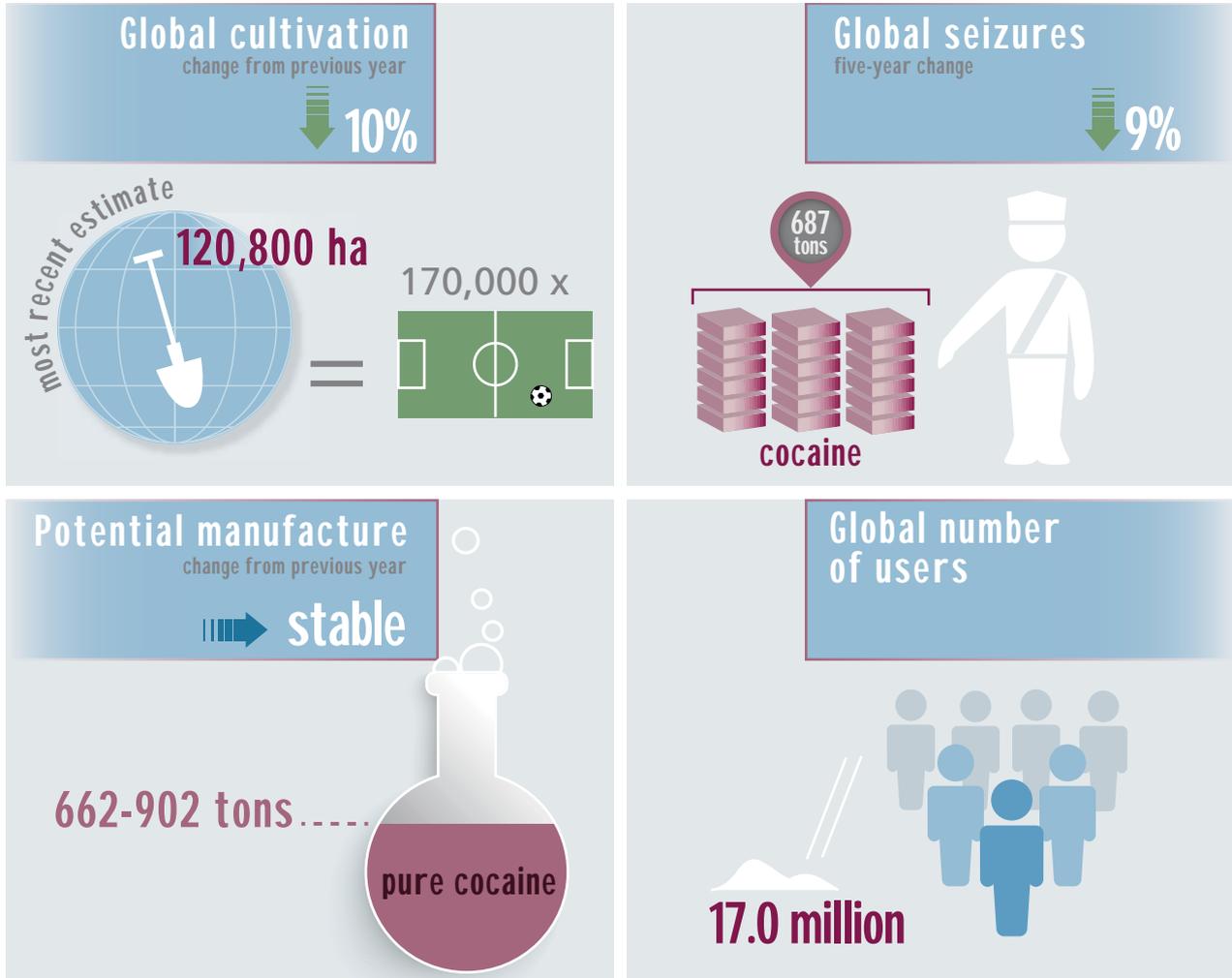




COCAINE

Key figures



Note: All data are from 2013.

Lowest levels of coca bush cultivation on record

Coca bush cultivation continued to decline in 2013, reaching its lowest level since estimates from the mid-1980s. The decline in 2013 was driven mainly by an 18 per cent decrease in coca bush cultivation in Peru (from 60,400 ha in 2012 to 49,800 ha) and by a 9 per cent decrease in the Plurinational State of Bolivia (from 25,300 ha to 23,000 ha).

Coca bush cultivation in Colombia, on the other hand, remained stable in 2013, although it remained at historically low levels. In addition to the figure collected on 31 December 2012, available information for Colombia on the presence of coca bush cultivation shows that prior to eradication 89,215 ha were under cultivation at some point in 2013, 34 per cent less than in 2012.²⁶⁸ The potential production of pure cocaine in Colombia was

estimated at 290 tons,²⁶⁹ the lowest level since 1996. The combination of a decrease in cultivation in all the main coca bush cultivating countries has led to a decline in the estimated global production of cocaine. It should be noted that the illicit extraction of cocaine alkaloids from coca leaves, the first step in the manufacture of cocaine, continues to take place almost exclusively in the three coca-producing countries, which also accounted for the majority of cocaine hydrochloride manufactured worldwide.

