



REALITY CHECK

**The latest U.S. coca cultivation estimates make one thing clear:
There is *plenty* of coca.**

by

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Key Points

- The coca cultivation estimates are far from an exact science, but the latest figures leave no doubt that there is plenty of coca being grown, and plenty of cocaine being produced.
- Overall Andean coca cultivation in 2006 may have reached its highest level in 20 years.
- As was the case for 2005, ONDCP reported increased coca in Colombia for 2006, despite record-setting fumigation and manual eradication operations. Fumigation is clearly not deterring coca growing.
- By presenting the coca estimates for 2006 as ranges – rather than only as single figures that mask the considerable measurement uncertainties – ONDCP has opened the door to more realistic consideration of the coca growing and cocaine production estimates.
- Now Congress should insist that all past-year and all future coca cultivation estimates be presented as ranges, not just as single figures.
- The high coca cultivation levels, especially in Colombia, indicate continued robust cocaine supplies and provide no reason to expect imminent reductions in U.S. cocaine availability.

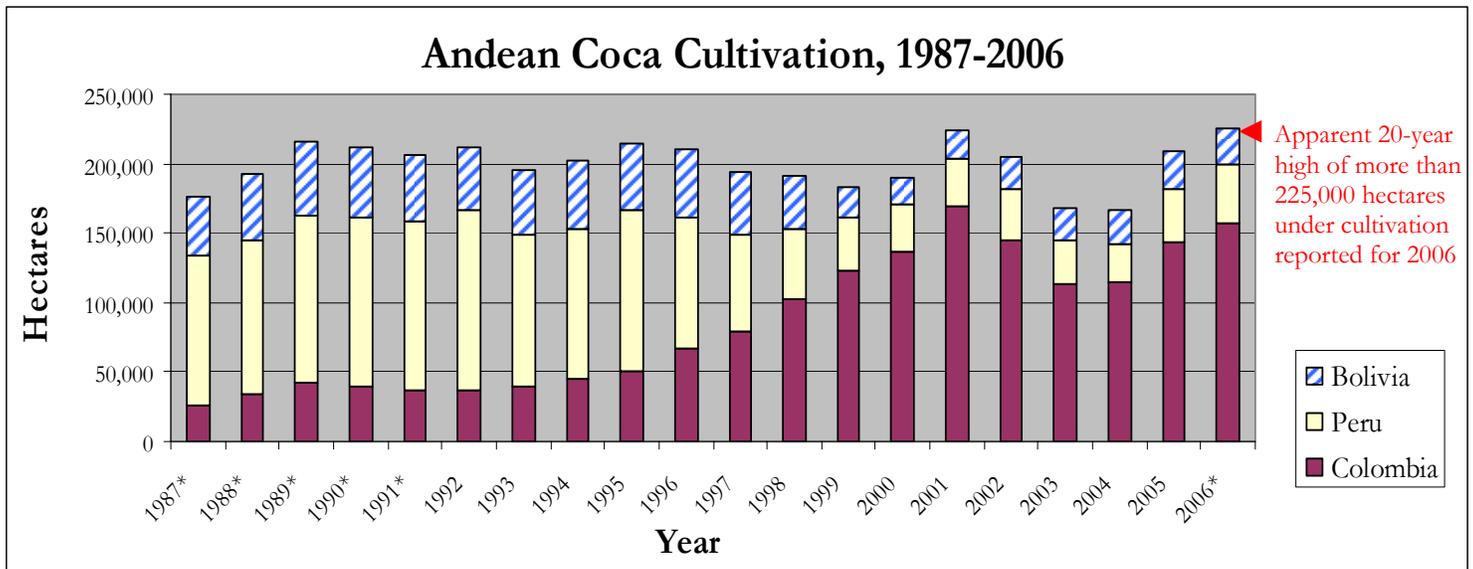
“Overall the news remains positive. And Andean coca production is down.” So David Murray, Chief Scientist at the White House Office of National Drug Control Policy (ONDCP), assured the audience at a May 31st public event in Washington about “drug war” statistics.¹ Murray’s assertion raised eyebrows, since ONDCP had recently reported that in 2006 coca cultivation had increased in Peru and remained unchanged in Bolivia.² Was Murray suggesting that the U.S. government would be reporting a decline in Colombia, the third and largest of the world’s coca-producing countries? For 2005, the U.S. government³ and the United Nations Office on Drugs and Crime (UNODC)⁴ both reported increased coca growing in Colombia. Press accounts had already indicated that UNODC would be reporting a decrease in Colombian coca for 2006.⁵ But as of May 31st there was still no word on the U.S. estimate for Colombia.

