"Moth Madness!"

The Latest Crazed Scheme in the War on Drugs

James S. Henry and Jeremy Bigwood

June 22, 2005

© SubmergingMarkets.Com 2005

In the midst of the war in Iraq, the war on terror, and the Bush Adminstration's war on Social Security, Americans may perhaps be forgiven for having forgotten that their government is still waging a global **"war on drugs"** that costs at least $30-$40 billion per year, and also causes a great deal of other damage at home and abroad.

As indicated in the adjacent chart, after more than three decades of this hallowed effort, drug enforcers have failed to produce any increase whatsoever in the real retail street price of illegal drugs. Retail cocaine prices, for example, are ***much lower*** than when the drug war started. Similar charts could be also drawn for opium, marijuana, and the bevy of other new "designer drugs" that have been introduced over the last few decades – a rational economic response to prohibition.

Of course hard-core defenders might argue that retail drug prices would be *even lower,* except for the war on drugs. But it seems more likely that supply-side interdiction has failed to have any consistent impact, partly because improvements in drug producer and dealer productivity – as a wide variety of economists on all sides of the political specrum have argued.

The collapse in retail drug prices is also consistent with the embarrassing fact that opium production has recently exploded in US-occupied Afghanistan.

The decrease in prices is also exactly what one would expect from a successful "decartelization" program, like the one that the US Government pursued with such fervor against *Pablo Escobar, "Gacha" Orejuela-Rodriguez, and Manuel Noriega.* In the 1980s and 1990s that effort employed quite a few "drug busters," and provided endless material for TV and film scripts. But at the end of the day, it basically just helped to ***increase supply***.

Now, after five years of saturating Colombia with chemical herbicides, the US government and their allies in Colombia have also failed to reduce the number of hectares under coca cultivation. Indeed, the total area under

cultivation in Colombia at the end of 2004 was slightly greater than at yearend 2003. Coca cultivation in Peru and Bolivia, have also recently been expanding. All this is consistent with a the "balloon" model, in which destroying coca in one place only increases the incentives to plant elsewhere.

Italso appears likely that – like every other profit-motivated farmer on the planet – coca farmers, as well as cocaine laboratories and distributors, are not sitting still, but are working hard to improve per-hectare productivity. This means they don't require nearly as many hectares to produce a given amount of coca, as they used to. In calculating its estimates of "potential output," the US DEA assumes a *constant* 4.26 kilos of potential cocaine output per hectare of coca cultivation; UN "drug experts" assume a *constant* 3.56.

Even if we give the DEA the benefit of the doubt, however, it estimates that in 2004, Bolivia, Peru, and Colombia produced enough coca to make more than *640,000 kilos of pure cocaine.* While this is 28 percent lower than the average potential output in 1996-2001, it is still enough coca to produce more than *2.5 billion grams per year* of retail street-cut cocaine. At today's New York City street price for an "eight-ball" – $150 for an eighth of an ounce, or $43 a gram – even if just 20 percent of this potential output made it through, that's a **$22 billion annual market.** Those who are waiting for supply-side interdiction to "win the war on drugs" will have to wait a long time.

Indeed, if one operative definition of *insanity* is to "do the same thing over and over again, expecting a different result," by this definition, US drug enforcement policy is *bouncing off the walls*.

SOCIAL COSTS

Whatever the "benefits" of this policy, it is clear by now that it has had huge social and political costs, especially for our neighbors south of the border. After two decades of "drug wars," Colombia, Peru, and Bolivia, as well as major distribution centers like Mexico and urban Brazil, are rife with violence, civil unrest, and drug-financed corruption. Colombia, in particular, has the world's highest homicide rate, and large parts of the country have descended into a drug–fueled civil war. There is also mounting evidence that coca eradication has caused environmental damage, displaced poor campesinos and destroyed valuable legal crops.

Finally, here at home, punitive drug laws have also been a disaster. They contribute to a great deal of violence and property crime. They've also distracted law enforcement from more important tasks like protecting homeland security. They've also created the world's highest prison population, with more than 2 million US prison inmates, fifty-five percent of whom have been convicted on drug charges.

BRING ON THE MOTHS !

This "theater of the absurd" provides a suitable context for the latest proposal from drug war enthusiasts. Desperate to find some magic bullet that will somehow provide a supply-side solution, Colombian authorities have recently

proposed the wholesale release of a special breed of moths, *Eloria noyesi* – known locally as "Malumbia" – that is supposed to feed only on coca leaves.

The notion is that if enough of these moths can be distributed widely enough at the larval – caterpillar – stage, they may gorge on enough coca to undermine coca production once and for all.

