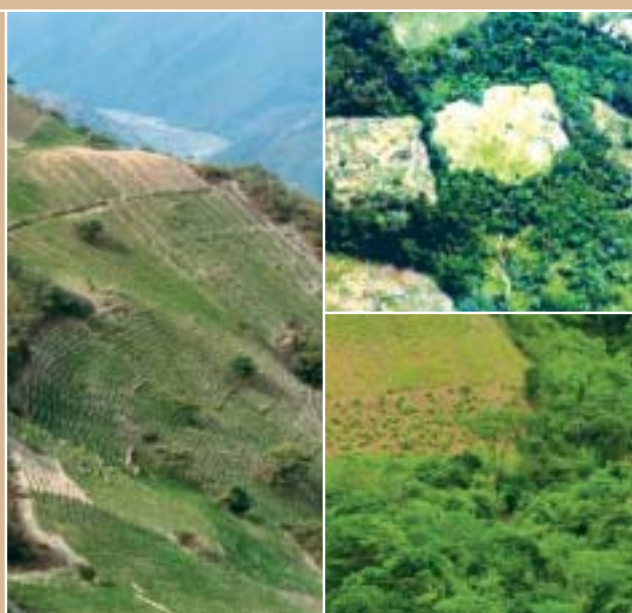




UNITED NATIONS  
*Office on Drugs and Crime*

# COCA CULTIVATION IN THE ANDEAN REGION



**A Survey of Bolivia, Colombia  
and Peru**

JUNE 2005



*Government of Bolivia*



*Government of Colombia*



*Government of Perú*

The UNODC Illicit Crop Monitoring Programme (ICMP) promotes the development and maintenance of a global network of illicit crop monitoring systems in the context of the UNGASS crop elimination objective. It provides overall coordination and direct technical support and supervision to UNODC supported annual illicit crop surveys at country level.

This report presents the results of annual surveys of illicit crop cultivation in Bolivia, Colombia and Peru, which are conducted jointly by UNODC/ICMP and the respective Governments.

The implementation of UNODC's illicit crop monitoring programme in the Andean countries was made possible thanks to financial contributions from the Governments of the United States of America, the United Kingdom, Spain, Italy, France and Austria.

The boundaries, names and designations used in all maps in this document do not imply official endorsement or acceptance by the United Nations.

This document has not been formally edited.

## Preface

Since 2000, coca cultivation in the Andean region has fallen by almost 30 percent to 158,000 hectares. This is a dramatic decline, and a signal that governments and farmers are committed to eliminating drug cultivation.

In 2004, the increase in coca cultivation in Bolivia and Peru was larger than the decrease in Colombia, resulting in a 3 percent increase in the Andean region as a whole. This small hike should not yet be construed as a structural change. Should cultivation continue to increase, of course, it would have to be perceived as a threat to the gains made in the last five years.

Throughout the Andean region, the struggle continues between, on one side governments and citizens committed to legitimate industry and prosperity, and on the other side, narco-traffickers intent on preserving the *status quo*. The United Nations invites the international community to give more support to the right cause by providing farmers the required development assistance.

Colombia remains a success story: in 2004, coca cultivation decreased by 7 percent to 80,000 hectares. Since 2000, cultivation has been cut by half, one of the most striking reductions of illicit crops in recent history.

Coca cultivation in Bolivia remains well below the peaks of the 1990's, although it did rise by 17 percent to 27,700 hectares during 2004. Two regions in Bolivia account for almost the entire coca cultivation in that country: the Chapare region, responsible for most of the 2004 increase, and the Yungas of La Paz.

In 2004, Peru's coca surface grew by 14 percent to 50,300 hectares, back to the level of 1998. More work clearly remains to be done in Peru, which manifested clear political will to reduce coca cultivation during the 1990s.

To date, analysts report no "balloon effect," or spill-over of cultivation into neighbouring countries. It is clear, however, that weak governance in certain areas continues to make them vulnerable to traffickers and the drug trade. In Bolivia, civil unrest and weak governance have, to a large degree, stymied drug control efforts. In Peru, the 2004 coca increase occurred in two areas where both the rule of law and development are absent.

There is, however, a window of opportunity for the Andean region—in all three coca-producing countries, the overwhelming majority of farmers indicate their willingness to abandon illicit trade, if assisted in developing alternatives to poverty. The United Nations calls on the international community to focus even more sharply on the ways in which drugs, crime, and terrorism continue to sustain poverty and sabotage the rule of law in the Andean region. We invite greater support for alternative development, the most effective method of creating sustainable growth.



Antonio Maria Costa  
Executive Director  
United Nations Office on Drugs and Crime