The very next day, Colombian President Alvaro Uribe ended the suspense, divulging that the U.S. government would be reporting an *increase* in Colombian coca growing for 2006.⁶ This was

borne out when, on June 4th, ONDCP reported a 13,200 hectare expansion in Colombian coca cultivation compared to 2005 (from 144,000 to 157,200 hectares).⁷ The increase occurred despite another record-setting year of U.S.-backed aerial herbicide spraying (“fumigation”) with 172,000 hectares sprayed, as well as 42,000 hectares of coca manually eradicated – facts that ONDCP neglected to mention in its report.

Now that ONDCP has made public the U.S. estimates for all three Andean countries, one thing is clear: plenty of coca is being grown. In the words of a State Department official speaking on condition of anonymity in early 2007, “there’s still a hell of a lot of coca out there.”⁸ Indeed, contrary to Murray’s May 31st assertion that “coca production is down,” the estimates reported by ONDCP suggest that overall Andean coca cultivation in 2006 may have reached its highest level in 20 years (see Figure 1).

Figure 1



* Totals for 1987-1991 include small estimates for Ecuador, as follows: 1987, 300 hectares; 1988, 240; 1989, 150; 1990, 120; 1991, 40.

Note: For 2006, ONDCP reported only ranges for Bolivia or Peru, not point estimates. For Bolivia, the ranges reported for 2005 and 2006 were nearly identical, so this table uses the same point estimate for 2006 as for 2005. For Peru, ONDCP did not publish a range for 2005, but reported a 17 percent increase for 2006 when compared to similar survey areas from 2005. Figure 1 takes a conservative approach, using an estimate for 2006 that represents only a 10.5 percent increase over 2005.

Sources: State Department and ONDCP

Embracing Uncertainty

In truth, the coca cultivation estimates are quite uncertain, and no one really knows exactly how much coca is being grown. For years, the State Department’s annual *International Narcotics Control Strategy Report* (INCSR) has maintained the fiction that the government can “estimate the extent of cultivation with reasonable accuracy.”⁹ (The CIA makes the cultivation estimates, and ONDCP and the State Department report them.) Until this year, the U.S. coca estimates have

always been reported as single figures, or “point estimates.” These point estimates have masked considerable uncertainties, conveying a high degree of measurement precision that is not warranted.

With its estimates for 2006, ONDCP has for the first time reported its coca survey results in the form of a range, rather than only as a single figure, thereby explicitly acknowledging the considerable uncertainties that the estimates entail. For example, in addition to reporting 157,200 hectares under coca cultivation in Colombia, ONDCP stated that the 2006 estimate “is subject to a 90 percent confidence interval of between 125,800 and 179,500 hectares.” In other words, ONDCP is 90 percent confident that the true level of Colombian coca cultivation in 2006 was somewhere between 125,800 and 179,500 hectares. (Given the same underlying data, the higher the percentage of the confidence interval being reported, the wider the range will be. For example, had ONDCP reported a 95 percent confidence interval for its 2006 Colombia coca estimate, the lower and upper bounds of the range would be even farther apart than those reported for the 90 percent confidence interval).