Other recent press reports by CNN and AP have already called attention to this proposal. But **SubmergingMarkets** has done more homework and determined that this is not the first time that this moth plan has been proposed.

Indeed, during early 1990s, the US Government actually proposed a similar experiment using "biological control agents" as an alternative eradication method.

According to a Senior International Coordinator at the USDA Agricultural Research Service, Eric Rosenquist, the program was not implemented because of the potential negative side-effects on local agriculture.

In particular, the "malumbia" moth is a relative of the "gypsy moth," which is a non-specific consumer. There is no guarantee that the moth would only eat the coca plants, and may in fact consume other legal crops.

The other problem with this "bio control agent" is that the increase in the moth population might produce a dramatic increase in the population of the moths' natural predators – parasitic wasps.

After eating all of the moths, the wasps might then attack beneficial pollinators like honey bees.

Both scenarios would be unmitigated disasters for local farmers. Not only are bees invaluable for honey production, but they also play a vital role in pollinating valuable crops like flowers and coffee.

So, at the end of the day, according to this leading US government expert, increasing the moth population might just destroy several of the most viable – and legal – local alternatives to producing illegal drugs!

NEW, IMPROVED COCA MUNCHERS

The most recent reincarnation of this mad scheme comes from two Colombian scientists. Dr. Alberto Gómez Mejía, is President of the "Network of Botanical Gardens of Colombia," and the "Network of Botanical Gardens of Latin America." His colleague, Dr. Gonzalo Andrade, an entomologist, directs the "Bogotá Institute of Sciences." Their proposal calls for the Colombian Government to fund the gathering, propagation, and distribution of coca-munching moths by way of the Colombian Drug Czar's office.

In a recent telephone interview, Dr. Gomez provided more details about the idea.

> "This is an old idea that was first proposed by Professors at the National University fifteen or more years ago. We revisited this idea to provide an alternative to the present push by the Government to fumigate our national parks with chemical herbicides. You capture the original breeding moths in coca fields – both males and females. They're placed in a cage and fed on coca. As soon as the first moth's eggs hatch, we drop these small caterpillars, or the pupae (chrysalises) that they produce, over target coca fields. "

Asked if the proposal might actually require the government to cultivate some coca to raise enough moths, he admitted that it might. Depending on the number of moths raised and their per-capital coca consumption, therefore, this could put Dr. Gomez & Co. into a big-time coca growing business – strictly for moth breeding, of course.

Dr. Ricardo Vargas, director Andean Action, a local NGO that monitors the drug war, is much less sanguine about the moth concept. He says that while the "Malumbia" moths may be native, there's nothing at all natural about releasing them by the millions in concentrated areas. Despite assurances that the moths will only attack coca, he wonders what they will eat next.

As he says, the moth idea is "just another silver bullet approach." And that "with a plan like this, the chance for ecological mischief is very high."

Dr. Gomez, disagrees with the notion that the moths could be dangerous – much less a form of biological warfare.

This moth scheme is hardly the most adventurous kind of biological drug warfare ever proposed. In 2000, the US government terminated a plan to use a contagious fungus, **Fusarium oxysporum,** to eradicate coca. The Andean Community of Nations feared that plant mutations might have unpredictable side-effects.

This historical record suggests that the moth initiative may be motivated by more than just selfless science. With US agencies under increasing pressure to show results – any results! – from Plan Colombia, and coca farmers showing their innovation and resilience, scientists are taking advantage of this desperation in an attempt to win grant money.

Meanwhile, the guerilla war between the Revolutionary Armed Forces of Colombia (FARC) and the Colombian government continues, with the US spending more than $3 billion since 2000 in military aid, including training up for 13,000 Colombian Army troops.

In their time, of course, Colombians entrepreneurs have had a long, successful history of successfully breeding coffee, cattle, bananas, flowers, rice, cotton, sugar, and cacao, as well as coca, opium, and marijuana. It is only fair that they be given a shot at breeding world-class coca-munching moths!

On the other hand, this being Colombia, we should not ignore the possibility that some savvy coca growers and their wealthy supporters in the

downstream sectors of the drug trade might respond by funding bio-terror experiments of their own – perhaps of the *moth-munching wasp* variety.

Down that path, we fear, lies a bee-less, flowerless world filled with coked-up moths, overstuffed wasps, guerillas who study entomology, and drug gangs that have long since moved on to focus on even more addictive man-made illegal substances -- ones that, like Ecstasy and crystal meth, can be produced in basement labs and have no natural predators.

But hey! At least we will still be fighting "the drug war!"