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# **PART 1**

## **COCA CULTIVATION IN THE ANDEAN REGION**

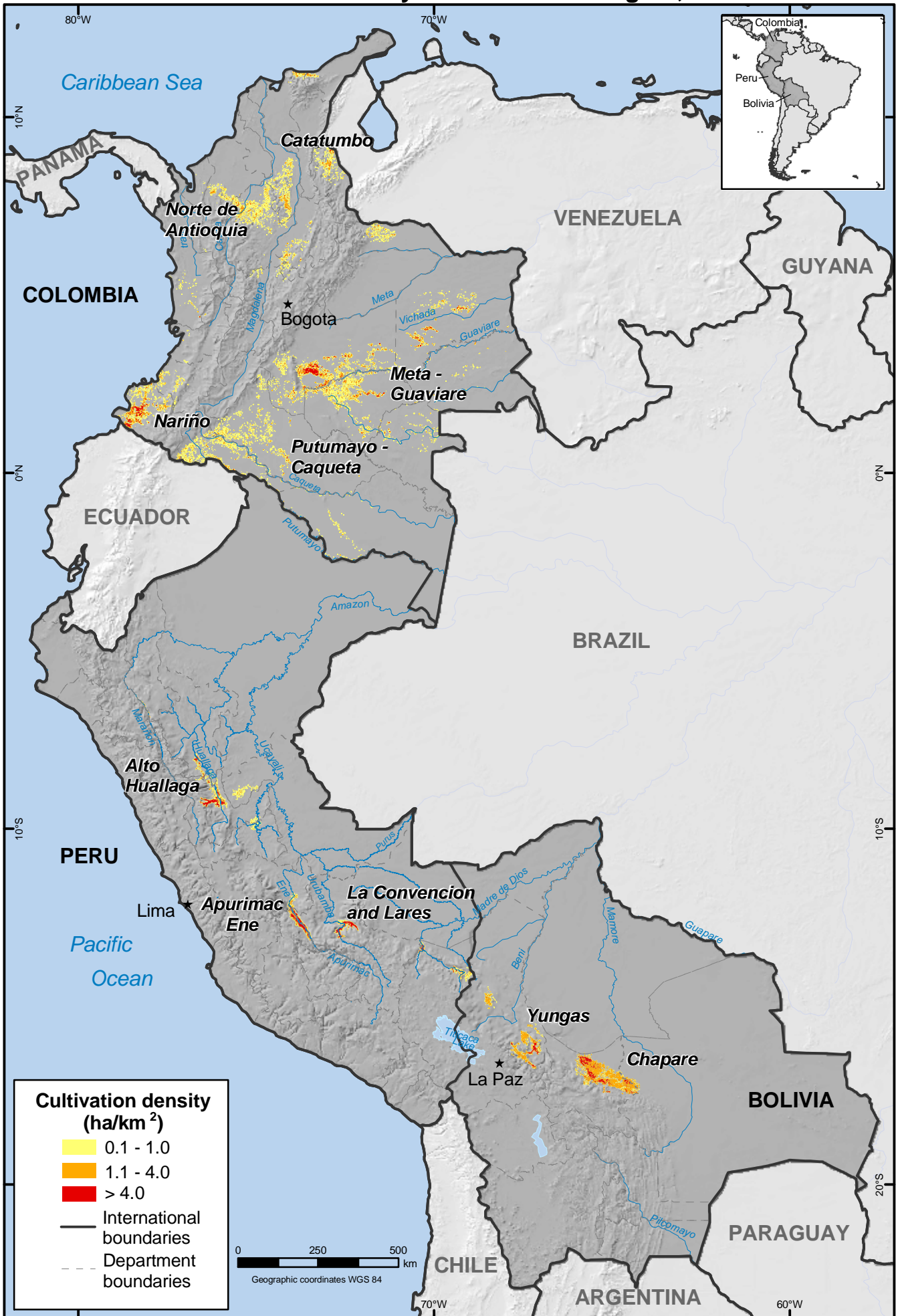


## FACT SHEET – ANDEAN COCA SURVEYS FOR 2004

		2003	Variation	2004
Coca cultivation		<b>153,800 ha</b>	<b>+ 3 %</b>	<b>158,000 ha</b>
Of which	Colombia	86,000 ha	- 7 %	80,000 ha
	Peru	44,200 ha	+ 14 %	50,300 ha
	Bolivia	23,600 ha	+ 17 %	27,700 ha
Farm-gate value of coca cultivation		<b>US\$ 772 million</b>	<b>+ 11%</b>	<b>US\$ 860 million</b>
Of which	Colombia (coca base)	US\$ 350 million	- 10 %	US\$ 315 million
	Peru (coca leaf)	US\$ 212 million <sup>1</sup>	+ 43%	US\$ 304 million
	Bolivia (coca leaf)	US\$ 210 million	+ 12%	US\$ 240 million
Farm-gate value of coca cultivation in % of GDP (total of US\$ 172 billions in 2004)		<b>0.5%</b>	<b>-</b>	<b>0.5%</b>
	In Colombia (GDP of US\$ 95.3 billions in 2004)	0.4%	- 26%	0.3%
	In Peru (GDP of US\$ 68.5 billions in 2004)	0.3%	+ 33%	0.4%
	In Bolivia (GDP of US\$ 8.1 billions in 2004)	2.7%	+ 11%	3.0%
Cocaine production		<b>674 mt</b>	<b>+ 2%</b>	<b>687 mt</b>
Of which	Colombia	440 mt	- 11%	390 mt
	Peru	155 mt	+ 23%	190 mt
	Bolivia	79 mt	+ 35%	107 mt
Average wholesale price of cocaine				
	In Colombia	US\$ 1,565 /kg	+ 9 %	US\$ 1,713 /kg
	In Peru	US\$ 1,500 /kg	-	US\$ 1,500 /kg
	In Bolivia	US\$ 1,800 /kg	-	US\$ 1,800 /kg
	In Europe	US\$ 42,320 /kg	+ 8 %	US\$ 45,730 /kg
	In United States	US\$ 21,500 /kg	-	n.a.
Average street price of cocaine				
	In Western Europe	US\$ 98/g	-	US\$ 97/g
	In United States	US\$ 75/g	-	
Reported eradication of coca cultivation		<b>158,200 ha</b>	<b>-0.2%</b>	<b>157,900 ha</b>
Of which	Colombia	136,800 ha	+ 3%	139,200 ha
	Peru	11,300 ha	- 9%	10,300 ha
	Bolivia	10,100 ha	- 16%	8,400 ha
Reported seizure of cocaine (HCL) in the Andean region		<b>122.6 mt</b>	<b>+ 28%</b>	<b>156.8 mt</b>
Of which	Colombia	113.1 mt	+ 32%	149.3 mt
	Peru	3.6 mt	+ 104%	7.3 mt
	Bolivia	5.9 mt	- 91%	0.5 mt
Reported seizure of cocaine in				
	Europe	84.1 mt		n.a.
	North America	138.6 mt		n.a.
Reported opium poppy cultivation				<b>5,397 ha</b>
Of which	Colombia	4,030 ha	-2%	3,950 ha
	Peru	n.a.		1,447 ha
	Bolivia	0 ha		0 ha

<sup>1</sup> Calculated with updated yield figures. Based on an average coca leaf yield of 2,180 kg/ha and a price for coca leaf of US\$2.2/kg.

# Coca cultivation density in the Andean Region, 2004



Sources: Governments of Bolivia, Colombia y Peru, National monitoring systems supported by UNODC  
 The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

## Executive Summary

In 1998, the UN General Assembly Special Session on Drugs (UNGASS) convened in New York. At that meeting, Members States pledged to work toward achieving significant reductions in illicit crop cultivation by the year 2008. To this end, UNODC established an Illicit Crop Monitoring Programme (ICMP) to help countries assess their progress in meeting UNGASS targets. Through ICMP, UNODC assists the Governments of Colombia, Peru and Bolivia in the implementation of national coca monitoring systems. This report presents the results of the surveys on coca cultivation in the Andean region, which were conducted jointly by the governments and UNODC. The three surveys relied on satellite images to detect coca cultivation.

After three consecutive years of decline, coca cultivation in the Andean region has increased by 3 percent in 2004, to 158,000 hectares. This small hike reflects increased cultivation in countries other than Colombia, where a decrease has been recorded every year for the past four years.

