

limited data are available. In Afghanistan, a survey in urban households showed that over half the women surveyed who reported opioid use (64 per cent) were combining heroin and/or opium with pharmaceutical painkillers, and 9 per cent of opioid-using women used only a prescription opioid.¹³⁵ In recent years, the misuse of tramadol (a lower potency opioid) has also been reported.¹³⁶ in parts of Africa, the Middle East and Asia.

What is clear is that the people who are dependent on opioids will move between the different opioids, interchanging one for another, all the while increasing their risks of serious health consequences. However, in the presence of accessible and evidence-based treatment, the situation can be prevented, while supply reduction efforts alone are likely to induce a balloon effect where one controlled substance is replaced by another.

E. COCAINE: OVERVIEW

Cultivation and production

Coca bush cultivation, which remains limited to Plurinational State of Bolivia, Colombia and Peru, continued to decline in 2012 with the net area under coca bush cultivation on 31 December 2012 totalled 133,700 ha, a decline of 14 per cent from the previous year's estimates and the lowest levels since the beginning of available estimates in 1990. That decline was driven mainly by a 25 per cent decline in coca bush cultivation in Colombia, from an estimated 64,000 ha in 2011 to 48,000 ha in 2012. However, those figures refer to the net area under coca cultivation on 31 December of the year given. In 2012, the Colombian Government manually eradicated 34,486 ha of cultivation and conducted aerial spraying of 100,549 ha. The addition of geographical data available on the presence of coca bush cultivation shows that 135,000 ha had been under cultivation at some point during 2012.¹³⁷ The greatest reduction in coca bush cultivation in Colombia took place in the departments of Nariño, Putumayo, Guaviare and Cauca.¹³⁸ The decline in coca bush cultivation observed in the Plurinational State of Bolivia continued in 2012 (25,300 ha in 2012 compared with 27,200 ha in 2011) and in Peru, where it declined to 60,400 ha from 62,500 ha in 2011. As a result, the estimated global production of cocaine has also declined. In Colombia, the potential production of pure cocaine was estimated at 309 tons, the lowest level since 1996. (For details see tables on coca bush cultivation and production estimates in annex.)

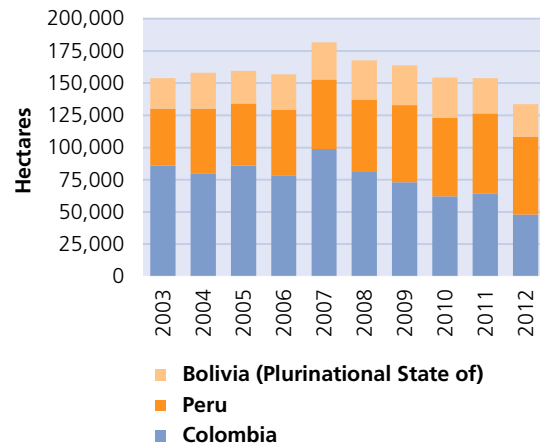
135 United States, Department of State, Bureau for International Narcotics and Law Enforcement, Demand Reduction Program Research Brief, "Afghanistan National Urban Drug Use Survey" (December 2012).

136 *World Drug Report 2013 and Report of the International Narcotics Board Control for 2012* (E/INCB/2012/1).

137 UNODC, Government of Colombia, *Colombia: Coca cultivation survey 2012* (June 2013).

138 Ibid.

Fig. 30. Coca bush cultivation 2003-2012

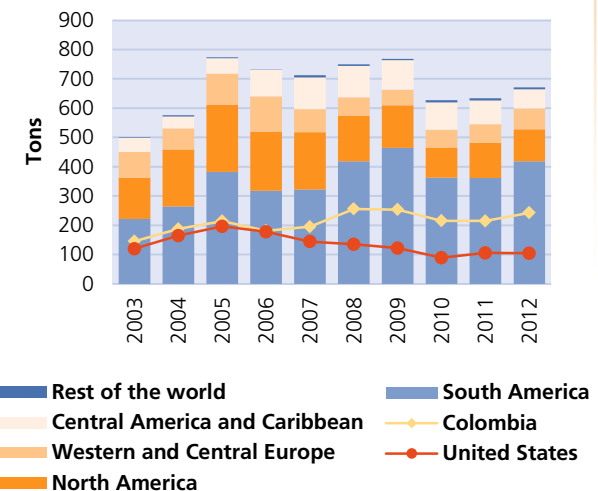


Source: Bolivia: 2002: CICAD and US Department of State, INCSR. Since 2003: National Illicit Crop Monitoring System supported by UNODC. Colombia: National Illicit Crop Monitoring System supported by UNODC. Peru: National Illicit Crop Monitoring System supported by UNODC.