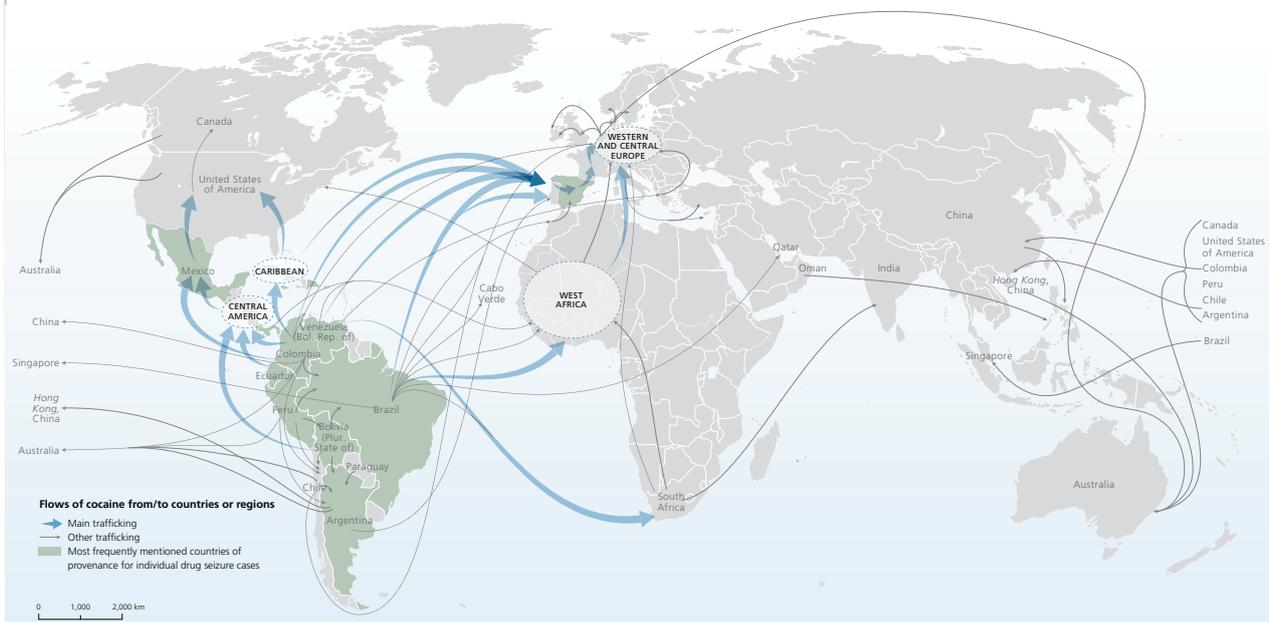
Cocaine markets: the impact of decreasing production

The global supply of cocaine may originate in Bolivia (Plurinational State of), Colombia and Peru, but the largest cocaine markets and highest rates of prevalence of cocaine use are reported in North and South America and Western and Central Europe. Estimated at 0.4 per cent of

²⁶⁸ UNODC and Colombia, *Colombia: Coca Cultivation Survey 2013* (Bogotá, June 2014).

²⁶⁹ The methodology used to estimate potential cocaine production was adjusted and thus not comparable with the last report. For more information on the adjustment, see *Colombia: Coca Cultivation Survey 2013* cited above.

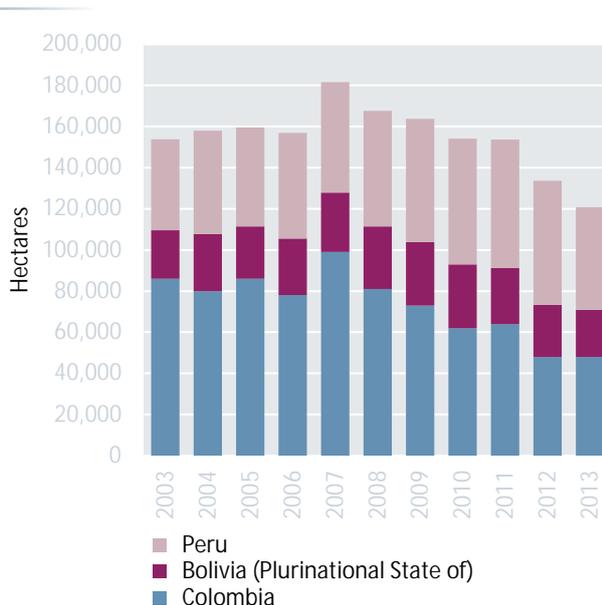
MAP 2. Main global trafficking flows of cocaine



Source: UNODC, responses to annual report questionnaire and individual drug seizure database.

Notes: The trafficking routes represented on this map should be considered broadly indicative and based on data analyses rather than definitive route outlines. Such analyses are based on data related to official drug seizures along the trafficking routes as well as official country reports and responses to annual report questionnaires. Routes may deviate to other countries that lie along the routes and there are numerous secondary flows that may not be reflected. The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. The 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. The final boundary between the Sudan and South Sudan has not yet been determined.