The shifting levels of drug cultivation have resulted in a more equal distribution between the three Andean nations: while the majority of all coca cultivation, 50 percent, continues to take place in Colombia, Peru is second with 32 percent, and Bolivia, with 18 percent, is in third place.

There was no indication of large levels of coca cultivation outside Colombia, Peru and Bolivia. However, UNODC plans to assess the situation in Ecuador and Venezuela, and to monitor any possible spillover of coca cultivation from Colombia.

Figure 1: Coca cultivation in the Andean region 1994 - 2004 (in ha)

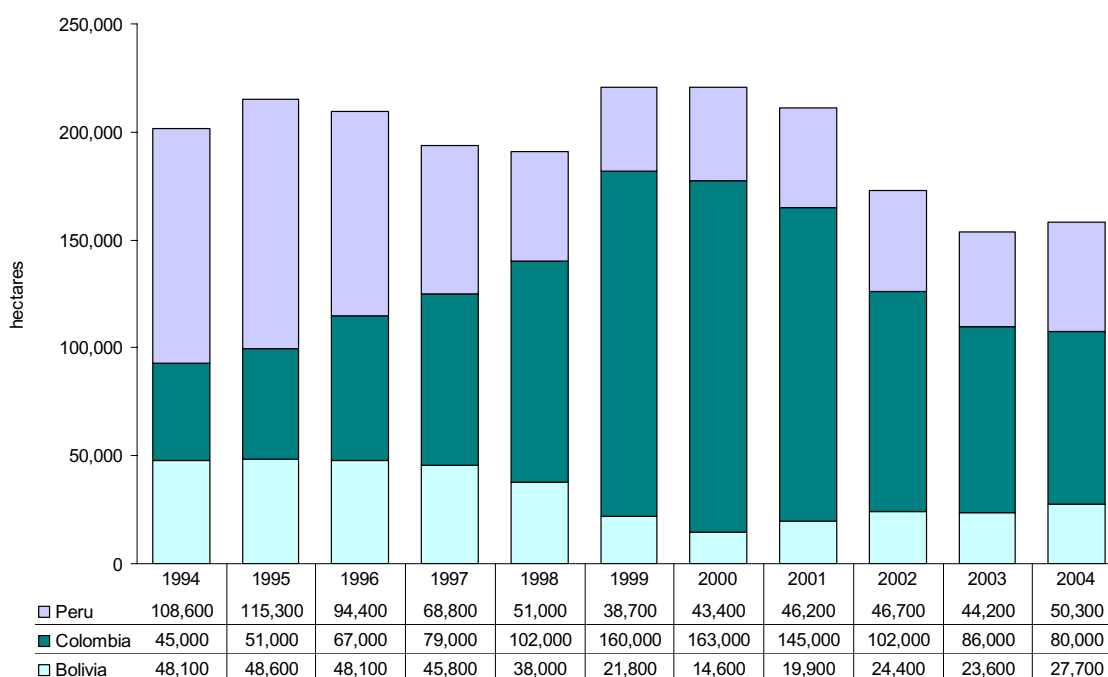
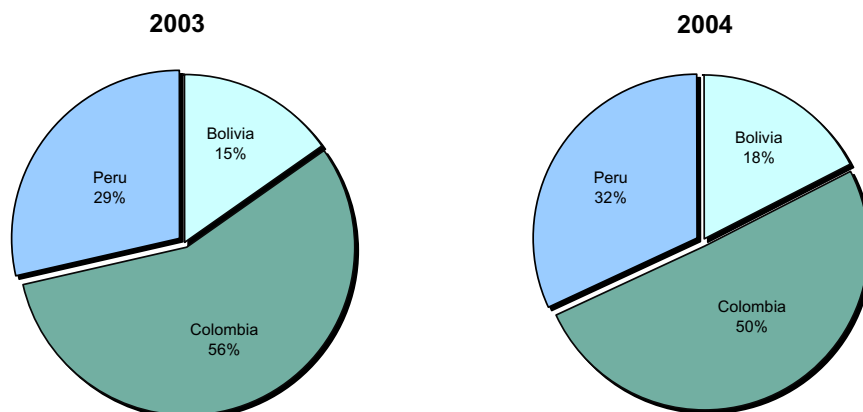


Figure 2: Coca bush cultivation (in percent of global total)



Hectares under cultivation

In 2004, 27,700 hectares of coca bush were under cultivation in Bolivia, an increase of 17 percent over last year's estimate of 23,600 hectares. This increase was due to a rise of 38 percent in Chapare. Chapare, the Yungas of La Paz, and Apolo are the three regions where coca is grown in Bolivia. In 2004, coca cultivation in Bolivia represented no more than 18 percent of the world coca cultivation, below the levels estimated in the early- to mid-nineties when Bolivia accounted for about a quarter of the world total.

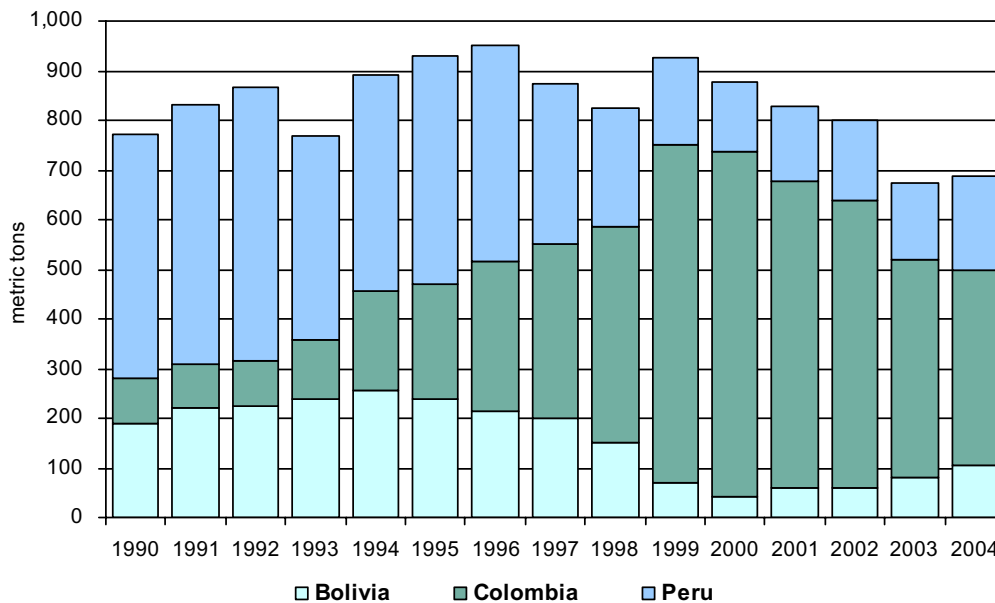
In Colombia, about 80,000 hectares of coca were cultivated in 23 out of the 32 departments in 2004. This represented a decrease of 6,000 hectares (or -7 percent) since 2003, when coca cultivation was estimated at about 86,000 hectares. It is the fourth consecutive annual decrease in Colombia since 2000, bringing the total decline in coca cultivation in that nation to an impressive 51 percent. Although Colombia's share in the total level of coca cultivation fell from 74 percent in 2000 to 50 percent in 2004, it remains the country with the highest level of coca cultivation in the world, ahead of Peru and Bolivia.