The wide range of the Colombia estimate – a 53,000 hectare gap between the lower and upper bounds – underscores just how uncertain the coca measures are, especially in the case of Colombia. In ONDCP’s words: “Rapid crop reconstitution, a move to smaller plots, and the discovery of previously unsurveyed coca growing areas, have posed major challenges to the techniques and methodologies used to understand Colombia’s coca cultivation and cocaine output.”¹⁰ ONDCP’s other 2006 coca estimates ranged from 21,000 to 32,500 hectares for Bolivia¹¹ and from 31,000 to 42,800 hectares for Peru¹² (both reported as 90 percent confidence intervals). Combining the 2006 estimates reported by ONDCP for all three of the Andean coca producing nations provides a total area under cultivation ranging from 177,800 to 254,800 hectares. The upper bound of the estimate is 43 percent higher than the lower bound (see Table 1).

Table 1

**Andean Coca Cultivation, 1997-2006
Including newly reported ranges (90 percent confidence intervals)**

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Colombia	79,500	101,800	122,500	136,200	169,800	144,450	113,850	114,100	160,800 144,000 127,800	179,500 157,200 125,800
Peru	68,800	51,000	38,700	34,200	34,000	36,600	31,150	27,500	38,000	42,800 ----- 31,000
Bolivia	45,800	38,000	21,800	19,600	19,900	24,400	23,200	24,600	32,500 26,500 21,400	32,500 ----- 21,000
Total	194,100	190,800	183,000	190,000	223,700	205,450	168,200	166,200	231,300 208,500 187,200	254,800 225,700 177,800

* For 2006, ONDCP reported only ranges for Bolivia or Peru, not point estimates.

Sources: State Department and ONDCP

red – upper bound
black – point estimate
blue – lower bound

On the Road to Credibility?

By choosing to present a range rather than a single figure, ONDCP has finally opened the door – whether intentionally or not – to a more realistic consideration of the U.S. government’s coca cultivation estimates. Ultimately, the government’s coca cultivation estimates cannot enjoy scientific credibility until the CIA’s measurement methods are subjected to review by independent experts and until the reported results are regularly accompanied by a detailed description of the methods used. (This applies all the more to the cocaine production estimates, which are based on the coca estimates and involve a series of additional parameters and calculations.) But now that ONDCP has reported the coca estimates as ranges, it is crucial that the logical next steps be taken as well. Congress should insist that these steps are taken.

- **ONDCP or the State Department should publish all the coca cultivation estimates from previous years as ranges.** The series published in the INCSR begins in 1987, and ranges should be published for as far back as the data will allow. For the ranges to actually be useful and not simply confusing, the estimates for previous years should be published in the form of ranges as soon as possible. In its latest set of reports, ONDCP included ranges for Colombia and Bolivia for 2005, in addition to the 2006 ranges for all three countries. But that should be just the start.
- **ONDCP and the State Department should report all future coca cultivation estimates as ranges.** The 2006 reports for Bolivia and Peru were presented only as ranges, without point estimates, whereas the Colombia report included a point estimate and a range. The range (confidence interval) should always be presented, and if the government can make a strong case that a certain figure within that range is the most plausible, then a point estimate could also be reported. But the days of presenting a single figure should be over.

Having become accustomed to the seeming precision of the single-figure estimates published over the years, policymakers may understandably find the ranges to be distressingly vague and unwieldy. But it bears emphasis that the presentation of the estimates as ranges is not introducing new uncertainty into the measures, but rather acknowledging the considerable uncertainty that the single figure presentations have obscured. The *seeming* precision of the single-figure estimates was just that, an illusion. Better to consider policy options with a realistic view of the numbers, with all their defects, rather than to continue pretending to know more than we do. Of course, the government should strive to improve the reliability of the coca cultivation estimates and related measures (including cocaine production estimates) and thereby, over time, be able to narrow the range of the reported results. But some level of uncertainty is inevitable in these measures, and the estimates themselves should reflect that.