FIG. 52. Coca bush cultivation, 2003-2013



Source: UNODC, responses to annual report questionnaire and other official sources.

the global adult population aged 15-64, the annual prevalence of cocaine use has shown a declining trend in Western and Central Europe and North America, particularly the United States, over the past few years, but cocaine use still remains at high levels in those subregions, while information for most of Africa and Asia remains sporadic.

Cocaine is usually trafficked northwards from the Andean countries of South America to North America and across the Atlantic to Europe via the Caribbean or Africa, by a variety of means, including air and sea. Individual drug seizure cases reported to UNODC show that maritime trafficking has increased as a means of transporting large quantities of cocaine in recent years, accounting for 60 per cent of the total quantities seized (see figure 53). Accounting for more than 50 per cent of actual seizure cases, trafficking by air is very frequent but the quantities intercepted are comparatively small (average of 6 kg per case in the period 2009-2014) (see figure 54).

The fact that coca bush cultivation continued to decrease in 2013, reaching its lowest level in the past three decades, may partially explain the shrinking of some cocaine markets and the reduction in the availability of cocaine in, for example, the United States and, more recently, in Canada. Successful law enforcement efforts and conflicts between transnational criminal groups have also had an impact on the availability of cocaine.²⁷⁰

Following the increase observed between 2011 and 2012, cocaine seizures have remained stable (687 tons seized in 2013 compared with 684 tons in 2012), despite a decrease in seizures in the two main cocaine markets, the United States (65 per cent decrease, from 104 to 37 tons) and

²⁷⁰ United States, DEA, *National Drug Threat Assessment Summary, 2013* (November 2013).



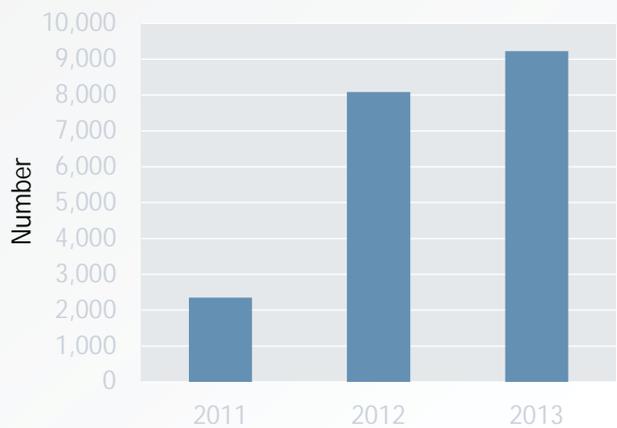
CONTINUED INCREASE IN COCA ERADICATION AND THE DISMANTLING OF LABORATORIES

The manual eradication of coca bush in the Plurinational State of Bolivia continued to increase in 2013, reaching 11,407 ha, while seizures of coca leaf dropped significantly compared with 2012. The authorities in Peru eradicated over 23,900 ha of coca bush crops in 2013, with most of it focused on the Palcazú-Pichis-Pachitea area and the Monzón Valley, which had the highest rates of expansion in the area used for cultivation and which serve as key points for the production of illicit coca derivatives produced both locally and elsewhere. Because of eradication efforts and the subsequent decrease in the supply of coca leaf, the average price of dried coca leaf in Peru increased by 30 per cent in 2013. Authorities reported^a that state eradication efforts in recent years have caused drug trafficking organizations to shift illicit cultivation to increasingly scattered and isolated areas. In Colombia, supply reduction activities in 2013 included the aerial spraying of over 47,000 ha of coca bush and the manual eradication of over 22,000 ha.

Clandestine cocaine-processing laboratories also exist outside the main cocaine-producing countries. In 2013, a number of countries in South America, including Argentina, Chile, Ecuador and Venezuela (Bolivarian Republic of), reported the detection of clandestine laboratories processing coca leaf derivatives, but the overall number of laboratories dismantled has decreased since 2011. Two European countries also reported the detection of clandestine laboratories processing coca leaf derivatives; however, cocaine laboratories detected outside South America are usually secondary extraction laboratories

for extracting cocaine from other materials, such as clothing or plastics, used for trafficking and concealment purposes. In the Plurinational State of Bolivia, the number of cocaine hydrochloride laboratories destroyed by authorities increased by 81 per cent to 67 in 2013. During 2013, the authorities in Colombia destroyed a total of 2,128 laboratories for the extraction of coca paste or cocaine base, as well as 208 cocaine hydrochloride laboratories.