Seizures

Globally, cocaine seizures have slightly increased over the past year, going up to 671 tons in 2012, compared with 634 tons in 2011, driven largely by increased seizures in South America¹³⁹ (418 tons in 2012 compared with 362 tons in 2011) and in Western and Central Europe, another major cocaine market, where seizures increased from 63 tons in 2011 to 71.2 tons in 2012.

Fig. 31. Seizures of cocaine worldwide and in selected countries, 2003-2012



Source: UNODC annual report questionnaire and other official sources.

Note: Includes seizures of cocaine salts, coca paste, cocaine base and crack cocaine.

139 However, there remains the possibility of double-counting of quantities of cocaine seized, considering that there are joint operations conducted by national agencies together with agencies of other countries.

Extent of use

Cocaine use remained stable over 2012, with 14 million-21 million estimated past-year users globally (0.4 per cent annual prevalence). Cocaine use remained high in North and South America (1.8 per cent and 1.2 per cent annual prevalence rates, respectively), Oceania (1.5 per cent) and Western and Central Europe (1 per cent). While there has been an increase in cocaine use in North America (between 2011 and 2012) due to a number of factors explained below, prevalence of cocaine use in Western and Central Europe declined from an estimated 1.3 per cent in 2010 to 1.0 per cent in 2012.

Cocaine: market analysis

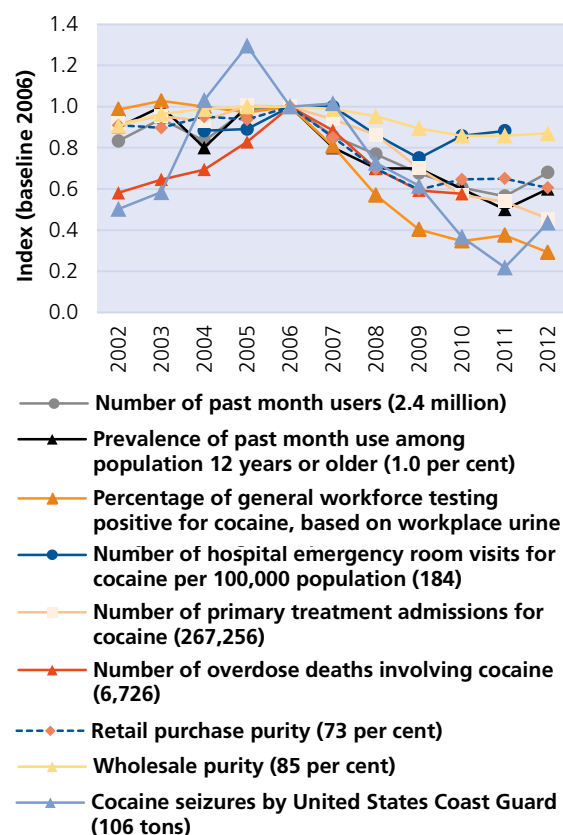
Overall, the latest supply indicators suggest that the global availability of cocaine has fallen in the medium term. However, in 2012, there were signs of a levelling-off or even a possible rebound in some markets. In addition, given that cocaine use is still relatively concentrated in certain markets, there is a certain degree of uncertainty with respect to the extent of the phenomenon in Africa and Asia.

Global cultivation of coca bush is estimated to have fallen by approximately one quarter between 2007 and 2012. However, it is not clear whether the gradual decline brought about a shortage in meeting global demand or represented a return to equilibrium following a surplus around 2007. Indeed, the total area under cultivation, which had been quite stable in the period 2003-2006, at 153,000-157,000 ha, returned to that range in 2010 and 2011. The further decline in 2012 brought the total area of cultivation down to its lowest level since the beginning of available estimates (1990). However, the significance of that recent decline is tempered by the improvements in the efficiency of the cocaine manufacture process that are believed to have taken place over the long term.

