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# ASSESSMENT OF THE IMPLEMENTATION OF THE UNITED STATES GOVERNMENT'S SUPPORT FOR PLAN COLOMBIA'S ILLICIT CROP REDUCTION COMPONENTS

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## **DISCLAIMER**

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## EXECUTIVE SUMMARY

This study provides an assessment of the success to date of Counter-Narcotics (CN) efforts under Plan Colombia along with a set of recommendations for the United States Government (USG) to strengthen future CN efforts directed at increasing security, decreasing coca cultivation and cocaine, and opium poppy and heroin production in Colombia.

Plan Colombia commenced in 1999 as a multi-year effort to stem a decades' long spiral towards domestic violence, fueled by narcotics funding resulting from an increasingly robust drug industry. Plan Colombia provided funding to support increased security and counternarcotics efforts, and to address issues of rural development, rule of law, human rights, and support for displaced persons.

The assessment was carried out by a team of specialists in economic policy, alternative development, law and security and comparative drug control. The team reviewed documents and secondary literature, conducted interviews with relevant US and Government of Colombia (GOC), local officials, development workers, representatives of national agencies, farmers, farm association officials and other stakeholders. It undertook three site visits, in South of Bolivar (Sur de Bolivar), in Macarena (Meta) and in Nariño. In all three sites, team members conducted focus groups made up of local officials, representatives of national ministries, members of farmer associations and farmers. The team also used economic regressions and simulations to assist its analyses.

The team examined the history of Plan Colombia, reviewed performance in areas such as implementation of alternative development, impact of eradication, cost effectiveness, improvements in security, and socio-economic aspects of state presence. The report looks at approaches to adjusting performance measures for CN programs. With a view toward formulating recommendations for the future, the report presents analyses of lessons that could be drawn from the significant reduction in poppy cultivation, the role of alternative development and the involvement of citizens and local governments in coca reduction. The report examines the internal balloon effect as that influences the geographic dispersion of coca cultivation. Finally, the report reviews various elements of rural development and agricultural policy as well as providing an estimation of the extent that families in rural areas are vulnerable to participating in coca cultivation. (Vulnerable families are defined as families in coca growing areas that share the socio-economic characteristics of existing coca farmers.)

## Findings and Conclusions

**Overall Findings:** Plan Colombia has achieved significant advances. Its greatest accomplishment has been the dramatic improvements in security in the country and the suppression of illegally armed groups, including the FARC, ELN, and paramilitary groups. Achieving widespread security is a vital step toward the success of CN policies. Another important accomplishment has been the reduction of opium poppy cultivation, meeting the Plan Colombia target of a 50% reduction. However, it has not met its goal for a similar reduction of coca cultivation and cocaine production.

Plan Colombia has had localized successes in eliminating coca cultivation. The area of coca production during the first half of the current decade was reduced. However, since 2004 the area cultivated has partially rebounded although there has been a 24% reduction in the estimated production of cocaine over the period 2001-2007, according to USG estimates. Coca farmers have sought to mitigate the effects of spraying and interdiction by various means, including replanting and a shift to cultivating in smaller plots.

The cooperation of the USG allowed the GOC to modernize its security and justice systems, and to augment their alternative development and humanitarian assistance programs. The implementation of Plan Colombia required a major fiscal effort on the part of the GOC in the budget categories of Defense

and Security, Justice, Alternative Development (AD) and Victims of Conflict. The GOC significantly increased its spending in these categories, representing the GOC's great political will to implement Plan Colombia. With U.S. assistance, Colombia was able to reduce the indices of crime nationally, augment the regional presence of the state, and repel illegally armed groups.

The role of state presence throughout Colombia is crucial for the success of CN efforts. The lack of strong government has been a leading cause of Colombia's difficulties because illegal activities flourish in areas outside state control. While overall security has improved greatly nationally, it nonetheless remains tenuous in many parts of the country, especially in rural areas. Unlike in the 1990's and early part of this decade, these areas are more and more isolated pockets, rather than contiguous swaths of territory; Nonetheless, they are still widespread.

Economic reforms achieved under Plan Colombia greatly improved the business climate, allowing the domestic economy to take advantage of the expansion of the global economy, increasing international commerce and attracting greater foreign investment. Nonetheless, the dramatic macroeconomic improvements have not been translated into significant reductions in the deep and persisting poverty of the rural areas or into reductions in substantial inequality.

Plan Colombia has become increasingly better at promoting sustainable alternative development. Significant applied learning has occurred since the initial projects launched under Plan Colombia.

The inflexible application of the "zero illicit crops" policy of the Colombian government is an obstacle to economic development in the coca-afflicted areas. Although the policy is designed to enforce a culture of legality, in practice it prevents Colombian government institutions and the USG from providing the necessary assistance for coca farmers to switch to and remain in legal livelihoods. There are exceptions to the policy's implementation. The Macarena case demonstrates the willingness of GOC agencies under some circumstances to suspend its application to facilitate securing a region militarily.

**Coordination:** Inter- and intra-government coordination is important in programs as large and as complex as Plan Colombia. On the USG side, implementation involves the US Embassy's Narcotics Affairs Section (NAS) with assistance from the Military Group, the Justice Department and the United States Agency for International Development Mission (USAID/Colombia). The necessary mechanisms for coordination between these USG agencies are in place and functioning.

Coordination between USG and the GOC operates through Acción Social within the Office of the President, through the Coordinating Center for Integrated Action (Centro de Coordinación de Acción Integral - CCAI), a group of 15 institutions (police, military and 13 Ministries), and directly with the respective counterpart Ministries. Although CCAI is supposed to be a clearinghouse for coordination, CCAI's operating committee has structural weaknesses including a lack of assigned budget and limited access to high levels of member ministries. USAID is providing technical support to strengthen CCAI's coordination role.

**Asset Forfeiture:** Asset forfeiture represents an important tool for enforcement and in the case of Colombia a means to finance support for victims of conflict. However, the agency that manages assets (the DNE, or National Directorate of Dangerous Drugs) suffers from significant weakness including limited personnel, limited skills in asset management and over-centralization. The GOC needs to address these problems in order to more effectively use the resources secured from illegal activities.

## **Bases for a New Strategy**

The team's analysis leads to several conclusions regarding future directions for CN strategy.

**Factors Affecting Coca Cultivation:** The econometric simulations carried out by the team showed that increasing each one of the individual CN programs - interdiction, eradication, and alternative development - would reduce coca production. However, according to the simulation, the greatest reduction occurs if all programs are increased cumulatively, showing that an integrated program creates synergies that contribute to controlling illegal crops. The positive effect of these synergies is lost when the focus is on a single program. Applying this analysis, by the end of 2011 with the implementation of a strategy that includes all of the different programs, according to our simulations, the area devoted to coca will shrink by more than 80 percent.

Furthermore, the regional differences within each of the simulation scenarios showed that locally each program or combination of programs would have different results, depending on the different characteristics of each region. Accordingly, CN program design will need to be adapted to address regional differences.

**Lessons from Reduction of Poppy Cultivation:** The USG estimated Colombian opium poppy cultivation to be 6,540 hectares in 2001 and noted decreases in subsequent years culminating in a level of 2,400 hectares for 2006, the last year for which a poppy level was conducted.<sup>1</sup> There are several lessons to be drawn from the successful reduction of opium poppy cultivation that can be applied to controlling the cultivation of coca.

Poppy grows in the Andean highlands where greater economic and social progress has been achieved and where the presence of the state has been more evident. Therefore, disincentive policies such as aerial spraying and manual eradication appear to have tipped the scales in favor of the legal economy. Small land holdings and a better system of property titling have also increased the risk for poppy producers that their property may be seized.

These findings for poppy suggest that in order to achieve better results in the control of coca, there should be a comprehensive approach to promote greater economic and social progress (comparable to poppy-growing areas) through AD broadly defined, but still accompanied by the punitive measures of aerial spraying, manual eradication, and land seizures. The comprehensive approach should include institutional strengthening, productive projects and investments in infrastructure, all supported by the participation of local communities.

**State Presence:** Provision of basic public goods and services also continues to be lacking in vast areas of the country. The state has been slow to supplement the advances in security with comparable investments in the social and economic spheres. The lack of resources and the slow delivery of essential socio-economic development have plagued even designated high priority areas. The civilian follow-up to military clearing and holding operations is frequently slow, uncoordinated, lacking resources, and suffers from a lack of commitment and ownership at the highest levels of the Colombian government. Furthermore, corruption at the local levels among local government bodies and within the security apparatus appears to be relatively more pervasive and difficult to control.

**Potential for Positive Change:** Potential *cocaleros* are willing to engage in livelihoods with more modest incomes, provided that there is greater security, adequate technical support for alternative crops, and access to financial services. Many coca farmers are eager to abandon coca cultivation: they desire to escape the insecurity that coca brings, such as the attraction of brutal armed groups and criminal organizations. They face significantly negative economic repercussions due to aerial and manual eradication. To accomplish this switch, they need to have adequate short-term and long term legal opportunities including a guarantee of food security and access to markets for what they produce. If these

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<sup>1</sup> GAO, Plan Colombia, October 2008, pg. 18

opportunities are not present, they are likely to revert to planting coca in their current locations or moving to areas that are not being eradicated, contributing to the ‘balloon effect’.

**Community Solidarity:** Our field research suggests that community solidarity can contribute significantly to the willingness of coca farmers to end coca cultivation. If there is sufficient community solidarity, farmers can fend off pressures to grow coca and ensure local commitment to alternative livelihoods. ADAM’s work in promoting citizen involvement in local government is one mechanism that has reinforced this sense of community. Assisting local governments as ADAM has done to improve their capacity for service delivery would be another element in generating greater community support for CN activities. Further development of Colombia’s legally mandated mechanisms for citizen and local government involvement in supporting community policing efforts would also contribute to CN effectiveness.

**Measurement:** Current performance measures for CN programs that focus on hectares under cultivation and hectares eradicated do not adequately demonstrate the impact of those programs. We believe that the effectiveness of CN policies should be measured and presented as a multi-year time-series composite measure that includes at least the following components: 1) the numbers of hectares cultivated with illicit crops, 2) the numbers of hectares eradicated, 3) the numbers of municipalities free from illicit crop cultivation, 4) the percentage of the size of the illicit economy per GDP and per the size of the economy in every sub-national region, 5) human development indicators of illicit crop farmers and populations vulnerable to illicit crop cultivation, and 6) the availability to illicit crop farmers of comprehensive licit livelihoods resources. While this approach represents a greater investment, the outcome in terms of more accurate measurement of success is worth that investment, much of which can be built into the responsibilities of implementing agencies and contractors.

**The Balloon Effect:** In Colombia, the dynamics of coca cultivation reflect a trend that combines spatial clustering and spread effects, including the use and abandonment of native forests, and deforestation from cultivation in new settlements. In 2007, 36% of the country’s 99,000 hectares of coca crops were located in 10 municipalities, 4% were located in national parks, and 49% were in newly cleared areas (UNODC, 2008). Moreover, over the last decade, coca cultivation has affected an area close to half a million hectares, of which 21% involved the destruction of primary forests, and the remaining 79% is on land opened up by settlement.<sup>2</sup> Destruction of forests is but one of the many ways that drug cultivation and production contributes to degrading the environment.

Programs to alter the spatial dynamics of coca will depend for their success on extensive planning and close coordination of program implementation as opposed to simultaneous, but uncoordinated programs. The case study for Nariño showed the unintended consequences of eradicating coca in Putumayo and the subsequent spread of coca cultivation in the Pacific. Similarly, the case study in Bolívar showed how uncoordinated programs can produce the unintended effect of the spread of coca to neighboring areas in the region.

Many lessons can be learned from the joint ventures of USAID- Acción Social and from production projects that rely upon voluntary eradication. The departmental governments should be called upon to lead a new wave of regional initiatives in cooperation and coordination with national government efforts, such as the one Nariño is developing.

**Regional Context:** In the future, a strategy based on a more comprehensive, coordinated, and mutually supportive set of programs could eventually reduce coca cultivation in Colombia to the much smaller scale of the 1980’s. However, a persistent increase of global demand without regional coordination of

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<sup>2</sup> UNODC (2008) Análisis multitemporal de cultivos de coca período 2001-2006, enero de 2008. Available at <http://www.unodc.org/colombia/es/office.html>.



policies and programs could still make coca producing countries vulnerable to rebounds in production. Eventually, this could reverse the spreading that resulted from the initial successes of Peru and Bolivia, but with unwanted consequences such as social and economic destabilization in those two countries.

## **Nature of a Revised Approach**

Based on the findings in this report, the team believes that a revised approach to implementing Colombian CN strategy needs to be considered. That approach should take into account the advantages of integrating all elements of CN programming: interdiction, eradication, alternative development and reducing the vulnerability of targeted populations; focusing on several discrete coca growing areas, involving communities and local governments as elements of the approach and recognizing the need for promoting agricultural and other economic policy changes maximize its impact.

Plan Colombia has achieved localized successes under the strategic approach that has been adopted. Regional fieldwork by all team members revealed a pervasive sense among Colombian actors charged with implementing alternative livelihoods policies that their programs reach less than 10% of families cultivating coca. This percentage is even smaller if one includes the numbers of families vulnerable to coca cultivation because of the insecurity of the area where they live and their attendant difficulties in cultivating and selling legal crops. This extremely limited coverage of the in-need population is a function of the zero-coca policy of the Colombian government (no delivery of socio-economic benefits to a community where any coca is cultivated), the limited amount of resources available through USG and GOC, and the need for enhanced security to precede alternative development programs. Future programming requires a more targeted and comprehensive approach to combat the mobility of the coca industry and to serve as a vehicle for private sector involvement, above all in urban areas that could serve as magnets to attract rural labor. Utilizing the increased capacity of Colombia's private financial sector and private businesses should reduce the need for external financing and technical assistance. The strength of Colombia's recent economic performance should now make it possible for external assistance to adopt a more direct strategic approach without fear that this shift would put Colombia's growth prospects at risk. (There is a greater risk from the general global recession that is affecting all countries, but this cannot be remedied by technical assistance and access to credit as provided by MIDAS, for example.) A more direct strategic approach would seek to reduce coca production in growing areas among populations that have not yet agreed to eradicate their coca and comply with the "zero illicit crops" policy.

The data suggest that 794 thousand inhabitants of coca municipalities are vulnerable to growing coca, out of a total of 5.1 million people. This is equivalent to 15% of the total population of the coca growing municipalities, or 1.8% of the population of Colombia. Reducing vulnerability to coca implies increasing the consumption levels for 179,000 families by as much as US \$292 million annually in the short-term, and US \$460 million in the long-term. Given resource limitations, this suggests an approach that focuses on a limited set of coca clusters.

It should be noted that rural development can and has played a significant role in helping at least one country reduce and eventually eliminate opium production and marketing. Thailand successfully transitioned its entire hill tribe population out of poppy production, primarily through a 30-year process involving investments in roads, communications, health, education, and improvement of social services. This ultimately made the hill tribe population an integral part of Thai society. Over a much larger geographic area, Colombia must engage in a comparable process of comprehensive investment in rural areas if it wishes to emulate Thailand's success.

If a comprehensive approach is effectively implemented in coca growing communities, the project investments-- both AD and private sector development projects -- could be just as successful and sustainable as those currently being carried out under Plan Colombia. The costs per community and per

beneficiary will undoubtedly be higher in coca growing areas, but the possibility of reducing coca production should also be greater. Success there will depend not just upon AD projects, but will require a broad set of interventions and investments, for example, in the necessary infrastructure to secure access to markets. This strategy needs to select its targets carefully since not all coca growing areas provide opportunities for linkages to markets.

A comprehensive approach needs to continue the work of existing policy and institutional reform efforts to address policy constraints to agricultural and rural development. Colombia is highly competitive across a wide range of agricultural crops and forest products and has substantial additional opportunities for growth in that sector among smallholders, provided that it dismantles special protections, increases the availability of land to smallholders, reduces or eliminates inappropriate production subsidies, and increases access to agricultural credit for small farmers and ranchers. The Colombian government has policy levers to address many of these issues, but no government to date has demonstrated the political will to use those levers. Thus, this is a task that will require building the necessary political will within the GOC.

Removing the barriers to labor-intensive agricultural development would go a long way toward expanding opportunities for poor rural populations, creating the type of growth conditions that could lead to rapid expansion of the cultivation of fruits, vegetables and other labor-intensive crops. This would greatly facilitate the success of alternative development efforts in Colombia.

## Recommendations for a Future Strategy

The team's recommendations for a future strategy to implement CN activities are:

- Focus on Coca Clusters to demonstrate the liberation of three manageable priority clusters from the coca economy in a sustainable manner using a coordinated package of interventions that the GOC can replicate elsewhere.
- Establish twin goals for the targeted cluster-focused program, which should be:
  - 1) to expand the number of participating communities where coca cultivation and trafficking is no longer tolerated, and
  - 2) to ensure the GOC takes ownership of the program within five years.
- Within each cluster:
  - Utilize in a coordinated manner all of the CN programmatic tools: eradication, enhanced state security and law enforcement presence, interdiction, alternative development and reducing the vulnerability of targeted populations, including in the mix short term efforts at ensuring food security as well as longer term efforts to develop marketable licit economic activities.
  - Increase state presence to enhance government provision of services and encourage citizen participation in prioritization and oversight of services delivered in order to promote greater transparency and accountability of local government.
  - Ensure greater coordination between police and local authorities to develop a community-based policing operation supported by local inhabitants.

- Strengthen local governance through greater citizen involvement in local government, including greater citizen involvement in planning and overseeing the operations of security efforts at the local level.
- Invest in all aspects of the society's rural infrastructure necessary to ensure access to markets.
- In the overall CN program, engage in flexible use of all the program tools rather than reliance upon a single program approach, thus offering a long-term strategy to end the production of coca that is more likely to be successful.
- Mitigate the Balloon Effect through defining and identifying early indications of illegal activities in new areas around the coca clusters, and prepositioning tools for CN interventions before a culture of cultivation can take root.
- Prioritize Rural Development through an effort to foster policy changes to target the poorest citizens who are vulnerable to participating in the coca economy. This should include efforts by the GOC to:
  - Encourage the shift from extensive land use for cattle and grains to more economically valuable and labor-intensive crops such as fruits and vegetables, simultaneously reducing crop specific subsidies and protection which keep farmers in less-than-competitive crops.
  - Promote agricultural products in which Colombia has a comparative advantage.
  - Level the playing field for marginalized populations by reforming the agricultural credit system, continuing innovative programs to provide micro-finance in rural areas, and exploiting communication technology to increase market information for all farmers.
  - Reducing the cost of labor for employers while increasing the cost of capital in order to encourage the use of more labor and reduce the high unemployment rate.
  - Develop a public information campaign, based on clear analyses about the benefits from changing land use and crop patterns, to increase public support for reforms to agriculture and land use.
- Improve Asset Forfeiture and Expropriation Processes to address the vast amount of property involved. The understaffed asset forfeiture and expropriation process offices need assistance to enforce laws. This will decrease likelihood of fraud and corruption while reducing the profitability and financial incentives for the narcotics trade.
- For the GOC, provide Zero Illicit policy flexibility and pacing in order for AD to play an important role concurrently with eradication, increasing state presence and prepositioning of law enforcement. AD offers both licit options and assistance in conflict management as farmers transition out of coca production.

In conclusion, effective and better-financed support to sustain governmental presence by the GOC would offer options to *cocaleros* who are currently enticed by profit motive, pushed by poverty, or who may be coerced by illegally armed groups to produce coca. Targeted, coordinated moves on the part of the GOC, along with the fundamental consolidation of security and effective government presence throughout the country, will advance CN efforts. AD and reforms to improve governance will solidify the government presence necessary to enhance confidence in the endurance and stability of the GOC throughout the country, and by extension offer sustainable alternatives to engaging in the coca economy.

# INTRODUCTION

## Objectives

The purpose of this study is to assess the implementation of Plan Colombia's illicit crop reduction strategies in order to examine the validity of the hypotheses on which crop reduction strategies were designed under Plan Colombia (PC), and to evaluate the effectiveness of the strategies used and the resource levels employed to implement those strategies. The study is charged with identifying lessons learned from PC's approach, and alternative performance measures for coca control programs. This assessment is also intended to explore new policy initiatives, providing recommendations to USAID/NAS Colombia for future interventions.

## Brief Context

In 1999 the GOC proposed Plan Colombia, a multi-year strategy to address the range of problems converging to threaten stability in the northern tier of South America. This plan was set up to reconcile peace, mediate human rights, strengthen the state, recuperate the economy, and establish control of illegal crops (DNP, 2006). In 2000 the U.S. Government initiated assistance for Plan Colombia in order to support programs of security and justice in the fight against narcotics with a stated goal of reducing by half the area of coca and opium poppy and in programs that were geared toward the development and support of the victims of this conflict. (GAO, 2008) Plan Colombia sought to deactivate the connection between drug trafficking, conflict, and the economy.

Within this period, debates raged on the superiority of supply versus demand strategies in addressing the narcotics problems in Colombia. The data on each approach supports those endorsing that view, but there was no consensus that any single approach would end the drug problem in Colombia. Demand strategies focus their efforts on the portion of the narcotics cycle that focuses on decreasing drug use. Supply strategies, on the other hand, address the cultivation, production, and transportation of those drugs, hitting harder at the original sources. In considering these alternative approaches, world consumption ebbs and flows need to be taken into account. Similarly, the debates on the preferred approach also consider the global availability of cocaine, heroin and other drugs and the efforts in consumer states such as the United States, Latin America or Europe to curb consumption. The discussion regarding supply or demand strategies thus requires an awareness of the role that factors outside of control by the GOC have on the worldwide drug problem as well as the problems facing Colombia<sup>3</sup>. PC clearly focused on the supply side of the narcotics business.

## Assessment Methodology

The assessment was carried out by a team of specialists in economic policy, alternative development, law and security and comparative drug control. The team reviewed a series of documents and secondary literature<sup>4</sup> and conducted interviews with relevant US and GOC personnel in Colombia (persons

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<sup>3</sup> See discussion on demand versus supply in the Thoumi paper in Annex 4.

<sup>4</sup> Documents for review included, but were not limited to, the following: Plan Colombia documents, USAID/Colombia 2006-2008 Strategy, Wingerts Consulting Report, USAID/Colombia Annual Reports, USAID/Colombia Performance Monitoring Plan (PMP), USAID/Colombia Operational Plan, Lessons learned in the implementation of large, multi-year programs (e.g. USAID lessons learned documents developed to evaluate competitiveness value-added chain development activities – 2002/3), Plan Colombia Consolidation Phase: Strategy for Strengthening Democracy and Promoting Social Development, Integrated Plan for the Consolidation of the

interviewed are listed in ANNEX 5). It undertook site visits and developed field studies that are included in the annexes. Three such studies were undertaken, one in South of Bolivar (Sur de Bolivar), one in Macarena and one in Nariño (in two separate trips looking at distinct growing areas). Team members interviewed local officials, development workers, representatives of national agencies, farmers, farm association officials and other stakeholders. In all three sites, team members conducted focus groups made up of local officials, representatives of national ministries, members of farmer associations and farmers. Case study write-ups provide descriptions of the composition of the focus groups. Evaluators compared and contrasted the lessons learned from these differing experiences that should be incorporated into crop reduction strategies of the future. The team also interviewed widely across Colombian society to gather experience with narcotics cultivation and trafficking. To analyze issues such as cost effectiveness and family vulnerability to coca cultivation, the team engaged in econometric simulation exercises.

The team recognizes that those interviewed directly or through focus groups bring to the table their own sets of biases. To minimize those biases, team members interviewed a broad spectrum of actors in the field. Focus groups, which are open discussions whose content is analyzed both while the discussions are taking place and afterwards, represent a mechanism that ensures a measure of control over biases through the give and take of the discussion and the skill of the facilitators. Efforts were made as well to note in the text of the report when we are dealing with perceptions.

## RELEVANCE OF THE APPROACH TAKEN

Assessing CN policies requires understanding the background for and intent of both the Counternarcotics program and the over all Plan Colombia. Colombia's history and political forces, along with concerns within the United States, affected the crafting of the program and its effectiveness. This section also considers overall performance of CN activities as well as the cost effectiveness of the various CN component programs.

### Plan Colombia Strategic History

During the late 1990's, a few highly interested US Government officials in the Congress, the White House, State Department, Defense Department, USAID and other agencies discussed the deteriorating security situation in Colombia and the continuing flow of cocaine into the US. These interested players floated options and ideas on how the US should engage with the Government of Colombia (GOC).

In Bogotá as in Washington DC, as the parameters of PC began to take shape at the end of the 90s, there were differing views on what the plan's objectives should be, how to reach the goals, how long the implementation should last, how much money should be appropriated, what the metrics for progress should be and who should be responsible for the execution of certain portions.

The first mention of what ultimately became PC was articulated by the Colombian President, Andrés Pastrana, in the summer of 1998. He described a plan that would concentrate Colombian and foreign aid into a connected network of alternative development programs designed to attract poor landless peasants away from the insurgency and coca cultivation. President Pastrana's concept focused on social programs and alternative development; [this statement is not true and was not deleted according to previously

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Macarena, Embassy Bogota eradication reporting cables 2000-present, GAO Reports, NGO commentary on Plan Colombia strategy. Relevant correspondence and other documents from seized FARC computers.

submitted comments] With respect to the FARC, ELN and paramilitaries, he intended to emphasize negotiations, peace talks and reconciliation.<sup>5</sup>

The fundamental philosophical camps within the US centered on whether US aid should emphasize counternarcotics, social programs, counter-insurgency and in what relative proportions the aid should be provided. Much of the international community, countries as well as international organizations and Non-governmental Organizations (NGOs), supported the Pastrana view of focusing on social programs, while some in Colombia believed that the focus of a new campaign should be to aggressively go after the FARC and ELN by military means.

Key congressmen and senators in the US Congress harbored serious concerns about Human Rights (HR) abuses allegations lodged directly against the Colombian Armed Forces and indirectly against them because of collaboration between the Armed Forces and right-wing paramilitaries in the decades old insurgency.

## Political compromises and Plan Colombia

Many legislators on Capitol Hill, of both parties, were extremely concerned about the “Vietnamization” of the Colombian insurgency. They wanted to support the Colombians’ counternarcotics efforts, but were deeply worried about the US sliding down a “slippery slope” into another Vietnam-like, costly, non-winnable, jungle insurgency. In the end, these senators and congressmen carried the day. As the PC proposal worked its way through the political process on the Hill, the counter-insurgency objective was dropped from the plan. What was left was a robust CN (interdiction & eradication) effort on the “hard” side (about ¾ of funds) and significantly increased support for “soft” programs (about ¼ of funds). Although the compromise reached was heavy on supporting the “hard” side of aid to Colombia’s security forces, it limited their role to counternarcotic operations. Large amounts of the funds were earmarked for purchasing military and police helicopters, maintenance packages, pilot and mechanic training, etc, but these aviation assets could only be used for CN missions.<sup>6</sup>

The political process in the US for producing PC did not follow text-book procedures. There were many ideas being championed by multiple players in different agencies, simultaneously, over a 4 – 5 year span. Rather than a traditional building of the budget from the ground up with input from the people at the “worker bee” level, the appropriations amount to fund U.S. assistance to PC (\$1.3B) was arrived at by leaders in Congress who picked an initial amount because they believed this was as much as the “political market” on the Hill would support. PC contained dozens of line items earmarking sums of money for specific pet projects, often without clear guidance as to what agency would be responsible for executing the program.

## Evolution of Plan Colombia Hypotheses

An important US fiscal law, “The Purpose Statute,”<sup>7</sup> requires that funds appropriated by Congress must be used for the purpose for which they were appropriated. Thus, military and police helicopters and specialized security forces units such as Joint Task Force Omega, the Counter-narcotics Brigade, the

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<sup>5</sup> Pastrana, Andrés; Camilo Gómez (2005). *La Palabra bajo Fuego*. Bogotá: Editorial Planeta Colombiana S.A. pp. 48–51.

<sup>6</sup> In 2000, the first year of Plan Colombia, the US congress appropriated Plan Colombia and non-Plan Colombia aid of \$765M for military and police support and only \$214M for economic and social programs. This trend towards larger sums of support for hard side programs as compared to soft side programs would dominate US aid to Colombia for the next 6 years.

<sup>7</sup> Title 31, US Code, Section 1301

National Police Eradication and Interdiction units, all funded with Plan Colombia CN money, had to be used for CN purpose only, since that was the limitation within PC. However, reality in the jungles of Colombia was messy and not as neatly divisible as envisioned in the PC legislation.

Since illegally armed groups, on the right and left, as well as non-political narco-traffickers, peasants, and many other criminals were involved in the cocaine trade, US military operators and embassy personnel felt confused as to the permitted use of the PC funded CN helicopters and Colombian military units. Would these military operators be in violation of the Purpose Statute if a helicopter funded with Plan Colombia CN money, while flying a legitimate CN mission, came across illegally armed groups conducting insurgent activities and reported the intelligence to other units? What if they took direct action against the insurgents? Could they act in self-defense?

The guidance provided was that the CN funded aviation or other military unit could not pre-plan and conduct non-CN operations.

By mid-2001, the line between planned and unplanned contacts or engagements with FARC and ELN forces by PC-funded security force units became increasingly blurred and problematic. As a result, pressure built for the use of counternarcotics assistance and equipment to be available against any of these illegally armed groups at any time, any place.

Then the terrorist attacks of 11 September 2001 occurred and the geopolitical landscape changed. New legislation in 2002 amended PC. The amendment stated that as a matter of fact, the illegally armed groups in Colombia were, as many had been claiming, inextricably linked with the cocaine trade and as such, were legitimate targets for Plan Colombia CN funded Colombian security forces. The proposed legislation became law later that year.

In the end, the widening of the scope with expanded authorities for permissible use of PC money was due primarily to the colossal change in the political landscape produced by the 9-11 terrorist attacks and the mountain of irrefutable new evidence that the FARC, ELN and paramilitaries were heavily involved in cocaine production, processing and trafficking. The illegally armed groups in Colombia had been labeled as “terrorists” for many years. Following 9-11, the perception by the American public of terrorists and the threat posed by them to the US became far more critical.

In sum, the original hypotheses of PC were varied, but clearly intended to avoid US military involvement in Colombia’s insurgency. Following the 9-11 attacks and the evidence of involvement in the cocaine trade by the illegally armed groups, the US Congress authorized the use of PC funded assets for actions against insurgents.

## **Political Will and Coordination**

Plan Colombia was a program initiated by the GOC and supported by the USG. It represented a commitment on the part of the GOC to expand its activities and resources to meet the objectives of PC. As will be discussed in greater detail under the section on cost effectiveness of CN, the GOC has expanded its resources devoted to PC objectives considerably. This can be seen as a demonstration of its political will to successfully implement the plan. This commitment of financial resources goes hand in hand with GOC efforts to implement the various PC CN programs on the ground. As will be discussed below in the section on agricultural policy, there are other issues related to GOC political will that merit consideration, most notably the will to reform economic policies such as those that favor capital intensive over labor intensive economic activities, that promote non-productive use of land and that provide protection to agricultural products in cases where Colombia does not have a comparative advantage.



Inter- and intra-government coordination is an important issue in programs as large and as complex as Plan Colombia. On the USG side, implementation of PN CN activities are divided on the ground in Colombia between the US Embassy's Narcotics Affairs Section (NAS) with assistance from the, the Military Group (MilGroup), the Justice Department and the United States Agency for International Development Mission (USAID/Colombia). The necessary mechanisms for coordination between these USG agencies are in place and functioning.

Coordination between USG and the GOC operates at various levels, through Acción Social within the Office of the President, through the Coordinating Center for Integrated Action (Centro de Coordinación de Acción Integral - CCAI), a group of 15 institutions (police, military and 13 Ministries) under Acción Social co-located in a single office, and with the respective counterpart Ministries. Although Acción Social through CCAI is supposed to be a clearinghouse for coordination, CCAI's operating committee has structural weaknesses that have limited its effectiveness. These include a lack of a budget assigned to it and limited access by its staff to high levels of member ministries. USAID is providing technical support to strengthen CCAI's coordination role.

## PERFORMANCE OVERVIEW

### Introduction

PC had several key objectives: neutralizing the drug economy and providing alternative development opportunities to illicit cultivation; strengthening state presence and improving security; strengthening the judiciary and fighting corruption; bolstering the economy; and improving governance. In the design of the Plan, neutralization of the narcotics economy was defined as "reducing the cultivation, processing, and distribution of narcotics by 50 percent in six years", through 2006.<sup>8</sup> This goal has been achieved with respect to poppy, but not coca. The cultivation of poppy and production of heroin in Colombia have declined by 50%, making this illicit crop and drug a marginal activity within Colombia's drug economy. The principal illicit crop, coca, and the principal drug, cocaine, have not been reduced by 50%.

Security has greatly improved throughout Colombia, and the power and size of illegal armed groups has been significantly reduced. These improvements in security and expansion of state presence are critical accomplishments of PC. Nonetheless, challenges in this sphere persist, with illegal armed groups not fully defeated, new paramilitary groups/*bandas criminales* emerging, and overall security remaining spotty and tenuous in many areas. The delivery of vital state services such as education, health, and infrastructure continues to be limited in vast parts of the country, including in areas that the Colombian government has defined as areas of major importance. Alternative development efforts, while clearly improving lives of those to whom they are available, reach only a small percentage of the population in need, and critical structural drivers of coca cultivation and obstacles to licit livelihoods persist.

### Coca Cultivation and Cocaine Production in Colombia

In 2000, at the beginning of PC, 136,200 ha of coca were estimated to be cultivated in Colombia, with potential cocaine HCl estimated at 580 mt according to U.S. Government analysis reported by the US Department of State.<sup>9</sup> In 2001, these numbers peaked at 169,800 ha of coca and 839 mt of cocaine.<sup>10</sup> As a

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<sup>8</sup> GAO-09-71 October 6, 2008, pg. 1

<sup>9</sup> US Department of State, *International Narcotics Control Strategy Report (INCSR)*, March 2008, <http://www.state.gov/documents/organization/102583.pdf>, p. 129.



key part of PC, the most intensive aerial spraying in history was undertaken in Colombia starting in 2001<sup>11</sup> and continuing to date. From 47,371 ha sprayed in 2000, spraying increased every year until 2006, when it peaked at 171,613 ha, then declining slightly to 153,133 ha in 2007. During the seven year period, manual eradication also has increased substantially, with 95,854 ha. eradicated in 2008 according to Acción Social.<sup>12</sup> Since fiscal year 2000, the United States has provided \$4,859.5 million to Colombia to reduce illicit narcotics and improve security, of which \$458 million have directly supported eradication and another \$304.5 million went directly to interdiction.<sup>13</sup> Yet despite these large investments, by the end of 2007, the area of coca cultivation remained high, at 167,000 hectares, although the yield of cocaine had declined to 535 mt, a 24% decrease from the peak in 2001.<sup>14</sup> This was below PC's stated goal of 50% reduction in coca cultivation and cocaine production.

US government officials maintain that the above numbers do not effectively capture the true achievements reached in combating narcotics in Colombia. They raise three counterarguments.<sup>15</sup> First, they argue that until recently, USG has in fact underestimated the amount of coca cultivation in Colombia in the 1990s and early 2000s. Because satellite imagery use was more limited during those periods, large amount of coca cultivation, it is argued, escaped detection whereas detection today is considerably more accurate and presents a truer picture of the size of cultivation. Hence, they believe that counternarcotics efforts in Colombia may have come closer to achieving the 50% reduction goal that the above numbers suggest.<sup>16</sup> Similarly, some US officials believe that USG had in fact systematically overestimated the cocaine potential in Colombia. Thus, ONDCP revised the maximum cocaine potential for 2001, for example, downgrading it to 700mt from 839mt.<sup>17</sup> Third, USG officials maintain that an important, but underemphasized accomplishment of counternarcotics efforts in Colombia has been to break the two decades of steady expansion of coca cultivation in the country, which increased by 234% from 1994 to 2001.

Since estimating the size of an illegal economy is difficult due to its clandestine nature, it is entirely possible that previous baselines were indeed inaccurate, especially considering that government presence and control was particularly weak at the beginning of PC.<sup>18</sup> Nonetheless, there is no guarantee that the revised estimates are fully accurate. It is possible that significant coca cultivation even today escapes detection, and consequently that the 50% reduction goal remains elusive. However, even if one accepts the backward revised estimates, the reduction in cocaine production between the peak of 2001 (i.e. the

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<sup>10</sup> Ibid.

<sup>11</sup> Funds appropriated began to flow into Colombia in 2001.

<sup>12</sup> <http://www.accionsocial.gov.co/portal/default.aspx>

<sup>13</sup> United States Government Accountability Office, *Plan Colombia: Drug Reduction Goals Were Not Fully Met, but Security Has Improved; U.S. Agencies Need More Detailed Plans for Reducing Assistance*, October 2008, pp. 15, 28.

<sup>14</sup> Office of National Drug Control Policy, Press Release, September 10, 2008, <http://www.whitehousedrugpolicy.gov/news/press08/091008.html>

<sup>15</sup> Based on the assessment team's interviews with USG officials, Bogotá, Summer and Fall 2008, and Washington, DC, Fall 2008.

<sup>16</sup> A recent DEA study on coca yield have revealed a 29 percent reduction in Meta-Guaviare and a 60 percent reduction in Nariño, which has been attributed to damage inflicted on producing fields by eradication. These reductions have led the CNC to reduce estimated cocaine production in Colombia by 155 mt. for 2006 and 2007 combined.

<sup>17</sup> ONDCP, September 10, 2008.

<sup>18</sup> The assessment team concurs that the current basis for estimating CN success has its limitations. As discussed below under the rubric of approaches to measurement, we believe that there are better ways to evaluate CN success.

most convenient baseline to show greatest impact of policy) and 2007 was only 24%, still far less than the goal of 50%.

Finally, while disrupting the trend in Colombia of ever increasing cultivation is an accomplishment, this too seems to be reversed by the fact that since 2004 the area of cultivation has been increasing in Colombia once again, even if the levels of increases are smaller than would appear due to previously inaccurate baselines.