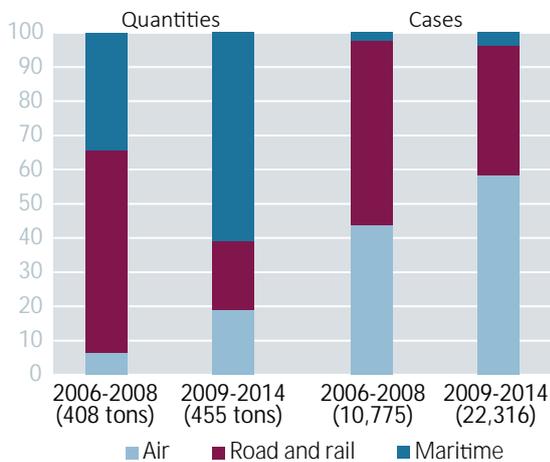
Cocaine-type laboratories dismantled, 2011-2013



Source: UNODC, responses to annual report questionnaire and other official sources.

^a Country report submitted by Peru to the Twenty-fourth Meeting of Heads of National Drug Law Enforcement Agencies, Latin America and the Caribbean.

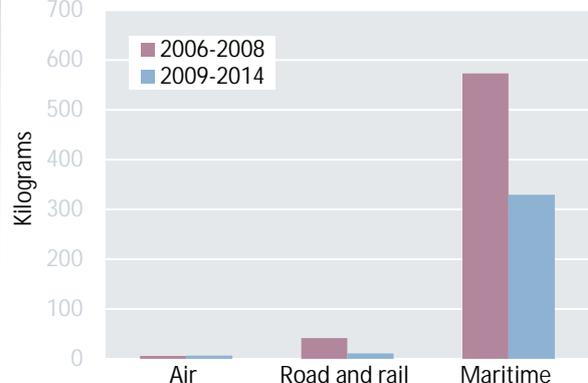
FIG. 53. Cocaine seizures, by mode of transportation (number of cases and quantity), 2006-2008 and 2009-2014



Source: UNODC, individual drug seizure database.

Note: Excludes cases in which the mode of transportation was unknown, not applicable or specified as "other".

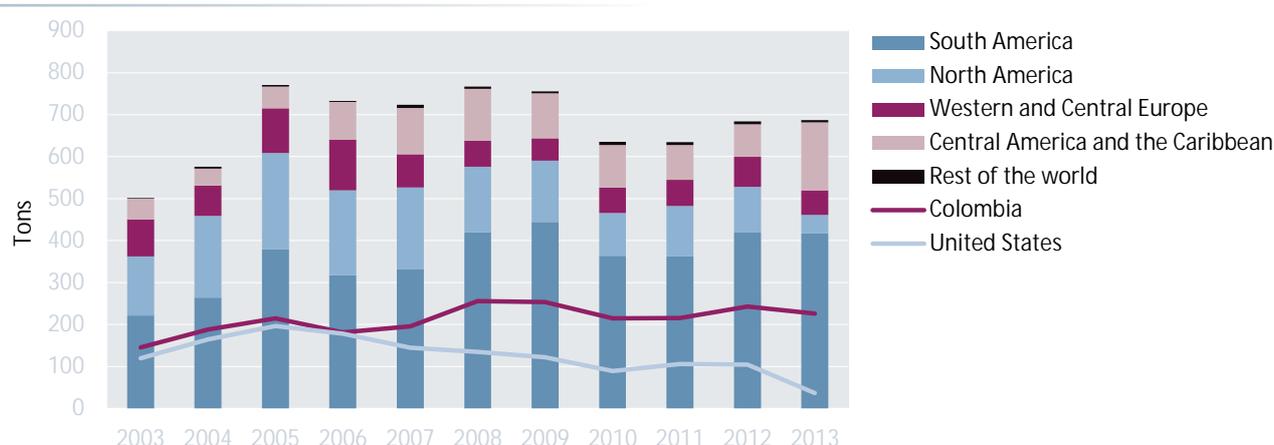
FIG. 54. Average size of cocaine seizures, by mode of transportation, 2006-2008 and 2009-2014



Source: UNODC, individual drug seizure database.

Note: Excludes cases in which the mode of transportation was unknown, not applicable or specified as "other". The values in the figure are based on 4,714 seizure cases by air, 5,817 cases by road and rail and 244 maritime cases, for 2006-2008. For 2009-2014, the figures are based on 13,058 seizure cases by air, 8,415 cases by road and rail and 843 maritime cases.

FIG. 55. Global quantities of cocaine seized, by region and in selected countries, 2003-2013



Source: UNODC, responses to annual report questionnaire and other official sources.

Western and Central Europe (18 per cent decrease, from 71 to 58 tons) (see figure 55). The only region where cocaine seizures increased in 2013 was Central America and the Caribbean, up to 162 tons in 2013 from 78 tons in 2012.