The decrease of 6,000 hectares of coca cultivation in Colombia resulted from a sustained level of aerial spraying and manual eradication that peaked at 139,140 hectares, an increase of 3 percent compared to 2003. The overall decrease in cultivation at the national level was not borne out evenly at the department level, where important variations were recorded. While coca cultivation decreased significantly between 2003 and 2004 in Guaviare, Nariño, Putumayo, cultivation also increased in other departments, in particular in Meta and Arauca.

It is worthwhile to highlight the situation in the department of Putumayo in Colombia: In 2000, coca cultivation in this department reached 66,000 hectares, representing 40 percent of the national total. Following four years of intense eradication campaigns and important investment into alternative development programmes, there were only 4,400 hectares of coca cultivation left in 2004, a 93 percent decline from 2004 levels.

In Peru, coca cultivation reached 50,300 hectares in 2004, a 14 percent increase over 2003. Despite this increase, coca cultivation in Peru remained below the level registered in the mid-nineties, when coca cultivation rose above 100,000 hectares. The increase in coca cultivation between 2003 and 2004 was concentrated in the regions of Alto Huallaga and San Gaban. Increases in these two regions accounted for 90 percent of a total increase of 5,500 hectares between 2003 and 2004.

Figure 3: Global cocaine production 1990-2004, metric tons



Global cocaine production

Between 2003 and 2004, world cocaine production rose by 2 percent to 687 metric tons. Cocaine productions in Peru and Bolivia increased due to larger acreages of coca plantations than in 2003, and also reflected better coca leaf production derived from improved field practices.

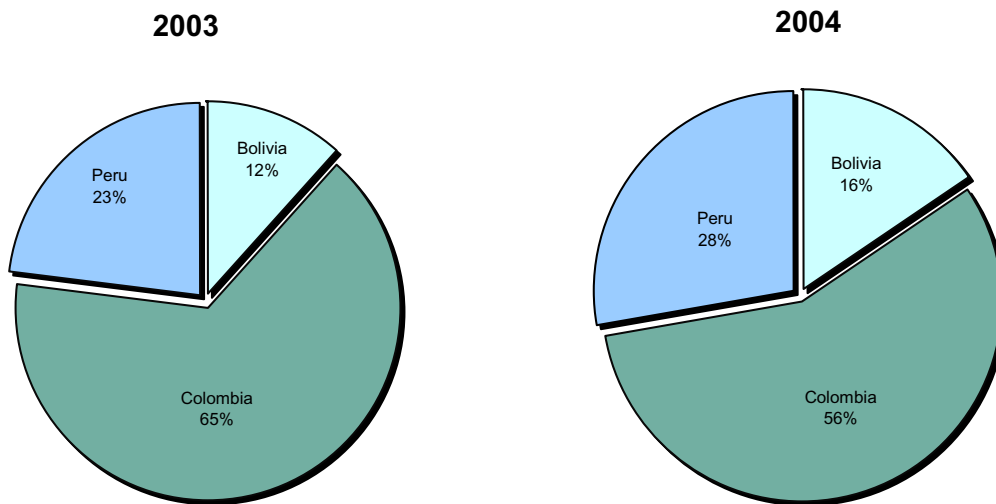
In Bolivia, 38,000 metric tons of leaf were estimated to be available for cocaine production, resulting in a potential cocaine production of 107 metric tons in 2004. This corresponded to an increase of 38 percent over a 2003 estimate of 79 metric tons. The significant increase in cocaine production reflected the large increase in coca cultivation in the Chapare region (+38 percent), where coca leaf yield was more than two times higher than anywhere else in the country (2,700 kg/ha compared to 1,200 kg/ha).

Unlike the situation in Bolivia and Peru, there is no market for coca leaf in Colombia. Most peasants produce the coca base on the farm and sell it themselves. The estimated potential cocaine production in Colombia in 2004 is 390 metric tons – 50 metric tons less than in the previous year. 390 metric tons represents 57 percent of global potential cocaine production, which reached 687 metric tons in 2004.

The total sun-dried coca leaf production in 2004 for Peru ranged between 96,000 and 123,000 metric tons. Taking into account 9,000 metric tons for traditional, commercial or industrial uses, the total production of sun-dried coca leaf for cocaine production was

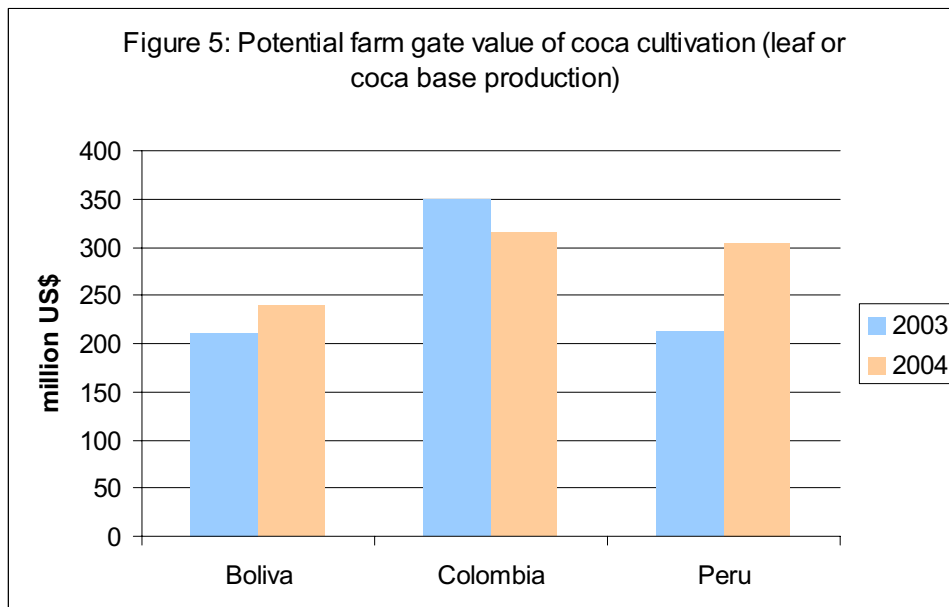
estimated at around 101,000 metric tons and the potential production of cocaine was estimated at 190 metric tons—28 percent of the global potential cocaine production of 687 metric tons in 2004.