## **Eradication and GOC control**

Two principal factors are behind the recovery of coca in Colombia. First, coca farmers have adopted a variety of coping strategies to deal with eradication. These coping strategies include: 1) pruning coca plants before and after spraying; 2) constant replanting with younger coca plants or coca plant grafts; 3) moving cultivation to areas with a smaller chance of detection, or off-limits to spraying, such as under dense foliage, in national parks, in indigenous reserves, and within the 10-km belt near the border with Ecuador where spraying is not permitted; 4) interspersing coca plants with legal crops; and 5) decreasing the size of coca plots. While these coping strategies may lower productivity and raise costs to growers, lowering economies of scale, they do represent a continued commitment to coca production. At the same time, it is necessary to point out that coca cultivation does not present an escape from poverty for the majority of coca farmers. They continue to be poor, but nonetheless many eke out a higher income cultivating coca than would be the case without coca.

Second, the vast majority of coca farmers as well as ex-coca farmers whose coca plots were forcefully or voluntarily eradicated do not have viable legal alternatives and face systemic structural obstacles to switching to legal crops. First among those is the lack of sufficient security, understood as the ability of people to go about their everyday business without harassment. Much of coca cultivation in Colombia persists in areas of great insecurity, with heavy presence by the FARC, ELN, paramilitary groups and new paramilitary criminal groups. According to interviews with farmers undertaken by the team as well as studies of communities in regions such as Putumayo<sup>19</sup>, such groups have in the past frequently forced farmers to cultivate coca crops, or at minimum they have hampered state agencies and NGOs in their efforts to bring legal economic, social, and institutional development to the area. While indications are that in general in the last two years this form of coercion has been reduced, as already noted, those farmers interviewed by the team suggested that this type of coercion remains a factor in areas such as Nariño.

## **Eradication, Financial Flows and Alternative Development Approaches**

In vast parts of rural Colombia, especially in coca cultivation areas, farmers continue to face systemic structural obstacles to switching to legal livelihoods. They include, among others, lack of access to land, lack of titles to land, irrigation, roads, credit, technical assistance, and established markets.

The third obstacle to economic development of the coca-afflicted area is the so-called “zero-coca” policy of the Colombian government. Although designed to enforce a culture of legality, the policy in practice prevents Colombian government institutions and the USG from providing the assistance necessary for coca farmers to switch to and remain in legal livelihoods. This policy conditions all aid, including food security, technical assistance, roads, etc., on the proven eradication of all coca in an entire area. Thus,

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<sup>19</sup> See, for example, the work of Maria Clemencia Ramírez, *Entre el Estado y la Guerrilla: Identidad y Ciudadanía en el Movimiento de los Campesinos Cocaleros del Putumayo* (Icanh-Colciencias, 2001). See also Joshua D. Angrist and Adriana D. Kugler, ‘Rural Windfall or a New Resource Curse? Coca, Income and Civil Conflict in Colombia,’ *The Review of Economic and Statistics*, Vol. XC, May 2008 #2

even if one member of a community cultivates coca on a small plot-for any reason- the entire community is technically disqualified from receiving any assistance. A paradoxical self-selection thus frequently takes place. Communities that benefit from the greatest improvements in security and are least dependent on coca cultivation for economic survival eradicate coca to qualify for GOC and USG assistance whereas communities that face the greatest insecurity and largest economic obstacles to abandoning coca are left without assistance. The team's field research throughout the country consistently showed that most coca farmers declared they were eager to abandon coca cultivation: they indicated a desire to escape the insecurity that coca brings, and they face significantly negative economic repercussions due to aerial and manual eradication. Yet when the risks of coca cultivation that eradication generates are not accompanied by sufficient opportunities to switch to legal livelihoods, coca farmers react to eradication by replanting, moving to areas that are not being eradicated, or even joining armed groups.

While eradication can destroy illicit crops overnight, alternative assistance programs take a comparatively long time to implement and even more time to start generating sufficient and sustainable livelihoods. Many marketable crops in Colombia, such as cacao or coffee, take several years to produce harvests and generate income. Addressing structural drivers, such as the lack of roads, titles, credits, markets, etc., only further augments the period between eradication and legal livelihoods generating income. During this period, farmers frequently face severe drops in income. Food security programs implemented by GOC and USAID are meant to offset some of these drops. While they are critical, they frequently do not provide sufficient income even for food replacement, not to mention covering expenditures on other necessary outlays such as schooling for children, and productive assets. The resulting period of substantial income drops makes ex-coca farmers highly vulnerable to returning to coca cultivation. Farmers frequently sour on the idea of alternative livelihoods and even reject state presence. Moreover, if they go back to coca cultivation, they will disqualify themselves from any further assistance, thus increasing their dependence on coca. The precondition that all coca in an area be eradicated first thus frequently seriously jeopardizes the sustainability of illicit crop reductions. Only farmers who have sufficient resources for legal livelihoods available prior to eradication are likely to weather the gap between eradication and the time when alternative development efforts start generating income.

Fourth, the resources dedicated to alternative livelihoods by the Colombian government and US government have not been sufficient to generate sustainable and sufficient legal opportunities for coca farmers and those vulnerable to coca cultivation, i.e., populations in coca-growing municipalities that have the same characteristics as existing coca farmers, including their poverty level. Since 2000, the United States has devoted a substantial \$1,031.9 million to the promotion of "social and economic justice," of which \$500.5 million has gone to alternative development.<sup>20</sup> According to one US State Department report, some 80,000 rural families have benefited from USAID-funded alternative livelihoods projects, generating 53,000 legitimate jobs and more than 100,000 hectares of legitimate crops.<sup>21</sup> In response to a October 2008 GAO report on the results of PC, USAID cited an unidentified independent source maintaining that "USAID programs are positively impacting social and economic development of 94 percent of families (361,000 out of 382,600 families total) involved in the drug industry" in the departments of Nariño, Putumayo, Cauca, Antioquia, Bolívar, Santander, and Norte de Santander.<sup>22</sup> The assessment team was nonetheless consistently told by staff of USAID's ADAM and MIDAS programs and by the staff of Acción Social, such as those implementing the Forest Warden Program, that alternative livelihoods assistance reaches only a small segment of the population in need, i.e., either cultivating coca or vulnerable to coca cultivation. The discrepancy in information partially stems from a lack of clear

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<sup>20</sup> GAO, October 2008, p. 47.

<sup>21</sup> U.S. Department of State, *U.S. Assistance Programs in Colombia and Plans to Transfer Responsibilities to Colombia*, Report to Congress, March 2006, p. 25.

<sup>22</sup> GAO, October 2008, Appendix VII: Comments from the U.S. Agency for International Development, p. 103.

estimates about the numbers of families cultivating coca in any particular area and nationwide. At the national level, estimates regularly vary between 100,000 and 600,000 families.

The discrepancy also stems from the fact that the estimate “families benefiting from USAID or GOC programs” does not capture the complete impact of the alternative livelihoods programs. It does not, for example, show the extent of aid provided and the sustainability of legal opportunities. Yet there is a clear indication that much more needs to be accomplished with respect to those objectives. The food security programs, for example, do not sufficiently offset income losses to assure food security. Yet they are absolutely critical since after eradication families often face severe income losses that result in loss of productive assets and substantial drops in nutritional intake. The goal of the alternative livelihood programs, and the true measure of efficacy, should be not only the numbers of families benefiting, but benefiting to such extent that food security is assured and sufficient resources for legal livelihoods have been created and that the recipient communities have demonstrably left coca cultivation behind.

Alternative Development programs may also face a structural limitation. Some coca cultivation takes place in areas where the land is not apt for labor intensive legal farming, for example, in some tropical forests or grasslands or in national forest reserves. In many of these areas, the best alternative may be to look for programs that attract farmers to other more economically viable areas of the country. Such efforts also need to count on resources to ensure food security over the short-term as well as the necessary financial and political resources to move families.

Overall, what is required as a minimum would appear to be the provision of sufficient resources to ensure food security until such time as legal crops mature and can be marketed. What also is necessary is the development of community and local government-based mechanisms that will ensure that once assistance is provided, there is a clear demonstration that coca cultivation in a locality is eliminated. Such mechanisms could include community watchdog committees, charged with oversight of AD implementation.

## Improvements in Security

The role of state presence throughout the Colombia is crucial for the success of CN efforts. The lack of strong government is a leading cause of Colombia’s difficulties because illegal activities flourish in areas outside state control. Migration into the “empty lands” (*terrenos baldíos*) beyond established state control can provide significant difficulties for any regime. State presence also opens the door to efforts for poverty reduction and overall economic progress within the country. Increased state presence offers additional benefits for CN efforts and the accomplishment of PC goals. Security provided through government presence undermines the power and size of illegal armed groups which engage in narcotics activities.

The greatest accomplishment of Plan Colombia has been the dramatic improvements in security in the country and the suppression of violent belligerent groups, including the FARC, the ELN, and paramilitary groups. Good security is not only important on its own; it is also a necessary precondition for the success of counternarcotics policies. Achieving effective state control of rural areas is a vital step toward the success of counternarcotics policies.

In 2000, Colombia was a country on the brink: Both the leftist guerrillas, especially the FARC, and the paramilitaries had experienced dramatic growth throughout the 1990s, profiting from the drug trade and expanding throughout the territory of Colombia. By the early 2000s, the FARC reached about 17,000

combatants and the paramilitaries about 30,000.<sup>23</sup> In many areas, including close to the capital of Bogotá and to major cities, they prevented normal economic and political activity and sometimes completely displaced the Colombian state. In large swaths of the rural areas, the state was absent. Attacks by armed groups along major roads prevented land travel in much of the country. Colombia also experienced high levels of crime, with some of the highest kidnapping and homicide rates in the world. At the same time, Colombia's security apparatus was weak. The number of professional soldiers, for example, in 1998 was only 20,000, and the military forces lacked mobility.

As a result of PC, the security situation has dramatically turned around. The military and security apparatus of the Colombian state became greatly strengthened and succeeded in pushing the belligerent groups back, significantly reducing their effectiveness. US contributions in training, intelligence provision, and resources were crucial. From 2000 through 2008, the US appropriated \$4,859.5 million to the Colombian military and police, \$304.5 million of which went to interdiction and \$457.9 million to illicit crop eradication, denying the illegal groups funding for their illicit activities.<sup>24</sup> At the same time, under the Democratic Security Policy and its subsequent consolidation phase, Colombian budget allocations to the security sector grew to 5.2% of GDP by 2003 and total spending on defense rose to \$6.9 billion in 2006.<sup>25</sup> The numbers of professional soldiers grew to 78,000 by 2007, and important new military units were deployed, including 2 divisions, 6 brigades, 12 new mobile units, and 6 mountain battalions. The armed forces acquired mobility assets, including over two dozen helicopters. The United States also assisted in provision of technical and signal intelligence. Police presence has also been extended to every municipality.

The vastly improved mobility of the new units, increased numbers of troops, and improvements to tactics and strategy significantly enhanced the capacity of the Colombian military to strike at the FARC and seal off its component units, the fronts (*frentes*). The FARC has been largely in retreat. Its capacity to mount large-scale offensive actions has been greatly reduced. As the FARC has suffered substantial losses on the battlefield, the numbers of deserters has increased dramatically. At the same time, as a result of technical and signal intelligence as well as intelligence provided by FARC deserters, the military has scored critical hits against both the top leadership of the FARC and its mid-level *frente* commanders. The expansion of the military throughout the country and its ability to pin down FARC columns has severely hampered the group's logistics channels and ability to communicate, resupply, and redistribute resources among the various *frentes* that are frequently spread throughout vast territory. Consequently, the number of active FARC combatants has been reduced to perhaps 9,000.<sup>26</sup> The ELN has been weakened even further to perhaps 2,500 combatants from approximately 5000 in 2000.<sup>27</sup> The government has been able to retake critical long-term strongholds of the FARC such as Meta.

The Colombian government also struck a demobilization deal with paramilitary groups. For nearly two decades, the paramilitaries engaged in widespread massacres against the population, fought with the FARC against control of the territory, eliminated or co-opted state presence in large areas of the country, and were deeply involved in drug trafficking. In fact, many drug traffickers bought themselves *comandante* positions in the umbrella organization of the paramilitaries, the Autodefensas Unidas de

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<sup>23</sup> Peter DeShazo, Tanya Primiani, Phillip McLean, "Back from the Brink: Evaluating Progress in Colombia, 1999-2007", CSIS, November 2007, p. 5.

<sup>24</sup> GAO, Plan Colombia: Drug Reduction Goals Were Not Fully Met, but Security Has Improved; U.S. Agencies Need for Detailed Plans for Reducing Assistance, October 2008, <http://www.gao.gov/new.items/d0971.pdf>, pp. 15, 28.

<sup>25</sup> Ministerio de Defensa, República de Colombia, "Logros de la Política de Consolidación Seguridad Democrática," Bogotá, September 2007, p.67.

<sup>26</sup> Team members' interviews in Bogotá, Summer and Fall 2008.

<sup>27</sup> Ibid.

Colombia (AUC) to cloak themselves with political legitimacy. As a result of the demobilization deal which offered them reduced penalties, 30,000 paramilitary combatants handed over their weapons. Fifty of the most notorious leaders were placed in a prison facing sentences of up to 8 years. Out of these, thirteen leaders and drug barons were extradited to the United States for prosecution on drug smuggling charges in 2008 after the GOC determined that they had continued to commit crimes after entering into the Justice and Peace demobilization process.

The substantial weakening of the leftist guerrillas and the demobilization of the paramilitary groups has translated into palpable improvements in security. Highway traffic has increased by 64% between 2003 and 2006, while the number of thefts and attacks on vehicles has declined by 54%.<sup>28</sup> The number of attacks on electricity pylons declined from 483 in 2002 to 76 in 2007 and the number of oil pipeline bombings dropped from 184 in 2003 to 39 in the first eight months of 2007.<sup>29</sup> The numbers of homicides, historically one of the highest in the world, have declined by 40% between 2002 and 2006.<sup>30</sup> Kidnapping has declined even more impressively by 80%, once again from some of the highest levels in the world.<sup>31</sup> Overall, according to a Ministry of Defense analysis, by 2008, the government was in full or partial control of 90% of the country, up from 70% in 2003.<sup>32</sup>

Yet this statistic conceals the serious challenges that remain in the security sphere. Partial control does not necessarily mean sufficient control. The FARC and the ELN still operate in large swaths of the rural areas of the country, frequently in the terrain of high, steep mountains and jungles. Newly formed criminal groups, such as Aguilas Negras and Organización Nueva Generación are emerging.<sup>33</sup> Formed from both previously demobilized paramilitary members and new recruits, these groups total as many as 5000-6000 combatants. In some areas, these groups compete and fight with the FARC; in others, they carve up territory and reach a *modus vivendi*; in still others, they collude with the FARC and drug cartels in the drug traffic.

In areas where they operate, they generate great insecurity that prevents economic and social development of those areas. In several of the areas visited by assessment team members, including in Nariño and Magdalena Medio, local government officials and ordinary citizens do not consider travel even along major roads safe all the time. Areas as little as 8-10 kms from major roads frequently do not have sufficient security, and the local population continues to be significantly threatened by armed groups. To the extent that government officials venture into such areas, they only do so with the acquiescence of local illegal armed actors. Many of these areas are also areas of coca cultivation that provides significant funding for the illegal groups. While the expansion of police to every municipality is important, the coverage of the police frequently remains thin, with relatively few policemen in charge of a territory of several hundred square kilometers.

Thus, while overall security has improved greatly throughout the country, it nonetheless remains spotty and tenuous in many parts of the country, especially in rural areas. Although unlike in the 1990s and early 2000s, these areas are more and more isolated pockets rather than contiguous swaths of the territory, they are nonetheless still widespread. Continued robust investment in the security forces will be necessary to consolidate security gains to date and to increase the government presence even more.

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<sup>28</sup> Ministerio de Defensa, República de Colombia, “Logros de la Política de Consolidación Seguridad Democrática,” Bogotá, September 2007, p. 29.

<sup>29</sup> Ibid., pp. 17-18.

<sup>30</sup> DeShazo et al, p. 18.

<sup>31</sup> Ibid.

<sup>32</sup> Team members’ interviews in Bogotá, Summer and Fall 2008.

<sup>33</sup> See, for example, International Crisis Group, *Colombia’s New Armed Groups*, Latin America Report N. 20, May 10, 2007.

## Socio-economic Aspects of State Presence

The overall macroeconomic performance of Colombia since 2000 has been impressive. In 2006, Colombia's \$130 billion economy grew at 6.8%, the highest rate in 28 years and two points faster than the Latin American average. Colombia made great progress in addressing inflation, reducing it from 16.7% in 1998 to 4.5% in 2006.<sup>34</sup> Yet, these large macroeconomic improvements have not been translated into significant reductions in the deep and persistent poverty of the rural areas or into reductions in substantial inequality. In 2006, rural poverty was still estimated at 46.1%.<sup>35</sup> In the rural areas, overall poverty is higher by 5 points and extreme poverty by 7 points, though the rate of poverty decline in the rural areas is more than the national average.<sup>36</sup>

Opportunities for social mobility continue to be miniscule. Although the GINI coefficient of inequality has fallen slightly from 0.586 in 2003 to 0.54 in 2006,<sup>37</sup> Colombia continues to be an extremely unequal society with large economically and political marginalized segments of the population, especially in the rural areas where insecurity and coca cultivation persist. For many, coca cultivation or other illegal activities present the only perceived opportunity for social advancement or at least marginal improvements in socio-economic conditions. To a large extent, the failure of the robust macroeconomic growth to trickle down to the marginalized population of the rural areas is a function of the political economy of Colombia that favors capital and large-landowners, but taxes labor heavily and disadvantages small farmers. In sum, the impressive macroeconomic growth has thus far not generated sufficient employment, especially in the rural areas. Similar conditions do exist in Peru where there is a significant informal economy. The issue in Colombia is that the government has policy levers to address many of these concerns, but no government has demonstrated the political will to use those levers.

Provision of basic public goods and services also continues to be lacking in vast areas of the country. The state has been slow to supplement the advances in security with comparable investments in the social and economic spheres. The lack of resources and the slow delivery of essential socio-economic development have plagued even designated high priority areas, such as Montes de Maria and Macarena. The civilian follow-up to military clearing and holding operations is frequently slow, uncoordinated, lacking resources, and suffers from a lack of commitment and ownership at the highest levels of the Colombian government, thus giving rise to the above mentioned problems in the line-ministries.

## Asset Forfeiture<sup>38</sup>

Asset forfeiture represents an important tool for enforcement. In Colombia asset forfeiture also is supposed to serve as a means to finance support for victims of conflict, redressing in part the illegal land seizures that have been a characteristic of that conflict. Colombia enacted its first asset forfeiture law in 1996 (Law 133). It required a penal sentence for crimes against drug traffickers before seizures and forfeitures could take place. From 1996 to 2002 there were only 44 forfeiture sentences although some of them against large drug lords included many, even a couple of hundred, real estate properties (Reyes-Posada, Thoumi and Duica, 2007). Dissatisfaction with the way asset forfeiture was working led to the Uribe administration to enact decree 175 of 2002 to correct the deficiencies of Law 333.

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<sup>34</sup> GAO (October 2008), p. 70.

<sup>35</sup> United Nations Economic Commission for Latin America and the Caribbean (CEPAL), "Estadísticas Sociales," *Anuario estadístico de America Latina y el Caribe, 2006* (Santiago: CEPAL, Marzo 2007), p. 74.

<sup>36</sup> Ibid.

<sup>37</sup> United Nations Development Program, Human Development Report 2007/2008, [http://hdr.undp.org/en/media/HDR\\_20072008\\_EN\\_Complete.pdf](http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf), p. 282, and DeShazo et al, p.45.

<sup>38</sup> For a fuller analysis of this issue, see ANNEX V.



Despite these changes, asset forfeiture faces various difficulties. The process of judicial investigations that leads to forfeiture faces problems resulting from deficient real estate registries as well as from the illegal industry's actions to hide and protect their assets. As significant, the agency that is responsible for management and disposition of seized and confiscated assets has been notoriously inefficient. Seized assets are transferred to a special account of the National Directory of Narcotics (**Dirección Nacional de Estupefacientes**) (DNE). However, DNE was not designed to manage a large number of real estate properties and other assets. DNE is even less qualified to comply with the law that requires it to design and implement projects to use confiscated assets.

Despite the recent advances in seizures and forfeitures, there is a consensus among public employees that seized asset management by DNE has been grossly deficient. Lack of personnel is a principal DNE problem. DNE has limited personnel to cover the properties they manage. The agency is located in Bogotá. Centralization makes it difficult to evaluate assets in the agency's charge at the time of seizure. DNE's problems are accentuated by failed inter-agency coordination. But the main problem arises from the fact that DNE was assigned substantial responsibilities without having an appropriate infrastructure and resources.

The management of these resources remains an issue that needs to be dealt with by the GOC. If properly handled, it can provide a major contribution to the funding available for future PC activities.

## Cost Effectiveness of CN Programs

There have been significant changes over time in areas devoted to coca and cocaine production due to Plan Colombia. These changes are analyzed through an econometric analysis, the results of which were used to simulate the effect of different programs for reducing the area devoted to coca production.

Since the implementation of Plan Colombia, public spending by the GOC has increased from US\$3 billion to US\$11.1 billion from 1998-2008. In terms of GDP it increased from 3.8% to 5.6% (Table 1). Spending on security and defense was the most important component and the one that has increased the most, from 2.7% to 4.2% of GDP. Spending on Justice also increased to 1.2% of GDP and spending intended for Alternative Development (AD) and conflict victims tripled to 0.3% of GDP.

**Table 1 : Public Spending by the GOC on Defense, Security, Justice, Alternative Development and Assistance to Victims of Conflict (in millions of U.S. dollars)**

<b>U.S. Assistance to Plan Colombia</b>										
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Defense and Security	306.98	817.8	232.8	395.9	607.9	617.7	585.6	587.3	591.1	423
AD and Conflict Victims	8.75	80	0.5	109.9	125.7	126.5	124.7	130.4	139.7	194
Justice		121.1	0.9	15.8	27	9	7.3	10.5	7.8	39
Total	315.73	1018.9	234.2	521.6	760.6	753.2	717.6	728.2	738.6	657
<b>Public Spending by the Colombian Government</b>										
Defense and Security	1.865	2.350	2.360	2.516	2.582	2.932	3.908	4.164	6.318	8.214
AD and conflict victims	42	33	80	67	81	212	321	450	360	360
Justice	851	1.011	1.012	951	866	892	1.229	1.511	2.152	2.551
Total	2.758	3.394	3.452	3.534	3.529	4.036	5.458	6.125	8.830	11.126
<b>GOC+USG</b>										
Defense and Security	2.172	3.168	2.593	2.912	3.190	3.550	4.494	4.751	6.909	8.638
AD and Conflict Victims	51	113	81	177	207	338	446	581	500	555
Justice	851	1.132	1.013	967	893	901	1.236	1.521	2.160	2.591
Total	3.074	4.412	3.686	4.056	4.290	4.789	6.176	6.853	9.569	11.783



Source: DNP, GAO, CODHES and DANE. Calculations made by the authors.

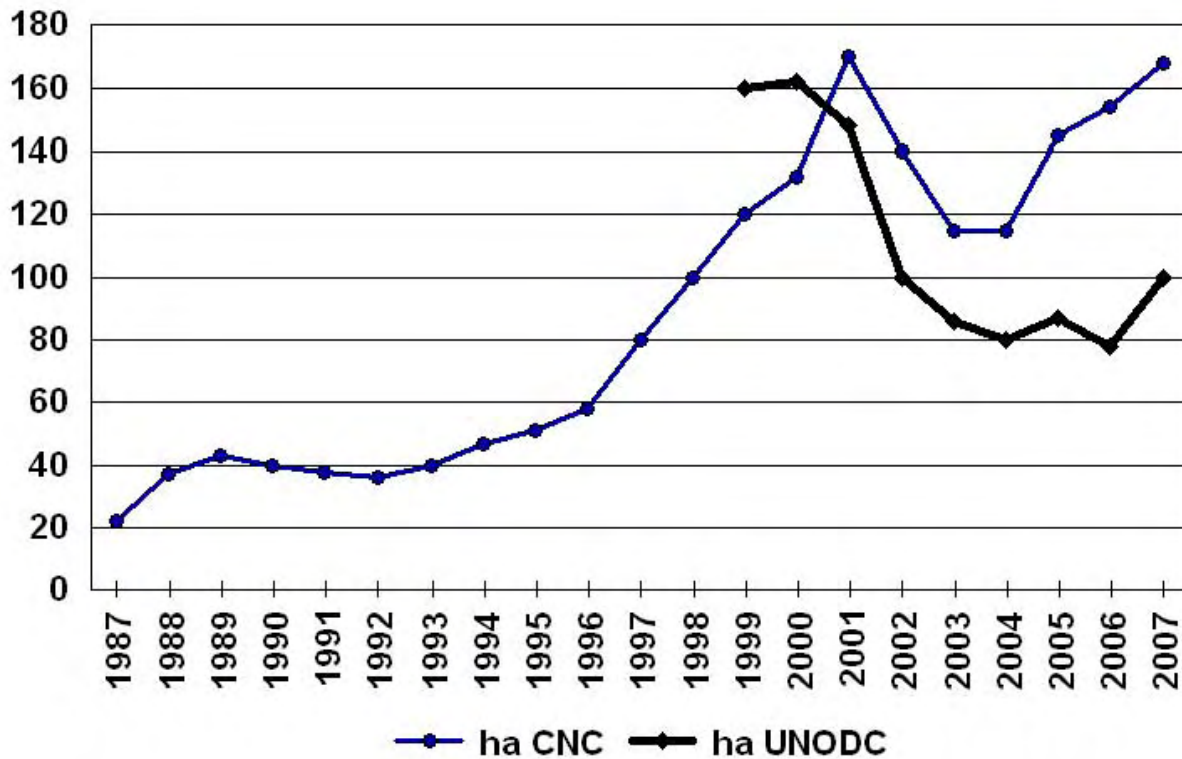
The contribution of the USG to the abovementioned components of the GOC public spending has changed in real terms from 10% to 6%. By components, the contribution to AD and conflict victims represents 33% of the total effort, while defense and security receives 11% and Justice 2%. A major part of the defense and security budget focuses on facilitating aerial coca spraying as well as for different ways of combating the insurgency. The aid for Justice serves to promote reforms in its operations. In the case of alternative development and conflict victims, resources are directed at promoting the legal economy and those displaced by violence respectively. Starting in 2005 the USG incorporated a major emphasis on the social and productive component of the PC, and on a greater nationalization effort by the GOC.

## Results

As has already been noted, the efforts against drug trafficking by PC first demonstrated a significant reduction in the area of coca cultivation through the middle of the current decade, although this was mitigated by a later spike in cultivation (Graph 1).

In the graph below, there are two sets of measures, those established by the Integrated System for Monitoring Illicit Crops (Sistema Integrado de Monitoreo de Cultivos Ilícitos) (SIMCI -UNODC) and those established by the US Crime and Narcotics Center (CNC). The first ones correspond to a satellite census-like survey verified by aerial photography, and adjusted for crop spraying. The estimates established by CNC correspond to the satellite observations whose results are extrapolated, generating data for different regions. Since 2005 the methodology used by CNC has increased the coverage of the areas studied (Interview with NAS).

**Graph 1. Hectares of coca production in Colombia 1987-2007  
(in 1,000s of hectares)**



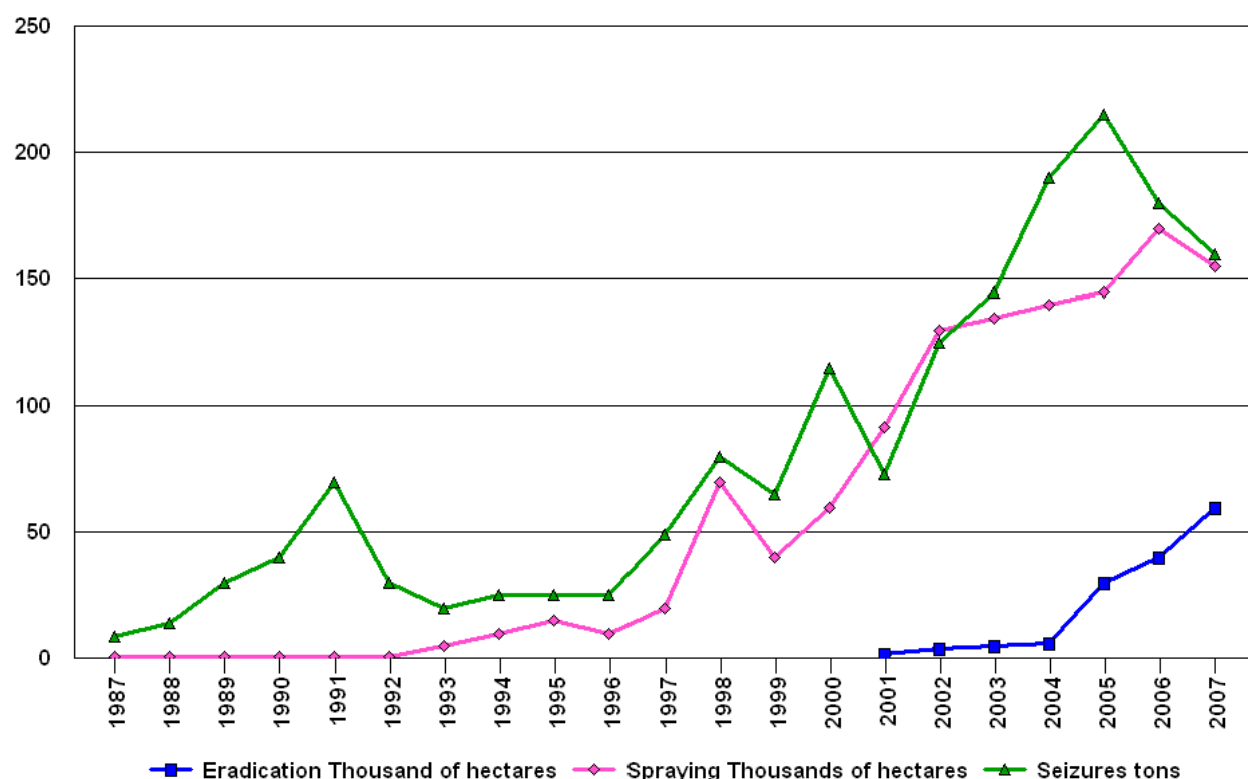
Source: CNC and UNODC

In 1999 SIMCI found 161 thousand hectares at the same time that CNC reported 122 thousand. Both measurements have been following the same trend line since 2003 with CNC averaging 20 thousand hectares above SIMCI. Looking at the situation in 2003, the area measured by SIMCI was reduced by 45% compared to 1999 and by 33% using the estimate by CNC for 2001. From 2004 onward both measurements show a rebound in hectares devoted to coca, from 80 thousand to 99 thousand according to SIMCI and from 114 thousand to 169 thousand according to the CNC.

The recent rebound of the production of coca has been a major concern for Plan Colombia. From 1999 to 2004 the effort to fight drug trafficking was tripled, judging by the area sprayed and the seizures of coca in that period. Seizures increased from 64 tons to 188 tons and the area sprayed increased from 43 thousand to 137 thousand hectares. Since then, both indicators have increased to represent 1.5 hectares sprayed for every hectare of coca, and also a seizure of a third of the potential production of coca. Additionally manual eradication multiplied 10 fold to 60 thousand hectares in 2007 (Graph 2)

Farmers have developed mechanisms to mitigate the effects of eradication such as farming smaller plots, spreading plots out across a wider area and using national parks as cover (UNODC, 2008). The impact of increased eradication has been to reduce yields per hectare. This can be seen in the estimates of potential production by UNODC and CNC between 2005 and 2008. UNODC and CNC estimated that potential coca production had declined from 640 to 600 tons and from 545 to 535 tons, respectively.

**Graph 2. Hectares of coca in Colombia 1987-2007**



Source: DNE and UNODC

## Impact of PC on the coca area

The growing number of hectares of coca is seen as an undesirable reaction to the productivity-reducing impact of existing programs. There is also significant evidence that the decision to abandon illicit crops also depends on the creation of new economic activities and a change in security conditions.

Using econometric techniques, different investigators previously showed that alternative development programs contributed more significantly to the reduction of coca production than spraying did in the period from 1998 to 2002. Similarly, Ramirez and Rocha showed that from 1999 to 2003 eradication programs increased the probability that a municipality would reduce coca production by 3.4%, while alternative development increased the probability by 4.3%. However when eradication and alternative development programs were both present, that increased the probability that a municipality would reduce coca production by 4.6%. They also showed that the existence of coca production could be explained by local conditions such as geography, armed conflict, institutional arrangements and socioeconomic factors.

For this analysis, we used an econometric dynamic panel (see Annex VI for a more detailed discussion of the econometrics), which combines time series and cross-sectional data, to estimate the significance of different factors in explaining the number of hectares devoted to coca production in different municipalities and the effectiveness of different programs in reducing the area devoted to coca.

The question of the relationship between coca areas and the mix of programs to reduce coca area was analyzed through a complex spatial and temporal model that allowed for the adequate incorporation of present, past, and future information within a territorial dimension.

We estimated the change of coca area (in hectares) for a certain municipality as a function of the coca area for the prior year and a set of explanatory variables that include the programs to reduce coca cultivation during the period 2000 to 2007. The three main programs to reduce coca cultivation are as follows: eradication (by aerial spraying, as well as manual eradication), alternative development (institutional strengthening, productive projects, and infrastructure) and interdiction (seizures, destroying laboratories, and military operations). Additionally it includes programs to reduce rural poverty as measured by a vulnerability index for coca work (see the section below on Families Vulnerable to the cultivation of coca).

The estimated results are summarized in Table 2. At first glance, the estimates of the panel without lagged variables offer counterintuitive results, with the exception of the variable of vulnerability that appears with the expected sign and has an adequate statistical significance. However these results are not surprising, because by leaving out the dynamic considerations of coca and program mix, the problems of endogeneity are distorting the results. This problem of endogeneity was resolved by running a dynamic panel.

The Table 2 dynamic panel estimations, which use lagged data, show more accurate results than the standard panel without lagged variables. The interpretation of the coefficients that are associated with the variables, show in all cases expected signs and high statistical significance. The values in the table in parentheses correspond to p-values, which is a measure of how much evidence we have with respect to an explanatory variable. One minus the p-value is equal to its statistical significance. Thus, coca area lagged one period and has a p-value of 0.013 and therefore a significance level of 98.7%. Similarly, interdiction has a statistical significance of 99.9%, spraying lagged one period and has a statistical significance of 99.3%, vulnerability 99.99% and Alternative Development lagged three periods with a statistical significance of 92%. These results are very satisfactory, especially if we are working with non-parametric models, where it is common to find lower p-values.

The negative sign of the lagged variable for coca area is a result of the shift of coca cultivation where it tends to spread into new areas at a rate of 7% (this is the interpretation of the co-efficient of -0.0698 (see Table 2 below). (See also the discussion of the balloon effect in this paper.) Interdiction, which is a measure of the presence of the armed forces in an area, resulted in a reduction of 0.48 hectares. The presence of spraying reduced the coca area by 46 hectares, with a lag of one year. The introduction of alternative development programs reduced the coca area by 25 hectares, after three years of implementation. An increase of one percentage point in the population that is vulnerable to work in coca increased the area devoted to coca by 0.03 hectares. The interpretation of these coefficients is a result of the mathematical interaction between different scales of variables. Coca area is in hectares, vulnerability is measured by the percentage of the population that is vulnerable, and the remaining variables are dummy variables which take a value of 1 if they are present and 0 if they are absent.

**TABLE 2 ECONOMETRIC ESTIMATES OF THE COCA HECTARES**

Panel without Lagged Variables		Dynamic Panel (Arellano & Bond)	
Variable	Coefficient	Variable	Coefficient
Constant	-117.0494	Has de Coca (t-1)	-0.0698344
	(0.150)		(0.013)
Interdiction	6.450782	Interdiction	-0.4833231
	(0.000)		(0.001)
Alternative Development	68.57383	Alternative Development (t-3)	-25.36445
	(0.355)		(0.080)
Spraying	50.30903	Spraying (t-1)	-46.46591
	(0.363)		(0.003)
Vulnerability	0.0015616	Vulnerability	0.0278059
	(0.053)		(0.000)
N	5306	N	3183

**Source: Authors**

The coefficients for each variable presented in Table 2 above cannot be interpreted as a direct measure of the effectiveness of each program, since they are average values that interact with explanatory values at the municipal level. To have an approximation of the effectiveness of each of the programs at an aggregate level, we carried out simulations of the changes that could have happened in 2007. Using the coefficients from Table 2, new values were introduced for each of the explanatory variables in order to carry out these simulations. The scenarios involved increasing the intensity of each program by 10% per year (10% accumulated over 4 years or 46%) leaving the other programs constant and then a final scenario in which all programs are increased simultaneously.

The simulations showed that increasing any one of the programs would reduce coca production. The major individual program effects in the simulation correspond to programs that are aimed at reducing the population's vulnerability and alternative development with reductions of 72% and 69% respectively. Increasing spraying and interdiction offer reductions of 62%. However, according to the simulation, the greatest reduction occurs if all programs are increased cumulatively by 46% over the next four years. In this case, the area of coca production is reduced by 82%.

The reader should note that the outcomes of a simulation are not predictions of what will happen in reality. The simulation is built upon existing observed relationships among all the measured variables.

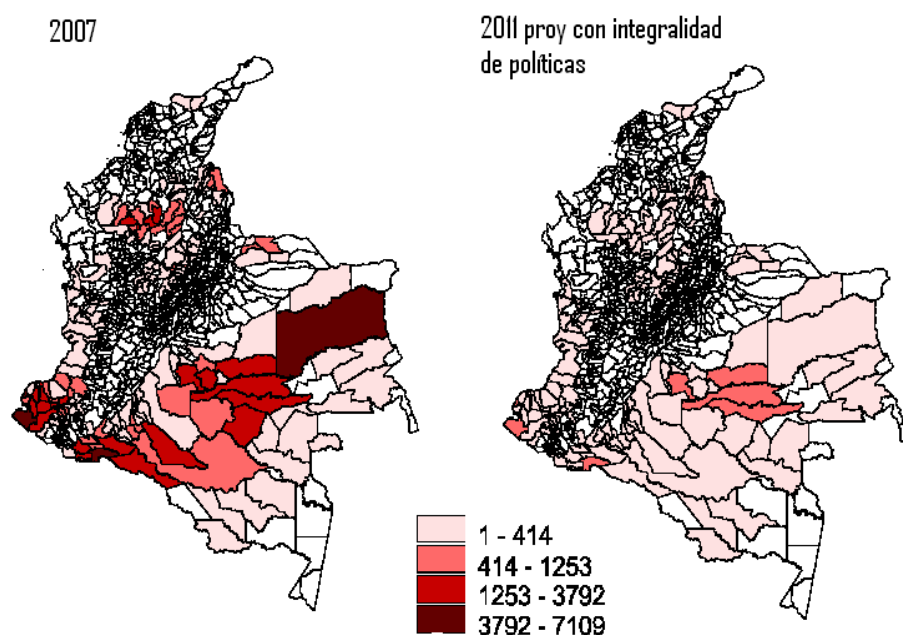
When the order of magnitude of change in the final outcome is as large as it is in this simulation, the underlying relationships among the variables are less likely to remain stable. Nonetheless, the simulation provides a measure of the relative effectiveness of each type of program and compares these outcomes with that of a combined program.