Numerous indicators show that the cocaine market in the United States experienced a significant drop in cocaine availability, beginning around 2006, resulting in sustained decreased levels of availability and use. The average cocaine purity (wholesale, retail and overall) as recorded in the System to Retrieve Information from Drug Evidence (STRIDE) database of the United States Drug Enforcement Agency, seizures by the United States Coast Guard and United States authorities along the United States-Mexico border, prevalence of past-month and past-year cocaine use among the general population, the percentage of the workforce testing positive for cocaine based on urinalysis testing, among other indicators, all exhibit turning points in 2005 or 2006.

Cocaine reaching the United States is believed to originate to a large extent in Colombia and to enter the country via Mexico.¹⁴⁰ On the basis of the assessment of the Drug

Fig. 32. Indicators of the cocaine market in the United States, 2002-2012, indexed relative to 2006



Source: Office of National Drug Control Policy, US Government.
Note: Values in 2006 indicated in brackets.

Enforcement Administration of the United States, it appears that, in addition to the decrease in levels of manufacture of cocaine, law enforcement efforts that hindered the activities of Colombian traffickers may have contributed to the reduced availability in the United States, as well as a possibly self-perpetuating cycle of shortages of cocaine and violent conflicts between competing drug trafficking organizations in Mexico.¹⁴¹ In addition, the marked decline in coca bush cultivation in Colombia in particular may also have contributed to the shortage of cocaine in North America. Cultivation of coca bush in Colombia halved between 2007 and 2012.

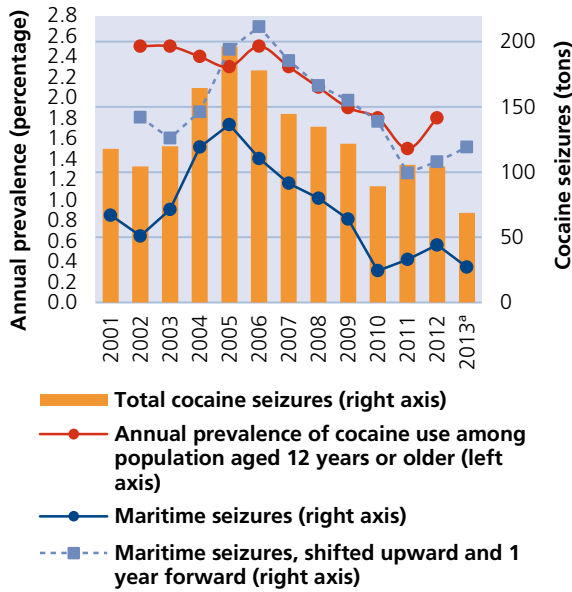
In the United States, the trend in some of the cocaine market indicators changed in 2011 and 2012: cocaine seizures rose from 89 tons in 2010 to 106 tons in 2011, and the estimated prevalence of past-year cocaine use in the population aged 12 years or older rose from 1.5 per cent

in 2012 originated in Colombia. In terms of the last country from which cocaine entered the United States, Mexico and the countries of Central America collectively accounted for 96 per cent of seizures made in the United States.

¹⁴¹ United States, Department of Justice, Drug Enforcement Administration, *National Drug Threat Assessment Summary 2013* (November 2013).

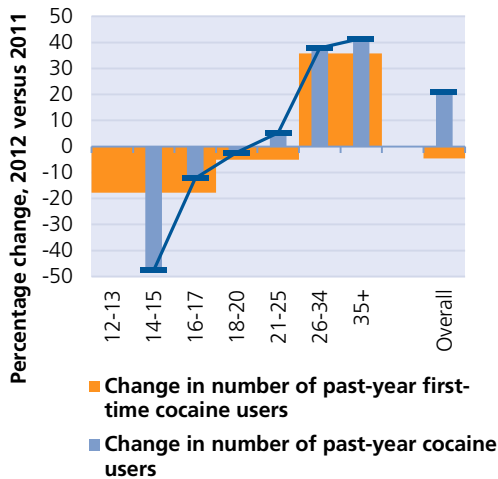
¹⁴⁰ In its reply to the relevant question in the annual report questionnaire, the United States assessed that 95 per cent of cocaine seized

Fig. 33. Annual prevalence of cocaine use and cocaine seizures in the United States, 2001-2013



Source: Office of National Drug Control Policy (US Government), Substance Abuse and Mental Health Services Administration.
^a Prevalence data for 2013 were unavailable.

