Colombia Potential Cocaine Production

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Potential Cocaine Production Underestimated

In Colombia, US Government estimates of potential cocaine production have been based on a low yielding variety of coca and have assumed base lab processing efficiencies similar to those in Peru and Bolivia

New data disputes this historical information base

Narcotics Crop Estimates: Methodology Sound

- Area under cultivation

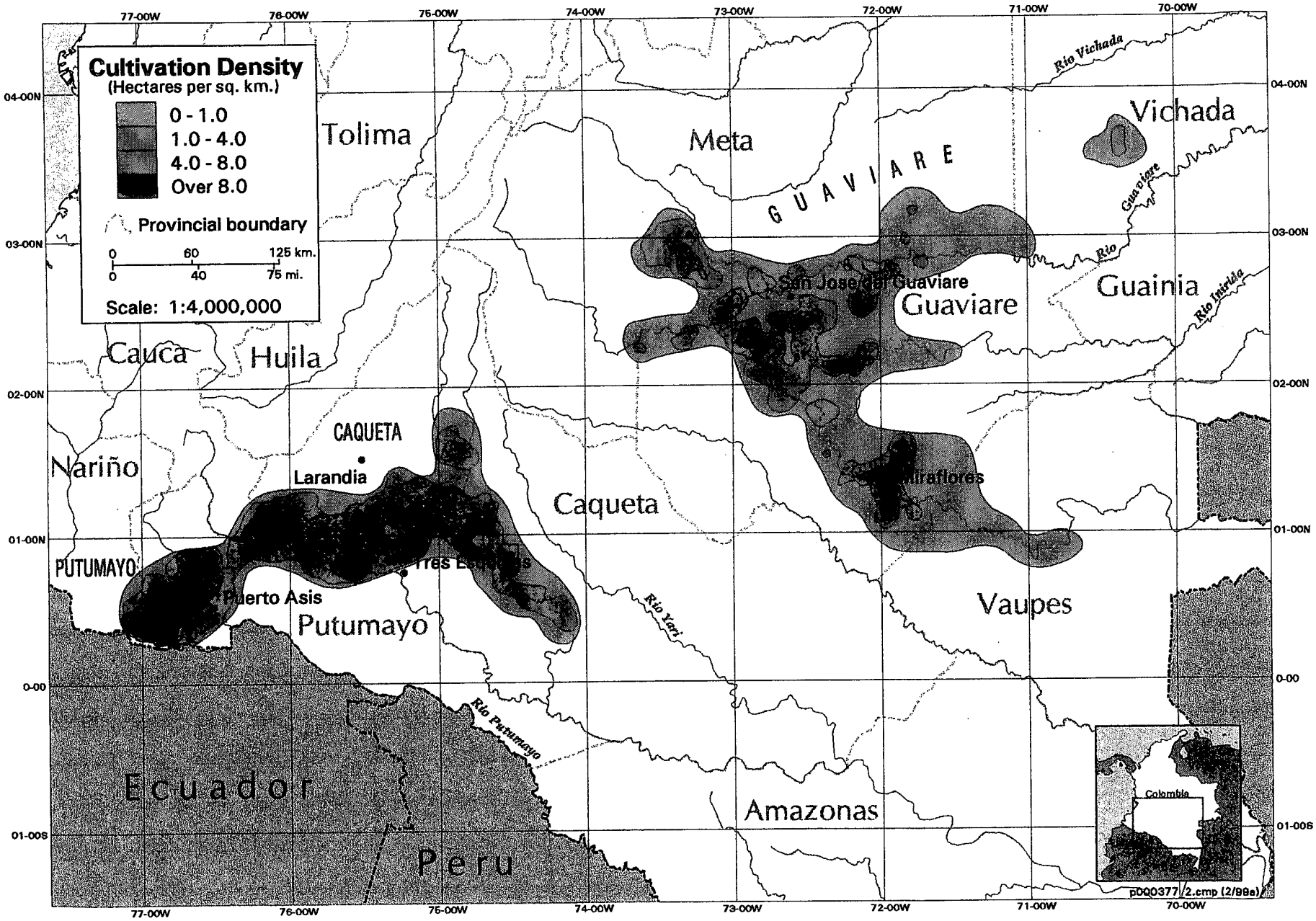
  --CNC's imagery-based sample survey provides statistically valid results