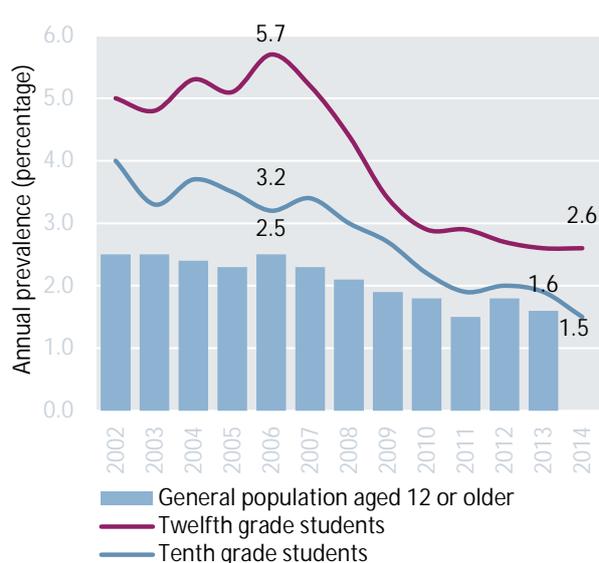
In 2013, Colombia again reported the largest annual cocaine seizures by a single country worldwide, even though its seizures of cocaine base, paste and salts decreased from 243 tons in 2012 to 226 tons in 2013. Authorities in Colombia reported frequently meeting resistance when conducting supply reduction activities, such as monitoring coca bush cultivation and cocaine production, which may have had an impact on seizures.

North America: shrinking cocaine market

Supply reduction measures may have led to a reduction in the size of the cocaine market in some areas of the world, reflected in the decrease in the number of seizures made and in the decline in the prevalence of cocaine use. Compared with previous years, there was a decrease in the amount of cocaine seized while entering Canada in 2013. Most cocaine seizures came from the Caribbean, Central and South America and, to a lesser extent, the United States, via air cargo, mail and passenger luggage, with most cocaine entering Canada via the major sea ports. Some of the possible explanations for the shrinking of the cocaine market in Canada are changes in consumer preferences and a shift in tactics and routes by criminal organizations in an attempt to avoid law enforcement detection.

In 2013, the prevalence of cocaine use in the United States was estimated to be 1.6 per cent of the population aged 12 and older, and this has remained stable over the past few years, although it is still significantly lower than in 2006. Cocaine use among high-school students has been declining, with annual prevalence nearly halving since 2006, when it was reported to be 3.5 per cent, to 1.8 per cent in 2013. The proportion of young people who perceive that cocaine is easy to obtain has also declined in recent years.

FIG. 56. Cocaine use in the United States, 2002-2013



Source: United States, SAMHSA.

South America: increase in cocaine use

Long-term trends show that the quantity of cocaine seized globally has remained stable, with South American countries continuing to account for the majority of cocaine seizures made worldwide. In South America, the annual prevalence of cocaine use was estimated to have increased from 0.7 per cent in 2010 (1.84 million users) to 1.2 per cent in 2012 (3.34 million users), three times the global estimated average level of consumption and it remained at the same level in 2013. Experts in Chile and Costa Rica perceived an increase in cocaine use in previous year data, but the increase in cocaine use in the subregion is driven by increasing use in Brazil, which is the largest cocaine market in South America. While no recent survey has been undertaken in Brazil, extrapolating data from a survey among university students, UNODC estimates a preva-

lence of use of cocaine of 1.75 per cent among the adult population of the country. Because of its geographical position, Brazil plays a strategic role in the trafficking of cocaine, seizures of which doubled in the country in 2013 to over 40 tons. Cocaine enters Brazil by air (small aircraft), land (car, truck and bus) and river (boat across the Amazon and its tributaries), before being shipped overseas, mainly to Europe, either directly or via Africa (roughly 30 per cent of the cocaine seized in the country is intended for external markets),²⁷¹ using containers and aircraft.

TABLE 7. Cocaine indicators in Brazil, most recent data

Seizures	42 tons
Treatment	Majority of cases in treatment are polydrug users (all substances) and 20 per cent of drug users in treatment are for cocaine use only

Seizures of cocaine (base, paste and salts) decreased in Bolivia (Plurinational State of), Peru and Venezuela (Bolivarian Republic of) in 2013. In the Plurinational State of Bolivia, cocaine seizures reached their lowest level since 2007. In Peru, seizures of cocaine paste peaked in 2012, but decreased to 10.8 tons in 2013, while seizures of cocaine salt rose slightly to 13.3 tons in 2013. In the Bolivarian Republic of Venezuela, cocaine seizures decreased to 20.5 tons in 2013 (from 27.6 tons in 2012). According to authorities in the Bolivarian Republic of Venezuela, the country remains a transit point for cocaine, particularly cocaine trafficked by air in private aircraft, but newly introduced legislative changes related to air traffic control have decreased the entry and exit of uncontrolled aircraft, which has led to a decrease in drug trafficking by air.²⁷² Three European countries²⁷³ listed the Bolivarian Republic of Venezuela as a significant departure or transit country for cocaine in 2013.