Figure 4: Cocaine production (in percent of global total)



Farm-gate values

While calculations of farm-gate values of coca cultivation in Bolivia and Peru are based on coca leaf production, coca base production figures are used for Colombia, since there is no market for coca leaf in that country. In Colombia, the farm-gate value equals 0.3 percent of GDP and in Peru it is at 0.4 percent of GDP. The farm gate value of coca leaf production in Bolivia is relatively higher, at 3.0 percent of GDP.



Farm-gate value of coca leaf production in Bolivia reached US\$240 million in 2004. This estimation took into account the total value of the market controlled by DIGECO, as well as the farm-gate value of coca leaf outside this market. Total value was equivalent to 3.0 percent of the country's GDP for 2004 (US\$ 8.1 billion) or 17 percent of the value of the agricultural sector in 2003 (US\$ 1.4 billion)

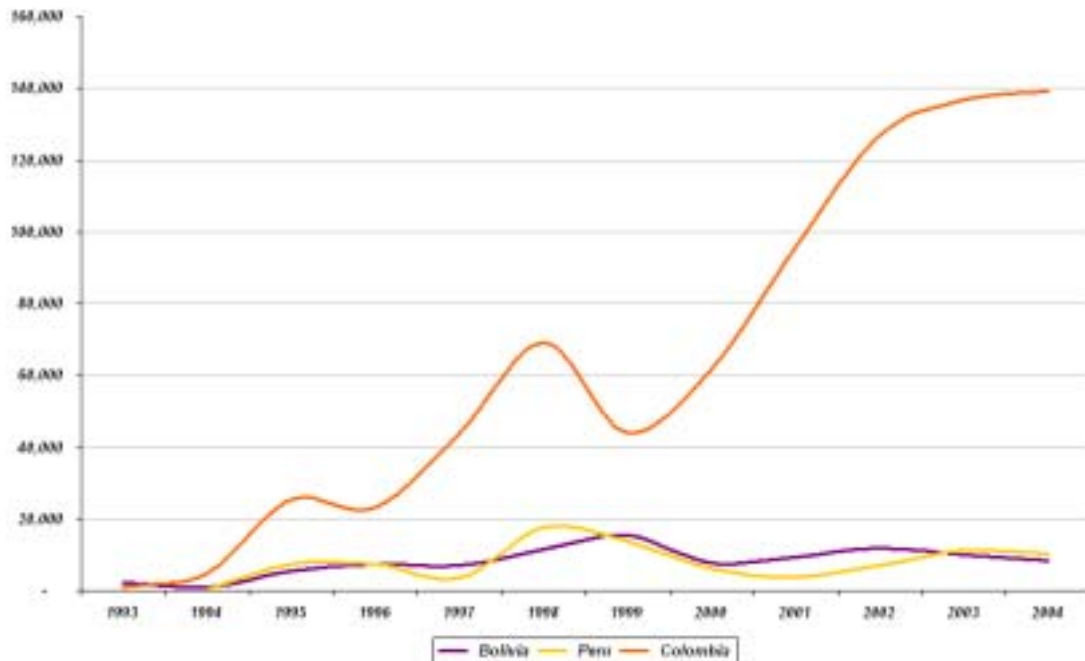
In Colombia, most peasants sell the coca base that they themselves produce on the farm. Using the average price for coca base of US\$ 810/kg in 2003, and assuming a one to one conversion rate between cocaine and coca base, the total farm gate value of the 390 metric tons of coca base produced in Colombia in 2004 would amount to about US\$ 315 million, compared to US\$ 350 million in 2003.

In 2004, the gross potential farm-gate value of the sun-dried coca leaf production in Peru amounted to US\$ 304 million, based on 107.4 metric tons sold at US\$ 2.8/kg on the unregulated market and 2.6 metric tons sold at US\$ 1.4/kg on the market regulated by ENACO.

### Eradication

In 2004, eradication reached record levels in Colombia (139,200 ha) while it decreased slightly in Peru and Bolivia. Overall, the levels of eradication remained high in the three countries in 2004.

Figure 6: Eradication of coca bush in Bolivia, Colombia and Peru (ha)

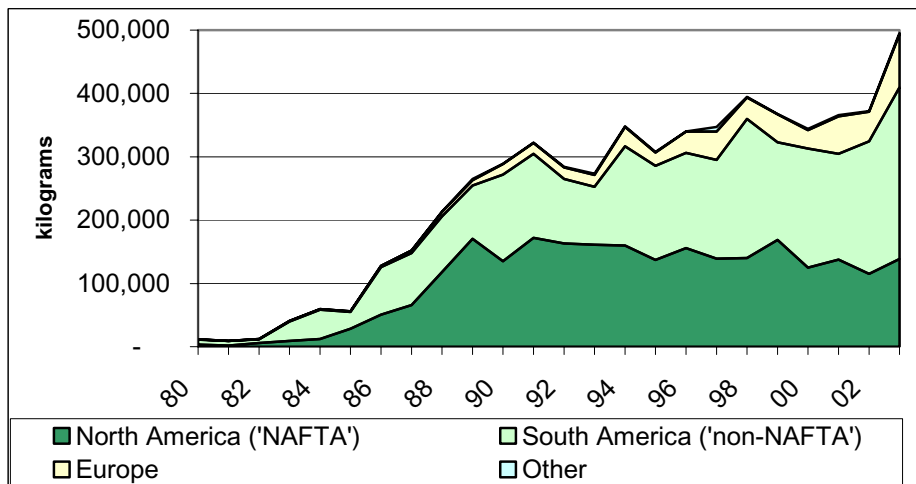


### Seizures

Between 2003 and 2004, seizures of cocaine in the Andean region increased by 28 percent to reach 157 metric tons. 95 percent of the Andean cocaine seizures took place in Colombia.

Global cocaine seizures in 2003 represented record highs. 55 percent of total global cocaine seizures took place in South America, 28 percent in North America and 17 percent in Europe. Cocaine seizures in North America over the last decade have been declining, reflecting lower levels of cocaine consumption, as compared to levels of consumption during the second half of the 1980s. Cocaine seizures in Western and Central Europe, in contrast, have been on the increase, reflecting rising levels of cocaine consumption.