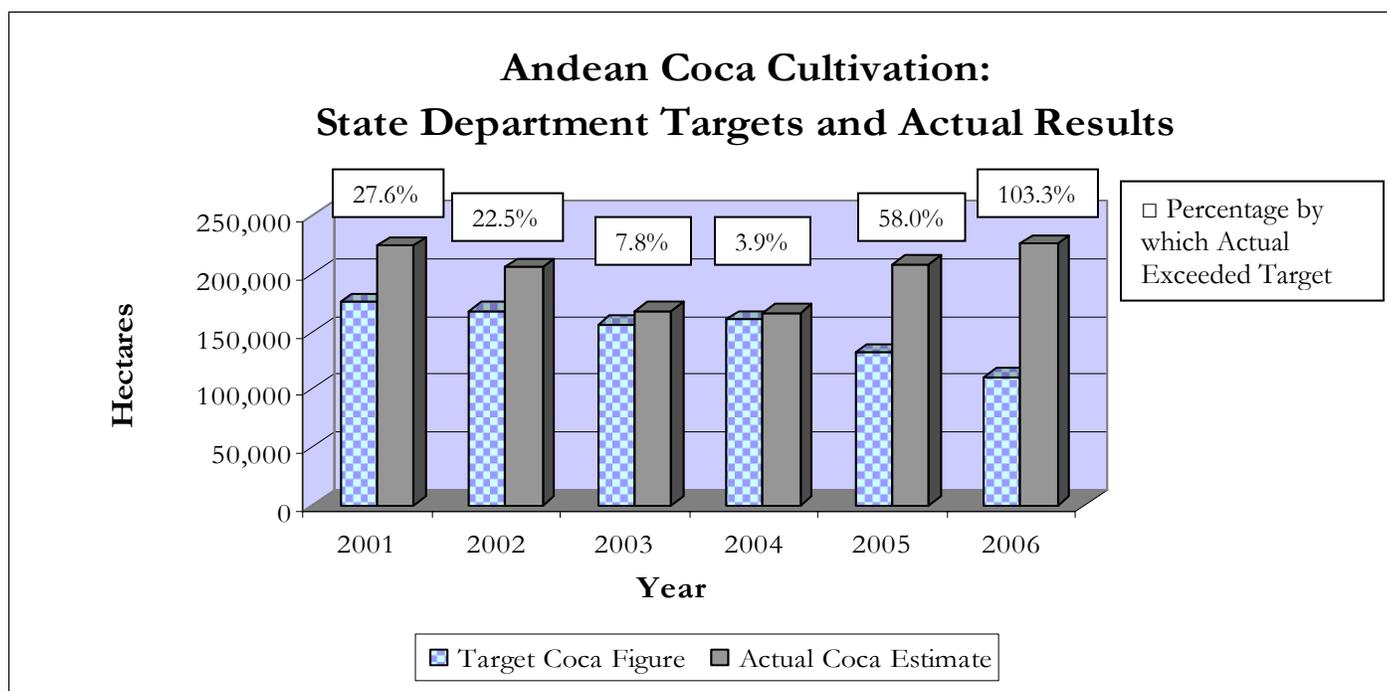
Beyond the virtue of providing a more honest and accurate reflection of the state of the art, presentation of the coca cultivation estimates in the form of a range should have the additional benefit of helping to shift policy attention toward long-term trends and away from what has been a debilitating fixation on short-term coca eradication targets. The practice of providing single-figure estimates of coca cultivation and cocaine production has tended to focus attention on year-to-year fluctuations, implying that the changes are real and substantial. But fluctuations that may seem important when the estimates are presented as single figures will likely appear far less significant when the lower and upper bounds of the range are reported.

Instead of cheering or lamenting year-to-year fluctuations that as far as anyone really knows may not have even happened, acknowledging the limits of our knowledge by presenting the coca estimates as ranges should make it easier to appreciate the more important, long-term patterns. For example, taking the long view reveals the basic stability of overall Andean coca cultivation. Based on the single-figure estimates, coca growing has apparently hovered at more or less 200,000 hectares over the past two decades, as Figure 1 shows.