- Narcotics crop yield

  --Historical information

  --ONDCP-funded, DEA-led "Operation Breakthrough" is providing new science-based information (i.e. in situ field and laboratory measurements; sophisticated laboratory analysis; and farmer surveys)

Colombia: Coca Cultivation, 1998



Narcotics Crop Yield: Data Problems

- Complex scientific issue

  multiple coca varieties
  leaf yields not uniform
  wide variances in leaf cocaine alkaloid content
  different base processing technique than Peru/Bolivia

- Difficult practical issue

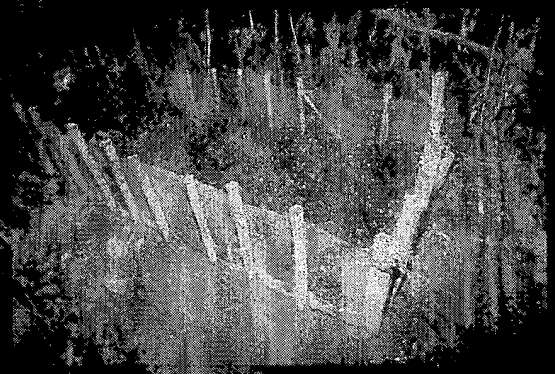
  dynamic changes within Andean region and Colombia
  Colombia political/bureaucratic hurdles
  security concerns