Fig. 34. Year-on-year changes in past-year cocaine use and first-time use in the United States, by age bracket, 2012 versus 2011



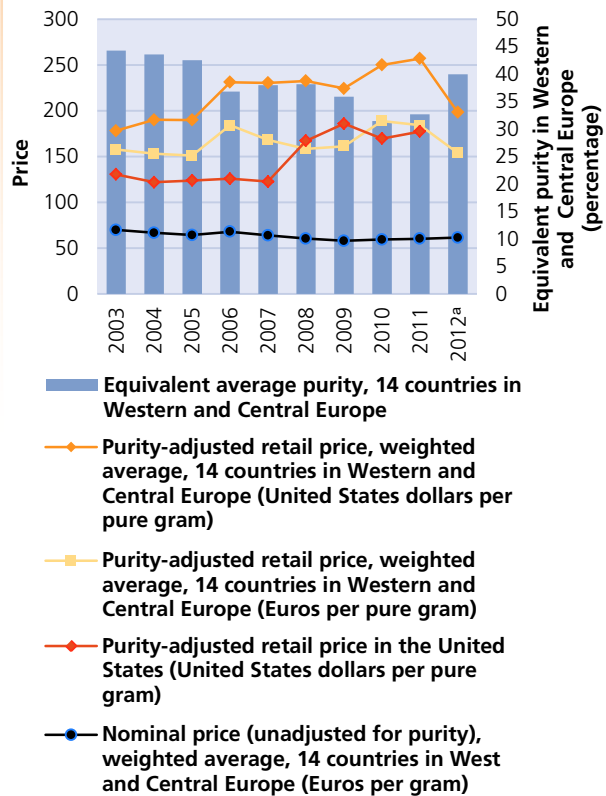
Source: Substance Abuse and Mental Health Services Administration, United States.

in 2011 to 1.8 per cent in 2012, following a steady decline between 2006 and 2011.

The general behaviour of the cocaine market in the United States from 2006 onward appears to be that of a tight market where use patterns were constrained by, and thus to a certain extent followed, the available supply.¹⁴² In

¹⁴² From around 2005 onward, seizures at sea appear to correlate well with the prevalence of cocaine use, suggesting that maritime seizures reported by the United States reflect cocaine availability reasonably

Fig. 35. Cocaine retail prices in the United States and Western and Central Europe, 2003-2012