Applying this analysis, by the end of 2011 with the implementation of a strategy that includes all of the different programs, the area devoted to coca will shrink to 17 thousand hectares. The municipalities of San Jose del Guaviare, Puerto Asís, Mapiripán, and Vista Hermosa will be the main producers of coca, and the coca area in all other municipalities will fall to below 400 hectares (Map 1).

In contrast, if you only apply programs to reduce the vulnerability of the population to work in the coca fields, by taking them out of poverty, the coca area would be reduced to 27 thousand hectares. The main coca producing centers would be in Meta, Guaviare, Caquetá, and Putumayo, along with several communities in Antioquia and Cauca. For its part the simulation with only intensive alternative development programs will reduce the area to 30 thousand hectares, and it would add to the other areas Vichada and Nariño. Finally augmenting efforts in spraying and interdiction and leaving all other programs at 2007 levels, would reduce the coca area to 37 thousand hectares, without many visible differences (Map2).

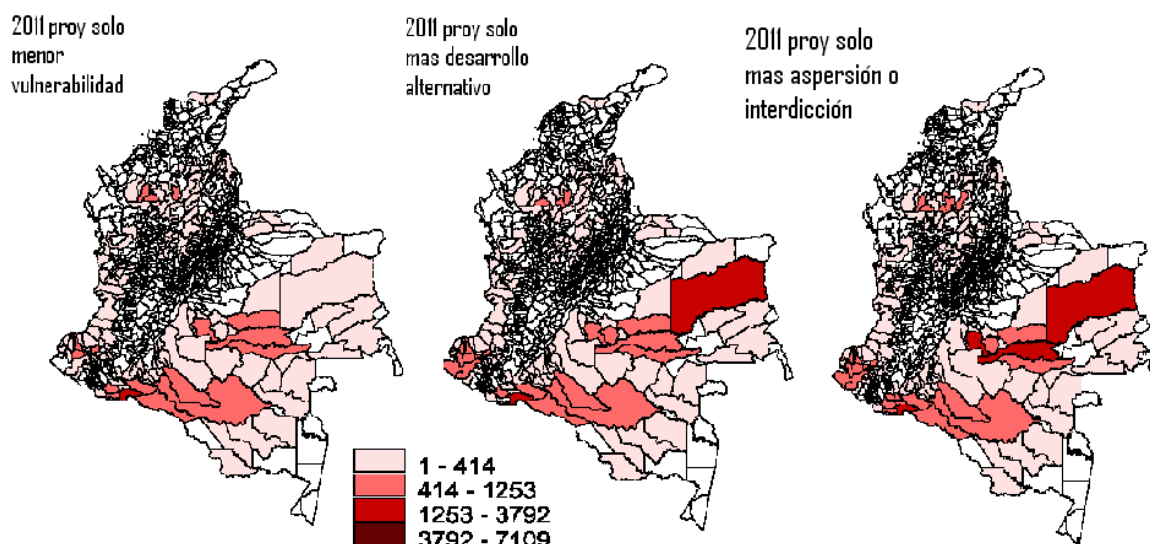
These simulations show that it is very difficult to establish that there are superior individual program approaches. An integrated program creates synergies that contribute to controlling illegal crops. The positive effect of these synergies is lost once the focus is on a single program.

**Map 1 Area of coca en 2007 and projection for 2011 with the implementation of policies.**



Source: Authors

**Map 2 2011 Projections of the coca area while increasing specific programs**



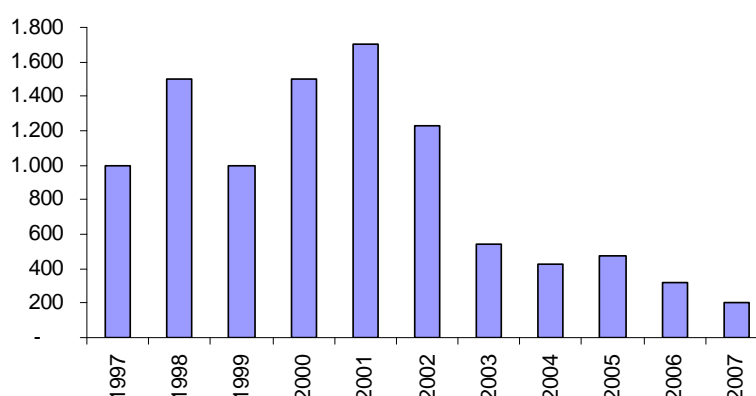
## Lessons Learned from Opium Poppy Reduction

Over the past eight years, opium poppy cultivation in Colombia has declined significantly. The team looked at the issue of poppy reduction to see if there were lessons that could be drawn that would inform the broader issue of reducing coca cultivation.

The national opium poppy harvested area in 1991 was 1,160 hectares. After increasing further, it then declined in the period 1999-2007 from a peak of 6,350 hectares to only 715 hectares (Anti-Narcotics Directorate of the Colombian National Police [DIRAN]). Meanwhile, the global supply increased from 216 thousand to 237 thousand hectares devoted to poppy, due to the rise of production in Afghanistan and Mexico which more than compensated for falling production in Burma and Laos (source: UNODC, 2008). Over this same period, demand fell in the United States, but increased in Europe.

The rise and fall of the area devoted to poppy production in Nariño mirrors the national trend. By 1994, it was estimated that up to 1,312 hectares of poppy were being cultivated (Uribe, 1999). Over the last decade, according to the Anti-Narcotics Directorate of the Colombian National Police (DIRAN), poppy crops increased from 1,000 hectares in 1997, to 1,700 in 2001, and have since decreased to 200 hectares.

**Graph 3. Hectares of poppy in Nariño**



Source: DIRAN, SIMCI , compiled by the authors.

Despite the fact that opium poppy is more profitable than coca, and can be produced in one fifth of Colombia's municipalities, it is at a disadvantage in the highlands of the Andean region where there is greater state presence, and it competes with traditional agricultural production. The economy of the Andean region is based mainly on smallholder agriculture, fisheries, tourism and cross-border trade. The region also has roughly 200 hectares of poppy crops in the highland areas.

In fact, poppy cultivation is carried out in municipalities with altitudes between 1,600 and 2,200 meters, and rainfall of 980 to 4,282 millimeters. (source: R. Rocha and M. C. Ramírez, *Illegal Drugs in Colombia: Recent Experience and Policy Implications*. DAI-USAID, 2004.) Poppy is highly vulnerable to variation in rainfall. It is labor-intensive and is characterized by very harsh working conditions. Focus groups in Nariño all commented on how much more care the opium poppy plant requires in comparison with other crops.<sup>39</sup>

In Nariño, the near eradication of poppy cultivation is explained by phytosanitary problems and commercialization problems, high initial costs of establishing a poppy crop, more intensive work requirements, and the exceptionally harsh working conditions of the highlands, while coca cultivation in low-lying areas has been able to count on the abundant supply of labor associated with the migration of the *cocaleros*. Critically, opium prices in Nariño experienced a dramatic plunge approximately five years ago, from 750 pesos per ounce to 250 pesos per ounce, according to local government officials. Local counternarcotics officials suggested two reasons for the decrease in price: an increased supply of opiates from Afghanistan and an increase in government presence in the areas of poppy cultivation in Nariño. The greater military presence pushed the FARC away from the territory and resulted in a significant decline in intermediary demand for opiates.

Similarly, the focus groups in the Nariño case study pointed out that interdiction and the possibility of the extension of property rights systems into areas dominated by small farms (*minifundios*) made poppy cultivation increasingly risky.

Poppy as a crop encounters many features common to the Andean region that do not favor its development. Such features include: less poverty, higher incomes, greater urbanization, a greater degree of legal economic activity, and at the same time less isolation and less presence of illegal armed groups (Rocha and Ramírez, 2005). This means that where nature allows poppy to flourish, its development is constrained by the absence of factors that are favorable to the production of coca (Table 3).

**Table 3. Elasticity of the probability of the existence of coca and poppy on selected variables**

	<b>Poppy</b>	<b>Coca</b>
Poverty	6.3%	7.0%
Rural Income	4.1%	9.0%
Ruralness	3.8%	10.0%
Illegally Armed Groups	0.3%	10.0%

Source: Rocha and Ramírez, 2005

Since the implementation of PC, opium poppy has been intensely eradicated just as coca has. However, because the institutional, social and economic environment was more favorable to legality in the Andean highlands, these programs have produced better results when compared to results achieved in the marginalized and isolated regions where coca is cultivated.

<sup>39</sup> See the case study of Nariño for a description of the focus groups.



According to the opinions of many experts, heroin exported from Colombia has an advantage over Mexican heroin because it can be inhaled. This makes it more attractive to consumers, but also more expensive. In fact, the surge reported in 2007 to 20 thousand hectares of Mexican production is of a black variety, which is injected and accessible to low-income users. This would appear to limit Colombian heroin's access to markets through distribution channels dominated by the Mexican mafia.

Given the relatively low importance of opium poppy as compared with coca, there are no studies of poppy available with information equivalent to that available for coca. Similarly, reports of areas under cultivation correspond to aerial observations which may introduce questions regarding the level of precision of the measurement. This lack of precision introduces a degree of uncertainty regarding the true dynamics of opium poppy and its future development.

## Conclusions

There are several lessons to be drawn from the reduction of opium poppy cultivation that can be applied to controlling the cultivation of coca in spite of differences between the two crops in terms of where they are grown, how they are grown and how they are marketed.

Poppy grows in the Andean region where greater economic and social progress has been achieved and where the presence of the state has been more evident. Therefore, disincentive policies such as spraying and eradication appear to have tipped the scales in favor of the legal economy. Small land holdings and a better system of property titling have also increased the risk of having property seized by the State from poppy producers.

These findings for poppy suggest that achieving better results in the control of coca requires a comprehensive approach that combines punitive measures with alternative development, including institutional strengthening, productive projects and investments in infrastructure, all supported by the participation of local communities.

Additionally, this study has found that considerations of demand and market access can be crucial in discouraging the cultivation of opium poppy. The recent history of opium poppy in Colombia shows that if you lose access to relevant distribution networks, you can lose access to international markets leading to a decline of output. This strongly reinforced the actions taken by the state under PC to discourage poppy production.

The recent history of opium poppy is a laboratory which could assist in understanding what works and what does not work in efforts to control coca. It is worthy of more detailed study and analysis for that reason.

## ELEMENTS OF A CN APPROACH

Pivotal to the success of CN in Colombia is the coordination of its various components—state presence and security, eradication, interdiction, alternative development and assistance to vulnerable populations. As the cost effectiveness analysis suggested, integrated programs appear to have the greatest potential impact. In this section we will look at various programs and issues in greater detail with a view to examining their contributions to the CN effort. Specifically, we will examine approaches to alternative development, the role of local government and performance measurement.

## Alternative Development Focus

Given the difficulties in achieving project successes that were encountered in coca-growing areas in the initial years of Plan Colombia, the subsequent shift within PC to an approach heavily focused on projects to achieve sustainable economic growth was the right strategy to adopt at that time. The success of this strategy in promoting economic growth and introducing successful alternative crops has been demonstrated by the results of the ADAM, MIDAS and Acción Social programs.

The broadest objective of ADAM, an approximately \$190 million contract, is to implement a sustainable, market-driven alternative development program that will promote eradication of coca and poppies where they exist, and impede drug cultivation in rural areas that are vulnerable to but still free of illicit crops. The overarching objective of MIDAS, with a budget of approximately \$182 million, is to foster the development of businesses that will create jobs and alternative income. The relevant programs of Acción Social are the Family Forest Warden (Familias Guardabosques) program that provides support to families over a determined length of time to assist in protecting forest reserves and the Productive Projects program (Proyectos Productivos) that supports technical training for associations and businesses in order to promote agricultural activities.

The shift to a focus on populations who had eradicated their coca, but whose poverty made them vulnerable to returning to coca growing for their livelihood, has demonstrated that potential *cocaleros* are willing to engage in livelihoods with more modest incomes, provided that there is greater security, adequate technical support for alternative crops, and access to financial services. Of course, MIDAS and ADAM also supported projects for populations whose vulnerability to becoming coca growers was minimal. These projects increased the prosperity of towns and regions, thus helping to create jobs and non-agricultural alternatives for poor rural Colombians. This was an important part of Plan Colombia as well. These projects, along with the economic policy reforms promoted by MIDAS, helped Colombia create an improving economic environment in which rural Colombians could realistically aspire to licit employment, whether as farmers of alternative crops where they lived or as migrants to prospering towns in their regions.

Given the localized successes achieved under the strategic approach adopted under PC, why change the overall approach at all? There are two major reasons for adopting a more targeted approach, even though such an approach will almost certainly entail higher costs and greater risk. First, the mobility of the coca industry (“the balloon effect”) is such that general increases in prosperity and job creation achieved under PC have not markedly reduced the capacity of the coca industry to supply cocaine to world markets. Second, the increased capacity of Colombia’s private financial sector and private businesses should reduce the need for external financing and technical assistance among less vulnerable urban populations. The strength of Colombia’s recent economic performance should now make it possible for external assistance to adopt a more direct strategic approach without fear that this shift would put Colombia’s growth prospects at risk. (There is a greater risk from the general global recession that is affecting all countries, but this cannot be remedied by technical assistance and access to credit as provided by MIDAS, for example.) A more direct strategic approach will seek to reduce coca production in growing areas among populations that have not yet agreed to eradicate their coca and comply with the “zero illicit crops” policy.

## A More Targeted Approach

There is no definitive evidence at the present time that projects can succeed in coca growing areas. In addition, it may prove difficult to permanently reduce coca cultivation from parts of geographic areas where coca growing is extensive and pervasive, rather than marginal to the rural economy, because of the countering strategies of trafficking groups moving cultivation around an area and perhaps even back into the initially cleared parts of the area. However, this should not be taken as evidence that success in coca

growing areas is unlikely. As this report stated above, the team's field research encountered considerable interest on the part of coca farmers to abandon coca cultivation if there are realistic opportunities to secure legal livelihoods.

This consistent finding in all the case studies for this assessment strongly suggests that communities can be assisted to abandon coca production if the right conditions are created. The direct approach would involve helping one community after another break away from the coca cluster being targeted. It would probably be too massive an effort to convert all the communities in an entire coca cluster simultaneously. However, success in several communities would be likely to create interest in neighboring communities to come under the umbrella of the assistance program through a demonstration effect.

The first and indispensable condition is the establishment of security. As the team discovered on the ground for the Macarena case study, it is possible to establish and maintain security in a coca growing area such that people feel far safer to move around and conduct their routine daily business than they did prior to the project. The establishment and maintenance of security, first through military means and then reinforced by a permanent police presence, provides a platform in growing areas for the next phase of operations. This phase will include an increased GOC presence in the form of improved delivery of key services (schools, clinics, etc.), investment in rural infrastructure (roads, communications) to support alternative development, promotion of the local private sector and market town job creation through MIDAS-type projects, and introduction of alternative crops for coca growers.

It is important to understand that in this approach, AD is just one element among a comprehensive package of interventions (security, government institutions, rural infrastructure, and market town infrastructure and private sector development) that reinforce each other. AD also takes place within the context of continuous efforts to interdict and eradicate coca cultivation. The design issues for such a package will include the size and sequencing of the various investments necessary to obtain community participation in the program and sustain the new set of economic activities.

The contribution of the community in this targeted approach must be to implement a phased reduction of coca growing within its jurisdiction along with increased surveillance to verify compliance with the program's targets. Provision of assistance should also be tied to a timetable, with accountability from both the project implementers for the promised investments and the community for coca reduction built into a regular joint review process.

This approach will also require flexibility on the part of the GOC with respect to its "zero illicit crops" policy, since a phased approach for eradication is currently deemed unacceptable. In the Macarena project, the GOC has accepted the *de facto* continuation of coca growing in the area so as not to undermine support from the local population for its military intervention there. It would appear that this experience may inform a more nuanced policy better adapted to direct interventions in coca growing areas as opposed to projects limited to vulnerable areas.

The AD component of the direct, targeted approach would be very much like the current project modes of ADAM, MIDAS, and Acción Social with their emphasis on market-oriented design. However, it must be emphasized that the projects will be unlikely to succeed if there is any failure to maintain adequate security (more costly in a coca growing area than in a vulnerable area where coca growing is not the main activity), or if local governmental institutions are not strengthened, or if rural and market town infrastructure are not improved to support the private sector development projects and the alternative crop projects. Sustained security in particular will be critical to attract private investors and sufficient private capital to create local employment opportunities.

If a comprehensive approach is effectively implemented, the project investments, both AD and private sector development projects, should be just as successful and sustainable as those currently being carried

out under PC. The costs per community and per beneficiary will undoubtedly be higher under this approach, but the possibility of reducing coca production should also be greater. Communities in vulnerable areas throughout Colombia have demonstrated their willingness to trade away the higher incomes derived from coca in exchange for greater security and the opportunity to make a reasonable income in an alternative, licit livelihood. It is appropriate to extend these opportunities to communities in coca growing areas, but success there will depend not just upon AD projects, but will require the broad set of interventions and investments described above.

## Enhancing Citizen Involvement in CN Activities at the Local Level

State presence has been recognized by the Uribe government as a key to overcoming the instability of rural areas in Colombia. State presence can be narrowly defined as ensuring citizen security through the presence of military and police forces. But state presence also signifies that the state through regional and local governments delivers the services that communities require in such areas as education, health, public works and citizen security.

The case studies point to the importance of securing the involvement of communities in supporting CN activities. The South of Bolivar case raises the possibility that the violence perpetrated by illegally armed groups can serve as a disincentive for participation in coca cultivation among some communities. Community solidarity can be a weapon in rejecting involvement in coca cultivation as Maria Clemencia Ramirez has suggested from studies in Putumayo, although not without risks to the community and its leaders who may become potential targets for reprisals.<sup>40</sup> (M.C. Ramirez, 2001) Community rejection of armed groups facilitates the work of NGOs such as Laboratorios de Paz that seek to build community cohesion. Community support strengthens the credibility of alternative development programs that include elements of community participation in their decision-making processes (See Annex 2).

The team's case studies also underscore the role that local governments can play, above all, in serving as the instrument for service delivery that is the citizen's best measure of the effectiveness of state presence. As was noted in the Macarena case study, some local governments such as the six municipalities involved in the Plan for the Integrated Consolidation of the Macarena (PCIM) often manage significant resources to meet service delivery and infrastructure needs. The issue they face is the transparent, efficient and effective use of those resources.

Citizen security is a key factor in promoting greater willingness to switch from coca production to other forms of livelihoods. The best tool for maintaining citizen security is what is defined as a community policing approach where police and citizens interact in their communities. (Community policing is a policing strategy based on the notion that community interaction and support can help control crime.) Enhanced citizen security makes it possible for communities to overcome the pressures from armed groups (FARC, ELN, *paramilitaries*) to participate in the drug production.

However, currently, in most rural communities where interventions occur, citizens have virtually no ownership of efforts to promote citizen security. This is despite the fact that Colombian law provides the municipalities with the necessary legal framework for that participation, both through mechanisms that are supposed to (but in fact do not) generate revenues to provide municipalities with funds to enhance national security efforts in their municipalities<sup>41</sup> and through mechanisms that allow citizen oversight of

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<sup>40</sup> A former governor of Putumayo in an interview with one of the authors stated that he made sure that community leaders were not easily identified to outsiders to ensure that they were not targets for assassination.

<sup>41</sup> Municipalities are entitled to use a percentage of what they dedicate to public works projects to establishing a security fund that has as its purpose support for small scale requirements of police (e.g. equipment, furnishing

security efforts by the municipal and departmental governments. Citizen involvement in overseeing the operations of security efforts at the local level, along with citizen involvement in participatory planning processes for their own security, build citizen commitment to fostering a more secure community. Citizen involvement can also serve to promote greater responsiveness of security forces and local governments to citizen needs.

Work undertaken by both the ADAM and Cimientos USAID<sup>42</sup> projects have sought to deal with this issue of strengthening citizen security through local government and community involvement. The need from a programmatic viewpoint is to ensure that sufficient resources are expended in what has proven to be a difficult task, given the limited financial resources of rural municipalities and given the complications of getting the National Police at the highest levels to fully engage in these sorts of programs.

Improving local governments' capacity to budget, administer and finance local services represents another crucial portion of the solution. Most rural and small-size urban municipalities that are likely to be involved in CN assistance programs have little capacity to manage the financial and administrative requirements of service delivery, making them ineffective agents for providing needed services. AD programs need to focus on building public management capacity in these communities through the provision of technical assistance in such areas as the development of the broadly participatory operational plans and budgets required by Colombian law, understanding the requirements for transparent management of municipal funds, capacity to generate both locally based revenues and more importantly securing appropriate shares of national and departmental inter-governmental transfers and developing administrative skills in the management of specific service requirements. The most effective way to ensure that these efforts are sustainable is to focus on institutions and processes already in place in the municipalities—the role of mayors, councils and existing citizen organizations rather than generating *ad hoc* organizations that are likely to disappear when an assistance program ends or changes focus.

## Adjusting Current Performance Measures

The extent of narcotics production and the effectiveness of counternarcotics policies have been measured for a long time in terms of the numbers of hectares of illicit crops cultivated and the numbers of hectares eradicated. Both measures have, however, been widely criticized by policymakers and analysts as inadequate. They do not necessarily present an accurate baseline – as the discussion of goals accomplished under PC and the levels of cultivation between 2000 and 2008 has already shown – nor do they capture other vital information about the nature, structure, and pervasiveness of the illicit economy. Instead of these two measures, this report recommends a composite measure that includes at minimum: 1) the numbers of hectares cultivated with illicit crops, 2) the numbers of hectares eradicated, 3) the numbers of municipalities free from illicit crop cultivation, 4) the percentage of the size of the illicit economy per GDP and per the size of the economy in every subnational region, 5) human development indicators for the illicit crop farmers and others vulnerable to illicit crop cultivation, and 6) the availability of comprehensive licit livelihoods resources available to farmers. It is critical that this composite measure be measured with a consistent methodology and be presented in multi-year time series.

Under the current measures – hectares cultivated and eradicated - even the most basic step of estimation, the size of the area cultivated with illicit crops, has its limitations with numbers varying dramatically among estimates by the United Nations Office on Drugs and Crime, local governments, and the United States. For 2007 as has been already noted, the USG estimated that 167,000 ha of coca were cultivated in

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barracks and police posts). However, many small rural municipalities find themselves without the necessary funds to undertake infrastructure projects and therefore to generate such a security fund.

<sup>42</sup> This project operates in areas outside the main coca producing regions.

Colombia<sup>43</sup>, whereas UNODC estimated only 99,000 ha. Moreover, any further derivative estimates, such as the amount of heroin or cocaine produced, the volume of goods being trafficked, the efficacy of interdiction, farmgate or street prices of illicit goods, and the size of the belligerents' financial profits from the illicit economy, are even more difficult to assess. As the State Department warns, estimates of crop harvest can hinge upon "small changes in factors such as soil fertility, weather, farming techniques, disease."<sup>44</sup> Furthermore, productivity per plant also varies with the plant's age, the number of harvests per year, and the specific variety of coca. For example, at least 2 different species of cocaine alkaloid producing coca plants are planted in Colombia, with 2 sub-species each. At least 14 different alleged varieties of cocaine alkaloid producing coca plants exist in Colombia. Whether these are distinct varieties or multiple names for fewer varieties is not yet known. Further, it is known that alkaloid content can vary within variety due to environmental factors. Whether certain varieties consistently produce lower alkaloid contents than other varieties across all conditions is not known. With each step further up the estimation ladder, data become subject to additional variance introduced by the new variables. Thus, despite this extraordinary variance in the 2007 coca cultivation numbers between the two principal agencies providing yearly estimates, with the USG estimating 1.7 times as much land under coca cultivation as UNODC, UNODC actually estimated a higher amount of cocaine produced in Colombia than the USG. This disconnect appeared to be the result of only two growing region estimates (Meta-Guaviare and Nariño), which have been further examined. Analysis has demonstrated that most of the variance is a result of differences in the reported number of harvests, leading to enormous yield numbers in UNODC estimates for these two regions. USG and outside expert agronomists have concluded that UNODC number of annual harvests for Meta-Guaviare and Nariño were not credible, being too high for plant health and survival. When these differences are reconciled, coca yields between the two agencies become quite harmonious. With these differences still within the estimates, the USG calculates that 167,000 ha of coca were capable of producing a maximum of 535mt cocaine, whereas UNODC estimated that the 99,000 ha of coca that they identified in Colombia would produce a maximum of 600mt. Nor are the numbers of hectares eradicated actually indicative of how many hectares were effectively destroyed. These numbers do not capture how many hectares of plants farmers were able to prune or replant.

Moreover, changes in the USG's estimation methodology lead US government officials to claim that current data are not comparable to previous data. Thus, not only is there an enormous discrepancy between the two aforementioned principal estimates, but the USG now maintains that time-series analyses can no longer be performed due to changes in the USG's methodology. This is especially problematic given that year-to-year variations can be substantial due to the aforementioned factors as well as adaptations of illicit crop farmers to eradication techniques, such as pruning after spraying, increased density of cultivation per hectare, shift of cultivation to less visible areas, etc. Since sustainability of crop reduction is critical, the effectiveness of counternarcotics approaches can only be assessed as trends over years. Despite the changes in USG methodology and hence the compromised comparability, this report recommends that multi-year trends remain a crucial component of the assessment of the extent of illicit drug economies and the effectiveness of counternarcotics policies.

Measures of the narcotics economy and the effectiveness of policies need to include other indicators than simply hectares cultivated and eradicated. The importance of the illicit economy for people's subsistence is one such important measure. If 160,000 ha of illicit crops represent only 1% of the country's GDP, the macroeconomic effects of such an illicit economy are fundamentally smaller and different than if 160,000 ha represents a third of the country's GDP. The difference is critical for assessing the appropriateness of

<sup>43</sup> ONDCP, "Official U.S. Colombia Survey Reveals Sharp Decline in Cocaine Production," Press Release, September 10, 2008, <http://www.whitehousedrugpolicy.gov/news/press08/091008.html>.

<sup>44</sup> U.S. Department of State, *International Narcotics Control Strategy Report*, March 2004, <http://www.state.gov/p/inl/rls/nrcrpt/2003/index.htm>, downloaded March 18, 2004.

various counternarcotics policies and of their macroeconomic consequences for the country's economy and political stability. As imprecise as a measure of the size of the illicit economy is as a percentage of GDP, it is nonetheless a vital statistic that needs to be part of regular assessment measures. Moreover, not only is such a statistic vital at the national level, it should also be assessed yearly at subnational regional level – however a region is defined. If illicit crop cultivation represents only 1% at the national level, but still represents 90% of economic activity in a particular region, the consequences of counternarcotics policies – including the levels of political instability and insecurity resulting from massive eradication – will be fundamentally different than in a subnational region where coca cultivation represents only 10% of the region's economy.

A third aspect of the assessment of the extent of the illicit economy that needs to be refined and should become a regularly researched element is the numbers of families cultivating coca or poppy. As this report noted above, estimates vary enormously. USG and Colombia officials frequently estimate that 100,000 families in Colombia grow coca. Various academic analyses and those of UNDOC give numbers as high as 300,000-600,000 families. The numbers are hard to assess because no systematic surveys are in fact conducted, and illicit crop farmers move in response to eradication to areas where eradication is not active (they also may move due to changing security conditions). As they move to areas where insecurity and insurgency still persist, such as the Pacífico region of Nariño, government officials do not venture into those areas and are no longer able to provide even a rough estimate of the numbers of families in their region cultivating illicit crops.

Knowing the actual numbers of families cultivating coca is critical for devising alternative livelihoods strategies that need to accompany eradication and interdiction and for resourcing such policies adequately. Using the number of families benefiting from alternative development as a measure of effectiveness of alternative livelihoods approaches is meaningless if one does not have a true sense of the numbers of families in need. In fact, the regional fieldwork by all team members revealed a pervasive sense among Colombian actors charged with implementing alternative livelihoods policies that their programs reach less than 10% of families cultivating coca and even a smaller percentage if one considers the numbers of families vulnerable to coca cultivation because of the insecurity of the area where they live and hence the inability to cultivate and sell legal crops and because of persisting poverty. This extremely limited coverage of the in-need population is both a function of the zero-coca policy of the Colombian government that does not permit the delivery of any socio-economic benefits to a community where any coca is cultivated as well as of the limited amount of resources available through USG and GOC programs. Thus, this report recommends that USG and/or the Colombian government should start undertaking regular and widespread assessments at the regional as well as national level of the numbers of families cultivating coca and of families vulnerable to coca – defined as families in coca growing areas that share the characteristics of existing coca farmers (see the section below on Families vulnerable to the cultivation of coca).

Eradication without alternative livelihoods not only cements the bond between the population that remains in the particular area and illegal armed groups, but it also generates internal displacement. Although it was not possible to track down people displaced by eradication or interview them during the team's fieldwork in South of Bolívar and Nariño, the farmers who remained behind estimated that in the Magdalena Medio village where fieldwork took place, about 40% of the farmers left, while in the Nariño village, about 30% of the local population left. The cocaleros who stayed behind in Nariño stated that the displaced people moved into the Pacific region of Nariño where they continued cultivating coca in an area of significant FARC and paramilitary activity. Interviewees in the Magdalena Medio village stated that they believed the displaced cocaleros moved to northern South of Bolívar. This area has recently become deeply destabilized. New conflict over land has emerged between large mining companies and palm oil plantations on the one hand, and small-scale farmers on the other. The resulting tensions have also attracted new paramilitary criminal bands.



While the research did not interview people displaced from these two villages, it nonetheless interviewed people who were displaced by eradication in Putumayo in the early 2000s and relocated to Nariño. Several general patterns with implications for policy effectiveness with respect to counterinsurgency, state-building, and counternarcotics emerged from two sets of interviews.

Even if only a portion of a village denies intelligence on the illegal armed groups to the government or otherwise more directly supports such illegal armed groups, and a portion of the population is displaced, such an outcome cannot be understood as success for counterinsurgency, state-building, or counternarcotics. The displaced population continues to be alienated from the state, and frequently winds up in areas threatened by illegal armed groups, once again caught in a web of insecurity and state-absence. Moreover, as displacement due to eradication as well as due to conflict critically jeopardizes access to legal employment -- including by guaranteeing that the displaced people do not have titles to land -- the displaced population is all the more vulnerable to resorting to coca cultivation as a coping mechanism. This dynamic is more pronounced because the *cocaleros* displaced due to eradication do not have access to the services provided by the state to people displaced by conflict. Such internal migration also frequently generates new conflict over land, once again undermining security and state-building in rural areas. Finally, such forced migration critically undermines rural development, including direct AD efforts, since it hampers efforts to address critical structural drivers of coca cultivation, such as access to land, microcredit, and security.

The dispersion of illicit crop cultivation is also not captured by the two statistics of hectares cultivated and eradicated. Yet once again, the level and type of dispersion has important implications for the design and effectiveness of counternarcotics policies. It is also an indicator of the strength of the state – a critical variable for the effectiveness of counternarcotics policies. Cultivation of illicit crops close to the capital or close to major roads is an indicator of profound weakness of the state. Illicit crop cultivation in remote periphery indicates a far smaller weakness of the state. In fact, with the strengthening of the Colombian state due to PC, coca cultivation in Colombia has been pushed away from major roads and cities and deeper into jungles and other periphery regions.

Moreover, since this report recommends that rural development policies concentrate on coca clusters, progressively shrinking the dispersion of coca cultivation to fewer and fewer districts, measuring the level of dispersion and the numbers of coca-free regions becomes an important indicator of progress. It also allows for continuing improvements to policy design. Yet the number of municipalities or regions that are coca free is by itself an inadequate measure. If before the application of counternarcotics policies 160,000 hectares of coca are cultivated in 20 municipalities and after the application of counternarcotics policies the same 160,000 ha of coca are cultivated in one municipality, the effectiveness of counternarcotics policies has been limited and progress has not been sufficient. Thus, the numbers of municipalities that are coca-free should be one of the components of the composite measure presented, but not its sole component.

Finally, eradication of illicit crop resources will be unsustainable if illicit crop farmers do not have sufficient licit alternatives available. At minimum, they need to be able to cover their basic needs through legal livelihoods and achieve food security, including avoiding drops in nutritional intake. In fact, the food security and alternative livelihoods in place in Colombia today have been shown to be inadequate for many former *cocaleros*. As an illustration, in one of the coca villages visited by the assessment team in northern Nariño, families reported being able to eat meat only three or four times a month (and in some cases even less) after they eradicated their coca plots whereas they were able to eat meat every day when they cultivated coca. Reporting simply the numbers of families benefiting from alternative livelihoods policies is not a sufficient indicator of performance of such policies because it obscures whether or not the aid made any difference in the quality of life of the family. Under the “numbers-of-families–benefiting”



measure, a family who receives \$1 of assistance per year will be counted in the same way as a family that receives \$1,000 a year. Obviously, the family receiving \$1,000 is likely to benefit substantially more while \$1 of assistance is unlikely to affect the family's dependence on illicit crop cultivation. Thus, instead of focusing only on inputs, the measures of counternarcotics policies should include: human development indicators, such as level of income per family, levels of literacy, life expectancy, etc. Moreover, assessments of effectiveness of counternarcotics policies should critically focus on the availability of resources necessary for legal livelihoods prior to and after policy interventions, such as community access to schools, health clinics, roads that lead to markets, irrigation systems, seeds and technical assistance to grow legal crops, microcredit, production value chains, etc.

To recap, instead of focusing on the numbers of hectares of illicit crops cultivated and eradicated, the size and pervasiveness of the illicit economy and the effectiveness of counternarcotics policies should be measured and presented as a multi-year time-series composite measure that includes at least the following variables: 1) the numbers of hectares cultivated with illicit crops, 2) the numbers of hectares eradicated, 3) the numbers of municipalities free from illicit crop cultivation, 4) the percentage of the size of the illicit economy per GDP and per the size of the economy in every subnational region, 5) human development indicators of illicit crop farmers and populations vulnerable to illicit crop cultivation, and 6) the availability to illicit crop farmers of comprehensive licit livelihoods resources. While this approach represents a greater investment, the outcome in terms of more accurate measurement of success is worth that investment, much of which can be built into the responsibilities of implementing agencies and contractors.

## CONDITIONS FOR FUTURE EFFORTS

This section looks at conditions that will affect future CN efforts in Colombia. This includes efforts required to reduce the vulnerability of farmers to involvement with coca cultivation, an analysis of the 'balloon effect' and its impact on CN, approaches to successful rural development and the relationship between agricultural policies and coca reduction.

### Background

The answer to the question of what scale of effort is needed to reduce the vulnerability of farmers to becoming involved in coca farming requires a multidimensional explanation. The factors that explain the likelihood of the presence of coca at the municipal level correspond to geographical and environmental variables, as well as to economic, social variables and the nature of internal conflict (Rocha and Ramírez, 2005).

From a socio-economic perspective, the answer should take into account the characteristics of actual Colombian coca farmers, and in accordance with those profiles, determine how many Colombian farmers could become coca farmers, where they are located, and what improvement is needed in their standard of living to mitigate their vulnerability to becoming coca farmers. Since there is no legal activity that could provide farmers with the same income from coca production, it is clear that the solution is not a matter of simply compensating them for their "lost" income; but instead, offering them greater purchasing power based on legal income, providing them with better living conditions without the high cost of living and life-threatening risks inherent in coca farming.

Once we understand analytically the scale of the effort that will be required, we are left with the question of how to accomplish this goal. The range of options is wide: Reducing transportation costs, reducing marketing costs for cash crops, increasing output of subsistence crops, improving their health conditions,

and providing them with humanitarian aid for the transition to the legal economy, etc.

An estimate of the magnitude of efforts needed to reduce the socio-economic vulnerability requires a methodology broken down into two phases. First, in order to get an estimate of the vulnerable population, the living conditions of coca farmers have to be compared to that of the rest of the population without taking into account their monetary income. Second, to get an estimate of the extent to which their living conditions should be improved, we need to contrast their level of consumption and poverty conditions.

## **Families vulnerable to the cultivation of coca**

We defined families vulnerable to the cultivation of coca as families in coca growing areas that share the characteristics of existing coca farmers. We estimated the demand for labor, taking into account cost structures, the average size of lots, and coca planted areas. For the 98,899 hectares detected in 2007, it has been estimated that 80,000 households and 382,559 people were involved in the cultivation of coca (SIMCI, 2008). In that same year, the number of households in Colombia reached ten million; and projecting from the 2005 population census results, the population of Colombia reached 43.9 million.

We used a matching technique (see Annex VI for a detailed description of the technique), taking into consideration the socio-economic characteristics of the population and assuming that the estimate of households involved in coca cultivation is valid, to determine how many households are vulnerable to involvement in coca. Since the Quality of Life and Living Conditions Survey of 2005 (ECV) does not allow us to identify which respondents are coca growers, we made an estimate based on the assumption that it is possible to infer randomly for the ECV control group from the survey results of Operation Breakthrough (EOB) on coca farmers. This latter survey was conducted by the GOC with financial support from the Department of Justice, Drug Enforcement Administration. The matching technique we employed allowed us to identify similar characteristics between the two survey groups using econometric techniques (see the Annex VI for a detailed description).

For this analysis, 163 municipalities are considered suitable for coca farming due to appropriate altitude and precipitation characteristics. We analyzed household expenditures in the ECV as well as food expenditures from the EOB and characteristics such as education, age and marital status of the survey respondents in both surveys. With this information we proceeded to find individuals that belong to the (ECV) control group which were the most comparable to the group of coca farmers from the EOB. We were then able to compare the different levels of consumption between the ECV control group (control group closest in characteristics to those of the coca farmers) and the EOB group.