  As a result, the best available data is obsolete

Narcotics Crop Yield

Coca bush

Leaf yields and leaf cocaine alkaloid content



Traditional base lab processing

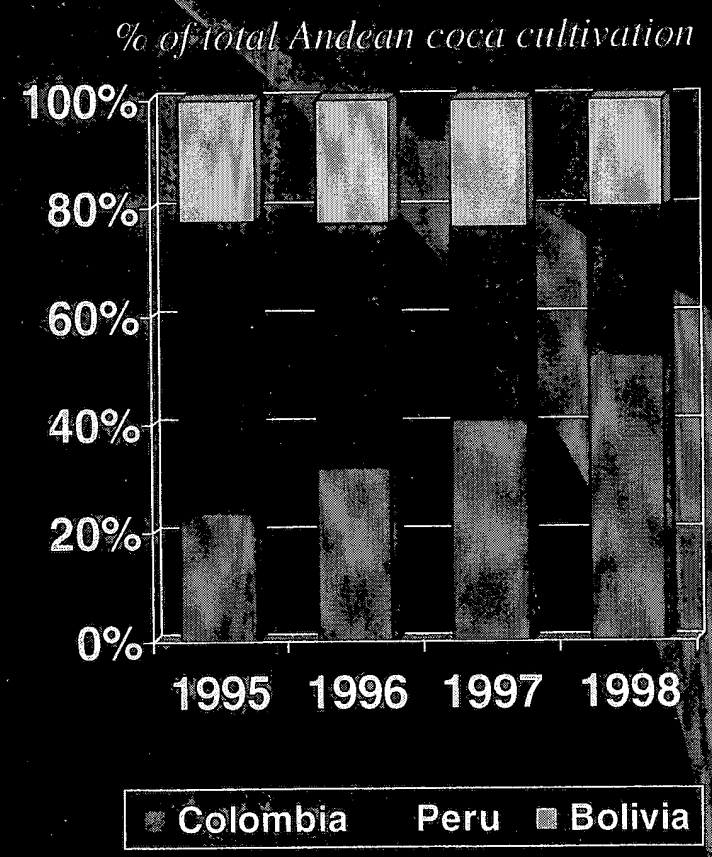
Cocaine Base

Colombia Coca Yields: Complex Scientific Issue

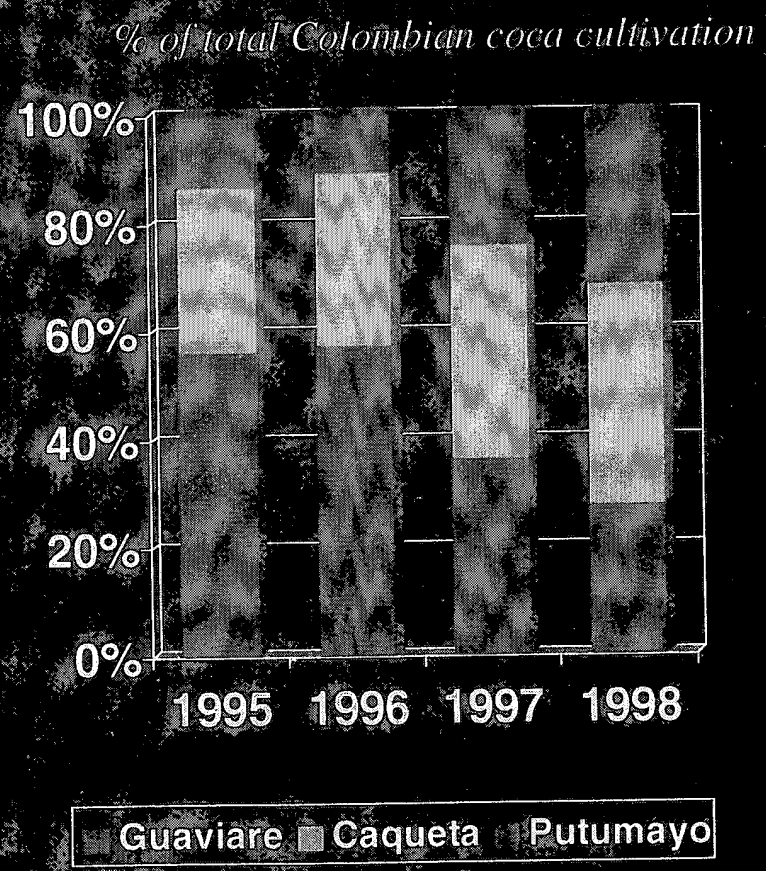
	Historical Data	Colombia Coca Yields: An Update	Operation Breakthrough
Leaf yields	0.8 mt/ha/yr (dry)	0.8 mt/ha/yr 1.1 - 1.7 mt/ha/yr (dry)	2.5 - 6.0 mt/ha/yr (wet) (dry equivalent: .625 - 1.5)
Cocaine alkaloid contents	0.4 percent	0.4 percent 0.7 percent	0.52 - 0.65 percent
Base lab processing efficiencies	45%	45%	possibly as high as 70%

Narcotics Crop Yield: Difficult Practical Issue

- Dynamic changes in Andean region, 1995 - 1998
- In 1995, Colombia represented 24% of the Andean crop
- Colombia's share of Andean crop grew to 53% by 1998



Narcotics Crop Yield: Difficult Practical Issue



- Guaviare primary growing area from 1987 - 1997 (lowland variety of coca predominates in region)
- Shift to western growing areas--where higher yielding plants are believed to be grown--occurs in 1997

Narcotics Crop Yield: Difficult Practical Issue

- Operation Breakthrough completed in Bolivia (1993) and Peru (1994 -95)
- Operation Breakthrough began in Colombia in 1996 (pilot study)
- Colombian politics/bureaucracy precluded formal study from beginning in earnest until 1999
- Security concerns, for near term, will limit research to Putumayo, Caqueta, and Guaviare