Australia: more people are using cocaine but with less frequency

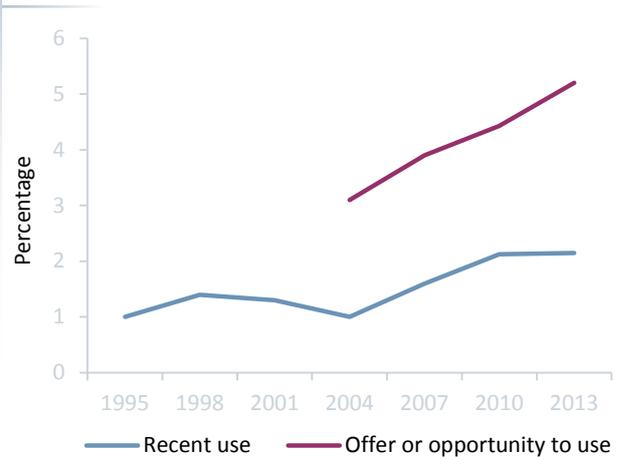
In Australia, while the use of drugs such as cannabis, “ecstasy”, methamphetamine and amphetamine has generally declined since 2004, the number of people using cocaine has been increasing since that time (see figure 57). The frequency of use of cocaine by recent users has decreased, however, with a lower proportion using it in the past month (18 per cent) and a higher proportion using it only once or twice a year (71 per cent). There was an increase in the proportion of people who were

271 Country report submitted by Brazil to the Twenty-fourth Meeting of Heads of National Drug Law Enforcement Agencies, Latin America and the Caribbean.

272 UNODC, annual report questionnaire, replies submitted by Venezuela for 2013 and country report submitted by Venezuela to the Twenty-fourth Meeting of Heads of National Drug Law Enforcement Agencies, Latin America and the Caribbean.

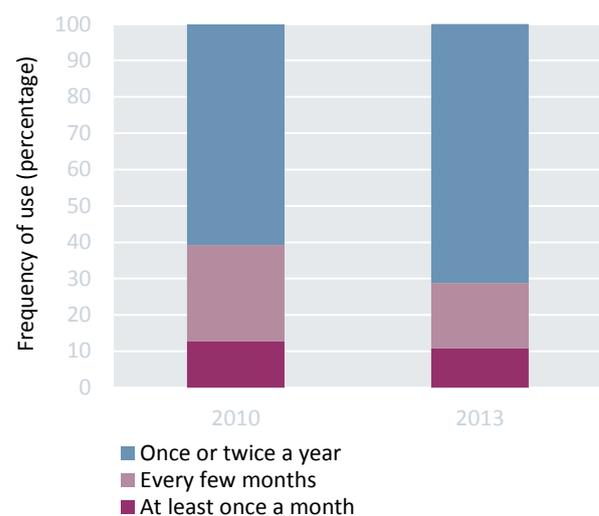
273 France, Poland and Spain.

FIG. 57. Indicators of cocaine use in Australia



Source: Australian Institute of Health and Welfare, National Drug Strategy Household Survey, detailed report 2013.

FIG. 58. Frequency of cocaine use by recent users in Australia, 2010 and 2013



Source: Australian Institute of Health and Welfare, National Drug Strategy Household Survey, detailed report 2013.

offered or had the opportunity to use cocaine in 2013 (up to 5.2 per cent from 4.4 per cent in 2010), despite increases in the retail price in recent years. Users’ perceptions about the harmfulness of the substance have decreased to 3.6 per cent of people considering cocaine the drug of most serious concern, which may partly explain the increase in the number of people having tried cocaine.²⁷⁴

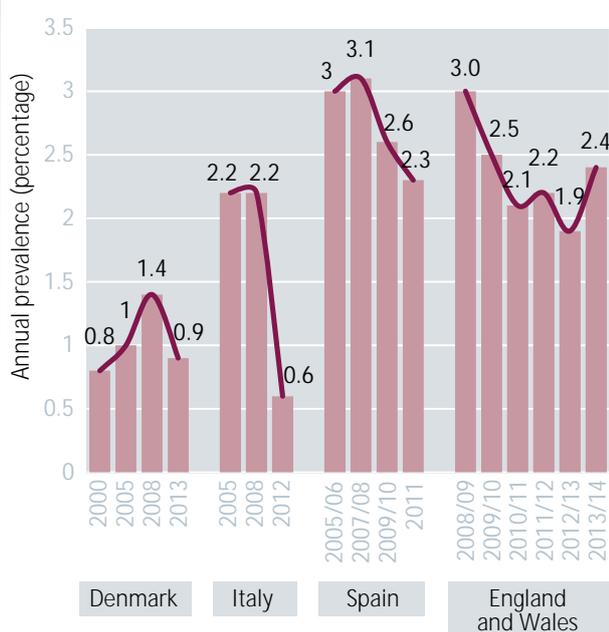
In New Zealand, the cocaine market remains very limited, with a little over 228 g of cocaine seized in 2013, and its use seems to rarely come to the attention of health agencies.