In summary, we generated a Logit Model (see Annex VI) to estimate the probabilities of becoming a coca farmer based upon the values of the following variables: sex, age, marital status, number of dependent children, and education. Similarly, we obtained the probabilities of being part of cocalero groups and the consumption average for both groups. The average monthly income of coca producing households is 1.4 million pesos. By comparison, the average monthly income of households in coca growing areas (identified by the matching technique described above) which share the social and economic characteristics of coca households is 350 thousand pesos. The difference between the two populations is partly explained by the different methodologies of the two surveys. The goal of the survey of coca farmers was to identify their performance (output, yield per hectare, etc.) and use of technology. The coca growers' survey tends to be carried out in the epicenter of coca production where local prices are elevated due to high levels of monoculture and accessibility.

Previously, we attributed characteristics of coca farmers to the control group, and followed this with the estimation of the number of people vulnerable to involvement in coca. Then, we used the 2005 Census results for coca municipalities to estimate that out of a total of 5.1 million people, 794 thousand are vulnerable to coca. This is equivalent to 15% of the total population of the coca municipalities.

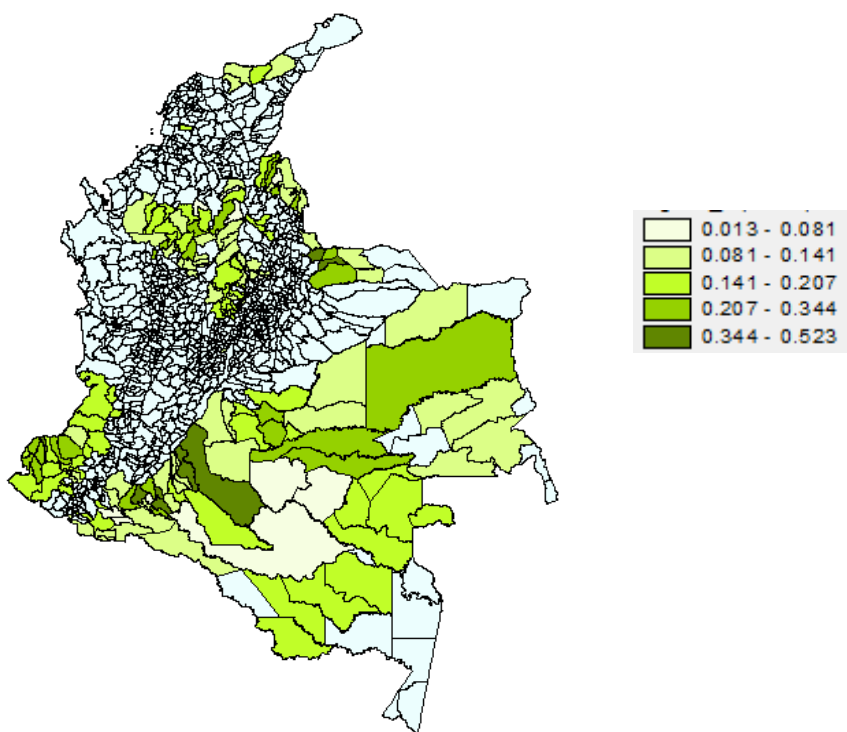
Half of the population vulnerable to the production of coca resides in 70 municipalities of Caquetá, Nariño, Norte De Santander, Antioquia and Valle Del Cauca (Table 6).

**Table 6: Population vulnerable to the production of coca**

	Municipios	Poblacion	Vulnerables	Vulnerables/ Distribucion Poblacion de vulnerable	
Amazonas	4	11.729	1.965	17%	0%
Antioquia	21	507.519	79.372	16%	10%
Arauca	5	152.900	39.289	26%	5%
Bolívar	8	163.844	23.053	14%	3%
Boyacá	9	119.785	18.862	16%	2%
Caquetá	16	420.337	95.976	23%	12%
Cauca	7	155.878	28.828	18%	4%
Córdoba	3	187.203	28.295	15%	4%
Cundinamarca	2	79.637	8.489	11%	1%
Guainía	4	28.227	3.784	13%	0%
Guaviare	4	95.551	20.454	21%	3%
La Guajira	2	189.663	25.890	14%	3%
Magdalena	2	517.255	64.302	12%	8%
Meta	11	173.489	27.669	16%	3%
Nariño	18	546.885	95.148	17%	12%
Norte De San	12	777.695	90.901	12%	11%
Putumayo	10	284.888	31.902	11%	4%
Santander	15	190.659	26.373	14%	3%
Valle Del Cau	3	461.057	69.653	15%	9%
Vaupés	5	38.231	5.972	16%	1%
Vichada	2	39.334	7.712	20%	1%
Total	163	5.141.766	793.889	15%	100%

The departments with municipalities most vulnerable to coca (18-26%) are, in order of intensity: Arauca, Caquetá, Guaviare, Vichada, Cauca, Nariño and Amazonas (Map 1). Those least vulnerable (11-14%) are Bolívar, Santander, La Guajira, Guainía, Magdalena, Norte De Santander, Putumayo and Cundinamarca.

**Map 3. Vulnerability Index for populations vulnerable to coca**



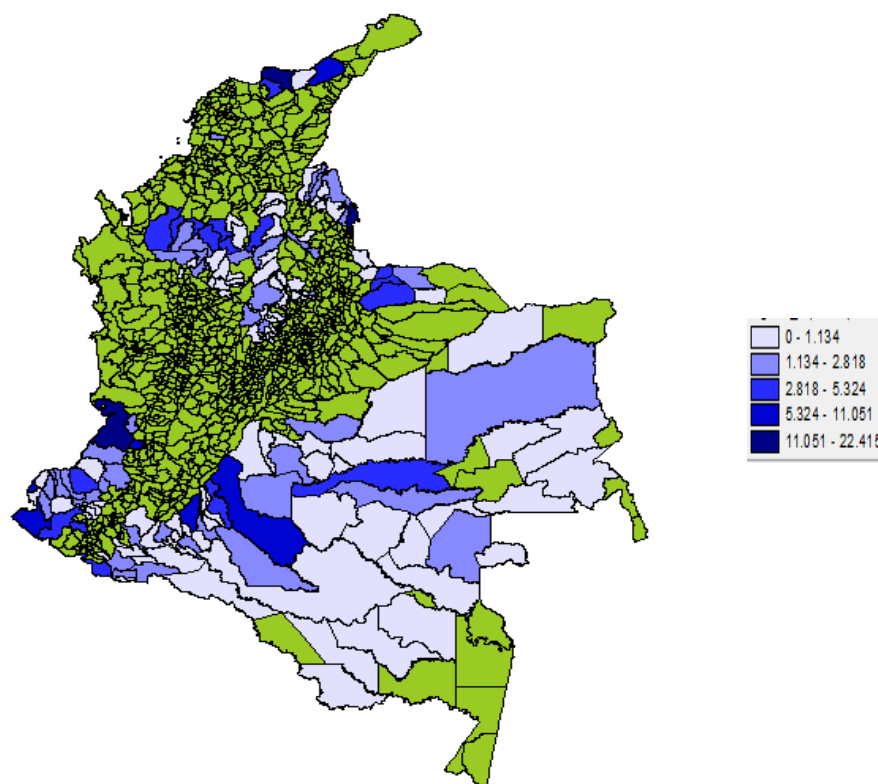
## Reducing vulnerability through better living conditions

One way to reduce the vulnerability of families to get involved in coca would be to work on improving overall living standards. In the short-term, this would involve closing the gap between the consumption levels of vulnerable families and the minimum level needed for subsistence. In the medium-term, its sustainability could be ensured by further raising vulnerable household consumption from subsistence levels to the average levels of consumption in the coca cultivating municipalities.

Accordingly, reducing vulnerability to coca would imply increasing the consumption levels for 179,000 families by the equivalent of USD \$292 million annually in the short-term, and USD \$460 million in the long-term. In order to strengthen results, efforts to increase consumption levels should vary in intensity by region; different regions have different needs in terms of necessary increases in consumption (Map 4). The consumption levels in a few coca-producing municipalities are already above the minimum subsistence level. However, this does not apply to the majority of municipalities. For example, the 10 municipalities that require the greatest increase in consumption would be: Cúcuta, Santa Marta, Buenaventura, San Vicente del Caguán, San Andrés de Tumaco, Jamundí, Riohacha, Florencia, San José del Guaviare and Guapí, which have approximately 60,000 vulnerable families that account for a third of the population. By contrast, the two thirds of vulnerable families who reside in the remaining municipalities could become less vulnerable to coca with smaller increases in consumption. The necessary increases in consumption of vulnerable households shown in Map 4 below are in thousands of U.S. dollars per year. In other words, it is the amount by which their current consumption levels would need to be increased in order to reach minimum subsistence levels. In the green areas of the map, either the area is not suitable for coca production or potentially vulnerable households already surpass minimum subsistence levels. In the lightest blue (almost white) areas, per household consumption would need to be increased in a range from 0 (no increase needed) to \$1,134. In the next darkest blue, increases of from \$1,134 to \$2,818 in the annual consumption levels of vulnerable households are required. The next two

darkest blue areas require increases from \$2,818 to \$5,324 for vulnerable households, and then all the way up to \$11,051 for vulnerable households who survive on far less than what Colombia considers to be a minimum subsistence level.

**Map 4. Necessary increases in household consumption to reach minimum subsistence levels for populations vulnerable to coca (000's of U.S. dollars per year)**



## SUCCESSFUL APPROACHES TO RURAL DEVELOPMENT

Plan Colombia has become increasingly better at promoting sustainable alternative development. Significant applied learning has occurred since the initial projects launched under PC. Studies of Colombia's comparative advantage in agriculture have shown how highly competitive it is across a wide range of crops and forest products. PC projects have exploited Colombia's comparative advantage in these crops. Success has been achieved by providing competent technical assistance in production techniques and marketing, and by providing access to financing that is otherwise not available to *campesinos*.

Plan Colombia, through Acción Social, ADAM and MIDAS, has had a particular focus on promotion of five specific crops (oil palm, cacao, specialty coffee, forestry for wood products, and rubber) as viable alternatives to coca. Through ADAM and MIDAS, PC has also promoted milk, fruits and vegetables,

other crops and over 35 different productive enterprises in a flexible response to existing market demand. Through MIDAS, PC has promoted alternative employment through small and medium enterprise (SME) development in urban areas, under the assumption that this will provide opportunities sufficiently attractive to draw labor away from coca-growing rural areas.

The basic model during PC, following the policy of the GOC, has been for a community to first eradicate coca, becoming a coca-free zone, before becoming eligible to receive assistance. In practice, sometimes communities have committed to eradicating coca concurrently with the beginning of an assistance program.

The model for introducing improvements to expand the cultivation of existing alternative crops or the introduction of new crops has followed the best practices model of the highly successful rural development program in Honduras implemented by Fintrac, Inc. Descriptions of the approach used in this program may be found at [www.fintrac.com](http://www.fintrac.com). This model first determines how much demand there is in the market for the alternative crop or product. It does so in practical business terms of whether or not there are buyers at the price that will be required to make this crop economically viable and attractive to producers. If it is determined that there is sufficient market demand for whatever product is being considered, the rural development model follows a number of best practices developed over the years. Briefly, it involves a thorough process of consultation with the community, rigorous definition of stakeholders' responsibilities for implementation of the project, and sequencing of interventions at all stages along the value chain from production to marketing. At the beginning of the ADAM program, preparations often required six months before funds could begin to flow into the identified projects. As of this writing, preparation time has been reduced to about two months on average, as the project implementers have learned how to carry out the consultations and the planning process in a less time-consuming manner without sacrificing either rigor or community participation.

The results of this rural development approach have been generally positive for the communities involved. Acción Social reports 24,000 beneficiary families farming 88,000 hectares. ADAM reports about 34,000 families having adopted substitute crops on 55,000 hectares. MIDAS reports 183,000 families on 67,000 hectares as well as another 51,000 hectares of natural forest areas. Since Acción Social receives support from both ADAM and MIDAS, some of its beneficiaries are counted twice. The total number of beneficiary families from these three programs would be in a range from about 220,000 to 230,000 families.

As ADAM reported its activities through June, 2008: "Economic Alternatives: Through June 2008, 104 productive activities are underway within the ADAM Program, including 23 cacao projects, 22 coffee projects, 12 rubber projects, and 11 fruits projects. In cacao alone, nearly 5,000 families and 12,000 hectares are supported in eight different departments. Fruits activities are a priority of the GOC and ADAM is currently supporting more than 2,000 families and nearly 2,000 hectares."

**Table 7. ADAM Progress toward Indicator Goals**

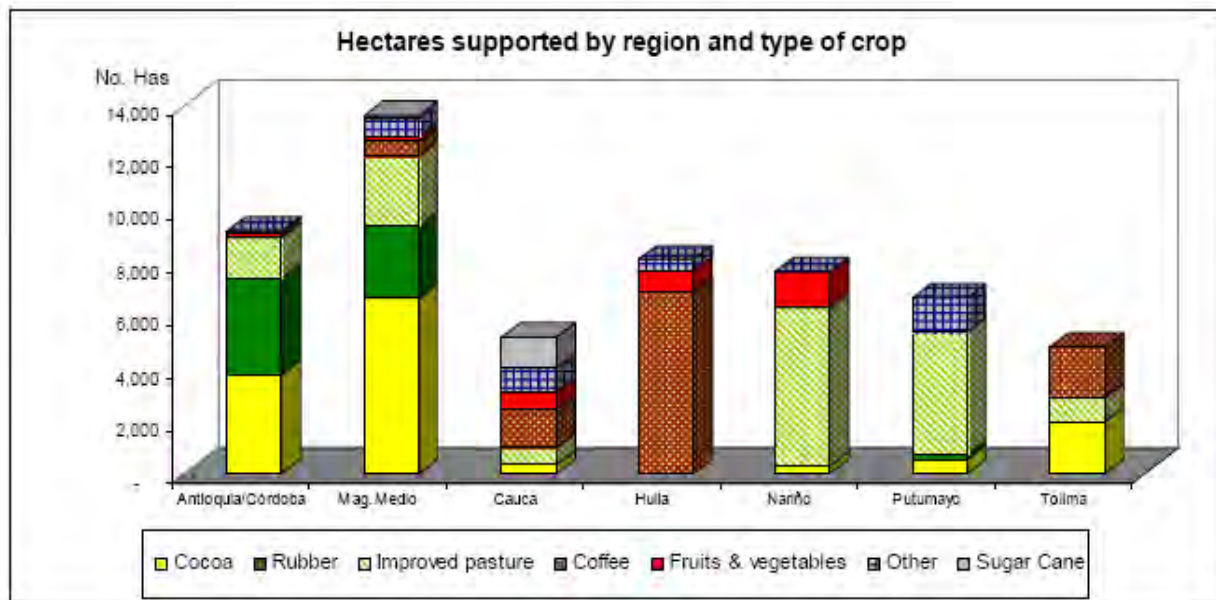
<b>Indicator</b>	<b>Achievement through Q9</b>	<b>Progress during Q10</b>	<b>Percentage increase during Q10</b>	<b>Achievement through Q10</b>	<b>Cumulative goal through 2008</b>	<b>Achievement of 2008 Cumulative Goal</b>
Families Benefited	30,436	3,428	11%	33,864	40,540	84%
Hectares Free of Illicit Crops	183,925	19,844	11%	203,769	264,017	77%
Hectares of Licit Crops Supported	51,121	4,019	8%	55,140	69,993	79%
Social and Productive Infrastructure Projects Completed	44	13	30%	57	84	68%
Municipalities Strengthened	0	29	>100%	29	48	60%
Social Organizations Strengthened	266	33	12%	299	415	72%
People Benefited by National Programs	7,108	3,198	45%	10,306	16,326	63%
Public Sector Funds Leveraged (US\$)	\$4,580,159	\$1,381,202	30%	\$5,961,361	\$6,713,501	89%
Private Sector Funds Leveraged (US\$)	\$46,342,190	\$8,245,710	18%	\$54,587,900	\$77,637,883	70%
Communities/Producer Associations Signing Illicit-Free Agreements	972	230	24%	1,202	952	126%
Families under Illicit-Free Agreements	78,552	11,787	15%	90,339	94,379	96%
Full Time Equivalent Jobs Created	23,953	1,968	8%	25,921	52,940	49%
Sales or GMV of Licit Production (US\$)	\$19,256,500	\$13,467,410	70%	\$32,723,910	\$58,836,126	56%

Source: ADAM Quarterly Performance Monitoring Report 10th Quarter: April - June 2008

“The graph below presents the breakdown of hectares supported by type of crop and region. Cacao and rubber are predominant in the Magdalena Medio and northwestern Antioquia regions; coffee is largest in Huila, Cauca, and Tolima. Improved pasture is present in all 7 regions, although most is in Nariño and Putumayo. Miscellaneous activities include flowers, apiculture, fish-raising, aromatics, spices, wood, cuy raising, vanilla and silk production. Cauca is clearly the department with the most diversified set of productive activities.”



**Graph 4. Hectares Supported by Region and Type of Crop**

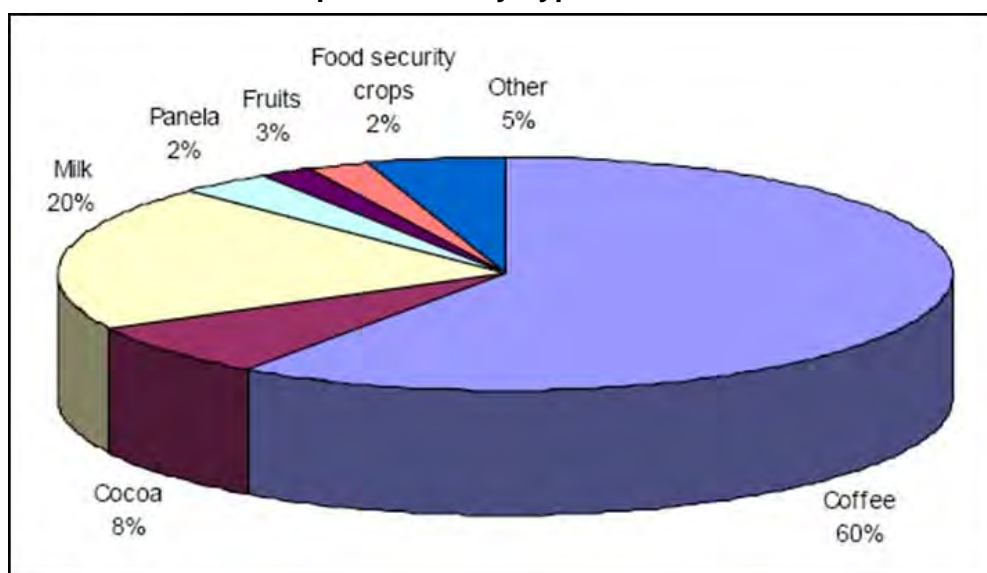


Source: ADAM Quarterly Performance Monitoring Report 10th Quarter: April - June 2008

“Sales or gross market value (GMV) of licit crops had an outstanding 70% increase since the end of March. The total sales or GMV has now reached US\$32,723,910, equivalent to 56% of the 2008 cumulative goal for this indicator. Currently, a total of 65 productive activities in seven departments have reported sales. The graph below presents the sales breakdown by type of product. Coffee remains as the main product with 60% of the total sales, followed by milk with 20%. It is also noteworthy that over US\$1.4 million in sales correspond to security crops like plantain, yucca and ñame representing a short-term source of income for beneficiary families.” (Source: ADAM Quarterly Performance Monitoring Report 10th Quarter: April - June 2008)



**Graph 5. Sales by Type of Product**



Source: ADAM Quarterly Performance Monitoring Report 10th Quarter: April - June 2008

MIDAS also reports a large number of beneficiaries from its interventions.

**Table 8. Key Q3FY08 and Cumulative Indicator Achievements**

Indicator	Adjusted LoP	Achievements Q3 FY'08	Cumulative	% of LoP (% adjusted LoP)
Families	151,437	49,552	183,584	121
New Hectares	170,696	17,231	67,759	40
Natural Forest hectares	107,268	13,659	51,630	48
New Jobs	177,000	33,113	121,960	69

Source: MIDAS Quarterly Performance Monitoring Report 10<sup>th</sup> Quarter. April - June 2008

Taken altogether, these are not insignificant results in comparison with the estimated 80,000 to 100,000 families involved in coca production. Nonetheless, in spite of the alternative livelihoods created, it is still not on a scale that would change the short-term economic incentives or provide sufficient economic opportunities for the 794,000 people in coca municipalities who are estimated in this study to be vulnerable to becoming coca producers. Also, crop substitution cannot be carried out where communities are terrorized by guerrillas, paramilitary groups or gangsters to continue producing coca. It is also the case that the “zero coca” policy (requiring communities to demonstrate they have stopped growing coca before they are eligible to receive assistance) limits the extent of alternative rural development programs to communities that are less dependent on coca for their livelihoods. In many coca clusters, the conditions have not been created to enable communities to join the program, renounce coca production and subsequently receive rural development assistance.

It should be noted that rural development can and has played a significant role in helping at least one country reduce and eventually eliminate opium production and marketing. Thailand successfully transitioned its entire hill tribe population out of poppy production, in part through crop substitution, but primarily through a 30-year process involving investments in roads, communications, health, education,

and improvement of social services. This ultimately brought the hill tribe population out of its geographic, economic and social isolation and made it an integral part of Thai society. Over a much larger geographic area, Colombia must engage in a comparable process of comprehensive investment in rural areas if it wishes to emulate Thailand's success.<sup>45</sup>

## **Agriculture Sector Policy and Coca Reduction**

The USG is working effectively on policy issues with the technical levels of the Ministry of Agriculture and other parts of the GOC. There is general agreement over diagnoses of major policy issues and approaches to rural development at this technical level. The difficulty in bringing about changes that will support Alternative Development lies in the special interests created by long-standing protection regimes in the agriculture sector, the directed credit framework for agriculture which in practice limits the availability of credit for smallholders, the limited availability of good quality arable land to smallholders, and the ongoing practice of providing direct subsidies to crops and livestock contrary to Colombia's comparative advantages in agriculture. The MIDAS policy team's analyses are clear and unequivocal in this regard. There is no doubt that Colombia has substantial additional opportunities for growth of the agriculture sector, and particularly among smallholders, provided that it can bring about reforms that dismantle special protections, increase the availability of land to smallholders, reduce or eliminate inappropriate production subsidies, and increase access to agricultural credit for small farmers and ranchers.

Since the potential for success of alternative development and poverty reduction programs is greatly affected by the aggregate and sector policies of the GOC as they apply to the agriculture sector, we provide a number of observations here on policies which constrain efficient use of resources in agricultural development.

The major policy issues involve agricultural subsidies and protection, land tenure and land use, the relative cost of labor, the financial sector, and environment/forestry, all of which are directly relevant to alternative development. In each area, there are significant distortions.

- Agriculture: reform subsidy structure; distortions threaten smallholders.
- Land: A long-term effort is required to address land tenure and environmental/land use issues.
- Labor: Increase cost of capital relative to labor. The use of capital-intensive production techniques is strongly encouraged by the current cost structure in the formal economy. Labor market and capital market policies distort the true relative costs of labor and capital.
- Financial Sector: Pursue innovations, including cell-phone banking and the micro-finance revolution; reduce distortions in pricing risk and reform the agriculture financing structure.

We will begin with the issue of directed credit for agriculture. A successful alternative development program will depend upon the capacity of micro- and small enterprises and small farmers and ranchers to grow in newly secured communities. The universal complaint of small enterprises and small farmers is lack of access to credit. This critical ingredient for small enterprise growth, if not available, will slow down growth and job creation where it is needed most. Lack of credit for small enterprises is due to both the absence of banking structures in rural areas and the convoluted structure of financing, particularly for agriculture and processing of agricultural products. The description in the text box explains how financing for agriculture is captured by medium and large farms and ranches as a result of the existing structure for financing agriculture. Our conclusion is that the small farms and small enterprises in communities on and

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<sup>45</sup> See *Opium Reduction in Thailand 1970-2000, A Thirty-Year Journey*, by Ronald D. Renard, UNDCP, Silk Worm Books, 2001.

near the coca frontier will not be able to fulfill their potential for growth if this structure of agriculture financing is not reformed.

Microfinance has expanded rapidly in recent years and has been highly successful. Technical assistance has resulted in innovations in banking and successful microfinance operations, including operations in major banks such as Bancolombia and the Bank of Bogota. Micro-lending (loans less than 11 million pesos) has increased 10-fold to over 3 billion pesos, reaching hundreds of municipalities and thousands of new micro-enterprises. But, the question to be addressed is: Does microfinance constitute a remedy for the lack of access to credit for small farmers and ranchers?

Unfortunately, microcredit, even at the rate it is currently growing in Colombia, will not solve the structural problems in terms of access to finance faced by agriculture producers. Microfinance is an excellent mechanism for improving portfolio diversification, smoothing consumption and empowering groups of small borrowers. However, microfinance is still also primarily urban in Colombia, with limited reach in rural areas to date. In general,

microfinance is not well suited to the seasonal and long-term financing required for agriculture, and is not easily adapted to meet the special financing needs in agriculture.

Since many agricultural, ranching and agribusiness ventures require long-term financing, and in particular this is the case for some of the crops and ventures proposed as alternatives to illicit crops, there is a need for policies and mechanisms for making long-term financing available, above all in long-gestation crops, including forestry, rubber, cacao, and fruits.. This is important work in agriculture sector financing that can help set the stage for more successful alternative development programs.

With respect to good quality arable land, there is a major issue of land remaining in low-productivity uses in agriculture. This is a long-standing holdover from the past. There is still a need for mechanisms to prevent land taken illegally from being formally titled. In addition, restitution procedures need to be further improved. These are important steps in the complex area of land market policy. Attempts to bring about land reform will surely be resisted by those who benefit from the current system of land tenure. Since land is taxed at low rates, the owners of good quality arable land have almost no incentive to switch

#### THE FINANCING CYCLE FOR AGRICULTURE (AND INDIRECTLY THE PUBLIC TREASURY)

Private and public banks, insurance companies, pension funds, etc. mobilize funds from private savings and contributions. The system also includes public funds from the treasury (about \$250 million) from Agro Ingreso Seguro to subsidize interest rates.

These financial institutions are required to invest 6.5% of their deposits in FINAGRO bonds at below market rates. MIDAS policy team analyses indicate that these forced investments increase intermediation margins by 30%.

FINAGRO places funds in Banco Agrario. Banco Agrario intermediates 60% of FINAGRO funds. About 70% of these funds are allocated to small farmers, including beneficiaries of Acción Social's alternative development program. All of the resources allocated to small farmers have public guarantees that vary between 80% and 100%. 60% of Banco Agrario's loans and 45% of FINAGRO's loans are used to purchase livestock.

Banco Agrario invests in agriculture and provides ICR (agricultural loan subsidy). Banco Agrario's credit portfolio is \$3 billion. Of this amount, about 70% is allocated to agriculture (mostly cattle purchases) and the remaining 30% to housing and urban activities such as retail trade. ICR is an incentive created in theory to promote a more capital intensive agriculture. ICR is paid out by the Ministry of Agriculture directly to financial institutions and it can be up to 40% of the value of the loan taken out to fund fixed assets. However, ICR is used mainly to fund livestock purchases and sometimes to pay for working capital.

Banco Agrario invests the bulk of its funds in Treasury bonds because it cannot or does not reach smallholders. Banco Agrario has \$5 billion in investments and \$3 billion in loans. Of the \$5 billion, \$4 billion are placed in treasury bonds. This is the result of a combination of factors. As pointed out, the bank is mostly owned by FOGAFIN (equivalent of FDIC) which is risk averse. In addition, the bank's products do not answer to market needs. The bank's smallest loan is about \$2500 to cover all the transactions and administrative costs, whereas credit demand is usually for smaller loans. Also loan repayment structures are inadequate.

As a result of the structure described above, we can conclude that private savings and contributions end up buying treasury bonds and subsidizing lending to big and possibly medium-size farmers and ranchers (loans are \$2500 or larger). Furthermore, the structure of loans leads to an inefficient allocation of resources to land-intensive livestock activities.

Ultimate consequence of this financing structure: smallholders do not have the access to credit they require improving their operations and expanding output. As a result, **inequality in the agricultural sector probably becomes worse** or, in the best possible case, does not change.

to more labor-intensive uses or to lease or sell their land. As a consequence, the market for land suffers from a low supply of land for lease or sale, in part because it is so inexpensive to hold onto land. The land market fails to allocate land to its most productive uses in the agriculture sector. Given the centrality of land issues to alternative development, this is clearly a key area for long-term policy, regulatory reform and institutional strengthening.

Another important aspect of land issues is the environmental impact of land use practices. One important reform in this area is the Payment for Environmental Services (PSA) schemes to promote payment for conservation and protection of natural forests, with emphasis on Afro-Colombian /indigenous collective territories. This type of reform will create new licit income opportunities for communities in coca growing areas. This is the kind of reform that should be pursued to achieve a sharper focus on the policy issues affecting the success of alternative development projects, activities and investments.

Regarding labor, there is a critical issue of the cost of labor in comparison with the cost of capital in Colombia. The taxes on employers which increase the cost of labor and the subsidies businesses receive which reduce the cost of capital are such that the use of labor is discouraged and the use of capital is encouraged. As a result, businesses use too little labor and too much capital. This is a drag on the economy and results in a higher than necessary rate of unemployment. The resulting weak demand for labor in the formal economy means that more labor than necessary has remained in rural areas, primarily underemployed in agriculture.

Other examples of policies which distort agricultural development in Colombia include the existing protection regimes for specific crops and Colombia's system of direct subsidies to crops and livestock contrary to Colombia's comparative advantages in agriculture. The reader is referred to the publications of the MIDAS policy team, the World Bank and other sources for extensive analysis of these and other policies and their effects.<sup>46</sup>

As Colombia prepares to issue a new National Development Strategy in 2010, there is an opportunity at this moment to introduce analyses of these issues in a serious manner into the planning process. Progress in removing the barriers to labor-intensive agricultural development would go a long way toward expanding opportunities for poor rural populations, creating the type of growth conditions that led many years ago in Colombia to development of the coffee sector and could lead in the coming decade to rapid growth of fruits, vegetables and other labor-intensive crops. This would greatly facilitate the success of alternative development efforts in Colombia, just as the resumption of robust economic growth in this decade (following the economic bust of the late 90's) facilitated the success that PC achieved in increasing security, expanding state presence, and displacing coca production to the benefit of tens of thousands of Colombian households.

## **The Balloon Effect**

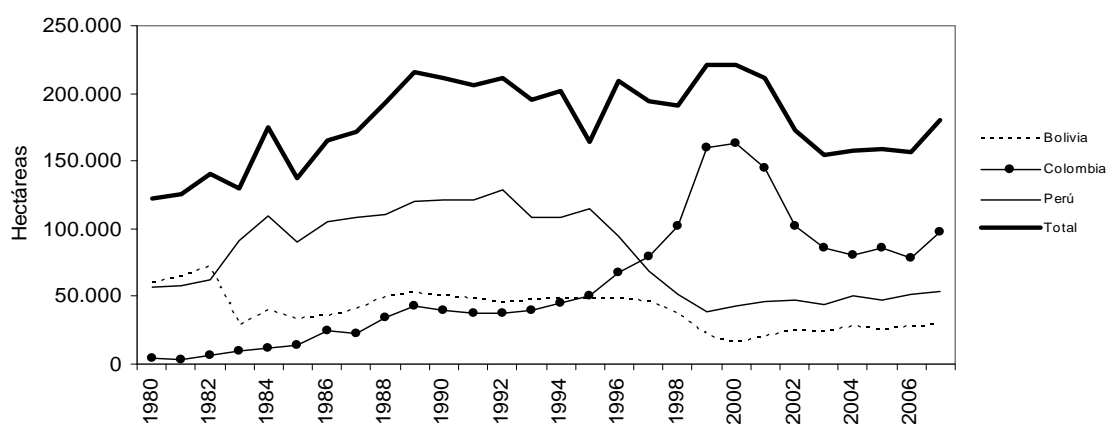
The spatial dynamics of coca cultivation simulate a so-called "balloon effect"; when coca production is suppressed in one location, it moves to another. In the 1990s the term "balloon effect" was coined to describe the migration of coca cultivation from Peru and Bolivia to Colombia (Figure 1). This effect is typically attributed to the policy of crop eradication, but in practice the successful elimination of coca cultivation is usually the result of a combination of instruments used. For example: investments in infrastructure facilitate interdiction; security improvements may displace illegally armed groups;

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<sup>46</sup>World Bank, "Colombia: Agricultural and Rural Competitiveness," Report No. 27523-CO, December 19, 2003 and USAID, "Una Perspectiva de la Competitividad Agricola de Colombia," Agosto, 2008 and USAID, "Una Perspectiva de la Competitividad Forestal de Colombia," Agosto, 2008.

productive projects could introduce a cultural shift in favor of legality; and coca production could move away to more favorable sites. Programs can sometimes also have adverse side effects that planners need to be aware of such as farmers growing coca to become eligible for programs (interviews and focus groups reported this occurring for the first crop substitution programs in the southern portion of Colombia), or farmers increasing the area planted in coca to mitigate the risks and effects of crop spraying.

**Graph 6. Hectares of coca in the Andean Region**

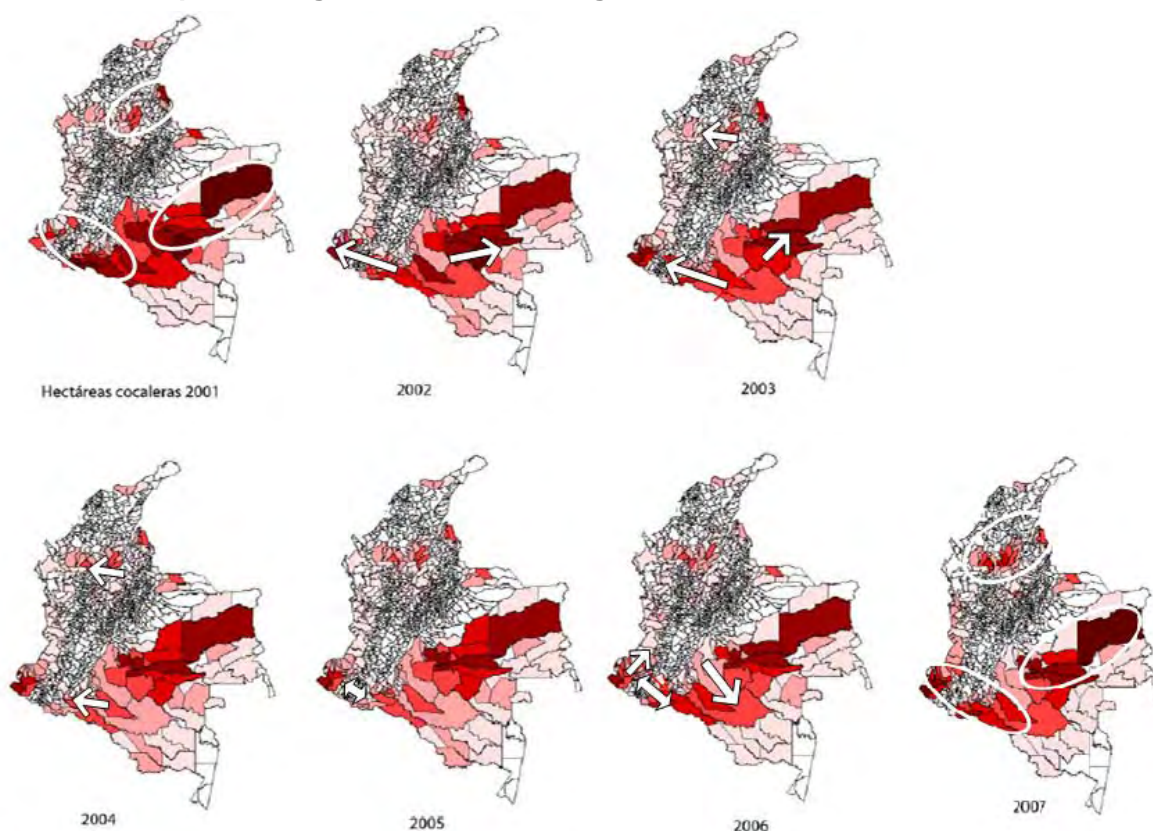


Source: UNODC (2008b). Elaborated by the authors.

In Colombia, the dynamics of coca cultivation reflect a trend that combines spatial clustering and spread effects, including the use and abandonment of native forests, and deforestation from cultivation in new settlements (Map 1). In 2007, 36% of the country's 99,000 hectares of coca crops were located in 10 municipalities, 4% were located in national parks, and 49% were in newly cleared areas (UNODC, 2008). Moreover, over the last decade, coca cultivation has affected an area close to half a million hectares, of which 21% involved the destruction of primary forests with consequent deterioration of the environment, and the remaining 79% is on land opened up by settlement. If the proximity of other plots were taken into consideration, the area affected by coca would reach close to 12 million hectares (UNODC, 2008).

The spatial dynamics of coca production in Colombian is clearly depicted by comparing municipal-level maps from 2001 to 2007 (Map 5). According to the municipal-level maps, the most important clusters of coca crops in 2001 were in Putumayo, Guaviare, Caquetá, Meta, Los Santanderes, Nariño, Vichada and Bolívar. While the majority of these departments continued to be important coca clusters in 2007, there have been changes in the distribution of coca crops, including the rise of coca cultivation in Antioquia and Córdoba from 2003 onwards, and the refocusing of coca growing efforts in Nariño and Vichada due to the migration of cultivation from Putumayo and Meta-Guaviare respectively.

**Map 5. Change in coca cultivating areas in Colombia, 2001-2007**



Source: UNODC (2008b). Assembled by the authors

In order to more adequately explain the above-mentioned trends, we performed an econometric analysis (see Annex VI for a detailed presentation of the approach and findings) using municipal-level data for 2005 through 2007, to calculate the impact of Plan Colombia programs on the spread and intensity of coca cultivation. Statistical tests validated the appropriateness of the equation that was utilized. The data included the number of hectares of coca, the presence of spraying operations, the presence of operations undertaken by the armed forces, the presence of alternative development projects, and the percentage of the population vulnerable to work in coca production (because they have the same social and economic characteristics as coca growers).

The results of models prepared for the country as a whole and unbundled into five regions demonstrate the existence of both a spreading of the crops to neighboring municipalities and a concentration of the crops, depending upon the region.