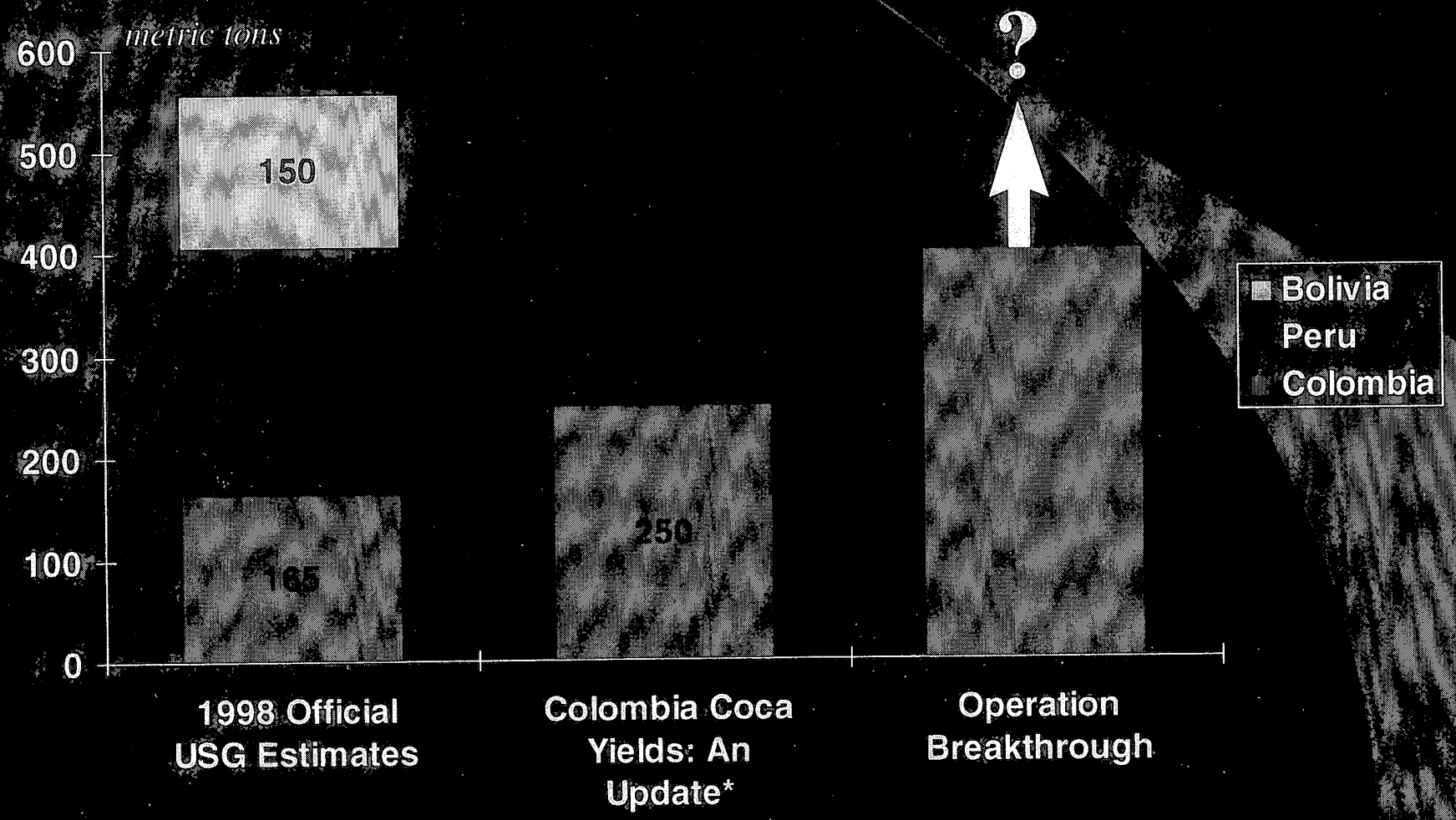
  --limited access within these growing areas

Colombia Potential Cocaine Production: An Update

That said, preliminary data suggests that we may very well see a much larger increase in potential HCl production than was estimated in the February 1999 joint research paper, *Colombia Coca Yields: An Update*

"…..as much as 250 metric tons based on higher yielding coca alone; ….could increase by an even greater amount if it's confirmed base lab processing efficiencies are higher than current estimates."

Colombia 1998-1999 Potential Cocaine Production Uncertain



*Assumes net coca cultivation remains at 1998 levels and two-year maturation time before coca bush is fully productive

Colombia 1999 Cultivation and Production Estimate

- Currently collecting satellite-imagery for cultivation estimate
- DEA/CNC/USDA to provide an estimate of Colombia's narcotics crop yield for 1998 and 1999 to coincide with completion of 1999 cultivation estimate

--measurements of in situ base lab processing efficiencies will not be complete until spring 2000