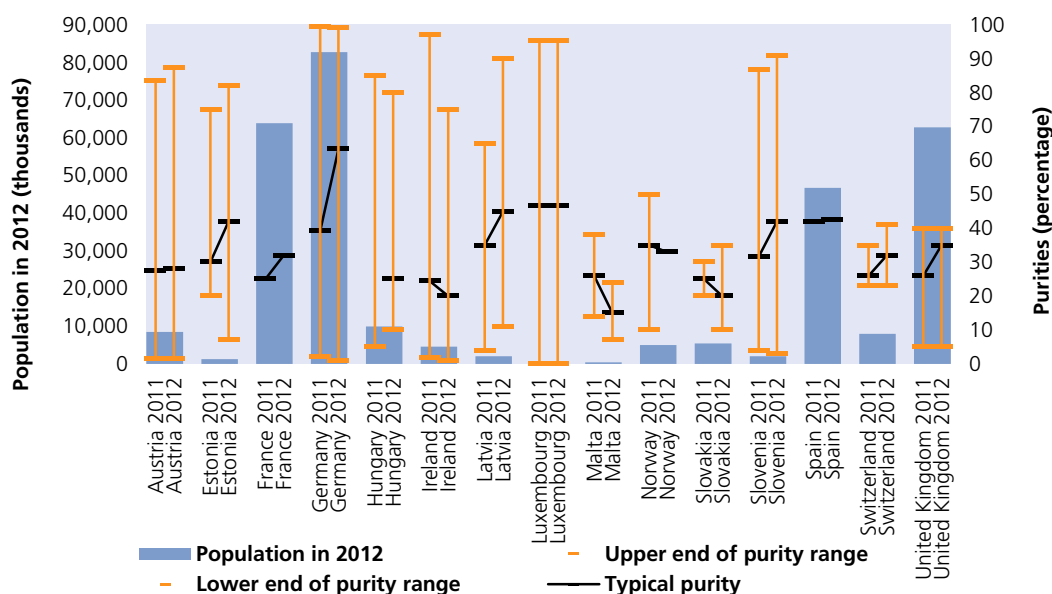


Source: For European countries, UNODC annual report questionnaires, EMCDDA and Europol; for the United States, estimates based on the 2013 National Drug Control Strategy Data Supplement, Office of National Drug Control Policy, United States.
^a For 2012, comparable price data for the United States were unavailable.

particular, the apparent rebound in cocaine use in 2012 may be associated with a slight comeback in cocaine availability towards late 2011. However, in 2013 seizures returned to a declining trend, suggesting that was only a transitory aberration. Moreover, the increase in past-year use in 2012 appears to have been driven by the consumption patterns of older users, including past users returning to the habit, rather than a predisposition of younger people at risk of initiating cocaine use; indeed, the number of first-time users actually declined in 2012, while the trend in past-year use was increasing only in the older age categories.

South America, long the source of the world's cocaine supply, has seen an increase in terms of consumption of cocaine (including crack). The number of past-year cocaine users in South America was estimated at almost 2 million in the period 2004-2005 and 3.35 million in 2012. A sig-

well (significantly better than seizures at the south-west border). When a time lag of one year from the supply indicator (seizures) to the demand indicator (prevalence) is introduced (comparing seizures in the period 2004-2011 to prevalence in the period 2005-2012, rather than using the period 2004-2011), the correlation coefficient improves from 0.89 to 0.96.

Fig. 36. Reported retail purities of cocaine salts in Western and Central Europe, 2011 and 2012 (typical purity and ranges)

Source: UNODC annual report questionnaire and other official data.

nificant component of cocaine use in South America is the smoking of various forms of cocaine, including crack as well as other crude forms of cocaine base.

Brazil contains approximately one half of the population of South America; it is a country that is vulnerable to both cocaine trafficking, due to its geography (which makes it a convenient staging area for cocaine trafficked to Europe), as well as to cocaine consumption, due to its large urban population. The last official estimate of annual prevalence of cocaine use in Brazil based on a general population survey dates to 2005. A more recent survey¹⁴³ among college students in Brazilian state capitals estimated the annual prevalence of use of cocaine powder among college students (of all ages) at 3 per cent in 2009.

In Western and Central Europe, supply indicators overall suggest a possible rebound in availability of cocaine. Following a clear decline from the peak of 2006, cocaine seizures reached a low in 2009 at 53 tons and climbed back to 71 tons by 2012. The increase in 2012 was, however, concentrated in a few important transit countries, notably Belgium, Spain and, to a lesser extent, Portugal, while major consumer countries such as France, Germany and Italy registered decreases. However, the retail purity of cocaine increased in some countries with sizeable consumer markets, such as France, Germany and the United Kingdom. Consequently, on the basis of data from 14 countries in Western and Central Europe with relatively good availability of both price and purity data, the estimated weighted average of the purity-adjusted retail price in West-

ern and Central Europe fell significantly, with the equivalent (constant across countries) purity returning to its highest level since 2005.