Based upon the presence of programs of spraying, interdiction, alternative development, reduction of rural poverty (vulnerability) and/or all others (a comprehensive set of programs); the model allows us to infer whether or not a program helps to mitigate the dynamics of the dominant process in a region (spreading or clustering). The results show whether or not it is advisable to make use of a program exclusively; which does not necessarily rule it out since it could still be implemented in different combinations with other programs.

On a national scale, the dynamics of spreading predominate. The spread effect dominates as well, but with somewhat less intensity, in the Central and Southern regions. To the contrary, crops tend to cluster, rather than spread, in the Pacific and Eastern regions.



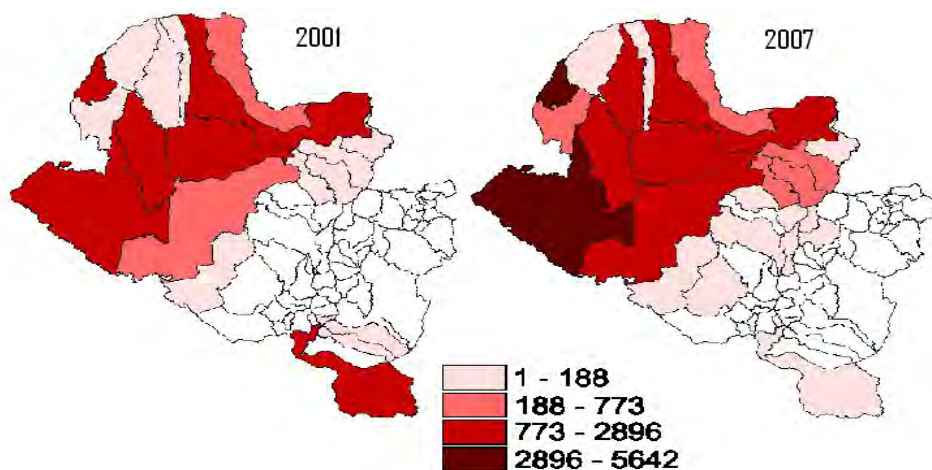
The impact of programs on the spreading or clustering of production differ when applied exclusively or as part of a comprehensive approach. At a national level, the stand-alone implementation of programs does not seem to produce many differences. This means that favoring the exclusive use of one program over all other programs to control the cultivation of coca will not alter the national pattern of spread. However, when programs are implemented jointly; they appear to be more effective in combating spreading. That said, the national-level results may be subject to estimation bias, thus requiring a review of the results at a regional level, as follows.

In the case of the Pacific region (Cauca, Valle and Chocó), the phenomenon of agglomeration or formation of coca clusters prevails, although this is in an early stage. This is the result of the recent introduction of crops and the geography where arable land is found across a wide strip of the coast. There, a stand-alone program to decrease vulnerability to working in coca would be the least effective way in which to combat the clustering of coca.

Something similar occurs for the results in the Eastern region, comprising the departments of Meta, Guaviare, Vichada, Arauca, Vaupés and Guainía, but with greater intensity. There, interdiction and spraying programs would contribute the least to clustering while a comprehensive set of programs would exacerbate it.

On the other hand, the Southern Region (Nariño, Putumayo and Caquetá) shows a clear trend towards crop dispersion or spreading, rather than clustering, with a stronger tendency toward spreading than in any other region. There, any strategy tends to worsen the spreading of coca, except for the comprehensive set of programs. As an example of this, according to interviews and focus group reports, the earliest pioneering AD efforts in Nariño had the perverse effect of increasing the spread of coca cultivation as people attempted to qualify as beneficiaries of AD programs. In addition, Nariño has recently experienced a migration of crops as a result of the program in Putumayo that relied primarily on spraying.

**Map 6. Map of the 2 areas of coca cultivation in Nariño in 2001 and 2007**



Source: UNODC. Assembled by the authors.

The eastern and southern regions certainly offer advantages for the cultivation of coca due to their biophysical state (soils, climate and hydrography), isolation, size and lack of state presence (infrastructure and security). In addition, most municipalities in these regions are located in fragile ecosystems subject to economic exploitation and intense migration of rural populations expelled due to conflict and marginalization from economic and social progress.

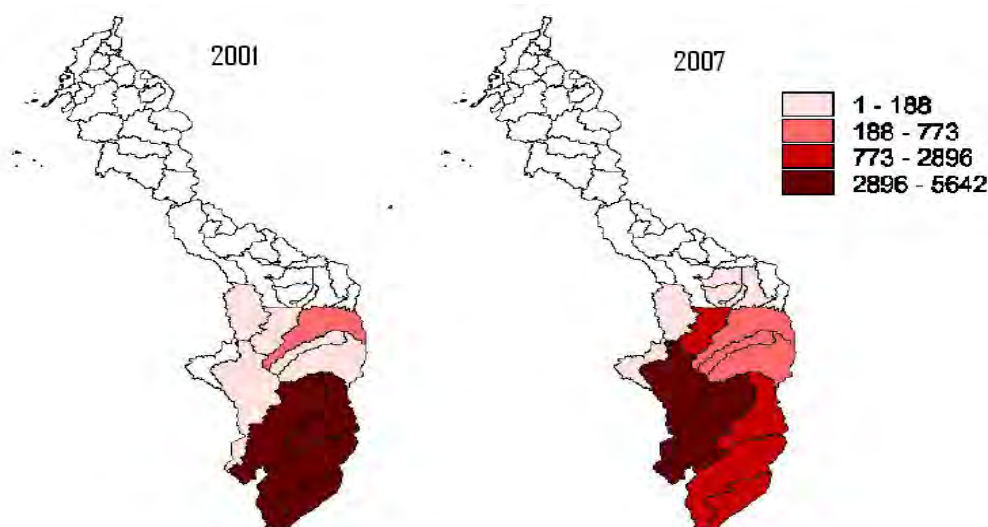
The unique conditions of the agricultural frontier make program implementation difficult, lessening their effectiveness and occasionally causing perverse results. For example, alternative development and the reduction of rural poverty could encourage the consolidation of coca settlements; spraying could increase rejection of the state, and increase sympathy for the insurgency.

The considerations cited above have weighed heavily on the implementation of PC programs targeting illegal crops. In fact, while MIDAS and ADAM operate in Nariño and the northern part of Putumayo, they do not operate in the rest of the southern region or in the eastern region due to the adverse security conditions and unfavorable business environment. At the same time, Acción Social's alternative development programs have also intervened only marginally due to the presence of coca (which must be eradicated by a community before Acción Social will intervene) and environmental concerns (DNP, 2003). These regions, along with the existing nature reserves, could constitute an extensive environmental reserve area with substantial economic potential from the sales of CO<sub>2</sub> allowances to international green markets (Carbon Dioxide Capture) (Cano, 2002).

Most of the central region, the most extensive and diverse, lies in the Andean region, locations that are considered to be part of the internal agricultural frontier. The results are similar to those of the aggregate national results; and the tendency for the spread of coca cultivation diminishes when it is split into two sub-regions: Middle Center and the Remaining Center. There, a program made up of interdiction and spraying would appear to be more effective than one that is exclusively based on alternative development and reduction of poverty. For example, the case study of coca in the south of Bolívar shows how the "balloon effect" results in the spreading of coca to neighboring municipalities even with the simultaneous implementation of all programs, without it being obvious how these programs could have contributed to controlling the spread.

The preceding paragraph underlines the conclusion that we cannot identify *a priori* a single optimum program or set of programs to best halt the phenomena of spreading and clustering of coca. Instead, the decision about the combination of programs to be applied must take into account local conditions, as well as assessing the possibility of producing unintended perverse results.

**Map 7. Map of the 3 areas of coca cultivation in Bolívar in 2001 and 2007**



Source: UNODC. Assembled by the authors.



## Conclusions

The migration of coca throughout the national territory is dominated by a pattern of spreading, which when analyzed at a regional level, is the pattern observed in the south and center regions, albeit at a lower intensity than nationally. Similarly, it is possible to see the beginnings of a clustering phenomenon in the Pacific region and also, with greater intensity, clustering in the Eastern region.

Up until now, programs have had an impact on the dynamics of spreading and clustering, but without establishing any clear national trends. A comprehensive set of programs appears to contribute least to spreading, as seen most obviously in the southern region. However, this result cannot be generalized, since the reduction of poverty in the Pacific appears to mitigate clustering there, whereas spraying and interdiction do so in the East. On the other hand, when the Central region is broken down into two subregions, the results no longer favor a comprehensive set of programs to combat spreading and instead point to interdiction and spraying. This reinforces the conclusion that the spatial dynamics of coca are a local phenomenon and there is no generalized pattern.

Programs to alter the spatial dynamics of coca will depend for their success on extensive planning and close coordination of program implementation as opposed to simultaneous, but uncoordinated programs. The case study for Nariño showed the unintended consequences of eradicating coca in Putumayo and the subsequent spread of coca cultivation in the Pacific. Similarly, the case study in Bolívar, showed how uncoordinated programs can produce the unintended effect of the spread of coca to neighboring areas in the region.

Nonetheless, the planned and synchronized implementation of a CN strategy at the local level requires an infrastructure and a set of logistics much more complex and in place over a longer period of time than the CN strategy being carried out by PC calls for. Many lessons can be learned from the joint ventures of USAID- Acción Social and from production projects that rely upon voluntary eradication. In fact, the departmental governments should be called upon to lead a new wave of regional initiatives, such as Nariño is planning on doing; and in a way that Bolívar has never done.

In the future, a strategy based on a more comprehensive, coordinated and mutually supportive set of programs could eventually reduce coca cultivation in Colombia to its much smaller scale of the 1980's. However, the persistent increase of global demand without regional coordination of policies and programs could still make coca producing countries vulnerable to rebounds in production. Eventually, this could reverse the spreading that resulted from the initial successes of Peru and Bolivia, but with unwanted consequences such as social and economic destabilization in those two countries.

Regarding the above, it is already possible to notice some symptoms. The coca areas of Peru and Bolivia have rebounded by 21 thousand hectares since the beginning of PC. Furthermore, confiscation of illegal drugs has increased in transit and neighboring countries, as well as incidents of associated violence. At the same time, diplomatic friction has grown between Colombia and its neighboring countries due to the search for illegally armed groups' sanctuaries and drug traffickers in the fight against the internal persecution, intimidation and corruption fomented by both groups. Looking to the future, the GOC and USG face formidable diplomatic challenges in promoting more effective coordination of regional policies.

## Final Observations on Rural Development, Alternative Development and Agricultural Policy

Plan Colombia's rural development efforts are succeeding in zones where low levels of violence have permitted the implementation of the market-led agricultural development model exemplified by the Fintrac-implemented program in Honduras described above. However, at the same time, the mobility of coca has permitted the coca industry to adapt to the loss of the communities and zones where AD is succeeding.

As described above in this section, AD programs have reached several hundred thousand beneficiary families. At the same time, however, PC has intervened in only limited portions of significant coca growing areas in the southern and eastern regions of the country. In addition, PC has not succeeded in stopping the spread of coca cultivation in South of Bolivar, despite having implemented a comprehensive program there and achieving notable successes in participating communities. As the econometric analysis demonstrates (see the Balloon Effect section above), coca has also shifted into the Pacific region following substantial eradication of coca in northern Putumayo. The overall national trend under PC was an initial rapid reduction in coca area from 2001 to 2004 followed by increases thereafter even as AD programs became more effective over time in the areas where they were implemented.

To date, no generalizations emerge from the data supporting any particular approach or program type (spraying, interdiction, AD, reduction of vulnerability or poverty reduction) as being clearly more effective in arresting the growth of coca area, whether that occurs through the formation of coca clusters or through the spread of coca to other locations. The only exception to this statement appears to be the somewhat greater effectiveness of simultaneous implementation of spraying, interdiction, AD and poverty reduction programs.

The fact that rural development programs, as a part of AD, have provided benefits for several hundred thousand families, and appear to be steadily improving in design and implementation, coupled with the observation that coca area has nonetheless been increasing in recent years rather than declining, strongly suggests that while AD is working, it has been limited to areas that are less critical to achieving the objective of reducing overall coca production. The econometric finding that no single approach dominates in terms of effectiveness suggests further that a new strategy is required, with comprehensive, closely coordinated and flexible programming as its hallmark, adapted to local conditions, and responsive to the market. A new strategy with these characteristics should be the basis for focusing resources more directly on significant coca growing areas in a way that will also inhibit the "balloon effect" that has thwarted the national effort to reduce the area devoted to coca.

Concurrently, agricultural and related policies in Colombia are failing to address rural poverty and failing to stimulate smallholder production in a large number of profitable crops, i.e. crops in which Colombia enjoys a strong comparative advantage. As a result, continuing rural poverty and a high degree of income inequality in Colombia creates conditions in many rural areas in which coca, whether engaged in by choice or by coercion, is the only significant means of livelihood for many poor Colombian peasants.

Coca production will adapt and move, as it has for many years now, conditioned by the general lack of opportunity in the rural economy. Stagnation of the *campesino* agricultural economy, in contrast with the recent robust growth in the urban economy, means there will continue to be limited opportunities for the rural poor in agriculture outside of the coca subsector. Until such time as Colombia reforms its agriculture sector policies to create more attractive income opportunities for *campesinos* and expands its state

presence more effectively in the existing coca clusters and potential coca growing areas of Colombia, the coca industry will continue to find somewhere to produce.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

#### PC Performance

Plan Colombia has achieved significant advances. Its greatest accomplishment has been the dramatic improvements in security in the country and the suppression of violent belligerent groups, including the FARC, the ELN, and paramilitary groups. Achieving widespread security is a vital step toward the success of CN policies. Another important accomplishment has been the reduction of opium poppy cultivation, meeting the PC target of a 50% reduction. However, it has not met its goal for a similar reduction of coca cultivation and cocaine production.

PC has had localized successes in eliminating coca cultivation. The area of coca production during the first half of the current decade was reduced. However, since 2004 the area cultivated has partially rebounded although there has been a 24% reduction in the estimated production of cocaine over the period 2001-2007. Coca farmers have sought to mitigate the effects of spraying and interdiction by various means, including replanting and a shift to cultivating on smaller plots.

The cooperation of the USG allowed the GOC to modernize its security and justice systems, and to augment their alternative development and humanitarian assistance programs. The implementation of PC required a major fiscal effort on the part of the GOC in the budget categories of Defense and Security, Justice, Alternative Development (AD) and Victims of Conflict. The GOC significantly increased its spending in these categories. This demonstrates GOC political will to implement PC. With U.S. assistance, Colombia was able to reduce the indices of crime nationally, augment the regional presence of the state, and repel illegally armed groups.

The role of state presence throughout Colombia is crucial for the success of CN efforts. The lack of strong government has been a leading cause of Colombia's difficulties because illegal activities flourish in areas outside state control. While overall security has improved greatly throughout the country, it nonetheless remains tenuous in many parts of the country, especially in rural areas. Although unlike in the 1990s and early 2000s, these areas are more and more isolated pockets, rather than contiguous swaths of territory, they are, nonetheless, still widespread.

Economic reforms achieved under PC greatly improved the business climate, allowing the domestic economy to take advantage of the expansion of the global economy, increasing international commerce and attracting greater foreign investment. Nonetheless, the dramatic macroeconomic improvements have not been translated into significant reductions in the deep and persisting poverty of the rural areas or into reductions in substantial inequality.

Plan Colombia has become increasingly better at promoting sustainable alternative development. Significant applied learning has occurred since the initial projects launched under PC.

The inflexible application of the "zero illicit crops" policy of the Colombian government is an obstacle to economic development of the coca-afflicted areas. Although the policy is designed to enforce a culture of legality, the policy in practice prevents Colombian government institutions and the USG from providing the necessary assistance for coca farmers to switch to and remain in legal livelihoods. The Macarena case

points to the willingness of GOC agencies under some circumstances to suspend the application of the ‘zero illicit’ policy when other considerations such as success in securing a region enter into the calculus.

## **Bases for a New Strategy**

**What the Data Tell Us:** The econometric simulations carried out by the team showed that increasing each one of the CN programs, interdiction, eradication, reducing the vulnerability of a population and alternative development would reduce coca production. However, the largest effect in the simulation was produced by a simultaneous increase in all four programs, pointing to the importance of using an integrated approach rather than relying on a single program. An integrated program creates synergies that contribute to controlling illegal crops. The positive effect of these synergies is lost when the focus is on a single program. Furthermore, the regional differences within each of the simulation scenarios showed that locally each program or combination of programs had different results corresponding to the different characteristics of each region. Accordingly, CN program design will need to be adapted to address regional differences.

**Lessons from Reduction of Poppy Cultivation:** There are several lessons to be drawn from the successful reduction of opium poppy cultivation that can be applied to controlling the cultivation of coca.

Poppy grows where greater economic and social progress has been achieved and where the presence of the state has been more evident. Therefore, disincentive policies such as aerial spraying and manual eradication appear to have tipped the scales in favor of the legal economy. Small land holdings and a better system of property titling have also increased the risk for poppy producers that their property may be seized.

These findings for poppy suggest that in order to achieve better results in the control of coca, there should be a comprehensive approach to promote greater economic and social progress (comparable to poppy-growing areas) through AD broadly defined, but still accompanied by the punitive measures of aerial spraying, manual eradication, and land seizures. The comprehensive approach should include institutional strengthening, productive projects and investments in infrastructure, all supported by the participation of local communities.

**Potential for Positive Change:** Potential *cocaleros* are willing to engage in livelihoods with more modest incomes, provided that there is greater security, adequate technical support for alternative crops, and access to financial services. Many coca farmers are eager to abandon coca cultivation: they desire to escape the insecurity that coca brings, such as pulling in brutal armed groups and crime organizations. They face significantly negative economic repercussions due to aerial and manual eradication. To accomplish this switch, they need to have adequate short-term and long term legal opportunities including a guarantee of food security and access to markets for what they produce. If these opportunities are not present, they are likely to revert to planting coca in their current locations or moving to areas that are not being eradicated, contributing to the ‘balloon effect’.

**Community Solidarity:** Research supports indications from our field studies that community solidarity can contribute significantly to the willingness of coca farmers to end coca cultivation. If there is sufficient community solidarity, farmers can fend off pressures to grow coca and ensure local commitment to alternative livelihoods. ADAM’s work in promoting citizen involvement in local government is one mechanism that has reinforced this sense of community. Assisting local governments as ADAM has done to improve their capacity for service delivery would be another element in generating greater community support for CN activities. Developing the legally mandated mechanisms for citizen and local government involvement in supporting community policing efforts would also contribute to CN effectiveness.

**Measurement:** Current measures of CN programs do not adequately demonstrate the impact of those programs. We therefore believe that the effectiveness of CN policies should be measured and presented as a multi-year time-series composite measure that includes at least the following components: 1) the numbers of hectares cultivated with illicit crops, 2) the numbers of hectares eradicated, 3) the numbers of municipalities free from illicit crop cultivation, 4) the percentage of the size of the illicit economy per GDP and per the size of the economy in every subnational region, 5) human development indicators of illicit crop farmers and populations vulnerable to illicit crop cultivation, and 6) the availability to illicit crop farmers of comprehensive licit livelihoods resources.

**The Balloon Effect:** In Colombia, the dynamics of coca cultivation reflect a trend that combines spatial clustering and spread effects, including the use and abandonment of native forests, and deforestation from cultivation in new settlements. In 2007, 36% of the country's 99,000 hectares of coca crops were located in 10 municipalities, 4% were located in national parks, and 49% were in newly cleared areas (UNODC, 2008). Moreover, over the last decade, coca cultivation has affected an area close to half a million hectares, of which 21% involved the destruction of primary forests, and the remaining 79% is on land opened up by settlement.<sup>47</sup> Destruction of forests is but one of the many ways that drug cultivation and production contributes to degrading the environment.

Programs to alter the spatial dynamics of coca will depend for their success on extensive planning and close coordination of program implementation as opposed to simultaneous, but uncoordinated programs. The case study for Nariño showed the unintended consequences of eradicating coca in Putumayo and the subsequent spread of coca cultivation in the Pacific. Similarly, the case study in Bolívar showed how uncoordinated programs can produce the unintended effect of the spread of coca to neighboring areas in the region.

Many lessons can be learned from the joint ventures of USAID- Acción Social and from production projects that rely upon voluntary eradication. The departmental governments should be called upon to lead a new wave of regional initiatives in cooperation and coordination with national government efforts, such as the one Nariño is developing.

**Regional Context:** In the future, a strategy based on a more comprehensive, coordinated, and mutually supportive set of programs could eventually reduce coca cultivation in Colombia to the much smaller scale of the 1980's. However, a persistent increase of global demand without regional coordination of policies and programs could still make coca producing countries vulnerable to rebounds in production. Eventually, this could reverse the spreading that resulted from the initial successes of Peru and Bolivia, but with unwanted consequences such as social and economic destabilization in those two countries.

## Nature of the Approach

Based on the findings in this report, the team believes that a revised approach to implementing CN needs to be considered. That approach should take into account the advantages of integrating all elements of CN programming; focusing on several key coca growing areas, involving communities and local governments as elements of the approach and recognizing the need for promoting agricultural and other economic policy changes to maximize its impact.

As already noted, PC has achieved localized successes under the strategic approach that has been adopted. However, we believe that there are two major reasons for adopting a more targeted and comprehensive

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<sup>47</sup> UNODC (2008) Análisis multitemporal de cultivos de coca período 2001-2006, enero de 2008. Available at <http://www.unodc.org/colombia/es/office.html>.

approach, even though such an approach will almost certainly entail higher costs and greater risk. First, the mobility of the coca industry (“the balloon effect”) is such that general increases in prosperity and job creation achieved under PC have not markedly reduced the capacity of the coca industry to supply cocaine to world markets. Second, the increased capacity of Colombia’s private financial sector and private businesses should reduce the need for external financing and technical assistance among less vulnerable urban populations. A more direct strategic approach will seek to reduce coca production in growing areas among populations that have not yet agreed to eradicate their coca and comply with the “zero illicit crops” policy.

The data suggest that there are 794 thousand inhabitants in coca municipalities vulnerable to coca, out of a total of 5.1 million people. This is equivalent to 15% of the total population of the coca municipalities or 1.8% of the population of Colombia. Reducing vulnerability to coca implies increasing the consumption levels for 179,000 families by as much as US \$292 million annually in the short-term, and US \$460 million in the long-term. Given resource limitations, this suggests an approach that focuses on a limited set of coca clusters.

If a comprehensive approach is effectively implemented in communities in coca growing areas, the project investments, both AD and private sector development projects, could be just as successful and sustainable as those currently being carried out under PC. The costs per community and per beneficiary will undoubtedly be higher in coca growing areas, but the possibility of reducing coca production should also be greater. Success there will depend not just upon AD projects, but will require a broad set of interventions and investments, for example, in the necessary infrastructure to secure access to markets. This strategy needs to select its targets carefully since not all coca growing areas provide opportunities for linkages to markets.

**Agricultural Potential for Alternative Development Programs:** A comprehensive approach needs to continue the work of MIDAS to address economic policy constraints, focusing on rural development. Colombia is highly competitive in agriculture across a wide range of crops and forest products. Colombia has substantial additional opportunities for growth of the agriculture sector, and particularly among smallholders, provided that it can bring about reforms that dismantle special protections, increase the availability of land to smallholders, reduce or eliminate inappropriate production subsidies, and increase access to agricultural credit for small farmers and ranchers. This is a task that requires building the necessary political will within the GOC.

Removing the barriers to labor-intensive agricultural development would go a long way toward expanding opportunities for poor rural populations, creating the type of growth conditions that could lead to rapid growth of fruits, vegetables and other labor-intensive crops. This would greatly facilitate the success of alternative development efforts in Colombia.

A strategy based on a more comprehensive, coordinated and mutually supportive set of programs could eventually reduce coca cultivation in Colombia to its much smaller scale of the 1980’s.

## Recommendations for a Future Strategy

To implement the proposed strategy, we would make the following recommendations:

- Focus on Coca Clusters to demonstrate the liberation of three manageable priority clusters from the coca economy in a sustainable manner using a coordinated package of interventions that the GOC can replicate elsewhere.
- Establish twin goals for the targeted cluster-focused program, which should be:

- 1) to expand the number of participating communities where coca cultivation and trafficking is no longer tolerated, and
- 2) for the GOC, to take ownership of the program within five years.
- Within each cluster:
  - Utilize in a coordinated manner all of the CN programmatic tools: eradication, enhanced state security and law enforcement presence, interdiction, alternative development and reducing the vulnerability of targeted populations, including in the mix short term efforts at ensuring food security as well as longer term efforts to develop marketable licit economic activities.
  - Increase state presence to enhance government provision of services and encourage citizen participation in prioritization and oversight of services delivered in order to promote greater transparency and accountability of local government.
  - Ensure greater coordination between police and local authorities to develop a community-based policing operation supported by local inhabitants.
  - Strengthen local governance through greater citizen involvement in local government, including greater citizen involvement in planning and overseeing the operations of security efforts at the local level.
  - Invest in all aspects of the society's rural infrastructure necessary to ensure access to markets.
- In the overall CN program, engage in flexible use of all the program tools rather than reliance upon a single program approach, thus offering a long-term strategy to end the production of coca that is more likely to be successful.
- Mitigate the Balloon Effect through the GOC defining and identifying early indications of illegal activities in new areas around the coca clusters, and prepositioning tools for CN interventions.
- Prioritize Rural Development through an effort to foster policy changes to target the poorest citizens who are vulnerable to participating in the coca economy. This should include efforts by the GOC to:
  - Encourage the shift from extensive land use for cattle and grains to more economically valuable and labor-intensive crops such as fruits and vegetables, simultaneously reducing crop specific subsidies and protection which keep farmers in less-than-competitive crops.
  - Promote agricultural products in which Colombia has a comparative advantage.
  - Level the playing field for marginalized populations by reforming the agricultural credit system, continuing innovative programs to provide micro-finance in rural areas, and exploiting communication technology to increase market information for all farmers.
  - Reducing the cost of labor for employers while increasing the cost of capital in order to encourage the use of more labor and reduce the high unemployment rate.
  - Develop a public information campaign, based on clear analyses about the benefits from changing land use and crop patterns, to increase public support for reforms to agriculture and land use.

- Improve Asset Forfeiture and Expropriation Processes to address the vast amount of property involved. The understaffed asset forfeiture and expropriation process offices need assistance to enforce laws. This will decrease likelihood of fraud and corruption while reducing the profitability and financial incentives for the narcotics trade.
- For the GOC, provide Zero Illicit policy flexibility and pacing in order for AD to play an important role concurrently with eradication, increasing state presence and prepositioning of law enforcement. AD offers both licit options and assistance in conflict management as farmers' transition out of coca production.

In conclusion, effective and better-financed support to sustain governmental presence by the GOC would offer options to *cocaleros* who are currently enticed by greed, pushed by poverty, or who may be coerced by illegally armed groups to produce coca. Targeted, coordinated moves on the part of the GOC, along with the fundamental consolidation of security and effective government presence throughout the country, will advance CN efforts. AD and reforms to improve governance will solidify the government presence necessary to enhance confidence in the endurance and stability of the GOC throughout the country, and by extension offer sustainable alternatives to engaging in the coca economy.



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# ANNEX I. MACARENA CASE STUDY

## Introduction

This case study looked at the Plan for the Integrated Consolidation of the Macarena (PCIM) currently taking place in the Meta Department as an example of a ‘clear and hold’ strategy with a view towards judging its broader applicability to other parts of Colombia. Questions asked included: Given that state presence seems a crucial component of sustainable reduction in all forms of illegal behavior including coca cultivation, how can other efforts to increase state presence be brought to bear alongside eradication and alternative development to help make the crop reduction permanent? Can a “clear and hold” strategy such as PCIM be replicated on a larger scale in other selected key cultivation areas? The case study involved interviews with local authorities, farmers and knowledgeable individuals, focus groups of institutional representatives and community members in the field and secondary source document review.

## Context and Characterization

The department of Meta is located close to the geographic center of Colombia, East of the Andes, in the plain called Llanos. Only 55 miles (88 Km) away from Bogota, the municipality of Villavicencio, Meta’s capital, is connected through a paved and well maintained road. Meta has a projected population of 835,461 people as of 2008<sup>48</sup> in a total of 29 Municipalities. Meta receives its name from the river that crosses the department east-northeastward.

The PCIM area, the center of attention of this case study, is a sub-region in southwest Meta, comprised of six municipalities (21 percent of the department’s municipalities): San Juan de Arama, Mesetas, La Uribe, Puerto Rico, Vista Hermosa, and La Macarena with a total population of 100,487 people or 12% of the department.

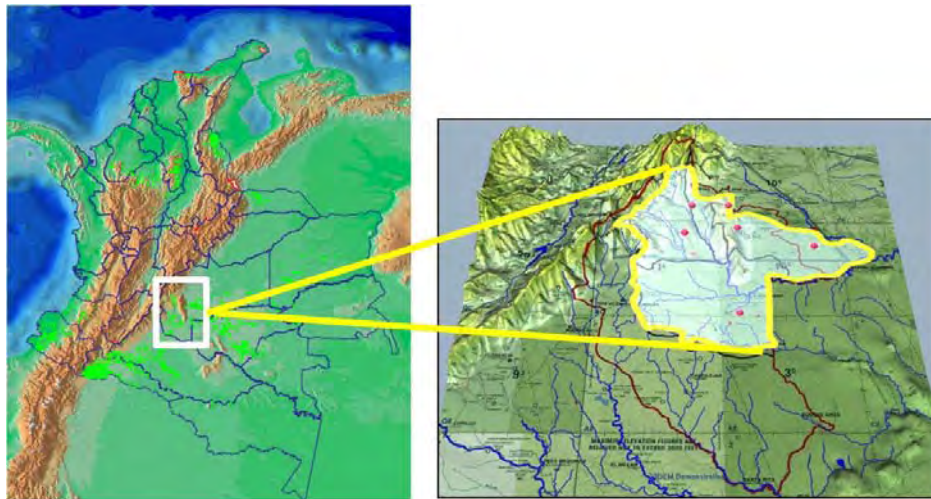
As part of the Orinoquía Region, Meta is oil rich and apt for extensive ranching. Meta is endowed with one of the world’s hot spots in terms of biodiversity and excellent soil, altitude, and climatic conditions for farming that are strengthened in nutrients by the confluence of various rivers including the Humea, Guatiquía, Arai, and Guayuriba.

The economy of the department is based on agriculture, livestock, trade, and industry. The most important crops are rice, African palm, banana, and corn, complimented by nontraditional crops including cacao, citrus fruits, passion fruit, yucca, papaya avocados and others. Fish farming is another important economic activity. The fish farms located in both rivers and artificial ponds produce commercial levels of bagre, blanquillo, bocachico and cachama . Besides a moderate level of extraction of petroleum and gas, the industry of the department is comprised of elaboration of soft drinks, extraction and refinement of palm oil, agroindustry, metalworking (tools and machines) and other products for the construction industry.



<sup>48</sup> DANE 2005

**Map 1 Location of the PCIM working area**



Source: PCIM 2008

Transportation and access to markets depends on the main paved road connecting principal municipalities with Bogota (total distance from Bogota to Vista Hermosa -one of the more remote municipalities of Macarena - is only 160 miles (257 Km)). The rest of the rural areas have a basic dirt road network that is in regular conditions and a fluvial transportation system that uses Puerto López and Puerto Gaitán as the main ports for passenger and produce transportation.

Migration to Meta was initially motivated by ranching/cattle raising interests, however, a series of violent events reshaped the region's population. Unplanned massive migration started with the “Guerra de los Mil Dias”, a civil war in Colombia between Liberals and Conservatives (1899-1902) that initiated with a liberal assault on Bucaramanga prompting a strong response by conservatives (in government under President Manuel Antonio Sanclemente). This resulted in thousands of liberals fleeing to the Macarena mountain range. A second unplanned migration took place in the late 1940s and early 1950s when thousands of peasants were expelled from the surrounding Andean areas as a result of land issues and went to colonize new fertile lands. Similarly, colonization of southern Macarena took place in the 1950s when several hundred rural families from the municipality of San Vicente del Caguán were expelled by the Colombian army and settled near the Macarena Park during the period known as La Violencia.

The first informal traces of FARC in Macarena date back to the 1950s when some of its founding members participated in the establishment of the so called “independent republics”. In the 1960's, the fleeing Liberals with Marxist-Leninist ideological orientation eventually formed the political basis for the FARC that recruited from displaced farmers who had started forming self-defense movements in the region.

As a result of the various factors described above and the failed response by the GOC's colonization process, coca appeared in Meta/Macarena in the late 1970s, after a series of other attempts to establish and operate long-term illegal activities in the area involving marijuana (Vista Hermosa and La Macarena) and even poppy in the 1950s and 1960s.

Macarena has since been heavily affected by guerrilla, military force response, coca cultivations, aerial spraying, displacement, environmental impacts and other serious problems which have made it a center of policy attention and an inexhaustible and constant source of journalistic headlines.<sup>49</sup>

### Policy Approach Taken and its Relevance

The Samper (1994-1998) and Pastrana (1998-2002) administrations' policy approaches in Macarena were successive efforts to pacify it via negotiation and compromise with intermittent military offensives.

President Andres Pastrana ended peace talks with the FARC in Feb 2002 and launched an offensive into Macarena without a clear result. Nevertheless, it started the continued military presence in the area which proved important for the gains made in the following six years.

Upon taking office in 2002/2003 the Uribe administration took a different policy approach under its Democratic Security and Defense doctrine, which radically reoriented the state's posture from negotiating to confronting its security challenges as the starting point to deal with drug trafficking and other criminal activity. President Uribe stated in a public appearance in 2003: "Once a basic level of security has been established, the State will embark upon a policy of territorial consolidation, re-establishing the normal operation of the justice system, strengthening local democracy, meeting the most urgent needs of the population, broadening state services and initiating medium to long term projects aimed at creating sustainable development".

The Macarena region was selected by the Uribe administration as a focal point for security and CN efforts early on -years before PCIM- because of the combination of the following elements:

- Macarena constituted a region with great operational, financial, and political value for the FARC;
- A victory in Macarena in any of the two fronts (security/CN) would have huge political dividends given the public attention to the area throughout the last several decades;
- The area has great development potential given its resource-rich communities, existing high-technology and high-input farming, and existing strong linkages with established markets;
- It is an enclave where interests easily converge thanks to the evident complex combination of insurgency and drug trafficking.

In 2003 Uribe started Plan Patriota largely concentrated in southern Colombia, which involved the Meta, Caquetá and Guaviare departments as the most important theaters of operations.<sup>50</sup> Plan Patriota was a military plan with three main components: military destruction of insurgent groups; establishment of military presence in the most remote areas of Colombia; and creation of an enabling environment for the introduction of social programs. Although the first tactical objective of the operation was not fully completed, notable advances against the guerrilla have been accomplished. The general approach followed the theoretical thinking later reflected in PCIM.

In terms of establishing military presence for example, in late 2004 and early 2005 the first army mobile brigade was located in the municipality of Puerto Rico, which had a symbolic and strategic importance for Macarena.

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<sup>49</sup> For example, La Macarena was one of the areas with high concentration of coca cultivations between 1999-2005; it was the war zone between FARC's Bloque Oriental and the Autodefensas' Bloque Centauros; and had four of the five *zona de distensión* municipalities or "demilitarized area" of 42.000 km<sup>2</sup> that the Pastrana administration surrendered to the FARC (1998-2002) to begin a peace process that failed four years later.

<sup>50</sup> It also included Putumayo and Nariño.

Between 2005 and 2006 illegal crops eradication in Macarena were the center of political debate due to the following factors. Two years into Plan Patriota guerrilla groups remained in Macarena National Park and its vicinity. Illegal crops were still rampant (the park alone had an estimated 4,500 hectares of coca scattered in innumerable small plots throughout a total area of 630,000 hectares) and given the park's environmental concerns, the only plausible approach was manual eradication. In December of 2005 the FARC launched a deadly attack against manual eradication brigades, which ignited the debate regarding whether to use aerial spraying in parks or not. Instead, the GOC launched a manual eradication/security offensive called Operation "Colombia Verde" involving the participation of some 1,000 hired coca-eradicators, protected by approx. 3,500 police and military elements. The GOC established territorial control in the area but at a high manpower and financial cost. Manual eradication in Macarena took a toll by having more than a dozen military personnel killed in rebel attacks just months after Colombia Verde started, which eventually prompted aerial bombardments against FARC positions in the park. After more eradicators died, the GOC conducted aerial spraying of coca crops in the Macarena area, but still relied more on manual eradication.

## Implementation, Performance, Results, and Impact

Recognizing that the strategic thinking behind the GOC policy approach<sup>51</sup> was valid and relevant, the Uribe administration identified early-on that "coordination" was the missing link for successful implementation of an integrated effort.

As a result, several consecutive attempts to improve coordination have been tried with varying degrees of results in terms of improving real coordination:

1. 2004: Plan Condor Coordination Meetings. Used more to showcase each participant organization's results and statistics, track results, and share information;
2. 2004: The Coordinating Center for Integrated Action (Centro de Coordinación de Acción Integral) (CCAI), a group of 15 institutions (police, military and 13 Ministries) under Acción Social co-located in a single office;
3. 2005: Given the lack of enhanced coordination –as measured by the number of actionable recommendations and initiatives coming out of CCAI- the Centro was divided in two committees, the Directors Committee (Comité Directivo) (initially meeting every eight days and now every 15 days) and an Operating Committee (Comité Operativo) with representatives of all member institutions that is supposed to "coordinate" on a permanent basis;
4. 2006: CCAI initiated the 'Godfathers' (Padrinos) mechanism for each identified region<sup>52</sup> to have one person concentrating on a region's issues on a permanent basis, charged with "making coordination work";
5. 2007: Plan for the Integrated Consolidation of Macarena (Plan de Consolidación Integral de La Macarena) (PCIM). Given that the real missing link was the operational capacity of the State (non-military) to consolidate GOC development presence in La Macarena, the PCIM became as an attempt, at the Vice Minister of Defense's initiative, to tap into USAID CN resources and implementation/delivery capacity in one "demonstration" region. To achieve the PCIM goals, the GOC formed the Integrated Fusion Center (Centro de Fusión Integral) based in Vista Hermosa

<sup>51</sup> Democratic Security doctrine

<sup>52</sup> In 2004 CCAI identified seven priority regions with an initial group of 68 municipalities: Sierra Nevada; Meta-Caqueta-Guaviare; Arauca; Tumaco; Sur de Choco; Norte de Cauca; Putumayo. Eventually the priority areas were expanded to 11 regions including Catatumbo; Tierra Alta, Valencia and others.



under the responsibility of the joint task force OMEGA and comprised of the Colombian army, navy, air force, police, civilian representatives and a prosecutor specialized in terrorism and related crimes. According to PCIM officials, one of the indicators of coordination is to have a physical office space (being built with US funding in Vista Hermosa) where “coordination” can occur.