274 Australian Institute of Health and Welfare, 2013 National Drug Strategy Household Survey Report (see footnote 256).

Europe: stable cocaine market

Cocaine use remains high in the main markets of Western and Central Europe (around 1.0 per cent of the population aged 15-64). There are some signals, however, of a decreasing trend in countries with high levels of use, such as Denmark, Italy and Spain, whereas the United Kingdom reports a rising trend in cocaine use in the past year (see figure 59) and most of the remaining countries report stable or declining trends in cocaine use. There is also a declining trend in treatment demand for cocaine use, which may indicate a decline in the European cocaine market.

FIG. 59. Trends in cocaine use in high-prevalence countries in Europe



Source: UNODC, responses to annual report questionnaire and other official sources.

Based on seizure data, cocaine continues to be the third most trafficked drug in Europe, after herbal cannabis and cannabis resin. In recent decades, with the development of new routes, cocaine trafficking (and use) in Europe has evolved and become more complex. The quantities of cocaine intercepted in Europe increased from the mid-1990s, reaching a peak in 2006 (121 tons) before declining to an average of 62 tons between 2008 and 2013. Seizures in the Iberian Peninsula, which is used as a major entry point for cocaine to Europe, reached a peak in 2006, before falling until 2012. However, quantities seized in 2003 increased, possibly reflecting a change in law enforcement priorities or a change in the modus operandi of traffickers. As cocaine is often perceived to be an elite drug, the economic climate may account for the decrease in seizures and a possible related decrease in cocaine use.

Eastern Europe has seen an increased number of cocaine interdictions in recent years, although of small quantities, which may suggest that the cocaine market is moving east-

wards.²⁷⁵ Expert perceptions of trends in the use of cocaine in the Russian Federation point to an increase, while it is perceived to be stable in the other countries in the subregion.

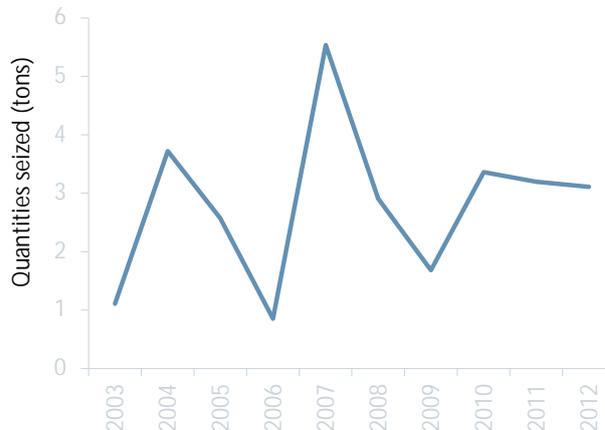
Central America and the Caribbean: transit points for cocaine trafficking

The prevalence of use of cocaine remained high in Central America and the Caribbean in 2013, and the subregion continued to be reported as a transit area for cocaine trafficked to Europe. Trafficking patterns in Central America appeared to be relatively stable, with Panama (41 tons) and Costa Rica (20 tons) seizing the largest quantities of cocaine in the region in 2013. Costa Rica reported that it had changed from being primarily a transit country to a country of both transit and temporary storage. Trinidad and Tobago seized 2.3 tons of cocaine in 2013, surpassing the previous annual record of 1.9 tons in 2005. Law enforcement authorities have observed a change in trafficking patterns in which drug traffickers and smugglers cancel confirmed flights at the last minute then make hasty bookings in an attempt to avoid detection during passenger screenings.

Africa: still a transit hub for cocaine trafficked to Europe

Information about the extent of cocaine use and trafficking in Africa is limited, but prevalence estimates of cocaine use for Southern Africa and West and Central Africa indicate a high prevalence of use (0.7 per cent annual prevalence in 2013). The use of the African continent as a trans-shipment region for cocaine trafficking to Europe continues, with countries in West Africa being reported as transit countries. Nigeria reported the seizure of 290 kg

FIG. 60. Quantities of cocaine seized in Africa, 2003-2012



Source: UNODC, responses to annual report questionnaire and other official sources.

²⁷⁵ UNODC, annual report questionnaire by the Russian Federation, 2013; EMCDDA and Europol, *EU Drug Markets Report: a Strategic Analysis* (Luxembourg, Publications Office of the European Union, 2013).