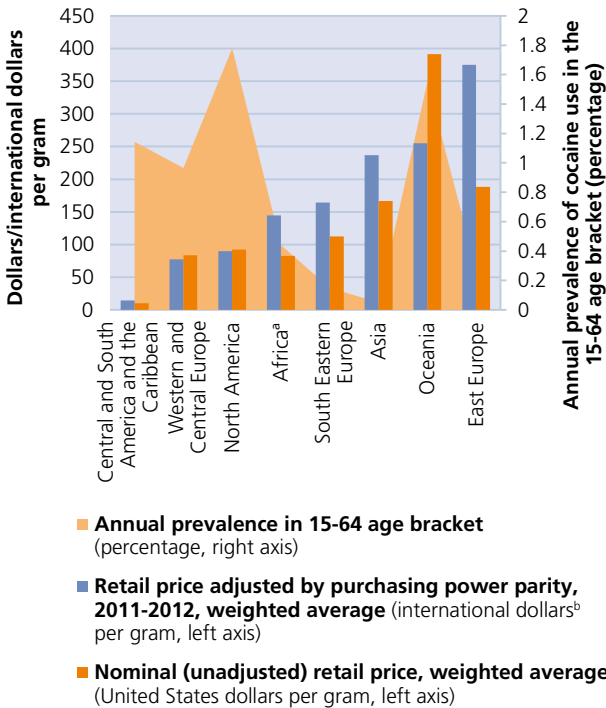
On the demand side, the data currently available do not indicate any changes in the recent overall decreasing trend in cocaine use in Western and Central Europe; that indication, however, is inconclusive, given that data on use are usually updated less frequently and less promptly than supply indicators such as seizures, prices and purity, and that changes in use may follow changes in availability with a short time lag. The apparent increasing availability in Europe (if confirmed to be real), could possibly be driven by an increasing supply originating in Peru,¹⁴⁴ and if the trend in use continues to diverge from the trend in availability, it would raise the question of whether a portion of the cocaine entering Europe is possibly destined for emerging markets outside the established markets in Western and Central Europe.

One such possible destination could be Oceania, where the market has expanded in recent years and where prices are higher than in Western and Central Europe. Cocaine seizures in Oceania reached a record of 1.9 tons in 2010, and remained high in 2012, at 1.6 tons. In particular, past-

¹⁴³ Brazil, National Drug Policy Secretariat (SENAD), *First Nationwide Survey on the Use of Alcohol, Tobacco and Other Drugs among College Students in the 27 Brazilian State Capitals* (Brasilia, 2010).

¹⁴⁴ The small decline in coca bush cultivation in Peru registered in 2012 was probably too recent to have an impact on indicators in Europe in 2012. As of 2011, cultivation in Peru had increased for six consecutive years (by 34 per cent), while in Colombia it stood at approximately one third less than the peak level of 2007, and in the Plurinational State of Bolivia, where the cultivation area continued to be significantly lower than both Colombia and Peru, it fell to the lowest level since 2005. An increase in cocaine originating in Peru is also borne out by data from Australia (see figure 38 and relevant discussion). See also *Cocaine Smuggling in 2011*, produced for the United States Office on National Drug Control Policy.

Fig. 37. Annual prevalence of cocaine use (2012) versus cocaine retail prices, nominal and adjusted by purchasing power parity (unadjusted for purity), by region, 2011-2012



Source: UNODC estimates based on World Bank Purchasing Power Parities and annual report questionnaire, supplemented by other official sources

^a Price data for Africa were available from a very limited number of countries.

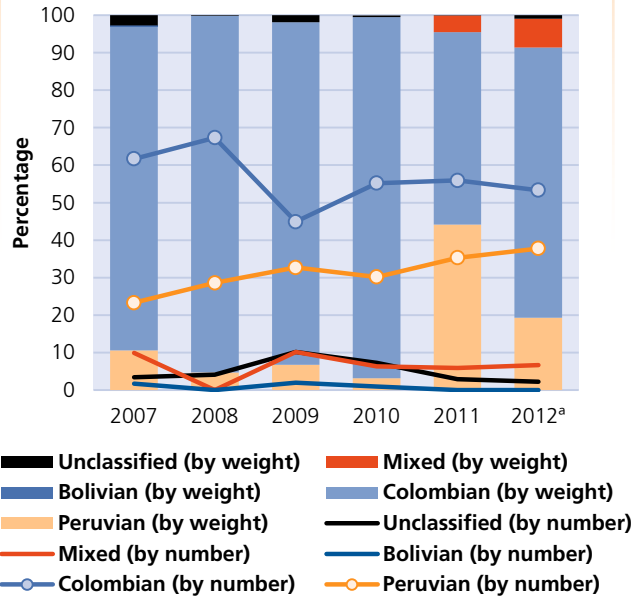
^b An international dollar would buy in the region concerned a comparable amount of goods and services a United States Dollar would buy in the United States.

year use of cocaine among the general population aged 14 years or older in Australia rose from 1.6 per cent in 2007 to 2.1 per cent in 2010, although the average frequency of consumption appears to be low,¹⁴⁵ possibly due to the high prices. Indeed, this is corroborated by the fact that Oceania is something of an exception among the major consumer markets, in that both the price and the prevalence are relatively high, while the retail price would be expected to have an inverse relationship to the levels of use, especially when adjusted for purchasing power parity (all other factors being equal).