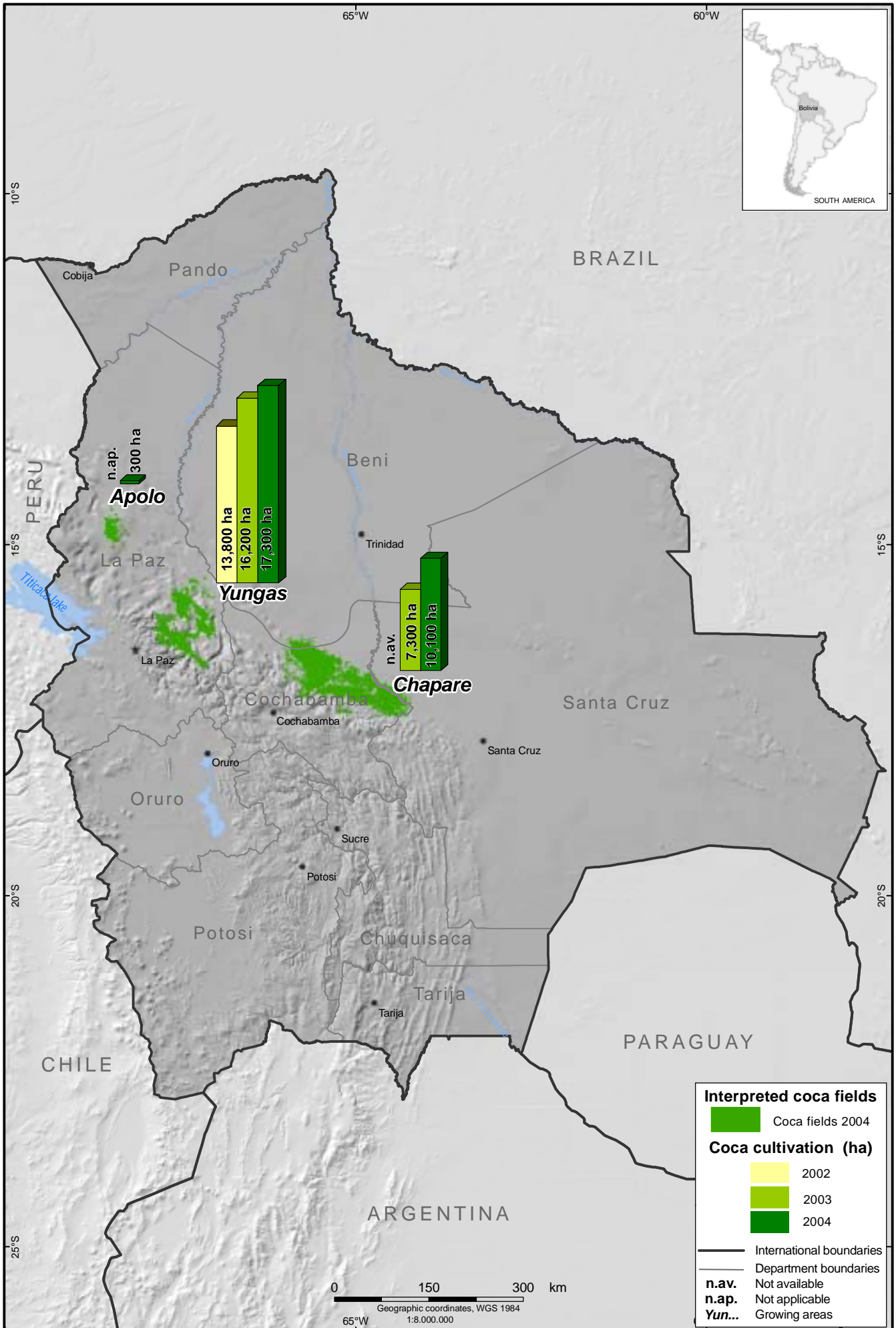
Figure 7: Seizures of cocaine (base and HCL), 1980-2003



Source: UNODC, Annual Reports Questionnaire Data / DELTA



# Coca cultivation 2002 - 2004 by region in Bolivia



Source: Government of Bolivia - National monitoring system supported by UNODC  
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FACT SHEET – BOLIVIA COCA SURVEY FOR 2004