6. 2008: As an operating tool for PCIM, several working groups (“Mesas de Trabajo”) have been established in order to have follow-up and continuum to CCAI/PCIM and Centro de Fusion meetings.

However, as much as institutions can meet through different coordination mechanisms, the problem was real action on the ground as the military increasingly realized that social demands were not being addressed in spite of efforts to include basic civic action components in annual military plans. In essence, civic action and/or immediate response interventions will always be incomplete if not complemented by more comprehensive medium and long-term efforts to meet social demands. The critical assumption behind this scenario is that coordination bodies –more so than processes- can compensate lack of delivery capacity on the part of the GOC, especially the Ministry of Agriculture as many of the pertinent/timely responses needed would have to come from this agency. Additionally, the assumption is that USAID’s project management capacity and limited available funding would compensate for GOC slow response.

Several parameters indicate that the implementation of the PCIM approach has been to some degree unbalanced in scope, commitment, funding and pace. On one hand, the police and military operations in the area have been multiyear and considerably comprehensive and sustained.<sup>53</sup> On the other hand, the police and military operations are not linked to the PCIM scope of six municipalities in Meta or to the PCIM planning process. In fact, with the exception of US-funded eradication and AD, the PCIM “integrated” effort does not prescribe the scope and activities of any of the other participant institutions;

PCIM seems considerably narrow and focused in terms of target municipalities and participating population to be considered a true regional effort (especially in the case of eradication and AD). Analyzed in terms of the existence of coca plantations and/or presence of insurgent groups, the “cluster” or “consolidation area” should include at least another half a dozen -if not ten- municipalities within the same PCIM area (e.g. San Martin and Granada) and eastward of the PCIM’s current theater of operations toward Guaviare department. No articulated technical and/or tactical selection criteria were found to justify the selection of the six PCIM municipalities other than funding limitations, Colombian Ministry of Defense (MOD) guidance, and tradition. The selection was influenced to a large extent by the fact that the same municipalities have been previously selected as focal points for policy implementation and case studies.<sup>54</sup>

Concomitantly, outside the military component, the eradication and AD interventions in the PCIM area are relatively small if looked at in context. As described previously, PCIM targets 21% of Meta’s municipalities, which in theory comprise approximately 12% of the department’s inhabitants. However, USAID-funded AD activities, which started only in 2007 (Colombia Responde) and 2008 (Progreso) and are currently active in 5 municipalities with Mesetas just starting, targeting directly only 1,850 beneficiaries which is 1.8% of the PCIM area’s population. Even if indirect beneficiaries were considered, it would still account only for 9% of the area’s people. It could be argued that the AD coverage in any intervention is always relatively small; however, if the purpose is “consolidation of an area”, then the territorial and population coverage could be more extensive.

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<sup>53</sup> Cost considerations are not necessary in the case of security and eradication given the costly nature of their activities and irrelevance of comparative analysis.

<sup>54</sup> E.g. Zona de Distencion; e.g. 2004 - PNUD/ Sweden cooperation agency ASDI - case study.

The support and commitment of Acción Social(AS) to PCIM is described by its own top officials as “on an as-needed basis”. With GOC and Dutch funding, Acción Social had been operating in Meta long before PCIM in and outside the six PCIM municipalities. In fact it is difficult to distinguish what changed in Acción Social’s implementation as a result of PCIM besides a modest expansion of the coverage of its ongoing activities. Through the Colombian Parks Unit (UAESPNN) interventions in the Macarena Park, Tinigua and Cordillera de los Picachos involves: relocation of 1,472 families under the Familias Guardabosques (FGB) mechanism. These were families already registered in 2006 (pre-PCIM). It also involves inclusion of 400 new families in Vista Hermosa; 550 families participating in Proyectos Productivos (PP) and food security (FS), and 140 families involved in coffee in San Vicente del Caguán.

Reportedly, Acción Social has invested \$8.5 million as part of PCIM through FGB; TA; PP; Grupos Móviles de Erradicación, with another \$1.25 million for apiculture, silvopastoril, cacao and African palm in Puerto Concordia, Puerto Rico and Vista Hermosa. USAID’s support for PCIM in direct small grants amounts to a commitment of approximately \$5 million (Colombia Responde approx. \$1 million and Progreso \$4 million). In order to have a perspective of this funding, the combined 2005 municipal budget of the six PCIM municipalities was \$20.6 million, of which approx. \$4-5 million were unearmarked funds for investment.

In 2006 and 2007 real gains against the FARC started to materialize throughout the country and the GOC and the military capitalized on efforts made in Macarena during the past five years. Nevertheless the initial emphasis on manual eradication was not sustained; by 2006 the number of eradicators went down to approximately 300.

**Table 1. Alternative Development Programs, PCIM**

Program	GOC			USAID
	PLANTE	FIP	PFGB	AD
Operator			Acción Social	CREA
Time Period	1998-2003	2001-2003	2007-2008	2007-2008
<b>1. Productive Activities</b>				
Families	1,685	829	849	n/a
Hectares	18	7	n/a	n/a
Value in Thousands US\$	4.7	2.1	2.4	1.2*
Description	rubber, cocoa, livestock, bananas, others	palm, fish, coffee, forestry	US \$5,700 per family for three years (2002-2005). Since 2005, US \$1,500 for 18 months and savings for PPP.	Agriculture, Productive Activities (Non-Agriculture)
<b>2. Other Activities</b>				
Families				
Value in Thousands US\$				
Description				Civil Society Support, Education, Health, Institutional Development, Media / Communications, Small Municipal Infrastructure, Socio-Cultural Activities, Water/Sanitation/Transportation
<b>3. Total</b>				
Families	1,685	829	849	n/a
Totals in Thousands US\$	4.7	2.1	2.4	4.1*

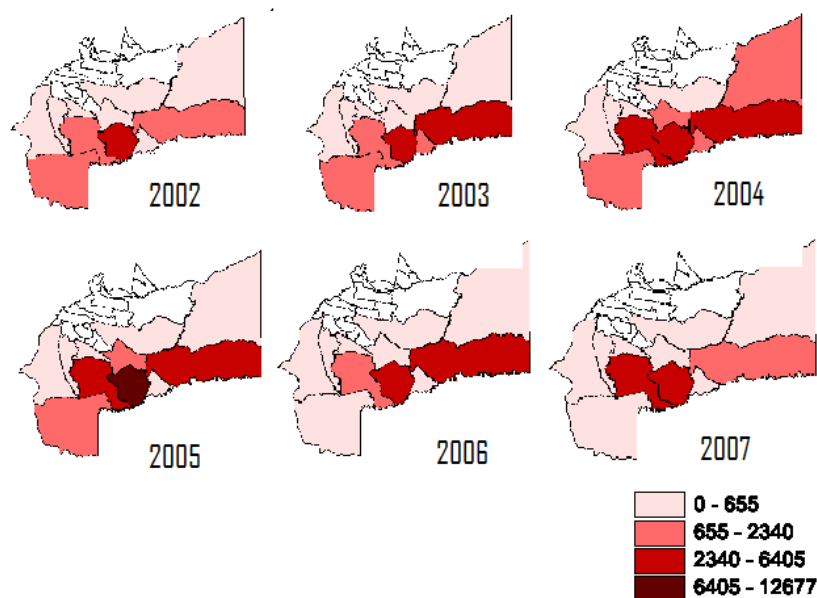
\* Includes disbursed and projected amounts

Sources: USAID, Acción Social, Asopatía. Author's calculations.

Program	GOC			USAID
	PLANTE	FIP	PFGB	AD
			Acción Social	CREA
% of	1998-2003	2001-2003	2007-2008	2008
End of Period Vulnerable Population	28%	14%	14%	n/a
End of Period Total Population	1%	0%	0%	n/a
End of Period Area of Coca	0%	0%	n/a	n/a



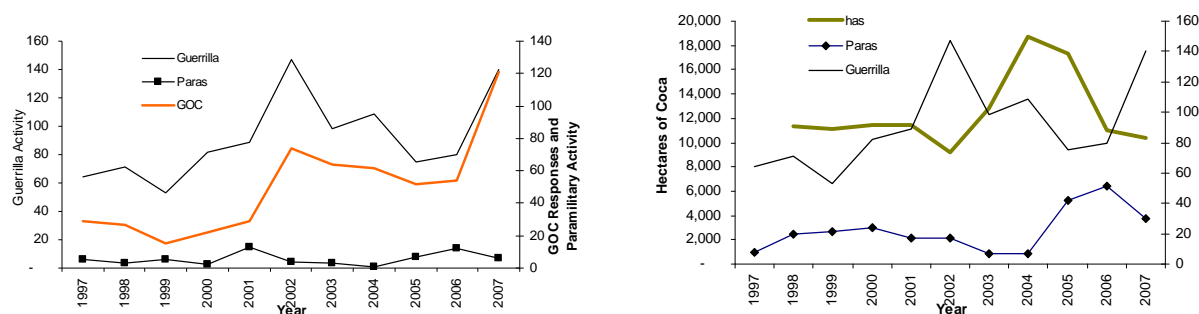
**Map 2. Coca in the department of Meta between 2002 and 2007**



Source: SIMCI and creation of the authors.

As illustrated in Graph 1 below, guerrilla activities and Colombian government responses increased sharply since 2006 with an accompanying reduction in coca cultivation while paramilitary relevance in the area is to some extent minimal but also declining as the GOC increased security activities.

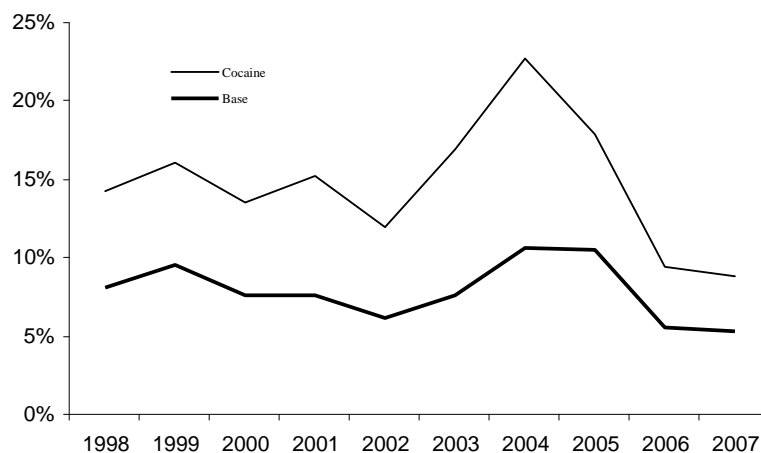
**Graph 1. Meta, hectares of coca, military action by the Colombian Government, paramilitary, and guerrillas**



Source SIMCI and CERAC

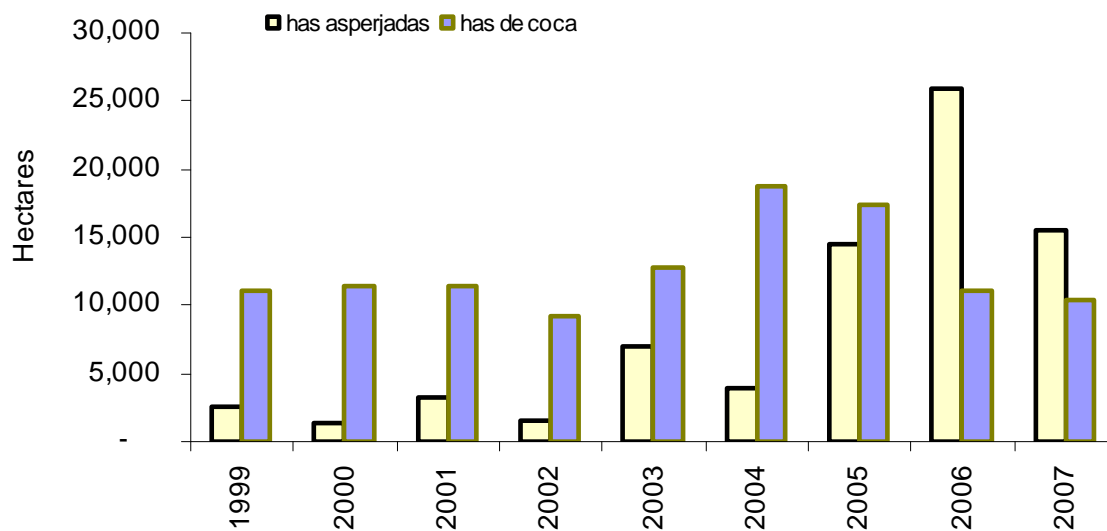
The initial results of combined GOC security presence and reduced coca plantations can be evidenced in the trends of displacement and the participation of coca in the regional income. As illustrated in the Graphs below, displacement declined because the GOC presence is stronger and coca cultivation is declining.

**Graph 2. Income from Cocaine base and Cocaine as a % of the Income of Meta**



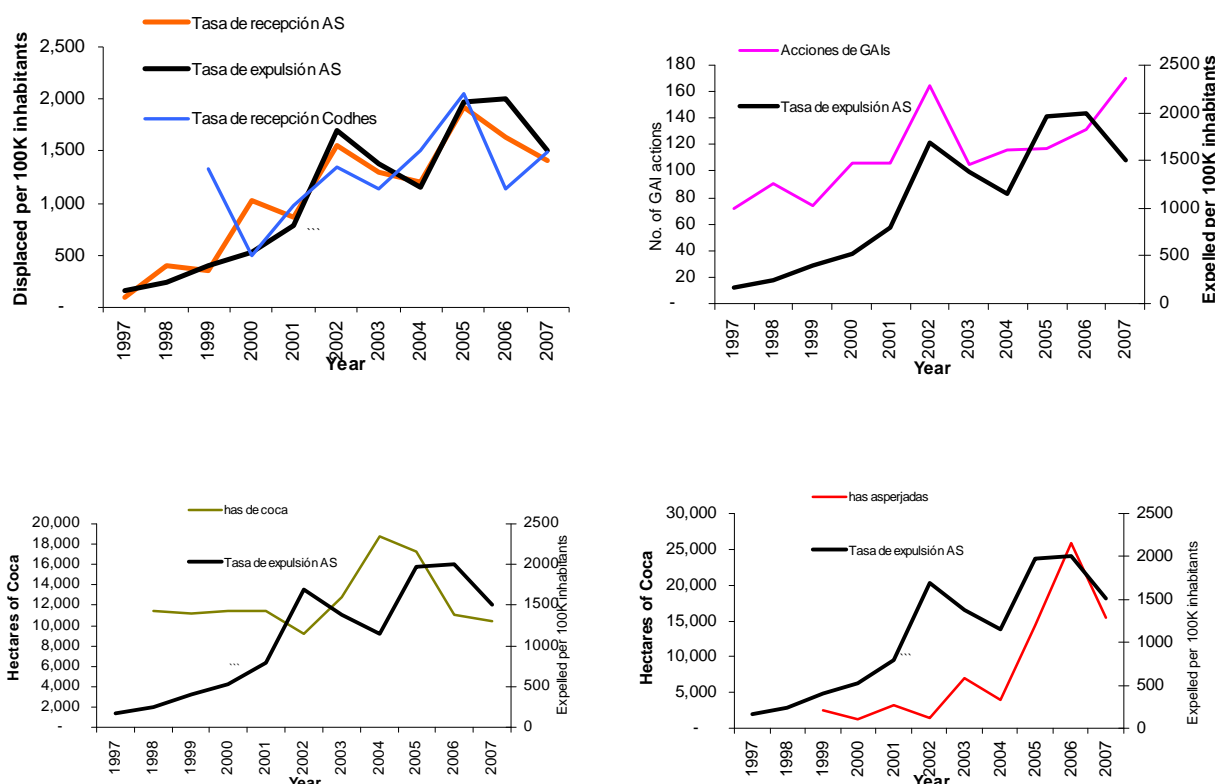
Source: DANE, SIMCI, and calculations by the different authors.

**Graph 3. Hectares planted for coca and spraying in Meta**



Source: SIMCI and DIRAN

**Graph 4. Displacement, coca spraying, and Illegal armed groups in Meta**



Source: CODHES, Acción Social, CERAC, DIRAN, SIMCI

The PCIM is correctly described by some officials as an experiment/pilot rather than a first clustered approach, especially in the case of AD. Hence, it is difficult to determine to what extent the PCIM eradication and AD interventions will have a regional effect or not without sustained application of the same policy package in the next few years. Similarly, to have regional relevance –enough so that it relevant nationally- and to make the best use of institutional, manpower, and financial resources, a potential replication of a geographically focused integrated intervention would have to be more comprehensive in scope for these two pillars.

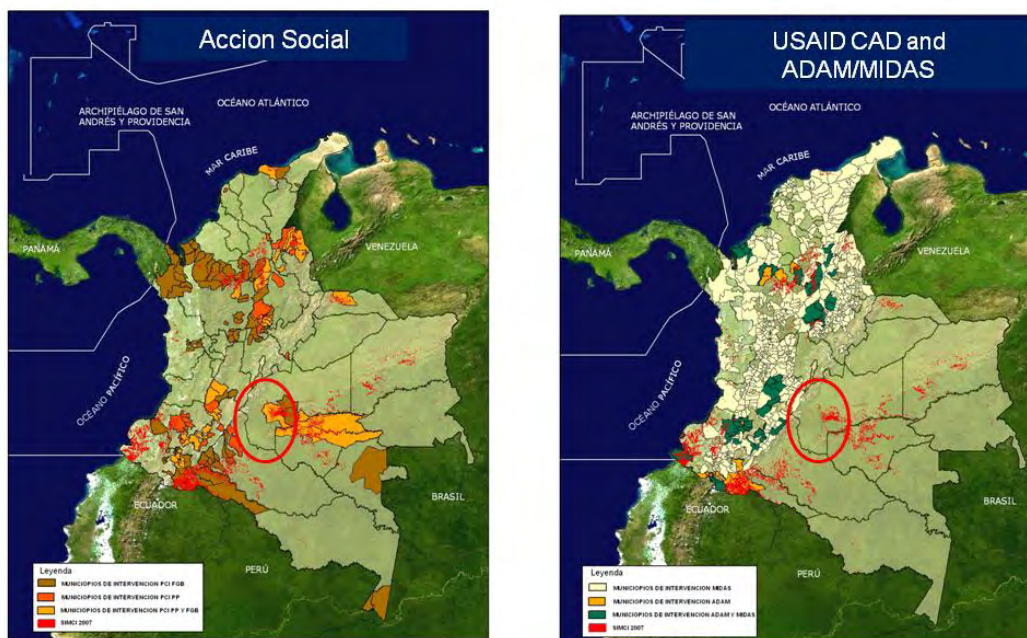
## Perspectives for the future

The Macarena region demonstrates an initial disconnect between USG and GOC vision and priorities as it originally was not a center of attention in USG plans, especially for the AD pillar. The GOC had five requests to USAID in 2003 for the design of the new strategy (post CAD): less contractors; less administrative costs; increased coordination with the GOC; more direct support to GOC initiatives and priorities; and to participate in the design and selection of projects. Nevertheless USAID designed ADAM/MIDAS' economic corridors leaving out the Caqueta-Guaviare-Meta corridor which was a GOC priority, allegedly given its serious security challenges.

In addition, it also reflects a disconnect within the GOC as Meta -and the Macarena municipalities in particular- were a priority for the MOD from the territorial control/military standpoint but for Acción Social (FGB and PPP) the priority was more on Puerto Concordia and San Martín (westward of the PCIM area) overlapping only partially in Puerto Rico and Vista Hermosa.

There is a more evident disconnect at the institutional level between the MOD and Acción Social. In large part Acción Social's programs (Familias Guarda Bosques and ReSA) do not adequately serve the needs of the transition process in PCIM which requires speed and flexibility and substantial coverage. Both programs have been described as highly bureaucratic and slow and too rationed. Acción Social's Mobile Eradication Groups (Grupos Móviles de Erradicación) have operated since 2006 in Puerto Concordia, Puerto Rico, Vista Hermosa and San Martín involving 1,670 families in the FGB program, reporting 3,892 hectares eradicated as of April of 2008. Reportedly, FGB plans to expand to Puerto Lleras in 2010 which is outside the PCIM area.

**Map 2 Location of Accion Social and USAID activities**



Source: Acción Social, 2008

The various GOC institutions collaborating with the PCIM are currently planning their 2009 budgets under separate, uncoordinated mechanisms. In the absence of a clear and definitive commitment and/or mandate to the PCIM from the highest levels of the GOC, the PCIM team is forced to informally obtain support on an ad hoc basis through working groups that currently meet in Villavicencio to discuss and strategize and commit to: economic development, housing, health, education, and land titling. The economic development working group is the furthest along having been working for around six months.

There are no specific budget earmarks from GOC Ministries to support PCIM (with the exception of the Ministry of Government [Gobernación] which so far has committed around \$3 million to infrastructure projects in the area, and a one-time \$16 million commitment from the Peace Fund [Fondo de Paz]). GOC entities attribute this to the constitutional requirement that resources be distributed "equitably" among regions which prevents the GOC from committing funds regionally. However, if PCIM is in fact a high level GOC consolidation priority, it should also be reflected in the 2009 budgets.

To date, the most salient results of the integrated effort are: An enabling environment created through sustained military presence; establishment of police posts (subestaciones) in Piñalito (Vista Hermosa) and La Julia (La Uribe); the manual, voluntary eradication plan –first semester of 2008- 2,720 hectares eradicated, and more than \$COL 64,000 million verbally committed to infrastructure and productive activities.

Looking at the future, the PCIM initial boost and the resulting expectations among the population will need to be honored with sustained GOC presence and commitment. PCIM local personnel are eager to have more “rules of the game” and a clear plan for the future in order to solidify initial trust.

## ANNEX 2. SOUTH OF BOLÍVAR CASE STUDY

### Introduction

This case represents an analysis of conditions in the four main municipalities of the South of Bolívar from 1998-2008, Cantagallo, San Pablo, Santa Rosa del Sur and Simití. To carry out this study, we conducted interviews with local authorities, farmers and knowledgeable individuals and focus groups of institutional representatives and farmers in the field and examined secondary sources.

### Context

The department of Bolívar is located north of Bogotá on the Atlantic coast. Its capital is Cartagena. Bolívar is a department of great social and regional disparities. The north contains a large majority of the population, as well as a modern economy that is based on tourism, international commerce, and heavy industry; however, the south has an economy based essentially on agriculture. The south of Bolívar is where coca is cultivated. It contributes 0.2% to departmental GDP, and takes up 3.5% of the arable land. (Rocha and Ramírez, 2004)

The effects of the cost of living and the changes in spending patterns have been extremely important. Coca cultivation has created 5,600 jobs, while the families who are susceptible to becoming dependant on coca cultivation based on their socioeconomic conditions are estimated to be about the same number. Additionally, coca has become a source of income for illegally armed groups as is the case elsewhere in the country.

**Map 1 Location of the South of Bolívar**



Source: Fonseca, Gutiérrez, and Rudqvitz (2005)

45% of the population lives in the rural area and 76% of that population registers under the Unsatisfied Basic Needs (NBI) level (DANE, 2005). Traditionally it has had an agricultural and exporting economy including cattle and fishing. The Serranía of San Lucas is dominated by a rural economy based on coffee, beans and sugar cane. There is also some mining of gold and as already mentioned coca cultivation. (Fonseca and Rudqvitz, 2005)

The municipalities to the south of Bolívar are located to the east of the Magdalena River, without much road access. However the main road crossing the Magdalena through the east permits access from the



center to the north. The region is located about 450 kms. from Bogotá, and 620 kms. from Cartagena (capital of Bolívar). The economic and institutional ties are close to Barrancabermeja (90km) and Bucaramanga (200 km) the capital of Santander.

**Map 2 Roads from the South of Bolívar**



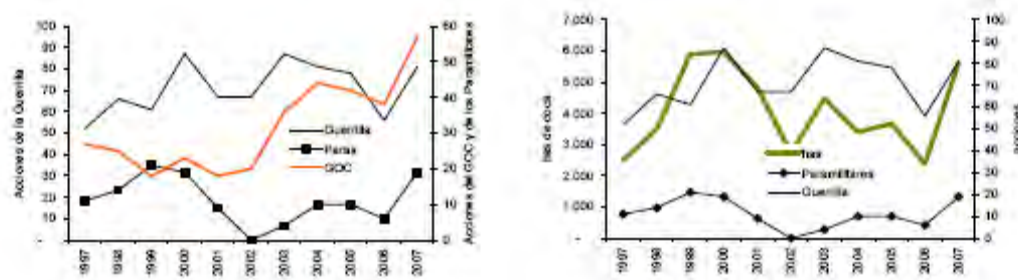
Source: Google

The region is characterized by the Serranía de San Lucas, which was originally populated by various indigenous groups including Opones, Carares, Muzos, Zondaguas and Pantagoras. From the time it was a Spanish colony, it has been considered an agricultural frontier and a source of supply for the navigation of the Magdalena River between Bogotá and Cartagena during the first half of the 20<sup>th</sup> Century. Its isolation is seen as a magnet for the migration of the rural poor (Antioquia, Santander, César, and Magdalena) and for the internal conflict.

From 1972, the National Liberation Army (ELN) guerrilla group used the south of Bolívar as one of its centers of operations for east Magdalena (ODH, 2007). In the 80's gold mining and the production of coca attracted the FARC and paramilitary groups. For the illegally armed groups, the south of Bolívar is a strategic corridor, providing contraband routes between Venezuela, Panamá, and the Caribbean (Interview with MSD). From 1997-2007, the actions of the guerrillas and the paramilitary have become closely related to the evolution of coca (Graph 1).

Towards the end of the 90's, the paramilitary groups of AUC and the FARC guerrillas sustained an intense combat for control of the territory that also caused battles with the Armed Forces. This led to an increase in homicides, kidnappings, roadblocks, disappearances, massacres and the forced displacement of a large percentage of the civilian population. San Pablo, Simití, Santa Rosa and Cantagallo were divided by the conflict.

**Graph 1. Bolívar, hectares of coca, military action by the Colombian Government, paramilitary, and guerrillas**

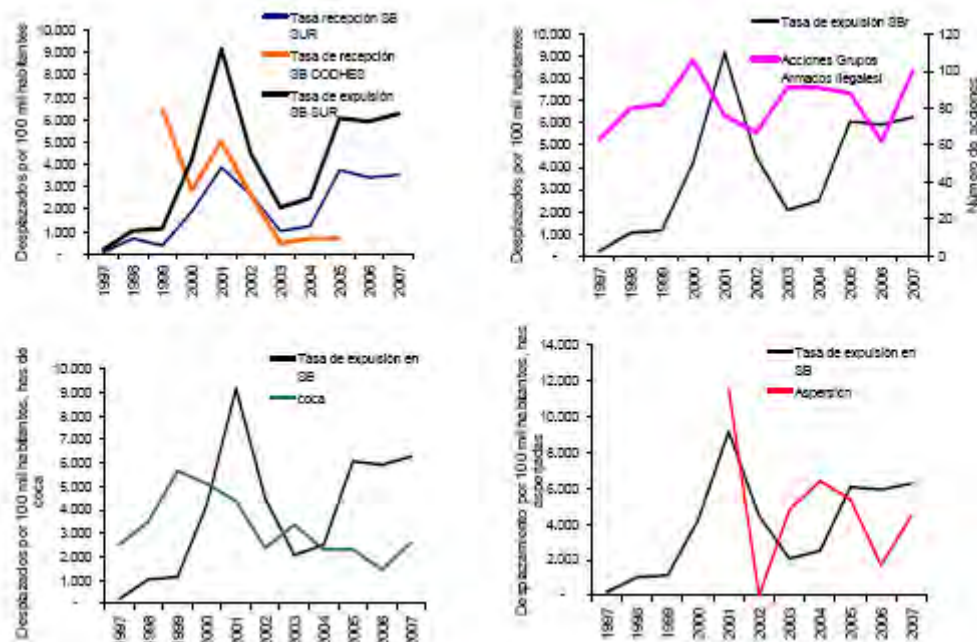


Source SIMCI and CERAC

The activity of the armed guerrilla groups has increased since 1997 (Graph 1). Recently certain operatives of the FARC and the ELN have joined forces according to information from focus group members (see below) and other interviewees. There also has been an increase in the creation of new paramilitary groups. These new paramilitary organizations have made death threats, perpetrating assassinations and provoking further displacement (ODH, 2007).

South of Bolívar has had the highest indices of displacements per 100 thousand habitants according to both the Unique System of Registering (SUR) as well as by CODHES (Graph 2). According to Acción Social, between 1997 and 2007, 40,000 persons left and 21,000 arrived out of a population according to 2005 census figures of around 90,000. In other terms, two-thirds of the total population has been displaced.

**Graph 2. Displacement, coca spraying, and Illegal armed groups in the south of Bolívar.**



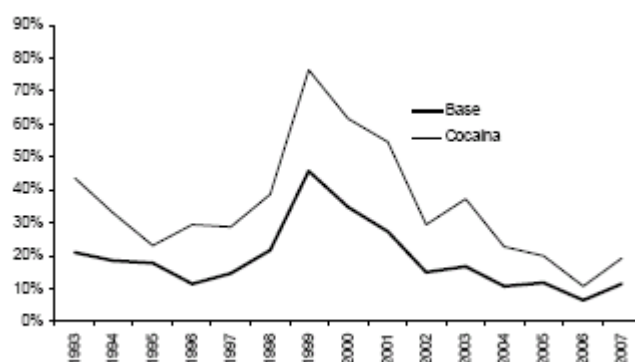
Source: CODHES, Acción Social, CERAC, DIRAN, SIMCI



The highest levels were reached in 2001 with a rate of 7,712 displacements per 100 thousand inhabitants (5,971 according to CODHES). This in part can be attributed to the food crisis caused by mono-agriculture and the damages to otherwise profitable subsistence agriculture.<sup>55</sup>

Even though the contribution of the south of Bolívar to national coca production does not pass 5%, its impact on its municipalities is significant (Graph 3). In 1999 during the boom of the coca production, the base value of the harvest represented US\$ 46.7 million, which is equivalent to 46% of the value of the earnings of the population (according to GDP and NBI). In 2007 these indicators decreased to 11% and 19%, but even after returning to 1999 levels, the intensity and impact on the economy remains the same.

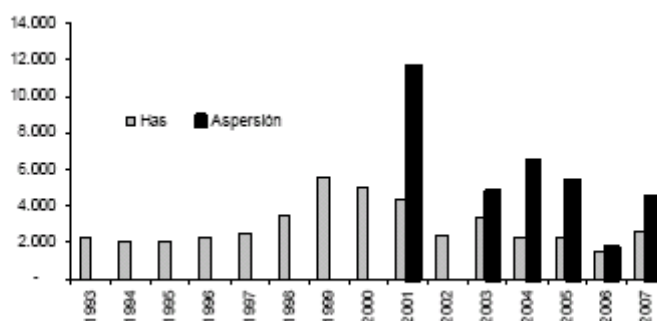
**Graph 3. Income from Cocaine base and Cocaine as a % of the Income of South of Bolívar**



Source: DANE, SIMCI, and calculations by the different authors.

The first coca plantations were established in Simití in 1986 (ODH, 2007). Coca production averaged 3.2 thousand hectares during the 1990s rising to 5,653 hectares in 1999 with cultivation focused in Cantagallo, San Pablo, Simití, and Santa Rosa del Sur (Graph 4).

**Graph 4. Hectares planted for coca and spraying in the south of Bolívar**



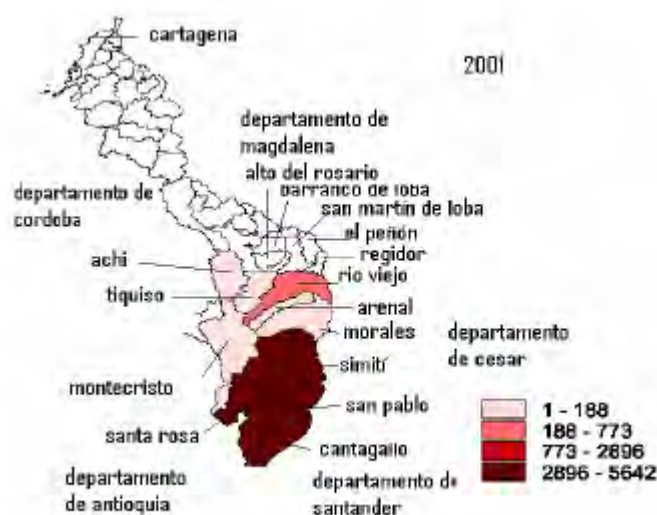
Source: SIMCI and DIRAN

With the initiation in 2001 of spraying that covered 11.5 thousand hectares, the area cultivated in coca fell to 2.4 thousand hectares (2002). Coca production started moving to 10 of the neighboring municipalities (Map 3). (SIMCI, DIRAN) During the following three years, there was an average of 5.5 thousand hectares. The area cultivated in the south of Bolívar was reduced to 1.4 thousand hectares in 2006. Within

<sup>55</sup> Focus group members and other interviewees attribute this factor in part to the initiation of spraying.

the neighboring towns, coca production spread first up north and later to the east. There the area harvested and sprayed was tripled going to three thousand hectares in 2007. The illegal armed groups ordered new plantings as a response to the spraying and as a rejection of the alternative development programs (Fonseca and Rudqvitz, 2005)

**Map 3. Coca in the department of Bolivar in 2001**



Source: SIMCI, created by the authors.

## Policies Implemented to control illegal crops

As part of the case study, the team conducted six focus groups in Santa Rosa del Sur, San Pablo and Cantagallo. There were two sets of participants: an ‘institutional’ group consisting of local officials and representatives of national agencies in the region and a group of ‘farmers’ and representatives of farmer and citizen groups. (Table 1) Focus group participants saw the lack of government presence as an incentive to growing illegal crops along with such factors as poor road conditions leading to geographic isolation, high transaction costs and the uncertainty of the economic climate. Access to credit is seen as limited by property rights in an area characterized by forced displacement of population and the presence of national forest reserves. The violence perpetrated by illegally armed groups is also seen as affecting family life, leaving widows and orphans, generating displacement. It also affects the normal operation of business in their communities.

Coca production brought a strong economic boom and as a result farmers started abandoning subsistence farming to such an extent that there was a food shortage. The extraction of income via coca production brought in new armed illegal groups into the region. This created a territorial struggle which lead to high levels of violence that resulted in large amounts of displaced people.

**Table 1. Focus Groups in Santa Rosa del Sur, San Pablo and Cantagallo**

City	Date	Institution	Farmers/Associations
Santa Rosa del Sur	Sep 27-28	Carlos Ojeda, Concejal Fanny Ayure, Concejal Yomaira Garnica, Secretary of Finance Rocío Díaz, Secretary of Development Económico José Cendales, Mayor	12. Aprocasur (cocoa), Asocalima (beans), Asocabilla (panela), Agrocafe (coffee), Asojunta (communal action boards), Asomin (gold)
San Pablo	Sep 29	Wilfredo Pedrozo, Secretary of Dev. Roberto Higuero, Dir., Banco Agrario Gledinid Ciro, Assistant Secretary of the gov. Hernando Chacon, tech., S Desarrollo Sonia Verano, Defensora	20. Association of stockfarmers Cooapeor, Asotransur, Asocalambra, Asocanal (silviculture), Asocultursur (fruits), Cooratrurur (rubber), Palmas del sur (African palm), Coomulpesar (cocoa), Comipesca (cocoa), Agrocasin (cocoa, sugar), Asociacion de Mujeres Rurales (silviculture), Red de Mujeres del Magdalena Medio
Cantagallo	Sep 30	Javier Humberto Gonzalez, Mayor Julio Martinez Sierra, Sec. of Social Dev. Yahir Florez, Director of UMATA	10. Asocanal (silviculture), Coopatico (palm), ACUADEVINO (pisciculture) APAC (stockfarmers), ADAS

Source: Authors

Paradoxically, the violent action of the illegally armed groups has also generated a disincentive for participation in coca cultivation among some communities. That reaction is reflected in the work of civil society groups such as the Laboratorios de Paz promoting peace and social cohesion. Community support serves to strengthen the legitimacy of state presence and also serves to build greater credibility and transparency for alternative development programs, viewed as joint effort between communities and implementers. There also have been open manifestations by civil society organizations against the violence associated with the cultivation of coca and against public corruption.

### Alternative Development Modalities

In the south of Bolívar several alternative development modalities have been implemented. Starting in 1998, the GOC implemented the Alternative Plan for Development (PLANTE) and the Peace Program for the Development of Magdalena Medio (PPDMM). Under Plan Colombia, the GOC put in place the Investment Fund for Peace for the south of Bolívar, and USAID implemented programs through FUPAD (2002). The GOC through Acción Social carried out the Familias Guardabosques (Family Rangers) PFGB (2003) and the Proyectos Productivos (Productive Projects) PPP (2008). USAID brought in its ADAM and MIDAS programs in 2006. (Table 2)

**Table 2. Alternative Development Programs for the South of Bolívar**

	GoC					USAID		
Program	PDA South Bolívar	South Bolívar Plan	PFGB	PPP	PDPMM	AD	ADAM	MDAS
Operator	PLANTE	FIP	Acción Social	Acción Social	Pastoral Social	FUPAD	ARD	
Period	1998-2003	2000-2003	2003-2006	2008	2002-2005	2004-2006	2006-2008	2006-2008
<b>1. Productive Activities</b>								
Families	1,578	3,284	2,499	581	703	605	1,305	1,376
Hectares	1,833	3,622		1,040	3,200	1,554	3,317	13,705
Value US\$	4,847,020	6,099,193	15,491,542	940,277	2,026,864	530,961	2,414,548	5,555,183
Description	Forestry, yucca, cotton, cocoa, rubber, beans, vegetables	Palm, corn, subsistence agriculture, forestry	US\$ 5,700 per family during three years (2002-03) from 2005, \$US 1,500 during 18 months & saving for PPP	Cocoa, rubber, silviculture, agriculture, Coffee	Palm, silviculture	Cocoa, rubber, silviculture	Cocoa, rubber, silviculture, agriculture, coffee, African palm	Rubber, African palm
<b>2. Other activities</b>								
Families	74-4334	21,036			473-22798		407	
Value US\$	500,007	9,300,000			2,298,997		1,217,097	
Description	Transportation, education, sanitary & sport infrastructure	Transp., education, electric, urban & rural Infrastructure . Labor, public management, & conflict res. training.					Transportation, education Infrastructure housing for displaced persons, strengthening of institutions, radio stations & development plans	
3. Totals (1+2) US \$	5,347027	15399193	15,491,542	940,277	4325851		3631645	5,555,183

Source: ARD, PDPMM, Acción Social and FIP. Authors' calculations.