In terms of the number of cocaine seizure cases in 2012, categorized by country of departure, Australia ranked the Netherlands first and Germany second. It is likely that the majority of those seizures were of small consignments; in terms of weight, and with reference to a slightly different reporting period (July 2011-June 2012), the most prominent European country was the United Kingdom (in fifth place). Moreover, it appears that Peru has increased in importance as a country of origin of cocaine reaching Aus-

¹⁴⁵ Amanda Roxburgh and others, *Trends in Drug Use and Related Harms in Australia, 2001 to 2013*, p. 108.

Fig. 38. Origin of coca leaf used to produce cocaine as a proportion of analysed seizures made by the Australian Federal Police, by number and by total weight of seizures, 2007-2012



Source: Australian Crime Commission.

^a January-June only.

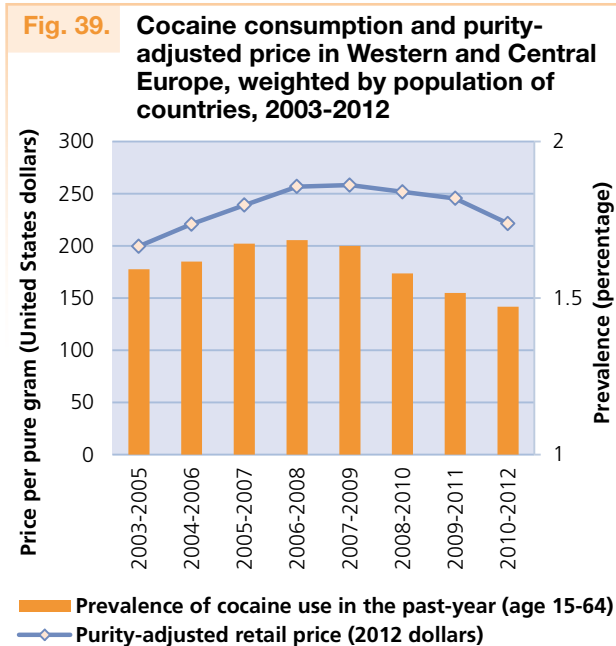
tralia (including possibly through Europe) although, as of mid-2012, Colombia remained foremost among the three producer countries.

In Eastern Europe, seizures of cocaine continue to be limited. Aside from Latin America, countries in Eastern Europe exclusively cited European countries as transit countries for cocaine reaching their territory in 2010-2012. It is likely that the Baltic region serves as an entry point for cocaine entering the Russian Federation.¹⁴⁶ Limited quantities of cocaine may also reach Central and Eastern Europe from the south, via countries in Eastern and South-Eastern Europe, including countries traditionally associated with the Balkan route for heroin entering Europe.¹⁴⁷

The extent of drug trafficking and consumption in Africa is hard to assess. Although seizures in the subregion of West and Central Africa remained below 3 tons in 2012 (including 2.2 tons seized in Cabo Verde alone), cocaine trafficking via West Africa to Europe is believed to be continuing. In 2012, Algeria in particular registered a spike in cocaine seizures, reporting that cocaine transited through countries in West and Central Africa prior to seizure, and identifying trafficking by air as the main mode of transportation. Some of the cocaine may also be diverted to other destina-

¹⁴⁶ Finland, Latvia and Lithuania all identified the Russian Federation as being among the destinations of cocaine seized on their territory at least once over the reporting years 2010-2012.

¹⁴⁷ This is suggested by a combined analysis of replies to the annual report questionnaire submitted by Albania, Austria, Belarus, Bulgaria, Hungary, Poland, Romania, Serbia, Turkey and Ukraine. See also the *World Drug Report 2013*, pp. 44-45.



Source: UNODC annual report questionnaire.