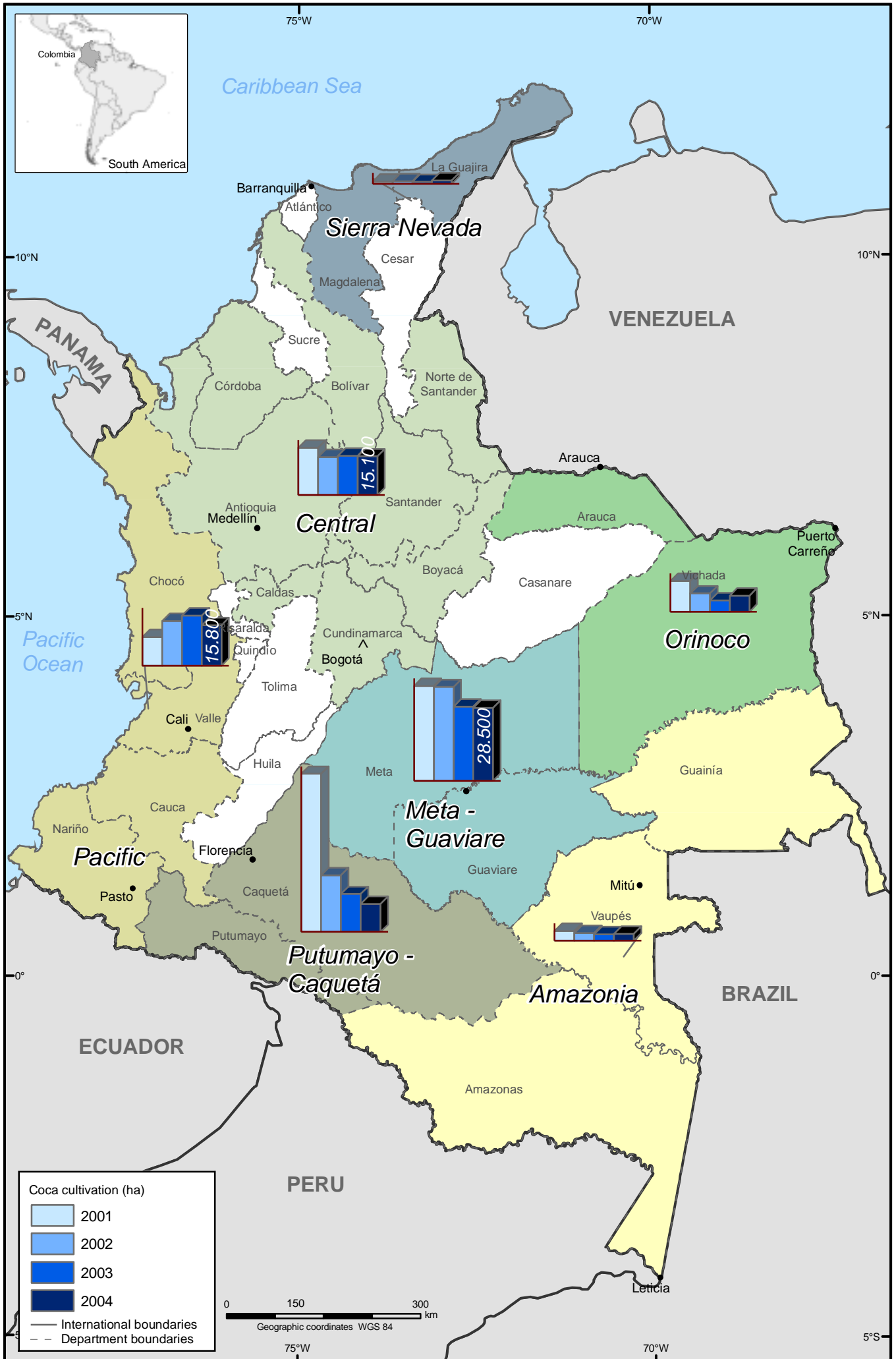
	2003	Variation on 2003	2004
Coca cultivation	23,600 ha	+ 17 %	27,700 ha
<i>Of which in the Yungas of La Paz</i>	16,200 ha	+ 7 %	17,300 ha
<i>in Chapare</i>	7,300 ha	+ 38 %	10,100 ha
<i>in Apolo</i>	50 ha	<i>n.a.</i> <sup>1</sup>	300 ha
<i>Of which permitted by Bolivian law 1008</i>	12,000 ha		12,000 ha
<i>non-permitted by Bolivian law 1008</i>	11,600 ha	+ 35 %	15,700 ha
<i>Of which in national parks</i>	2,400 ha	+ 71%	4,100 ha
Average annual sun-dried coca leaf yield			
in Chapare	2,764 kg/ha		2,764 kg/ha
in the Yungas outside traditional coca growing areas	1,798 kg/ha		1,798 kg/ha
in Apolo and the Yungas, traditional coca growing areas	936 kg/ha		936 kg/ha
Production of coca leaf	39,000 mt*		49,000 mt
Maximum potential production of cocaine	79 mt*	+ 35%	107 mt
in percent of global cocaine production	11 %		16%
National weighted average farm-gate price of coca leaf (outside state market)	n.a.		5.0 US\$/kg
Chapare average farm-gate price of coca leaf	5.4 US\$/kg	- 4%	5.2 US\$/kg
Total farm-gate value of coca leaf production	US\$ 210 million*	+12 %	US\$ 240 million
GDP	US\$ 7.8 billion	+ 3.8%	US\$ 8.1 <sup>2</sup> billion
Farm-gate value of coca leaf production in percent of GDP	2.7 %		3.0 %
Value of agricultural sector	US\$ 1.4 billions	n.a.	n.a.
Farm-gate value of coca leaf production in percent of value of 2003 agricultural sector	15%		17 %
Reported seizure of cocaine paste	6,934 kg	+ 18%	8,189 kg
Reported seizure of cocaine hydrochloride	5,969 kg	- 91%	531 kg

<sup>1</sup> Survey areas not comparable

<sup>2</sup> GDP of 2004 estimated from the 2003 GDP, and with a projected growth of 3.8% (source: INE)

\* based on the same coca leaf yield and cocaine conversion rate as in 2004

# Coca cultivation by region in Colombia, 2001 - 2004



Source: Government of Colombia - National monitoring system supported by UNODC  
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FACT SHEET – COLOMBIA COCA SURVEY FOR 2004