In the south of Bolívar from 1998 to 2002, PLANTE completed programs whose value were equivalent to US\$ 5.3 million promoting reforestation, yucca, cotton, cacao, rubber, beans, vegetables, road infrastructure, physical education, and health education. During that period productive projects benefited 1,578 families and infrastructure projects benefited 8,929 families. The projects were managed taking into account the necessities of the communities.

In 2001 the GOC launched its South of Bolívar Plan through the Fund for the Investment of Peace FIP (1999). Investments of US\$15.4 million were made in San Pablo, Simití, Cantagallo and Santa Rosa. Programs included transitory food aid over a period of three months for 6,280 rural families, food security programs (cultivation of maize, yucca, bananas, yam) for 4,000 families, the construction of urban infrastructure (highways and basic sanitation) roads (23 kms.), 19 bridges, improved educational infrastructure (32 schools), rural electricity, labor training (1,400 youths) land entitlement, improving governance, support for African palm (1,500 families) and an increase in the price of cotton. The Plan is contemplating a second stage for the municipalities up north for a total investment of US\$ 34 million.

At the same time that PLANTE was being implemented in the south of Bolívar, the PDPMM was initiated in order to resolve internal conflict. In accordance with CONPES 3395, the PDPMM has as an

objective (i) the support in Magdalena Medio of human rights programs and the advancement of a decent lifestyle for its inhabitants; (ii) the construction of coexistence zones among its inhabitants via institutional strengthening, and support from civilian actors who promote peace; and (iii) promotion of economic and social development including alternative development. The program began in 2002 and runs through 2010. It is being implemented through the Laboratory of Peace in Magdalena Medio with a budget of 42.2 million Euros financed principally (82%) by the European Community (CE).

The PDPMM is administered by the Pastoral Social (Catholic Church) of Barrancabermeja. It began its work in 1998 in Regidor, Tiquisio, Rio Viejo, Arenal and Morales, Santa Rosa del Sur, Simití, San Pablo and Cantagallo. The PDPMM also counts on the support of the Colombian Petroleum Company (ECOPETROL), USO-the Workers Trade Union, the United Nations Development Program, the Japanese government and the National Planning Department of the GOC.

Between 2002 and 2005, projects of the Peace Laboratories in the south of Bolívar included programs of US\$ 4.3 million that dealt with the culture of peace, integral rights, productive activities, social infrastructure, and institutional strengthening (Table 2). The productive activities of PPDMM benefited 703 families. PPDMM has 82 projects, 32 of which took place in 2007.

Since 2003, Acción Social has supported the Family Forest Rangers Program (Programa Familias Guardabosques) (PFGB) focuses on providing support for environmental protection and the Program for Productive Products (PPP) which is a means of subsidizing technical training for associations and businesses. Under PFGB, during 2003 and 2004 (phase I and II) each family was handed a total of US\$5,700 over three years. Starting in 2005 PFGB cut the period and value to 18 months and US\$ 1,500. In the south of Bolívar a total US\$15.4 million has been disbursed which has provided the average recipient around \$2,500.

The PPP promotes a selection of activities located on the interior of the agricultural frontier (cacao, rubber, African palm, coffee, and the forestry). The PPP has promoted beekeeping, sheep herding, rubber, and cacao which are valued projects of US\$ 4.7 million, 67% of it was done by Acción Social (45% saving of PFGB and 25% from ADAM-USAID) for a grand total of 765 beneficiaries and covering 1,040 hectares.

USAID works in the region through ADAM and MIDAS. The projects of ADAM in the south of Bolívar include investments of US\$ 3.6 million in activities such as social infrastructure, and the strengthening of local governments. There are incentives to produce cacao, coffee, rubber, African palm, and sheep herding.

During the first half of the decade the forced displacement of the population was intense in the south Bolívar region taking over parts of Barrancabermeja. Law 387 of 1998 does provide help for those displaced by spraying. The rebound of those coming back to the region shows that many are eventually aided by the system (Graph 2).

Starting in 2005, Acción Social expanded its local infrastructure, its resources, and its scope of programs that provide short term humanitarian aid, help for the management of Colombian Institute for Family Welfare (ICBF) and support for retention of students in school through the Families in Action program. Acción Social is looking for bigger impacts through the implementation of a new operator. In the south of Bolívar ADAM-IDP participates with support for the cost of the construction of two new urban developments (assisting 220 families) located near the urban area of Santa Rosa and San Pablo.

## Results of Policies Implemented

To estimate the magnitude of the anti-narcotic activities in the southern Bolívar region, we developed several indicators that measured the extent of alternative development and spraying.<sup>56</sup> With regard to interdiction, available information for 2007 demonstrates that in that year 80 laboratories were destroyed, representing 3% of the national total of such actions.

The programs that cover the most people and take up a high percentage of the budget are those programs undertaken by the GOC. On average from 1998-2008, these programs have helped out about 13% of the peasant population vulnerable to coca production with a budget of US\$ 36 million.

If we look at the hectares of crops as a proportion of the area that is not part of forest reserves or hectares of coca, the programs by USAID show the highest levels, 21% of the utilizable area and 68% of the coca area. For the ten years that were analyzed, the proportion of the population increased from 19% to 24%, while the percentage of arable land moved from 6% to 15%. At the same time the amount of money for the programs also increased from 3% to 4.5% of local GDP (table 3). Coverage increased at the same time that there was an increase in budget appropriations with a proportional increase in the hectares covered. This is mainly due to the programs administered by USAID.

**Table 3. Indicators of coverage of Alternative Development in the south of Bolívar**

	GOC					USAID		
Program	PDA South Bolivar	South Bolivar Plan	PFGB	PPP	PDPM M	AD	ADAM	MDAS
Operator	PLANTE	FIP	Acción Social	Acción Social	Pastoral Social	FUPAD	ARD	
Period	1998-2003	2000-2003	2003-2006	2008	2002-2005	2004-2006	2006-2008	2006-2008
% of vulnerable Population	64.9%	133.7%	97.1%	25%	28.1%	24%	50%	52%
% of total population	8.4%	17.3%	12.5%	3.3%	4%	3.1%	6%	7%
% of area used	2.9%	5.6%	-	1.6%	5%	2.4%	5.2%	21.3%
% of coca area	45.1%	95.2%	-	40%	123.7%	30%	82.8%	68%
% of South Bolivar's GDP	0.8%	3.4%	1.5%	0.3%	0.8%	0.1%	1.4%	2.1%

Source: Table 2, SIMCI, Municipality of Santa Rosa and DANE, authors' calculations.

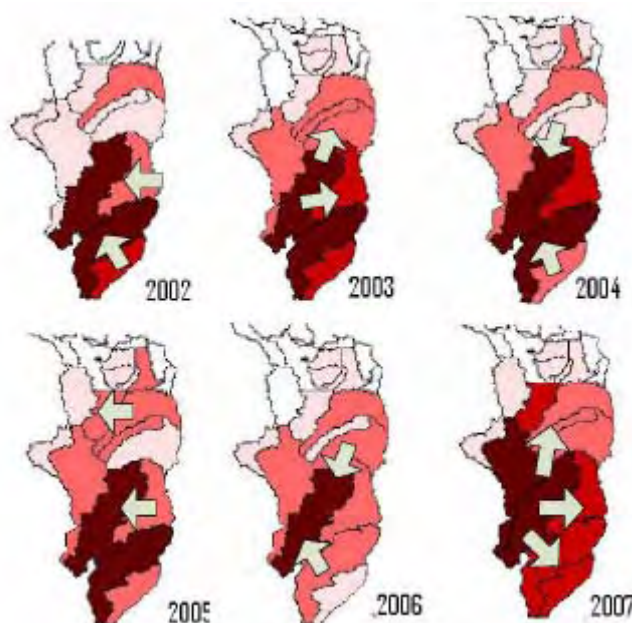
Regarding the magnitude of spraying, the south of Bolívar illustrates the movement of crops. It shows a local balloon effect as well (Map 4). Spraying in 2001 focused on the municipalities of Cantagallo, San Pablo, Simití, and Santa Rosa del Sur. The area of 2002 shows the result of this initial spraying where the area of coca cultivation was sprayed 2.7 times with a reduction towards the eastern part of Simití and

<sup>56</sup> Given that some programs have multiple sources of financing, efforts were made when gathering data to minimize double-counting and to also reflect the length of the projects and their respective maturity. As analysis demonstrated, projects promoting agricultural production show impacts up to three years after initiation, the values regarding families benefited and jobs generated have been calculated using averages that reflect these delayed impacts. For that reason, we do not provide an aggregate indicator to avoid overestimation.



Cantagallo to the south. However, cultivation expanded in the northern municipalities of Montecristo, Arenal and Morales.

**Map 4. Coca in the department of Bolívar between 2002 and 2007**



Source: SIMCI and creation of the authors.

In 2003 and 2004, there was a continuation of spraying with a major emphasis on Cantagallo (3.8) and Simití (5.1). In 2005, coca in the south of Bolívar fell to 2,300 hectares, but it increased in the neighboring municipalities and later showed up to in the east. In 2006 and 2007 spraying in the south of Bolívar had half of the intensity of the rest of the country (1.2 times vs. 2.2). In 2005 and 2006 crops continued to decrease.

In 2001, Resolution 17 of the National Council of Narcotics (CNE) established a procedure for dealing with complaints derived from the damages caused by spraying. The statistics of complaints show an average of 70 yearly complaints since 2003 that declined in line with the drop in level of intensity. In 2008, of 341 complaints, 19 were in process, 6 were compensated for, and the rest were rejected for reasons such as inconsistency with the coordinates, times and dates of spraying.

Finally, in 2007, coca rebounded in all of the region to the previous levels of 1999 despite the spraying that was going on, an increase in alternative development programs and the stepped up military operations conducted by the GOC. Given progress in the urban centers and the lowlands in terms of promoting the legal economy, improving security, socioeconomic conditions of the population and cultural change that is favorable to legality, geography, isolation and social instability in rural areas remain formidable factors promoting coca cultivation.

The competitive advantage of the region for coca growing is based on its geographic isolation, the precarious internal integration and actions by illegal armed groups. The uplands and foothills of the Serranía of San Lucas continue to be outside the area of effective control. The restrictions on the use of natural reserves for agricultural production limits the effectiveness of alternative development without corresponding constraints on the damage done by coca cultivation and gold mining. The intensity of the displacement caused by the conflict and the dynamic of the population of the agricultural frontier limits



the impact of investments for institutional strengthening and cultural change as communities lose their members.

Increasing programmatic coverage to meet this challenge is necessary. There are, however, no evaluations that directly speak to the comparative effectiveness of the different programs currently underway in South of Bolivar. We tried to approximate this using the focus groups.

**Table 4. Perceptions about institutions, programs, and international cooperation with the focus groups**

	<b>Institutions</b>	<b>Farmers</b>
Which is the most important institution?	The PDPMM, Mayor's Office, UMATA, Acción Social, the church, the emissary, USAID, Ecopetrol	Mayor's Office, Agrarian Bank, the hospital, Pastoral Social, USAID
What were the best activities?	The creation of associations and their transformation into enterprises. The PFGB social control and its transition to PPP. The linking of different communities. The FIP transportation infrastructure projects. The transition to legality.	The added social value of the productive projects. The encouragement of cooperatives, civic culture and peaceful coexistence. Nurseries. Microcredit from Acción Social.
What were the worst activities?	The difficulty in reaching a consensus required by the PFGB and pressures from the illegally armed groups. Access to programs run by the Ministry of Agriculture and Agrarian Bank. The procedural steps and the lack of complementary aspects of the projects. The harmful effects of fumigations and the lack of compensation and assistance to those displaced. The absence of Bolivar's governor.	The assistance provided by PFGB. Initiatives to push for a dialogue with the ELN. The links between authorities and the illegally armed groups. The failure and lack of continuity and accompaniment of the productive projects. The few productive alternatives produced.
Comments On international cooperation	Disconnected from the State	Continuity and consultation with community is expected

Source: Authors

According to the focus groups, the groups most involved with local development were PDPMM, the Catholic Church, the Mayor, the UMATA, Acción Social, the radio station, and USAID. PDPMM, it should be noted, acts independently of the national government's policies of zero coca. They look for possibilities to engage in dialogues regarding peace with the illegal armed groups. They have been critical of corruption, and they consider the coca growers as part of their potential beneficiaries. The focus groups perceived international cooperation as transitory and as a catalyst for alternative development initiatives. Farmers view external assistance as uncertain in its duration and also look for a better link between that assistance and local needs.

The alternative development programs in South of Bolivar have achieved positive results in fostering interaction between institutions and peasants, placing emphasis on the creation of NGOs and their transformation into productive enterprises. This resulted from a decade of learning where the major gains are attributed to the linking of communities and the management of projects and technology. These organizations have been a visible force in the policies to promote change towards a culture of legality. Both PDPMM and PLANTE played a pioneering role in the promotion of local institutions (local

governments and NGOs) and the initiatives of local organizations with respect to the programs of alternative development.

## Perspectives for the future

In the south of Bolívar, the programs for alternative development reached a total of around US\$ 50 million in the period 1998 – 2008 that roughly corresponds close to 4% annually of local GDP. The intensity of spraying has been sustained. The military operations of the GOC have increased although security in rural areas remains a concern. A fifth of this effort corresponds to the USG and the rest corresponds to other international cooperation.

This suggests that in order to fulfill counter-narcotics objectives more resources are needed. In order to help 5 thousand families who are vulnerable to coca to reach subsistence level in the south Bolívar region implies increasing annual spending to around US\$ 5 million. In addition, there is a need for the second phase of Plan Sur de Bolívar that would represent an investment in infrastructure. This investment is estimated at US\$20 million. Attention also needs to be paid to the displaced population and the victims of conflict.

Looking at the results of the focus groups we conducted provides insights into programmatic approaches that are perceived as likely to work. Both farmers and institutional representatives agree that there have to be visible results coming out of AD programs. Both groups saw as important infrastructure projects such as providing drinking water to urban areas, the implementation of more production projects along with the promotion of cultural change directed to promoting increased respect for the law and peaceful discourse within the community. When asked about program priorities in general, both groups placed emphasis on achieving justice, security, regional integration, and food security. When asked specifically about elimination of coca cultivation, local institutional representatives favor greater emphasis on cultural changes and on ensuring the effectiveness of programs, while farmers emphasize such themes as better roads, access to credit and support for the displaced. Institutional representatives were also concerned about the long-term consequences of the conflict and the coca boom on community values while farmers focused on issues such as competitiveness of their crops, the risks associated with monoculture and the likely continuity of assistance programs as well as the persistence of coca cultivation.

**Table 5. Perceptions dealing with institutions, programs, and international cooperation within the focus groups**

	Institutions	Farmers
4.1 How could the situation have been improved?	Sanitary infrastructure. Cultural change.	Productive projects, environment, social values.
4.2 What proposals would have prevented the cultivation of coca?	Education. Monetary support for those whose crops are eradicated. Community building. Program evaluations.	Roads and access to credit. Support for displaced persons as a result of spraying.
4.3 What should be done first?	Justice and security. Transportation infrastructure. Subsistence agriculture. Ensure food security and crop spraying.	Regional perspective. Infrastructure and access to credit. Community and business formation. Tolerance and legal values.
4.4 Concerns about the future	Social values. The end of oil revenues.	Competitiveness of farmers. Employment and monoculture of the PPP. Continuity of the programs. The persistence of coca, environmental damages and illegally armed groups.

Source: Authors

## Conclusions

In the south of Bolívar, there exists a cluster of coca growers that persist despite efforts to control them. As already noted, this suggests the need for continuing support to AD efforts. It also suggests the importance of continuing activities to ensure more effective presence of state services and attention to the processes of community building that are being employed by civil society groups. Displacement of population persists and represents another issue that needs to be addressed.

The region shows an increase in the presence of the state, especially in providing better security in urban centers and lowlands. However, the illegally armed groups have moved to the highlands. This indicates that the strategy of eliminating coca cultivation takes time and patience in order for it to fully be effective.

Civil society organizations, working with local governments have been important in supporting service delivery in rural areas while the departmental government is seen as largely absent. In terms of attitudes, persistent violence related to coca cultivation appears to be promoting greater interest in farmers to return to licit cultivation. The social capital that has been generated in various communities, fostered by civil society groups, offers a potential for AD initiatives including community contributions to the design of activities at the local level.

One problem to be faced in the future is the local balloon effect. In the four municipalities we analyzed, there has been a reduction in coca cultivation, but there also has been a movement of that cultivation to neighboring towns.

Other issues that need to be addressed include strengthening the financial capacity of local governments and dealing with the issue of land titles. This latter is a very difficult issue given the turbulence that the region has undergone, the extent of displacement of population and the limits of the existing titling system. Its importance lies in the fact that access to credit is tied to property rights. Regarding financial management of local governments, one need is more efficient use of national government transfers for service delivery.

Looking at the operation of AD programs, the focus groups pointed to the need for greater efficiency through implementation of principles of flexibility, comprehensiveness, and better coordination. These are values that in principle guide all AD programs, but there is a need to ensure that they operate in practice at the regional and local level.

Plan Colombia has created a set of economic and social alternatives that otherwise did not exist in the region. It has made progress in reducing coca cultivation, but the lack of coverage in the highlands creates a marginal cluster of coca cultivation that needs to be addressed.

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## ANNEX 3. NARIÑO CASE STUDY

### Introduction

This report focuses on Nariño in order to provide a regional analysis of the outcomes and experience of anti-narcotics policies. Particular emphasis will be given to three municipalities in Nariño during the period from 1998 to 2008: Puerres, Ipilales and San Andres de Tumaco, which span across the department's two main regions, the Pacific and Andes areas.

Secondary information was analyzed and focus groups for institutional representatives and farmers were conducted in pursuit of this assessment. The report is divided into five sections. The first describes the context and characterization of the region. The second describes local implementation of anti narcotics policies. The third analyzes the main results and effects of the anti narcotics strategy. The fourth describes local perspectives and concerns about the future policies in the region. This followed by a concluding section.

### Context and Characterization

The department of Nariño is located 800 km south of Bogota along the Pacific coast and close to the Ecuadorian border. Pasto is the department capital. The department has a population of 1.6 million, with 53% living in rural areas, 18% of African descent, 5% of indigenous descent, a poverty rate of 44% according to the criterion of Unsatisfied Basic Needs (NBI), and an annual GDP per capita of USD \$2,000 (half the national average). Nariño covers an area of 33,000 square kilometers, 3% of Colombia's total area, and is separated into two large regions (Map 1).

In Nariño, the coca industry accounts for roughly 6% of the departmental GDP. This is the result of a downturn in coca production in Putumayo as well as the resurgence of rural emigration. The arrival of coca and the illegally armed groups in the 1990s brought on enormous changes for the department's inhabitants, including considerable changes to consumption patterns and the cost of living, as well triggering a wave of unprecedented violence and criminality. By then, the fishing industry had been hit by an epidemic, and cereal production affected by the opening of trade.

Since then, the economy has grown at a rate surprisingly higher than the national average. While there have been declines in agriculture and industry, and reduced exports, the expanding service sectors have propped up the economy and fueled regional growth. At the same time macroeconomic instability and the dollarization of Ecuador have affected cross-border trade flows and migration. More recently, the collapse of the financial pyramids DMG and DBRF in November 2008 has plunged Nariño and Putumayo into a deep economic crisis and precipitated popular unrest, forcing the government to invoke a State of Social Emergency.

**Map 1. Nariño**



Source: Vilorio (2007)

The Andean region, with an area of 16,000 square kilometers, lies to the east of Putumayo, the area's main population center with a population of 1.2 million, predominantly of Pastos, Abades and Quiñazingas indigenous ancestry. The region's economy is based mainly on smallholder agriculture, fisheries, tourism and cross-border trade. The region also has roughly 2,000 hectares of coca and 200 hectares of opium poppy.

The Pacific region has a population of 350,000, and an NBI (Unsatisfied Basic Needs) of 63%, the majority of which are Afro-Colombians. The region has an economy based on forestry and logging, palm oil production (32,000 hectares), cocoa, coconuts, and fisheries (tuna and shrimp). With the exception of Tumaco and Barbacoas, most of the region is without road access to Pasto, the department capital (Map 2). The Pacific region has 18,000 hectares of coca; accounting for 90% of the coca produced in Nariño and a fifth of the national total. The region also has the largest individual plantations (100 hectares), and the lowest base yields per hectare. It is estimated that 21,000 families may be dependent on coca cultivation, accounting for nearly the entire vulnerable population.

Nariño has a precarious internal transport network and finds itself poorly connected with other parts of the country. In relation to its size, Nariño has one of the most limited road networks in the country, something that significantly lowers its development possibilities. As noted, the lack of transport infrastructure in the Pacific region is the norm; the majority of the territory is connected via paths and rivers, increasing its micro-regional isolation. Moreover, while the Andean region is crossed by the Main Western Highway that connects the interior of the country with Ecuador, it is equidistant from Quito and Cali, and the interior areas are connected by very precarious roads and paths.

Nariño's population recently faced a financial crisis when two pyramid schemes collapsed. In 2003, two financial pyramids were set up: DRFE (Cash Money Quick and Easy), and DMG, offering financial returns above 100% within a year and rapidly expanded their operations to the departments of Cauca, Huila, Bogota, and other parts of the country. Its opening coincided with the implementation of major money-laundering controls on the financial system and the dollarization of Ecuador. These schemes provided opportunities to monetize dollars from the production of cocaine while massively bribing the different segments of local society. These financial pyramids offered VIP treatment for policy makers and politicians and sponsored soccer teams and charitable activities. Finally, in November 2008, the first



pyramid collapsed. The government eventually closed the other one causing violent disturbances in Putumayo, as well as a declaration of Social Emergency. In Nariño, a hunger strike took place as people demanded because the fall of the financial pyramids affected 200 thousand households in Nariño, or nearly half the population.

**Map 1. Road map of Nariño**



Source: Google

The FARC and the ELN began their incursions in Nariño during the 1980s, followed by the paramilitaries at the end of the last decade. After the Caguán peace negotiations broke down in 2002, guerrilla forces, still numbering in the hundreds, intensified their activities in the department. Shortly after, rightwing groups, such as Organizacion Nueva Generacion, Rastrojos, and Bloque Libertadores del Sur-Cordilleras, emerged in the aftermath of paramilitary demobilizations in 2005, particularly in the Pacific region (ODH, 2007). Together, these groups number as many as 800 combatants. Both the FARC and the new armed groups continue to recruit in the department as well as intimidate the population.

Nariño has been very attractive for drug traffickers for a number of reasons, including its proximity to coca cultivations in Putumayo and Caquetá, its access to export routes on the Pacific Ocean, as well as necessary inputs and money laundering activities in Ecuador and Valle de la Cauca.

In addition, the region is strategically important for the Illegal Armed Groups (GAI). It provides an isolated location, a source of income in the extraction of rents from the coca-cocaine supply chain, and the ability to seek refuge and retrieve supplies across international borders. This is illustrated by the recent capture of low-level FARC leaders in Ecuador's border provinces, an area increasingly used by drug traffickers because of the economy's dollarization, open trade, and money laundering opportunities. This is particularly evident in the fact that cocaine seizures now average 40 tons a year (USAID, 2005a).

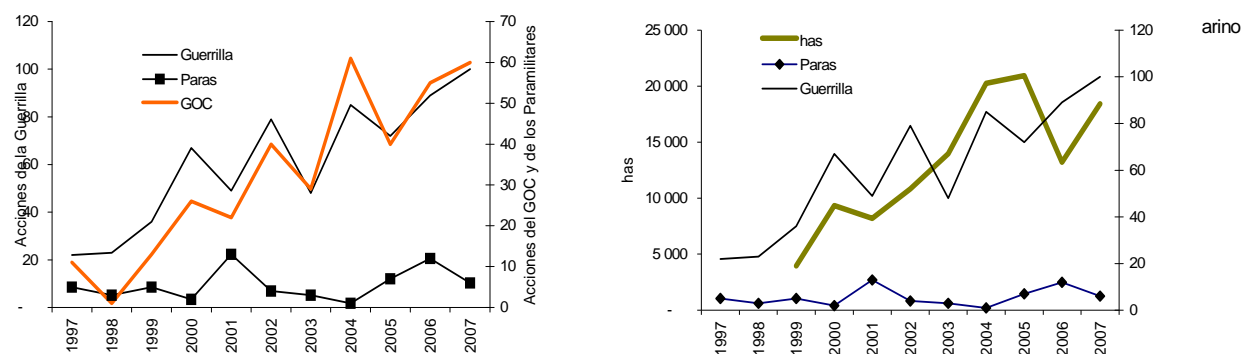
In Nariño, fighting between guerrillas and the Colombian government has seen an upward trend from 1997 to 2007, one closely related to the expansion of coca cultivation (Figure 1) though not its sole



source. Guerrilla actions are roughly six times those of the paramilitaries and nearly twice those of the government, and show no signs of decline. In 2007, paramilitary group activities saw a marked decline. Nonetheless, the paramilitary groups operating in Nariño continue to be the source of great violence and crime: they have been engaged in coercion during local elections, carried out massacres, and contributed to a rise in murder rates that go contrary to national trends. In fact the rate has risen above 200 homicides per 100,000 people in many municipalities in the Pacific region. It is said that the ELN controls the municipalities of Cumbitara, Los Andes, and Samaniego, while the FARC controls the southeastern Andean region and the paramilitary groups the Pacific region. Land mines are used by the GAI as a way to exercise territorial control increasing the risk to non-combatants.

“The municipalities of Tumaco, El Charco and Olaya Herrera, and others along the Pacific coast, represent an area of significant importance for both the FARC and drug trafficking groups, as well as the so-called “new emerging rightwing groups”. These municipalities are important because of their access to the sea, their border with Ecuador, through Tumaco, the presence of coca crops, and access to the Mira, Tapaje and Patia rivers, which serve as a corridor for the smuggling of coca and supplies. The above factors have resulted in a higher murder rate in the area as the many illegal groups clash (ODH, 2007).”

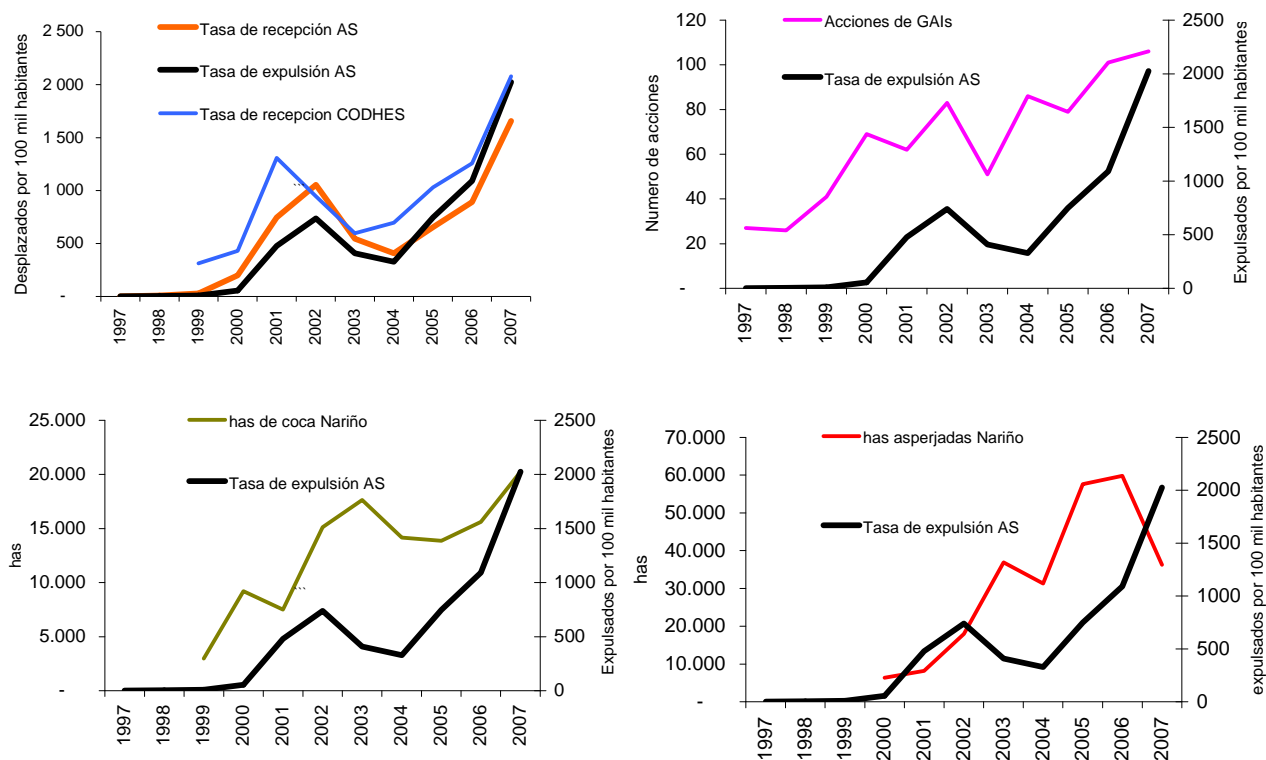
**Figure 1. Nariño, hectares of coca, military actions by the GOC, paramilitaries and guerrillas**



Source: SIMCI and CERAC

Due to the cultivation of coca, the intensity of the armed conflict and aerial crop spraying, and the strains these put on local populations, Nariño has experienced displacement rates that go beyond the national average since 2005 (Figure 2). Throughout the department, starting with the arrival of coca and the influx of guerrillas, there has been an intense struggle for control of territory. The struggle escalated as guerrillas were forced into the region due to a reduction of suitable areas in Putumayo and the results of a renewed GOC offensive (Plan Patriota), combined with resistance from local paramilitary groups in Sur del Cauca and the proliferation of new rightwing insurgent bands (ACNUR, 2008; ODH, 2007; CODHES, 2007).

**Figure 2. Displacement, Coca Spraying and Activities of Armed Illegal Groups (GAI) in Nariño**



Source: Acción Social, CERAC, DIRAN and SIMCI

Nariño tends to receive the largest number of internally displaced persons. According to *Acción Social*, between 1997 and 2007, there were 105,000 internally displaced persons in Nariño out of a population of 1.6 million (2005). The highest numbers were in 2007, with displacement rates of two thousand per 100,000 inhabitants (Acción Social and CODHES), and in the Pacific zone the displacements rates are double to triple the regional rates.

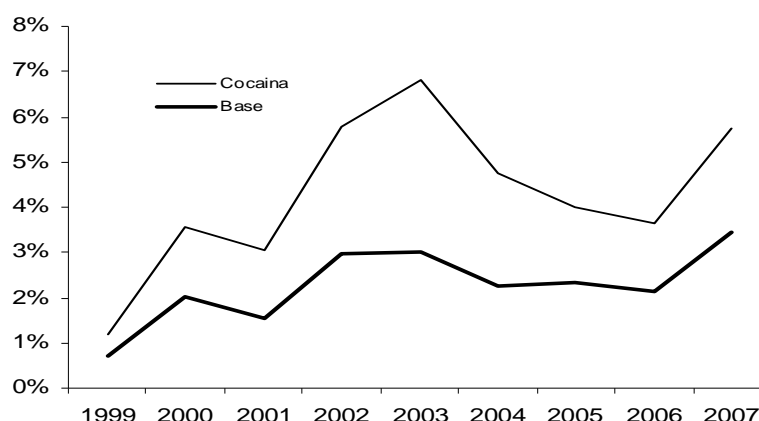
While it is not completely certain when coca was introduced into Nariño, it is known that by the mid-1980s coca was being cultivated in the municipalities of Policarpa, Leiva and Rosario in the eastern section of the Andean region, and in the municipalities of Olaya Herrera in the Pacific areas. During the period of economic liberalization reforms and the decline of grain production, many agricultural workers migrated to Putumayo, many of which returned after the first rounds of fumigations toward the middle of the last decade, causing a boom in coca in the western mountain range.

By 1994 it was estimated that up to 2,999 hectares of coca and 1,312 hectares of poppy were being cultivated (Uribe, 1999), mainly in the Andean region, but with expansion of coca crops in the Pacific areas as well.

While Nariño accounted for 20% of coca crops in 2007, its contribution to the national production of cocaine was somewhat lower because of lower crop yields (UNODC, 2008), so that supply of cocaine base reached 77 tons. Valued at domestic prices, this amounts to US \$102 million, or US \$170 million if transformed into cocaine, which would represent between 4% and 6% of the Nariño's GDP. If coca production in neighboring Putumayo is added to this amount, the total value would account for 10% of

the region's GDP. These numbers help to explain why drug trafficking has gained importance in the region (Figure 3). The impact has been far more intense in the Pacific region, where 90% of the crops are located, and where the local population has a standard of living 20% lower than the national average, even when the value is based on property prices.

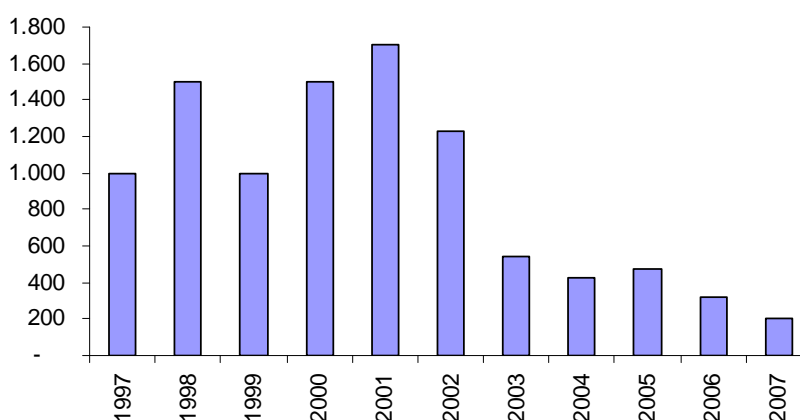
**Figure 3. Income from cocaine and cocaine base as a % of total Income in Nariño**



Source: DANE, SIMCI and compiled by the authors.

In 1994, poppy crops were reported in the following areas of the Andean region: Buesaco, Colón, Córdoba, Cumbitara, El Tablón, Funes, La Cruz and Leiva. Over the last decade, according to DIRAN, poppy crops increased from 1,000 hectares in 1997, to 1,700 in 2001, and have since decreased to 200 hectares. This represents around 9.7 tons, valued at US \$2.8 million, or the equivalent of 400 kilos of heroin priced at US \$4.4 million.

**Figure 4. Hectares of poppy in Nariño by Year**



Source: DIRAN, SIMCI , compiled by the authors.

## Policies implemented to control illicit crops

The perceptions of local institutional representatives (mayors, officials of local and national development organizations and related agencies) and farmers (farmers and farmer association leaders) were documented through six focus groups conducted in Puerres, Ipiiales and Tumaco (Table 1), centering on

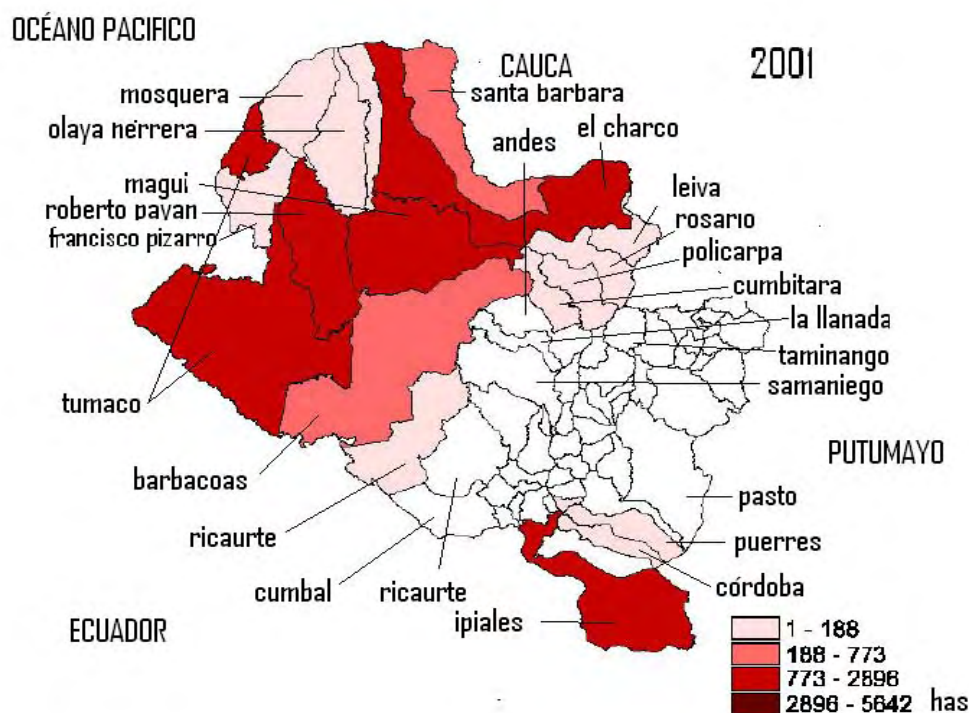
their interpretation of the of coca and poppy problem. The first two cities belong to the Andean region of Nariño. The first is a producer of poppy, while the second is a producer of coca, while Tumaco belongs to the Pacific region. Accordingly, the perspectives of local institutional representatives and farmers in the three areas complement one another, and help to provide an approximation of local perception in the department's two regions (Map 3).

Together, the two regions agree on the incentives to engage in the cultivation of illicit crops, including an unstable state presence and persisting insecurity, inadequate transport infrastructure, lack of legal livelihood alternatives, including high costs of doing business, and social and geographical isolation. Disincentives include state presence and improvements in sustainable human security, insecurity associated with coca cultivation, persistence of poverty despite the cultivation of coca, interdiction and crop spraying policies, availability of legal livelihoods, including through alternative development programs and broad-based community participation.