THE ENVIRONMENTAL BURDEN OF COCAINE PRODUCTION

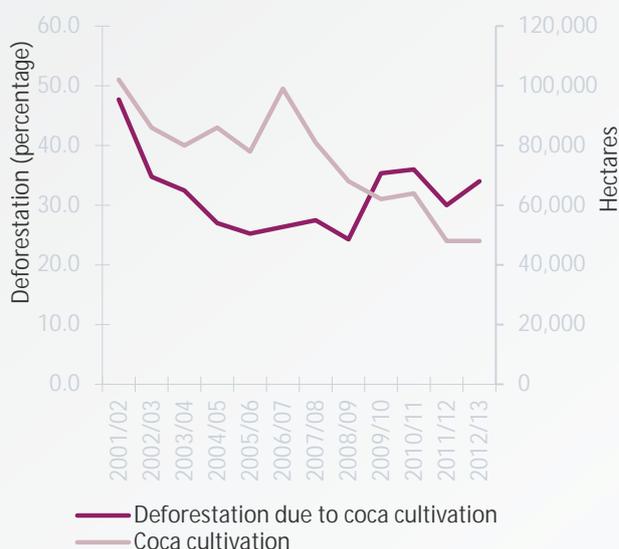
Illicit coca bush cultivation and coca leaf transformation into cocaine lead to serious environmental damage. Coca bush cultivation takes place in the northern-Andean ecosystem, a biodiversity hotspot^a and the most species-rich region on Earth,^b where coca bush cultivation has devastating effects. Deforestation is the most researched aspect of the impact on the environment.^c Recent studies using satellite images^d have given a clearer picture of the damage caused to vegetation. In Colombia alone, roughly 290,000 ha of forest were lost directly to coca bush crops between 2001 and 2013.^e The slash-and-burn technique is used to clear new plots using fire,^f which destroys the vegetative matter that would otherwise protect the soil. Besides forest loss, this also leads to increased erosion. As farmers move to undeveloped areas, additional land is cleared to establish subsistence crops. Thus, even though coca bush cultivation has decreased, the percentage of deforestation caused by the cultivation has increased. Recent studies have found that proximity to coca bush crops increases the probability of forest loss, and that deforestation is “contagious” in areas where coca bush is grown.^g Moreover, the presence of coca bush cultivation in natural parks^h increases the negative impact on biodiversity.

Further environmental damage is caused by the herbicides and fertilizers used in cultivation and by the chemicals employed in the transformation of coca leaf into cocaine, although there is far less evidence in this regard. What is known, however, is that in 2005 alone, 81,000 tons and 83,000 barrels of fertilizers, pesticides and herbicides, many of them considered highly toxic, were used for coca bush cultivation in Colombia. These, together with the gasoline, alkaline bases, sulphuric acid, ammonia and potassium permanganate required to transform coca leaf into cocaine, end up in the soil and water table.

^a Andrew V. Bradley and Andrew C. Millington, “Coca and colonists: quantifying and explaining forest clearance under coca and anti-narcotics policy regimes”, *Ecology and Society*, vol. 13, No. 1 (2008).

^b UNODC, *Coca Cultivation in the Andean Region: a Survey of Bolivia, Colombia and Peru* (June 2006), part 2.

Deforestation due to coca bush cultivation in Colombia, 2001-2013



Source: National illicit crop monitoring system, supported by UNODC Country Office in Colombia.

^c Liliana M. Dávalos and others, “Forests and drugs: coca-driven deforestation in tropical biodiversity hotspots”, *Environmental Science and Technology*, vol. 45, No. 4 (2011), pp. 1219-1227; UNODC, *Colombia: Coca Cultivation Survey 2014*; *Coca Cultivation in the Andean Region: a Survey of Bolivia, Colombia and Peru* and Bradley and Millington, “Coca and colonists: quantifying and explaining forest clearance under coca and anti-narcotics policy regimes”.

^d Ibid.

^e *Colombia Coca Cultivation Survey 2013*.

^f A. Gomez and others, “Examining the potential of using information on fire detected by MODIS and socio-economic variables to highlight potential coca cultivations in forest areas in Colombia”, *The Open Geography Journal*, vol. 6 (2014), pp. 18-29.

^g Ricardo Rocha and Hermes Martínez, “Coca y deforestación en Colombia”, Serie Archivos de Economía, documento No. 375, (Bogotá, 2011); Dávalos and others, “Forests and drugs: coca-driven deforestation in tropical biodiversity hotspots”.

^h *Coca Cultivation in the Andean Region: a Survey of Bolivia, Colombia and Peru*, part 2; *Colombia: Coca Cultivation Survey 2014* and *Bolivia: Coca Cultivation Survey 2014*.

of cocaine in 2013, while Ghana reported a record 901 kg seized and Côte d’Ivoire reported the seizure of 20 kg in 2013, down from 27 kg in 2012. Between 2010 and 2012, reported cocaine seizures in Eastern Africa increased significantly, most notably in the United Republic of Tanzania. There is a change in trafficking modus operandi suggested by official authorities in the United Republic of Tanzania, where, since 2013, traffickers have been smuggling cocaine in smaller amounts to avoid detection.²⁷⁶

²⁷⁶ Country report submitted by the United Republic of Tanzania to the Twenty-fourth Meeting of Heads of National Drug Law Enforcement Agencies, Africa.

Asia: stable but limited cocaine use

Mostly limited to countries in East and South-East Asia and the Near and Middle East, cocaine use in Asia remains comparatively low at a prevalence of 0.05 per cent among the population aged 15-64 (an estimated 1.3 million users). Quantities of cocaine seized have remained stable over the past three years, with some 2 tons intercepted in the region in 2013. However, exceptionally large amounts of cocaine are reported each year in some Asian countries; for example, roughly 1 ton was seized in Pakistan in 2013. Larger than amounts seized in the past, this suggests that cocaine is trafficked in the region and that pockets of use may be emerging in parts of Asia.