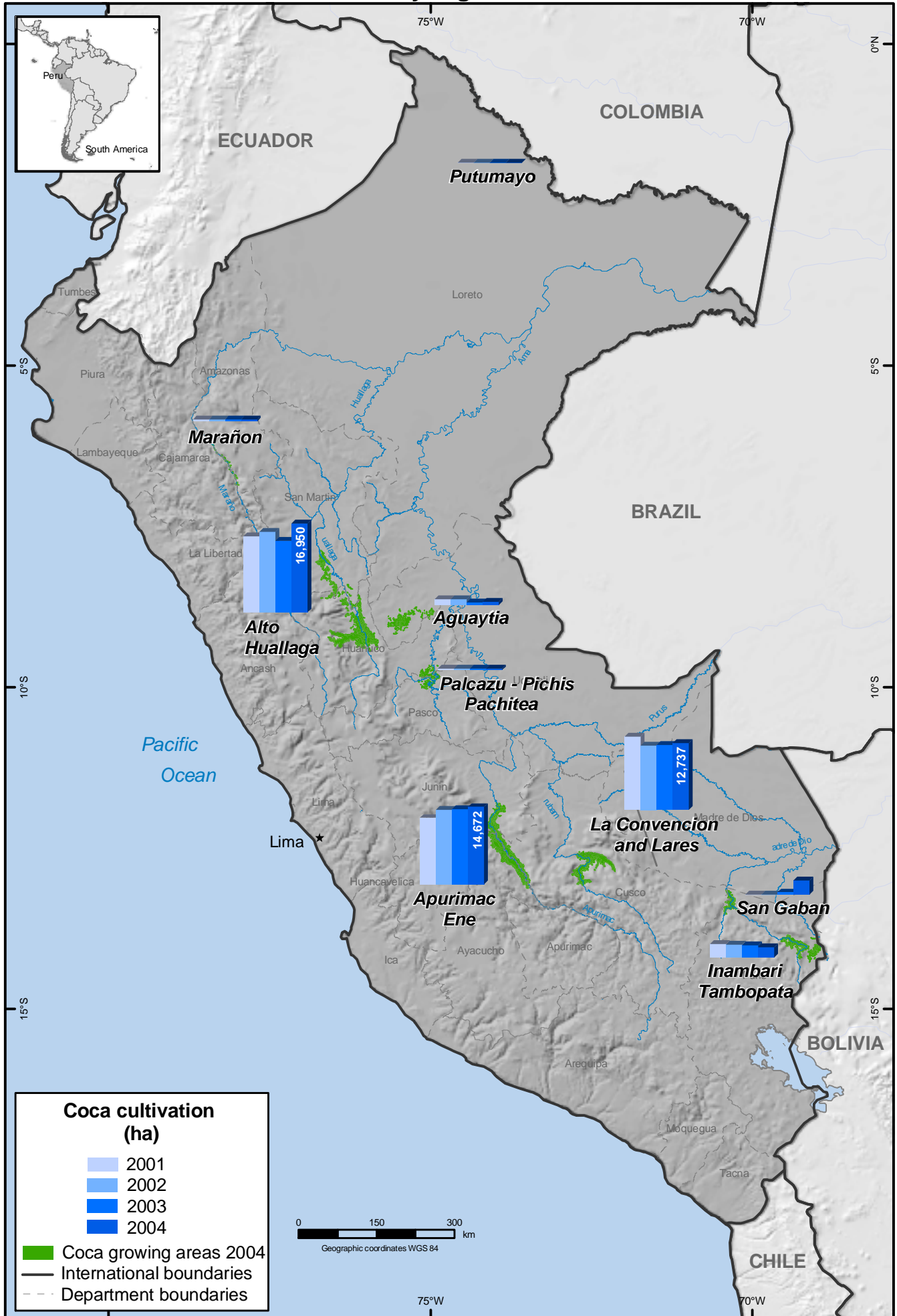
	2003	Variation on 2003	2004
Net coca cultivation (rounded total)	<b>86,000 ha</b>	<b>- 7 %</b>	<b>80,000 ha</b>
Of which			
Meta-Guaviare region	29,000 ha	- 2%	28,500 ha
Pacific region	19,600 ha	- 19 %	15,800 ha
Central region	15,400 ha	-2%	15,100 ha
Putumayo-Caqueta region	10,900 ha	-26%	10,900 ha
Elsewhere	7,600 ha	+32%	10,100 ha
Reported accumulated aerial spraying and manual eradication of coca cultivation	136,800 ha	+ 3%	139,200 ha
Annual budget for alternative development projects at department level (out of a total of US\$ 240 million for 1999-2007) <sup>1</sup>	US\$ 38 million	+ 105%	US\$ 78 million
Average farm-gate price of coca base	780 US\$ /kg	+ 4 %	810 US\$/kg
Total farm-gate value of coca base production	US\$ 350 million	-10 %	US\$ 315 million
GDP <sup>2</sup>	US\$ 78.65 billion	n.a.	US\$ 95.3 billion
Farm-gate value of coca base production in percent of GDP	0.4%		0.3%
Potential production of cocaine	440 mt	- 11 %	390 mt
in percent of world cocaine production	65 %		57 %
Average cocaine price	US\$ 1,565 /kg	+ 9%	US\$ 1,713 /kg
Reported opium poppy cultivation (rounded)	4,030 ha	- 2%	3,950 ha
Average farm-gate price of opium latex	US\$ 154 /kg	+ 6%	US\$ 164 /kg
Potential opium latex production	121 tonnes		119 tonnes
Potential heroin production	5 mt		5 mt
Average heroin price	US\$ 5,700 /kg	+ 33%	US\$ 7,600 /kg
Reported seizure of cocaine	113,142 kg	+ 32 %	149,297 kg
Reported seizure of heroin	629 kg	+ 21%	773 kg
Reported destruction of illegal laboratories <sup>3</sup>	1,489	+ 25%	1,865

<sup>1</sup> not including US\$ 350 million for activities of national reach for 1999-2007

<sup>2</sup> GDP for 2003 from the World Bank, not yet available for 2004. GDP for 2004 estimated from the Economist Intelligence Unit. Sources were not comparable, but the Colombian Government reported a growth rate of 4.21% for 2003 and 4.12% for 2004.

<sup>3</sup> Includes laboratories processing coca paste/base (1,582), cocaine hydrochloride (243), heroin (8), morphine (1), Potassium permanganate (19), ammoniac (1) and non-specified (11)

# Coca cultivation by region in Peru 2001 - 2004



Source: Government of Peru - National of monitoring system supported by UNODC  
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

FACT SHEET – PERU COCA SURVEY FOR 2004

	2003	Variation on 2003	2004
Coca cultivation	<b>44,200 ha</b>	<b>+ 14 %</b>	<b>50,300 ha</b>
<i>Of which in</i> Alto Huallaga	13,600 ha	+ 24 %	16,900 ha
Apurimac-Ene	14,300 ha	+ 3 %	14,700 ha
La Convencion y Lares	12,340 ha	+ 3 %	12,700 ha
Elsewhere	3,940 ha	+ 52 %	6,000 ha
Average sun-dried coca leaf yield from UNODC study in 2004			
In Alto Huallaga (except Monzon)			2,988 kg/ha
In Apurimac-Ene			3,627 kg/ha
In La Convencion y Lares			1,457 kg/ha
Weighted average sun-dried coca leaf yield	1,650 kg/ha	+ 32 %	2,180 kg/ha
Potential production of sun-dried coca leaf	72,800 mt	+ 50 %	110,000 mt
Potential production of cocaine hydrochloride	155 mt	+ 23 %	190 mt
in percent of world illicit cocaine production	23 %		28 %
Average farm-gate price of sun-dried coca leaf	US\$ 2.2/kg	+ 27 %	US\$ 2.8/kg
Potential farm-gate value of sun-dried coca leaf <sup>1</sup>			US\$ 304 million
GDP (Peru National Statistics Institute)			US\$ 68.5 billion
Farm-gate value of coca leaf production as percentage of GDP			0.44%
Average farm-gate price of coca paste	US\$ 530/kg	+21 %	US\$ 640/kg
Reported eradication of coca cultivation	11,312 ha	- 9 %	10,257 ha
Reported seizure of cocaine paste	4,366 kg	+ 44 %	6,330 kg
Reported seizure of cocaine hydrochloride	3,574 kg	+ 104 %	7,303 kg
Reported opium poppy cultivation	n.a.		1,447 ha
Reported seizure of opium latex	433 kg	+ 4 %	451 kg

<sup>1</sup> Farm-gate value for 2004 was calculated based on coca leaf yield data obtained by UNODC in 2004. In 2003, farm-gate value for 2003 was estimated using coca leaf yield data from 2001. The total farm-gate value for 2003 and 2004 were therefore not directly comparable.