Note: Prevalence figures displayed as moving average.

tions, possibly including Asia; it is also likely that there is a link with South Africa.¹⁴⁸

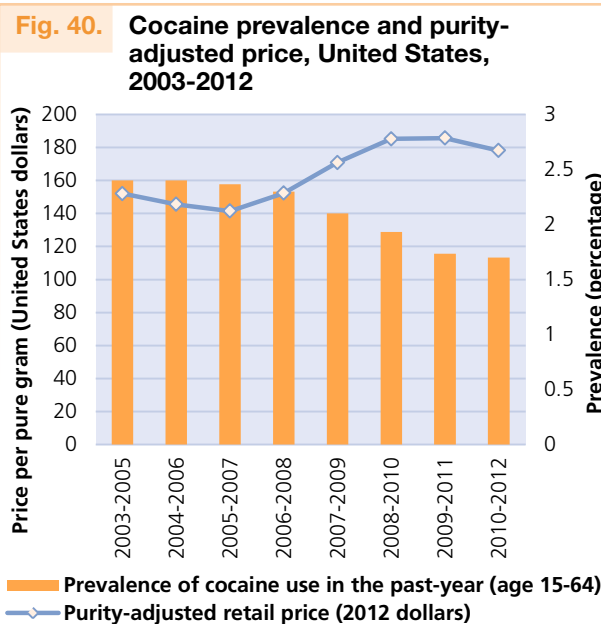
The estimated prevalence of cocaine use in South Africa rose from 0.78 per cent of the general population in the 15-64 age bracket in 2008 to 1.02 per cent in 2011, confirming the continued existence of a sizeable and apparently expanding consumer market for cocaine. Owing to the paucity of supply-side data, it was not possible to complete the picture of the situation in that country.

Seizures of cocaine in East Africa, while still small on a global scale, have also increased in recent years, notably in the United Republic of Tanzania.

The extent of cocaine use in Asia has always been limited, and the most recent available evidence does not give reason to change that assessment. Nevertheless, cocaine has made its first inroads in this continent, and as pockets of consumption, trafficking and trade in cocaine emerge, factors including affluence¹⁴⁹ appear to play a role in determining which countries are affected first. In 2012, the largest aggregate quantities of cocaine seizures in Asia were those seized in Hong Kong, China, followed by the United Arab Emirates and Israel (in that order). The United Arab Emirates, a prominent stopover point for air passenger traffic, has been identified as a transit country by a disparate group of countries with a small, possibly emerging market for cocaine, including countries in Asia and Africa. Israel and

148 Nigeria identified South Africa as being among the countries of provenance for seized cocaine every year from 2009 to 2012. However, among individual cocaine seizures made in West and Central Africa since 2006, a small number (14) of cocaine consignments (including 9 seized by Nigeria) were seized on their way to South Africa, but none were seized entering the region from South Africa.

149 See also the *World Drug Report 2013*, p. 40.



Source: UNODC annual report questionnaire, and Substance Abuse and Mental Health Services Administration and price data from the System to Retrieve Information from Drug Evidence (STRIDE) database of the United States Drug Enforcement Agency.

Note: Prevalence figures displayed as moving average.

Lebanon appear to be destination countries for cocaine, with Jordan and the Syrian Arab Republic serving as transit countries.¹⁵⁰ Annual seizures in China and India were below 100 kg in 2011; more significant, relative to the size of the population, were the quantities (each in excess of 25 kg) seized in Japan, Saudi Arabia and Thailand in 2011.

F. CANNABIS: OVERVIEW

Cultivation and production

Cannabis cultivation remains widespread in most regions, ranging from personal cultivation to large-scale farm and indoor warehouse operations, thus making it difficult to estimate the global levels of cannabis cultivation and production. While cannabis herb is grown in almost every country in the world,¹⁵¹ the production of cannabis resin is confined to only a few countries in North Africa, the Middle East and South-West Asia. In Afghanistan, on the basis of available cultivation and production estimates, in 2012, the total area under cultivation of cannabis was 10,000 ha, down from 12,000 ha in 2011. But potential resin production, due to higher yields per hectare, was estimated at 1,400 tons in 2012, compared with 1,300 tons in 2011. The decline in the price of cannabis resin in Afghanistan between December 2011 and December 2012 supports the assumption of a possible increase in availability over that period.¹⁵²

150 UNODC annual report questionnaire and other official data.

151 *World Drug Report 2013*.

152 UNODC and Afghanistan, Ministry of Counter-Narcotics, "Afghanistan opium price monitoring monthly report" (December 2012).