Off Target

Meanwhile, the coca reduction targets that have been set by State Department are being missed by wide margins in the past two years (see Figure 2). Even if the lower bounds of the 2005 and 2006 ranges are considered, the overall coca estimates exceeded the targets set forth by the State Department by 55,200 hectares (42 percent) for 2005 and by 66,800 hectares (60 percent) for 2006.¹³ In February 2006, the State Department set the 2007 goal for total Andean coca cultivation at 88,000 hectares.¹⁴ But the 2005 coca estimate totaled 208,500 hectares, prompting the State Department to revise the 2007 target up to 138,000 hectares in its FY2008 *Performance Plan*, released in February 2007.¹⁵ In light of the estimates reported for 2006, even the upwardly-revised target for 2007 seems well out of reach.

Figure 2



Sources: State Department and ONDCP

The missed coca targets suggest that U.S. officials may become more circumspect about predicting significant supply-side victories. For example, with fumigation intensifying in Colombia, ONDCP Director John Walters told Congress in June 2004 that “for the first time in 20 years ... we are on a path to realize dramatic reductions in cocaine production in Colombia, and a complementary reduction in the world’s total supply of cocaine.”¹⁶ In November 2005, Walters announced that Plan Colombia had succeeded in curbing cocaine production, driving up cocaine’s

U.S. retail price and driving down purity. But ONDCP's most recent estimates show cocaine's U.S. street price falling and purity rising – signs of robust supply and availability.¹⁷ The Justice Department, in its 2007 *National Drug Threat Assessment*, noted that despite record levels of cocaine lost or seized in transit toward the United States, “there have been no sustained cocaine shortages or indications of stretched supplies in domestic [cocaine] markets.”¹⁸

NOTES

- ¹ Cato Institute Book Forum: “Lies, Damn Lies, and Drug War Statistics,” 31 May 2007.
- ² U.S. Office of National Drug Control Policy (ONDCP), *2006 Counternarcotics Assessment for Bolivia*, Press Release, 25 April 2007; ONDCP, *2006 Counternarcotics Assessment for Peru*, Press Release, 14 May 2007.
- ³ ONDCP, *2005 Coca Estimates for Colombia*, Press Release, 14 April 2006.
- ⁴ United Nations Office on Drugs and Crime (UNODC), *Colombia Coca Cultivation Survey*, June 2006.
- ⁵ Toby Muse, “U.N. Says Colombian Coca Plantation Down,” The Associated Press, 8 May 2007.
- ⁶ Joshua Goodman, “Colombian Coca Production Up for 3rd Straight Year,” The Associated Press, 3 June 2007.
- ⁷ ONDCP, *2006 Coca Estimates for Colombia*, Press Release, 4 June 2007.
- ⁸ Quote appears in Ken Dermota, “Snow Falling,” *The Atlantic*, July/August 2007, pp. 24-25.
- ⁹ U.S. State Department, *2007 International Narcotics Control Strategy Report (INCSR)*, 1 March 2007.
- ¹⁰ ONDCP, *2006 Coca Estimates for Colombia*, Press Release, 4 June 2007.
- ¹¹ ONDCP, *2006 Counternarcotics Assessment for Bolivia*, Press Release, 25 April 2007.
- ¹² ONDCP, *2006 Counternarcotics Assessment for Peru*, Press Release, 14 May 2007.
- ¹³ State Department and U.S. Agency for International Development, *Fiscal Year 2006 Joint Performance Plan*, February 2005.
- ¹⁴ State Department and U.S. Agency for International Development, *Fiscal Year 2007 Joint Performance Summary*, February 2006.
- ¹⁵ State Department, FY2008 Performance Summary, February 2007.
- ¹⁶ John Walters, ONDCP Director, Statement before the House of Representatives Committee on Government Reform, 17 June 2004.
- ¹⁷ WOLA, *Connecting the Dots: ONDCP's (Reluctant) Update on Cocaine Price and Purity*, 23 April 2007.
- ¹⁸ U.S. Justice Department, *National Drug Threat Assessment 2007*, October 2006.