Statement to Subcommittee on Crime, Committee on the Judiciary, House of Representatives

Kevin Jack Riley

CT-108

July 15, 1993

Drug Policy Research Center
The RAND Congressional Testimony series contains the testimony of RAND staff members as it was delivered. RAND is a nonprofit institution that seeks to improve public policy through research and analysis. Publications of RAND do not necessarily reflect the opinions or policies of the sponsors of RAND research.
Statement to Subcommittee on Crime, Committee on the Judiciary, House of Representatives
July 15, 1993

Mr. Chairman and members of the Committee I am grateful for the opportunity to testify today. I am a post-doctoral fellow in public policy studies at the RAND Graduate School and a consultant at RAND. The views I am about to express are my own; they do not necessarily reflect those of RAND or of RAND's research sponsors.

Previous RAND work has demonstrated that efforts to limit the amount of cocaine production are likely to be frustrated by the market's dynamics over the long run. Recent RAND research, however, has indicated that drug production can be significantly disrupted over the medium term, albeit only under exacting circumstances, and only attended by high budget and social costs. These results emerged by adapting RAND's simple model of the cocaine trade, which generated only long run results, to reflect the lags and delays that govern the cocaine production chain. It is important to note that permanent disruption still is not possible because ultimately policy intervention does nothing to change the basic structure and underlying economics of cocaine production. Nevertheless, a two to three year disruption might be of significant use to policy makers, particularly if it is paired with an expansion of domestic treatment, prevention, and law enforcement programs that attack drug demand.

To see how a medium term disruption of cocaine production can be generated, consider what happens when 50% of the coca crop in Bolivia, Colombia and Peru is eradicated in one six month period. Simulation results indicate that retail drug prices in the United States rise more than 185%, and intermediate product prices (leaf, paste, base and export cocaine) rise by even larger percentages. During that six month period, cocaine output falls by approximately 40% as traffickers are able to counteract some of eradication's impact through more efficient processing. Nevertheless, the higher prices signal the traffickers,
processors and farmers that there are profits to be earned from drug production and, as the participants begin to undertake new production, output expands back to the pre-policy level. That is where the simple story ends: policy results in market signals that encourage more participation, so that over the long run policy is ineffective at curtailing production.

It turns out, however, that it may take cocaine industry traffickers, processors and farmers a rather substantial amount of time to undertake new production and thus for the cocaine industry to recover from eradication. In particular, production cannot increase until the farmers locate new land, clear it, plant new crops, and re-establish market links with processors and traffickers. It is precisely the lag between eradication and recovery that generates the medium term disruption of production.

The most important lag in the recovery process is the coca plant itself. Depending on whether the plants are started from seeds or seedlings, coca plants take 18 to 24 months to mature and provide full harvests. Eradication induces additional lags by forcing farmers to locate and clear additional land. Other points in the production chain, for example, the building of processing laboratories and the training of personnel, are vulnerable to disruption as well. Typically, however, the lags associated with laboratories and personnel are on the order of days and weeks rather than months and years associated with coca leaves. In the 50% eradication scenario previously described, cocaine production is 60% of normal at six months; 59% of normal at one year; 76% of normal at 18 months; 97% of normal at two years; and 101% of normal at two and one-half years. The majority of the delay in the return to full production can be attributed to delays in bringing coca plants into production.

I noted earlier that in order to be successful, these policies must be implemented under specific circumstances. At best, these turn out to be very difficult circumstances to create. The most important condition is that the intervention needs to come as a surprise. If the traffickers anticipate the policy, then they can take steps in advance
to mitigate its impact. Keeping operations on the scale of those necessary to substantially disrupt production a secret will prove difficult, however. Second, better knowledge about the size and the structure of the of the market is needed. In particular, if the traffickers hold inventory -- be it of coca fields or of finished cocaine -- the size of the policy intervention needed to create the desired disruption will vary accordingly.

It turns out that forced eradication and in-country interdiction are relatively effective at generating market disruptions, voluntary eradication is an intermediate case, and crop substitution relatively ineffective at market disruption. The operation and impact of eradication was covered earlier, and will not be repeated here. In-country interdiction has its effects through essentially the same mechanisms as eradication, though for in-country interdiction to successfully disrupt production the seizures must be repeated in every time period. Sustained in-country interdiction means farmers, processors and traffickers must produce twice as much of everything to deliver the pre-interdiction amount of cocaine. Voluntary eradication and crop substitution tend to operate more slowly than eradication and in-country interdiction, and thus it is difficult to imagine the policies creating market "disruptions" in very short periods of time. The speed with which their impact is felt notwithstanding, voluntary eradication and crop substitution do affect cocaine markets in the same way that eradication and in-country interdiction do.

Since a spectrum of policies are capable of generating medium term market disruptions, what distinguishes them are their attendant budget and social costs. Returning to the forced eradication example, 50% eradication might be accomplished for somewhere between $200 million and $1 billion. In-country interdiction of 50% could probably be accomplished for $1 billion to $2 billion, but those expenses would be incurred annually. Crop substitution proves to be very impractical: $79 billion in assistance is required to achieve a 1% reduction in output, and nearly $1 trillion is required to achieve a 5% reduction. Finally, a 50% reduction in output through voluntary eradication would cost on the order of $4 billion.
Even disregarding the certainty of great political opposition to an expansion of source country control programs, the policies carry great external costs that have yet to be fully recognized. Eradication, whether manual or herbicidal, would have unknown but palpable environmental effects, including chemical damage and further deforestation in the region. Any medium term disruption would foster tremendous movement throughout the region as farming and processing disperse to areas where there is less policy pressure. Sustained policies force an over-accumulation of productive infrastructure that leaves the cocaine industry poised to rapidly expand production when implementation of the policy falters. But perhaps the most important consequence would be the effect of large-scale policy implementation on political violence.

History provides us with one compelling example of how policy implementation can lead to incremental political violence. The 1989-90 crackdown on Colombian refining capacity was a milestone because it marked one of the largest efforts to suppress the drug trade. Although the effort was one of the largest on record, it was still substantially smaller than the 50% scale that I talked about here today. Nevertheless, the policy was successful from the perspective that U.S. retail cocaine prices increased on the order of 60% in the aftermath of the crackdown. However, concomitant with the increase in prices was a substantial increase in drug industry violence in Colombia. The Colombian drug lords initiated a full-scale attack against the state in an effort to intimidate policymakers that is still being felt in Colombia today. If the types of policies that I discussed here today are implemented, it would have to be assumed that a violent response would result again. Since the policies I have discussed would be implemented throughout the Andean region, it is likely that the violence would spread to Bolivia and Peru. Additionally, since many of the policies I discussed involved targeting the farming community, it is possible that the violence would move in to population segments that had heretofore been calm.
In summary, source country cocaine control programs can in theory be expanded to disrupt cocaine production for periods of two to three years, resulting in a significant impact on the availability and use of cocaine in the United States. Expansion of source country control programs, however, is constrained by two relevant factors. First, the scale of programs required to achieve a significant reduction in cocaine availability would bring unquantifiable, but likely very large, social costs throughout the Andean region. The modest programs currently in place, which have very little effect on drug production but which have substantial political and economic effects in the region, are nowhere near the size of the programs needed to significantly disrupt drug production. Second, experience indicates that source country policy pressure cannot be effectively maintained over time. Simply put, the cocaine industry adjusts very effectively to policy measures. Thus, source country control programs are likely to remain as marginal contributors to U.S. efforts to control cocaine use.