Illicit crops have been caught up in the violence of Illegal Armed Groups (GAI) in their pursuit to control more territory. This has caused all sorts of atrocities against the population and prompted an emerging public rejection from indigenous communities, which have organized into defense groups and community councils. The region's coca farmers provided a much more detailed account of how coca crops affect their welfare. Across the different groups in the three municipalities, there was a broad agreement on the negative effects growing illicit crops have had on families and the community: higher school dropout rates, prostitution and alcoholism, increased victims of violence, widespread corruption, and intimidation by illegal armed groups.

The cultivation of coca frequently pulls in armed groups and thus generates new insecurity for the population, with armed actors undermining the availability and sustainability of legal livelihoods and encouraging and sponsoring the cultivation of illicit crops. However, the relationship between armed actors and the population is complex: Forced eradication in the absence of alternative livelihoods fosters a positive relationship between the population and the armed actors, despite the population's resentment against the brutality of the armed actors and the lack of appeal of the vestiges of their ideology. Eradication without alternative livelihoods thus pushes the population into the hands of belligerents, resulting in the population's unwillingness to provide intelligence on the armed actors to the state. In a village visited in the Andean region, a member of the research team was informed by local farmers that when the state brought a credible promise of alternative development, the villagers provided critical information on both guerrillas and paramilitary groups in the area, mainly the Organización Nueva Generación, and the military was able to push them out of the area. During previous years of aerial spraying without alternative livelihoods efforts, however, the villagers were not willing to provide such information. Unfortunately, the persistent weakness of state presence in the area subsequently allowed Organización Nueva Generación to return.

**Map 2. Coca in the department of Nariño, 2001**



Source: SIMCI. Compiled by the authors.

**Table 1. Focus groups conducted in Puerres, Ipiales and Tumaco**

City	Date	Institution	Farmers/ Association
Puerres	October 8 <sup>th</sup>	Mario Piedrahita, Corponariño Rubiela Valenzuela, Corponariño Patricia Díaz, Sagán Guillermo de Velasquez, Sagan Emilio Figueroa, Contactar Alexander Cabal, Mayor's Office Juan Carlos Pantoja, Corponariño	15. National Association of Users/Farmers Puerres Anoc Súpercuy y Aprocuy (Husbandry) Aprocuy (Husbandry) Aprocan (Horticulture) Apar (Beans) Asofre (Uchuva)
Ipiales	October 9 <sup>th</sup>	Eduardo Chapalud, Secretario Desarrollo Gentil Varón, UMAT Carlos Ramírez, SATA Richard Erira, SATA Carlos Saa, SATA	5. SAGAN projects
Tumaco	October 10 <sup>th</sup>	Salvador Dasome, Council chairman Salomón Salazar, Reconpaz. Lucía Rodríguez, Acción Social. Alvaro Rodríguez, OIM Bismark Preciado, Cordeagropaz.	4. Cordeagrupaz (Palms). Cuerpomar Ancol Palmasiuta

Source: Authors.

However, there are marked regional differences. In the Andean region, there is an emerging initiative that supports a combination of alternative development programs and the voluntary eradication of illicit crops, which has been pushed by the PFGB in farming communities, but so far has not been successful due to a fragile consensus within the community and fiscal constraints.

In addition, the focus groups show that property rights provide a powerful incentive for interdiction, mainly in two ways: on the one hand, in areas dominated by *minifundios* (small farms), the bidding for leases provides a market mechanism that facilitates the expansion of illicit crops; while on the other hand, the distribution of property rights puts their control of territory at risk through property possessions.

The significant decline of poppy cultivation appears to have multiple sources, many of which are driven by the internal characteristics of the opium/ heroin market in the area and not primarily linked to direct counternarcotics policies. Among the internal market conditions are phytosanitary and commercialization problems of opiates, higher costs, and harsher working conditions in the highlands (coca cultivation in low-lying areas have benefited from an abundant labor supply bolstered by an influx of coca growers.) Critically, opium prices experienced a dramatic plunge approximately five years ago, from 750 pesos per ounce to 250 pesos per ounce, according to local government officials. Local counternarcotics officials suggested two reasons for the decrease in price: an increased supply of the opiates market from Afghanistan and an increase in government presence in the areas of poppy cultivation in Nariño. The greater military presence pushed the FARC away from the territory and resulted in a significant decline in intermediary demand for opiates.

It is also significant to note that much of poppy cultivation took place in an area with good infrastructure relative to Nariño standards where many farmers had legal titles to their land and where other legal economic opportunities, such as the Land of Lakes milk industry and potato cultivation, were readily available as replacement livelihoods. Nonetheless, these livelihoods were not sufficient to offset the income losses of many former opium farmers, and at least some of them supplement their income by illicit smuggling with gas and legal goods from Ecuador.

By contrast, in the Pacific region, where there is minimal state presence and intimidation from different Illegal Armed Groups, crop spraying policies provide a disincentive by making it more difficult for communities to reach a consensus on voluntary eradication. However, collateral damage to the legal economy, and the detrimental impact on subsistence farmers, has put illicit crop spraying policies into question. Additionally, the coca boom, sustained by the remoteness of the region, has led to higher prices and the neglect of subsistence farming, resulting in greater food insecurity. As a consequence, the intensity of monoculture and crop spraying has been linked to increased vulnerability to famine and higher rates of displacement. In the Pacific, the armed conflict and corruption from drug traffickers has left the state presence and legitimacy in a much more precarious position. In turn, government responses in the region are more passive, lack of property rights impede access to credit, and other inherent conditions of the conflict intensify the problems of forced displacement.

Interviews with both local counternarcotics officials and coca farmers revealed the ineffectiveness and potential counter-productiveness of the zero-coca policy that conditions any alternative development on a certified prior eradication of all illicit crops in a particular area. As a result of the policy, alternative development programs could not access the vast majority of coca farmers and many entire coca areas. Given that the vast majority of coca farmers in Nariño are both poor and resource-poor, the inability to deliver alternative development assistance undermines the sustainability of any reduction of coca cultivation due to eradication. Moreover, the zero-coca policy generates a negative self-selection process: only communities that are relatively resource-rich to start with and have access to licit livelihoods opportunities can decide to eradicate all legal crops and then apply for alternative development. But communities that are resource-poor, most dependent on coca cultivation and hence cannot afford to eliminate all coca crops, and in greatest need development assistance do not receive any assistance.

The zero-coca policy further compounds the inevitable time gap between eradication and the time when alternative crops can start delivering income to the farmers. Under the best of circumstances, when other structural drivers, such as access to land and microcredit and infrastructure, are effectively resolved, legal crops take several years to generate income. Meanwhile, the food security programs in place are frequently not sufficient in scale or extent to redress the dramatic income losses due to eradication. As coca farmers are predominantly poor, eradication of their coca crops frequently results in very large drops in income. In a village in the northern Andean region of Nariño called Santa Lucia, for example, coca farmers reported that after eradication they faced substantial drops in food intake and nutrition. While prior to eradication when they were cultivating coca, they could afford to eat meat every day, after eradication they could afford to eat meat only once a week; in some cases, only twice a month.

## **Alternative Development Activities**

There have been a series of alternative development programs in Nariño. Between 1991 and 1995, UNDCP engaged in crop substitution program in the municipalities of Rosario and Policarpa in the northern part of the Andean region. From 1998-2003, the GOC operated a program under PLANTE and from 2001 under the Fund for Investments in Peace (FIP). The GOC also carried out the Family Rangers (Familias Guardabosques, PFGB) project in 2003 and the Productive Projects (PPP) program in 2006, both of which were implemented by *Acción Social*.

Since 2004, USAID has implemented programs through ACDI-VOCA and since 2006 through ARD (ADAM and MIDAS). Since 2005 the Second Peace Laboratory LP2 of the European Community has carried out a program through the Association of Municipalities of the region of Alto Patia. There have also been new UNODC programs beginning in 2007.

These programs have sought to promote the social and economic integration of the poppy and coca growing regions. At first, the different programs focused on crop substitution, but later followed the broader approach of alternative development, with a diverse set of initiatives run by different operators and concentrating on communities. There has also been a lot of cooperation between the GOC and the international community: PLANTE-BID-UNDCP, LP2-MIDAS, UNODC-USAID-Acción Social. Since 2003, these programs aimed at eradicating coca have been selected with local participation and administered by farming and rural communities (Table 2).



**Table 2. Alternative Development programs in Nariño.**

Program	GOC						USAID		
			PFGB	PPP		LP2	AD	ADAM	MIDAS
Operator	PLANTE	FIP	Acción Social	Acción Social	UNODC	Asopatía	ACDI VOCA	ARD	
Period	1998-2001	2001-2003	2003-2007	2006-2007	2007	2005-2006	2004-2006	2006-2007	2006-2007
<b>1. Activities</b>									
Families	2.425	6.027	15.716	3.560	1.171	2.697	1.706	4.013	5.548
Hectares	556	5.266,0		26.849	26.672	n.d	1.488	9.423	7.913
Value US\$ Mil	0,6	3.1	27.5	1,2	7,3	0,4	1,6	4,3	2,0
Description	coffee, livestock, potatoes, food security, lulo, beans, silviculture, horticulture, pork	palm, fisheries, coffee, forestry	US\$ 5,700 per family during 3 years (2002-03). From 2005 US\$ 1.5000 during 18 Months & saving for PPP.	cocoa, rubber, Coconut, coffee, forestry	Palm, Cacao, Coconut, forestry	Food security, pork, poultry, fisheries, dairy, peanuts, fruits	Coffee	Coconut, cocoa, fruits, dairy, silviculture	Cocoa, coffee, Palm, Tourism, Fruit, Dairy
<b>2. Other activities</b>									
Families	5677					1.303		774	
Value US\$	2,4					0,3		2,0	
Description	Transportation, education, sanitary, energy, bridges, SMES, infrastructure Technical and Management assistance					Cultural management, housing, income generation		Dairy education, transportation, Housing for displaced, infrastructure institutional, strengthening Radio stations And development plans.	
<b>3. Total</b>									
Families	8.102	6.027	15.716	3.560	1.171	4.000	1.706	4.787	5.548
Totals US\$ mills	3,0	3,1	27,5	1,2	7,3	0,6	1,6	6,3	2,0

Source: ARD, PDPMM, Acción Social and FIP. Calculations compiled by the authors.

The UNDP (COL 85.426) pioneering crop substitution program was conducted in the Andean region where social, infrastructure and living conditions were extremely precarious. To improve their situation, some farmers resorted to the cultivation of coca in order to qualify as beneficiaries.

During the last decade, the National Plan for Alternative Development (PLANTE) of the GOC (CONPES 2799 of 1995) operated (Act 368 of 1997) with resources from the Italian Government, the GOC national budget and the IDB. Inspired by the National Rehabilitation Plan (PNR), PLANTE was created to complement spraying. PLANTE worked with local farmer associations and through alliances with the private sector to increase the conservation and restoration of fragile areas, institutional and community strengthening, infrastructure projects, technology transfer programs, and rural development projects in order to provide support to indigenous people.

In Nariño, between 1998 and 2003, PLANTE programs, worth USD 0.6 million, aimed at promoting coffee, pork products, livestock, potatoes, food security, oranges, beans, forestry, and horticulture. During that period, productive and infrastructure projects benefited up to 5,677 families. These projects were managed in accordance with the needs of communities, all of which were in the Andean region.

Within the framework of Plan Colombia, in 1999, the GOC launched the Investment Fund for Peace (FIP), which carried out activities worth USD 3.1 million covering 5,266 hectares planted with palm and coffee. Other activities were: aquaculture production and forestry, which benefited 6,027 families. Half of the budget went to the Pacific area.

The Segundo Laboratorio de Paz is an initiative sponsored by the European Community and the GOC, inspired by the Development and Peace Program (Programa de Desarrollo and Paz) of Magdalena Medio. That program's goals are based on implementing a culture of peace, and strengthening institutional and socio-economic development. This initiative, implemented by the Asociación Supradepartamental de Municipios in the region of Alto Patía, (Asopatía), covers the municipalities of the Andean region: Arboleda, El Rosario, El Tambo, La Union, Leiva, Policarpa, San Lorenzo, San Pablo, San Pedro de Cartago, Taminango, Cumbitara and Los Andes.

In 2003, Acción Social (previously FIP), introduced two new programs tied to the fulfillment of eradication pacts. Although both initially were separated geographically, it was expected that both would operate in sequence. These are the Forest Rangers Family Program (PFGB), which is a food security program for areas outside of the agricultural frontier that aims to protect the environment followed by the Productive Projects Program (PPP) which aims to provide technical, social and entrepreneurial training.

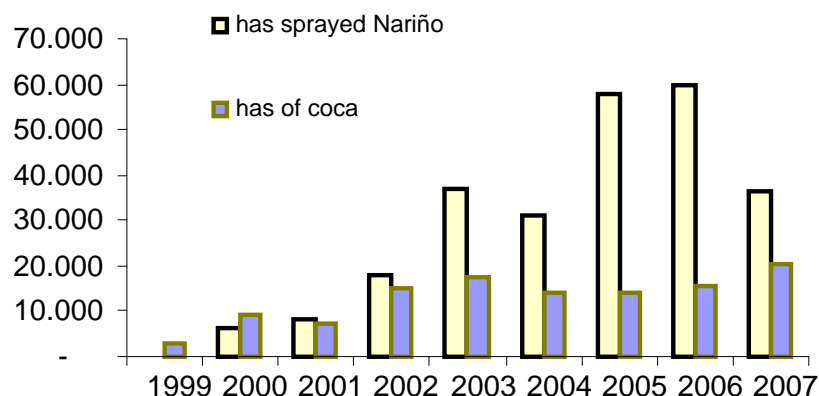
During 2003 and 2004, (phases I and II), a total of USD 5700 was given to each family over a three year period. However, in 2005, the PFGB cut the program duration to 18 months and the sum provided to USD 1500. Additionally, a method of forced savings was implemented in order to use it in a PPP. The program, in the Andean area of Nariño, has disbursed USD 27.5 million and covered an average of 15,700 families per year through 2008.

The PPP supports a range of activities located including cocoa, rubber, coconut, coffee and timber production. Acción Social and USAID through this program seek alliances with producers and private companies. The monitoring and compliance is done by UNODC. Since 2007, the PPP has covered 26 thousand has and 3560 families out of an investment of \$ 1.2 million. Out of the total value of the projects, 37% corresponds Acción Social's input, 2% correspond to savings from PFGB, and 37% to ADAM-USAID. These were mostly carried out in the Pacific region.

Between 2004 and 2006, ACDI-VOCA focused on the production of coffee in the Andean region of Nariño benefiting 1,706 families and 1488 has, investing \$ 1.6 million. Subsequently, ADAM has invested USD \$ 6.3 million directed at increasing productivity, building infrastructure and strengthening local governments. The former include the support for forestry and the production of coconut, cacao, fruits, and dairy products. This represented USD \$ 4.3 million and 43% of the value of the projects. Programs related to the provision of infrastructure comprise the maintenance of roads, milk processing plants, and housing for the displaced. MIDAS has covered 7,913 has planted with cocoa, coffee, African palm, and fruit and supported dairy production and tourism. It has invested USD 2 million while benefiting 5,548 families.

In 2000, 6400 has were sprayed. Since 2003, spraying has increased in intensity and coverage. That year 34 thousand has were sprayed (2.2 times the estimated area of coca), and the spraying of the Andean region began. In 2005, spraying exceeded 54 thousand has, a record, considering that it represented 4.1 times the area of coca estimated in the department (ex. the town of Tumaco?). The following year the spraying in the Andean region increased to 60 thousand has with an intensity of 4.6 (almost double the national average). In 2007, the spraying declined to 36 thousand has (Figure 5).

**Figure 5. Hectares under Coca Cultivation and Aerial Spraying in Nariño**



Source: SIMCA and Diran

Resolution 017 of the National Narcotics Council (CNE) in 2001 established a procedure for dealing with complaints arising from the alleged damage caused by aerial spraying with the herbicide glyphosate as part of the program for eradication of illicit crops. Between 2001 and 2007 Nariño reported 3,497 complaints, half of which were reported in 2003 when spraying increased and started in the Andean region. In 2008, 11 complaints received economic compensation, 284 were pending and the rest were withdrawn or rejected by the GOC's Interagency Complaints Resolution Committee due to inconsistency with the coordinates, dates and hours, and by verifying the existence of coca. Moreover, some interviewed farmers maintained that although their legal crops were destroyed by spraying, they could not report the incident because they could not afford to cover the costs associated with the claim procedure, including travel, photo and other documents, etc. Others said they would not report the destruction of the crops for fear of disclosing their illegal cultivation and becoming subject to further eradication or prosecution.

The interdiction of laboratories in 2007 was particularly intense in Nariño where 549 laboratories were destroyed, including 2 laboratories exclusively dedicated to the production of heroin and the rest to cocaine. Seizures of cocaine base represented 1% of potential output in 2004 and 7% in 2007.

## Results and Impacts

So far the implementation of Plan Colombia in Nariño has not managed to contain the expansion of coca cultivation, nor the spiral of crime and violence associated with drug trafficking. There also appears to be a lack of coordination between the three components of the overall approach, eradication, interdiction and alternative development.

Alternative development programs are increasingly inter-institutional, but independent from implementation of spraying and interdiction policies. Furthermore, structural factors such as infrastructure and the presence of the state remain as unmet needs in much of the department. The Pacific region is virtually disconnected from the rest of the country as well as between its constituent municipalities. Similarly, respect for the law is precarious in the face of massive fraud and the financial pyramids that are visibly linked to money laundering.

Indicators for coverage<sup>57</sup> of alternative development programs show progress compared to the last decade both in terms of population and regional levels. Plante and the FIP closed operations in 2001 and 2003 respectively with families assisted equivalent to 2% of the total population. In that period, the number hectares covered by the programs accounted for up to 30% of the coca reported. The programs that remained significantly increased coverage, with PFGB practically doubling, although its focus did not include the Pacific region. The area of licit cultivation as a percentage of the area of coca cultivation has increased (Table 3) even given rises in coca cultivation and a limited range of licit crops.

**Table 3. Coverage indicators of Alternative Development in Nariño**

Program	GOC						USAID		
	PLANTE	FIP	PFGB	PPP	UNODC	LP2	AD	ADAM	MIDAS
% de	1998-2001	2001-2003	2003-2007	2006-2007	2007	2005-2006	2004-2006	2006-2007	2006-2007
Vulnerable Pop. End of period	41%	30%	74%	17%	6%	19%	8%	23%	26%
Total pop. End of period	2%	2%	4%	1%	0%	1%	0%	1%	2%
Coca area. End of period	7%	30%		133%	132%		10%	47%	39%
% coverage in Pacifico									
Families	0%	6%	0%	48,4%	100,0%	0%	0%	17%	13%
Has	0%	33%	0%	99,2%	100,0%	0%	0%	25%	85%
Values in US\$ Mills	0%	47%	0%	81,8%	100,0%	0%	0%	23%	68%

Source: Table 2, SIMCI y DANE. Calculations compiled by Authors.

The growth of coverage becomes much more obvious when one considers the number of families vulnerable to coca cultivation instead of the total families. (This number derives from an econometric estimation where families that are identified in the Quality of Life Survey are very similar to those families who grow coca according to the survey conducted by Operation Breakthrough.) In Nariño this number can be estimated at 95 thousand of which two thirds would correspond to the Pacific region where there is less coverage by AD programs. Factors such as the inability of PFGB programs to achieve a community consensus regarding the zero coca policy limited AD efforts in the region.

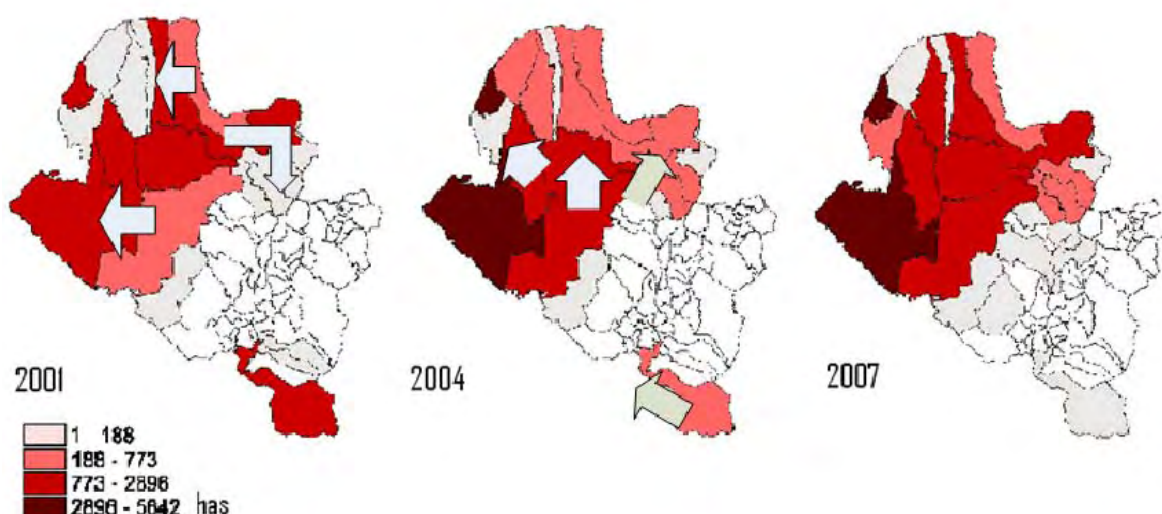
The Nariño case illustrates how coca cultivation shifts under pressure from eradication. Over the past decade, intense spraying in neighboring Putumayo, covering 90 thousand has. between 2001 and 2002, and the consequent drop in coca production from 67 thousand to a little over 6 thousand has, gave rise to the return of the settlers coming from Nariño along with others from Putumayo (Ramirez, 2001). Estimated coca cultivation in Nariño increased from 3 thousand has to 17 thousand has in 2003.

In Nariño, up until 2003, aerial eradication was confined to the Pacific region. Coca cultivation moved to the north of the Andean region, while also spreading within the Pacific region. (Map 4). While 60% of the growers' lots have decreased due to spraying (UNODC, 2007), spraying has not managed to contain the growing expansion of coca crops. Growers have developed strategies to mitigate the effects of spraying by moving and dispersing plantations.

The mobility of cultivation explains in part why the extent of new coca plots is higher in Nariño than the national average (SIMCI, 2008) and the rate of expansion of cultivation is positive when compared with Putumayo and Caqueta

<sup>57</sup> Some of the programs are joint ventures between the GOC, international community, NGOs, private sector and communities. This information was obtained separately and the indicators were compiled by adjusting the original information in order to illustrate the maturity of the projects. That is to say, individual contributions are compared with project results. Aggregate indicators are not used because in many cases this would skew the results.

**Map 3. Coca in Nariño between 2001 and 2007**



Source: SIMCI. Compiled by the authors.

Empirical data obtained by the focus groups reflect perceptions regarding the programs and institutions in Puerres and Ipiales as an example from the Andean region and Tumaco as an example of Pacific region. Among these institutions are the mayor's office, Corponariño (regional environmental authority), and the PFGB. (Table 4).

In the Andean region, voluntary eradication and PFGB are deemed to be positive for local development. Also, the difficulties of reaching consensus and then the uncertainty of the completion of programs are also mentioned. Programs that offer options for a diversification of production (due to the risk of monoculture and market fluctuations) are considered the most beneficial. Focus group participants highlighted the benefits of the programs that have made investments in infrastructure and institutional strengthening, while criticizing the damage caused by spraying and lack of humanitarian aid.

In the Pacific region, focus group participants emphasized the value of programs that had made investments in infrastructure and institutional capacity building. They also criticized the damages resulting from aerial eradication and the response to damages caused by spraying. They also attributed a greater role to international cooperation, mentioning that international cooperation programs offered a wide range of initiatives. Their critique of that diversity was that it could have a greater impact if the initiatives were better coordinated.

**Table 4. Perceptions of institutions, programs and International cooperation within focus groups**

	<b>Puerres e Ipiales</b>	<b>Tumaco</b>
1.3 What is the most important institution?	Mayor's office, UMAT, Corponariño and PFGB.	Acción Social, Ecofondo, international cooperation
3.4 Which activities have been the best?	The PFGB and voluntary eradication programs. The change towards monoculture and its diversification. Provisions for productive	Investments on productive infrastructure, road and urbanization. Programs if institutional strengthening and community organization.

	<b>Puerres e Ipiales</b>	<b>Tumaco</b>
	infrastructure.	
3.5 Which activities have been the worst?	Difficulty of meeting the requirements and the frustration due to the poor outcomes. Programs without integrity and productive projects with lacking commercial security.	The damages caused due to aspersion and the answers to the complaints. The spraying projects and the lack alternative development programs as well as food insecurity.
3.5 Comment on International cooperation	Identify programs.	Diversity and initiatives and the necessity to articulate a bigger impact.

Source: Focus Groups. Compiled by the authors

Looking at the balance of programs between the two regions of the department, there is a concern expressed that the greatest part of the resources provided center on the Andean region. This is illustrated by the inability to carry out the PFGB in the Pacific Region. To this we can add the vulnerability of the programs to armed conflicts where communities are intimidated to not participate in alternative development and to unfairly complain of spraying in order to promote dissatisfaction with Plan Colombia.

Efforts directed at generating a civic culture based on social equity, tolerance and legality have been limited. Corruption in local politics and the growing intimidation of the population by the illegally armed groups who are involved in drug trafficking are significant barriers to all development programs.

### **Prospects and proposals for the future**

Alternative development programs in Nariño between 1998 and 2008 had a total budget of \$ 52 million. The intensity of spraying and interdiction has increased. However, these efforts have not achieved their desired results in terms of reducing cultivation and ensuring security. It appears that in order to make progress towards meeting goals will necessarily involve greater resources and the reformulation of the current strategy.

The focus groups provide suggestions for change. For example, in order to have greater success, these programs should offer tangible results reflected in improve standards of living and need to follow rapid and sustainable improvements in security. Consultation with local communities regarding the design and implementation of programs will ensure increased transparency and the efficient use of resources. Projects that integrate a concern with building a culture of law and ensuring security are also likely to be more successful. The focus groups also expressed concerns for the future regarding the consequences of conflict and the coca economy's impact on social values. Similarly, the groups expressed uncertainty regarding the vulnerability of monoculture to fluctuations in the market and the competition between small scale farming and large plantations.

**Table 5. Perceptions of institutions, programs and International cooperation among focus groups**

	<b>Puerres and Ipiales</b>	<b>Tumaco</b>
4.1How would the situation improve?	More effective programs to improve the quality of life	Recognition of community organizations.
4.2What proposals should be in place to avoid the cultivation of coca?	Projects integrating social values and economic development and higher monetary income	Diversified Production.

	<b>Puerres and Ipiales</b>	<b>Tumaco</b>
4.3 What should be done first?	Strengthen and consult with community organizations.	Consult communities.
4.5 Concerns for the future.	Marketing and higher costs for raw materials. Migration and return of illegal crops.	Vulnerability to monoculture, and competition against commercial agriculture and the social consequences of coca.

Source: Focus Groups. Compiled by the authors.

Since the beginning of 2008, the office of the governor of Nariño has undertaken a “voluntary substitution” pilot project, designed to work with communities to voluntarily abandon illicit crops and switch to legal crops. So far, it is to be implemented in the municipalities of Leiva and Rosario, located in the north of the Andean region (372 hectares of coca in 2007). This program is based on a consensus of the majority of the population to abandon coca and a commitment from the government to not carry out spraying activities during the three years of implementation and to ensure security. Self-eradication of illicit crop is expected to begin after 6 months of the initiation of the project, although the community does not have to be 100% coca free at that time. Assistance to 4 thousand families has been proposed along with productive projects, institutional strengthening and the promotion of civic culture. Technical assistance, food security, infrastructure, irrigation, and microcredit are to be provided through the governor’s office, while the local farmers are to invest a portion of their income in the project to assure that they have a direct stake in its success. An NGO called Vallenpaz, with a budget of \$ 15 million, is to help with commercialization, mainly in Cali, and with the establishment of value-added chains. This is a pilot project, which is expected to be replicated in the rest of the department contingent on the sustainability of results and the interest of and effective involvement of donors.

The project design closely resembles highly effective alternative development projects in Thailand that resulted in a country-wide elimination of opium poppy cultivation, and it appears to have a great potential to reduce coca crops in a sustainable way. However, several difficulties are already present. First, security is still highly precarious in Leiva and Rosario. The presence of illegal armed groups threatens both legal livelihoods efforts there as well as institution-building, with both local community organizers and consultants already targeted by armed groups. State-presence, including security and police presence in the area, is sparse. Second, some of the timelines in the project design while often driven by demands in Bogota, such as that a substantial voluntary eradication of coca takes pace after 6 months of project initiation, appear unrealistic due to the difficulties of addressing structural drivers of coca cultivation. Third, as of November 2007, sufficient funding for the project had not yet been secured.

## Conclusions

Nariño, since 2000, has become a center for coca cultivation despite efforts to increasing efforts to reduce that cultivation. This is particularly the case in the Pacific region of the department. The Pacific region lacks access to markets, even internal ones within the department. State presence is weaker in the Pacific region than it is in the Andean region with significant activity by illegally armed groups. There also has not been an adequate level of coordination between the various pillars of the CN strategy: above all eradication and alternative development. Critically, insecurity and the lack of state presence remain high in large parts of the department and eviscerate counternarcotics efforts.

The success that can be pointed to, the decrease in poppy cultivation, appears to correspond to the adverse environmental and labor conditions of the undertaking in the area, along with an increase state presence rather than to direct outside counternarcotics interventions.



The increase in coca cultivation has multiple sources, including persisting insecurity and the involvement of armed groups in the drug trade as well as continuing structural economic drivers, such as the lack of multiple and complex resources for legal livelihoods.

Institutional strengthening is in its initial stages mainly with regard to community organization, despite the leadership of the community councils from communities with Afro-Colombian descent and indigenous reserves. These community councils do not have an effective dialogue with other local institutions. Poor integration of the territory within the department and with the rest of the country as well as the forced displacement of population due to coca monoculture and spraying contributes to this lack of dialogue with local authorities.

In response to the growth of coca cultivation, there has been an expansion of Plan Colombia related programs, but much remains to be done. Effective state presence remains weak in many areas. Aerial eradication has generated resentment toward government and increase acceptance of illegal armed groups, especially when spraying is not directly linked to assistance to the communities. The zero coca policy prevents resource-poor coca farmers from accessing the necessary resources for sustainably switching to legal crops, and paradoxically perpetuates their dependence on coca cultivation and fuel insecurity by antagonizing the population from the state and pushing it into the hands of the belligerents.

At the same time, many coca farmers in the region are clearly ready and willing to switch to legal crops if they can have access to the necessary resources. There is interest within the communities for more integrated programs that focus on community priorities. The pilot program in Leiva and Rosario may represent a possible model for other municipalities in the department. Food security projects are also essential, especially when conditions of isolation and monoculture prevail. Development projects, to be realistic, require support for the infrastructure needed to provide access to markets.

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## ANNEX 4.

### **“WHY THE CHALLENGE FACING COLOMBIA IS NOT TO LEGALIZE DRUGS BUT TO LEGALIZE COLOMBIA” BY FRANCISCO E. THOUMI<sup>58</sup>**

(Paper commissioned for this assessment)

#### **I. Introduction**

Colombia today is the center of the world’s coca and cocaine production. For three decades it also was the principal world trafficker of cocaine. The structure of the coca-cocaine and opium poppy-heroin industries in the world cannot be explained by traditional economics analysis. These are extremely profitable activities that do not require particularly special skills and that can take place in many parts of the world. Yet, they are, and have been, concentrated in a few countries. Indeed, over 90% of illicit plant based drugs are produced in only three countries. The problem for Colombia is not that it produces cocaine, but that it is the center of the illegal cocaine industry; and this requires an explanation.

The illegal cocaine industry has changed Colombia. Today the Colombian predominance in cocaine distribution in the U.S. market is being challenged by Mexican cartels, but its trafficking networks continue to export to the rest of the world and to parts of the U.S. Large areas of Colombia have been controlled by left and right wing guerrillas or paramilitary organizations. Drug trafficking organizations have funded all sort of political campaigns for three decades. The social support networks needed to sustain a large criminal economic activity have included members of all social strata. Today a large number (78) of congressmen, mainly members of the government coalition, are indicted or in jail because of their links to paramilitary groups. Others are prevented from making key votes because they have a conflict of interest due to tax evasion and other charges. The Colombian government has been fighting guerrillas, paramilitaries and drug traffickers for a long time.

During the Uribe administration (2002 on) there have been significant advances and his “Democratic Security” program has been praised by many in Colombia and abroad. Despite these advances, there have been some events that raise important questions about how many Colombians look at human rights. In recent months it has become clear that the armed forces have produced “false positives”, a euphemism for kidnapping and assassinating civilians who are presented as dead guerrillas in order to show advances in the fight against subversive groups. Other “false positives” are the staging of “terrorist attacks” that are discovered and neutralized before they take place. These have been used by the military to obtain promotions or other benefits.

According to the U.S. Department of State Colombia has been the leading producer of counterfeit U.S. dollars. It also counterfeits Euros and other currencies. In 2006 an underground factory of Australian and New Zealand dollars, the most difficult to counterfeit currencies, was found in Bogotá. It also produces first class European passports. Colombia today is among the top countries in the number of land mines and last year had the largest number of land mine victims. It is the second country in the number of child soldiers and displaced people in the world. It is a main exporter of Latin American prostitutes. It is a country where real estate is literally stolen by gangs that falsify the identity of the owners to transfer deeds and then sell the properties. Not surprisingly, one finds many “not for sale signs” around the

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<sup>58</sup> The author thanks Marcela Anzola for her comments and support.

country. In many Colombian cities people do not take taxis on the street for fear of “express kidnappings” (“paseos millonarios”) in which they are forced to surrender credit cards and empty bank accounts.

The country has a long tradition of engaging in contraband. This activity is considered legitimate in parts of the country. Along the Colombian-Venezuelan border there are many examples that show social approval of those practices. In Maicao, for example, there have been civic marches demanding the right to smuggle. The establishment of a DIAN (National Tax and Customs Office) in Guajira was a main reason why that was one of the only two departments not carried by Uribe in the 2004 election; the other being Putumayo, the object of massive aerial coca field spraying.

In the last couple of months several financial pyramids have collapsed and the government has intervened in one of them, DMG, a complex money laundering, pyramid and trading conglomerate. Several million Colombians had “invested” in these schemes that promised huge returns. DMG mixed a Ponzi scheme with wholesale distribution of household goods and services coupled. It grew from a small operation in Putumayo to a network with offices in several countries which might be a reason why it was able to operate for several years without overt collapse. Interestingly, a large number of Colombians defend those Ponzi systems and consider that the returns that they promised were normal. They argue that the economic elite forced the government to close them to eliminate competition. Civic marches in several cities have supported the pyramids blaming the government for their collapse. Banners such as “let us work”, “Uribe traitor” and “Murcia kidnapped by Uribe”<sup>59</sup> are indicative of people’s beliefs. SEMANA columnist Alfredo Rangel, one of the country’s main opinion makers has criticized those who argued that investors in the pyramids should be responsible for expecting returns of about 200% and 300% every couple of months because these are acceptable in the current capitalist system (Rangel, 2008a, 2008b, 2008c). In some departments like Putumayo and Nariño a large proportion of the population deposited their funds in pyramid schemes. Many there blame the state’s lack of control. This has led to requests for government compensation for those who invested in the pyramids. Martínez-Betancourt, a former senator from the region, even demanded central government compensation claiming that the government has kept Nariño abandoned since independence in retaliation for the department’s support of the Spanish in the war of independence (Martínez-Betancourt, 2008). The governor of Nariño has also formally requested that the central government extend soft loans to the investors in the pyramids with low interest rates and a repayment of only 50% of the loan value. It is not surprising that Colombians frequently refer to the Colombian market system as “savage capitalism”.

President Uribe has enjoyed high popularity ratings. Those have survived the indictment and jailing of a large number of congressmen from his coalition, the false positives scandal, the confession of a congresswoman who declared she received a promise of compensation in exchange for a key vote to change the Constitution to allow for Uribe’s reelection,<sup>60</sup> the failure of his referendum to establish a new a political and economic agenda, and the failure to negotiate a FTA with the United States among other events that show that Uribe has not been able to implement a significant part of his policy agenda. Some of Uribe’s supporters have collected over 5 million firms requesting a referendum to allow for another reelection. The pyramids’ scandal however, is likely to be the Achilles’ heel of these efforts as it has been the only event that has scratched his Teflon. This reflects a society in which money is clearly more important than human rights or democracy.

All these facts show that in order to formulate and implement successful policies it is necessary to understand the relationship of many Colombians with the state, and the way they perceive themselves before the law and the rest of society. To advance in this direction it is important to understand the controls imposed on individual behavior by the state and other institutions.

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<sup>59</sup> David Murcia-Guzmán is the head of DMG.

<sup>60</sup> She is currently in jail for that crime.

## II. A Simple Model of Crime and Human Behavior

Humans are selfish but also social. Throughout history there has been a tension between the desires to obtain individual benefits and status and to belong to a society. The point is that there are two forces that move people: their desire to achieve individual goals such as wealth and power, and the fact that belonging to a community generates benefits to the individual and to others. If individuals follow their drive for individual benefit alone the result would be that a few achieve limited local success and most remain poor and frustrated, but if there is cooperation, most people would benefit. Banfield's (1958) classic study of Italy half a century ago illustrates the point. In Southern Italy there was little state presence, and social networks were weak. People relied only on the family to obtain simple services from the state. Organized crime developed and became a para-state. Individual ethics were characterized by what Banfield called "amoral familism". The result was economic underdevelopment and corruption. This case was further studied by Putnam (1993) who showed how strong social networks (social capital) have contributed to the development of Northern Italy in contrast to the underdeveloped Southern Italy. In Southern Italy the state and other social institutions imposed few controls on individual behavior while in the North individual actions confronted more constraints, but the overall result was much better. In appearance people were freer in the South although they did not have access to freedom giving infrastructure, public services (good education, health, etc.) and security.

Scholars identified the gap between the formal and informal behavior norms as a principle obstacle in establishing the rule of law in Colombia a long time ago (Thoumi, 1987, Herrán, 1987, Kalmanovitz, 1989, Mockus, 1994, Yunis, 2003, Puyana-García, 2005). There is no question that societies in which the formal rules and norms are reinforced by the informal or social norms stressed by family, religion, peer groups, schools, etc. a low level of violations of the law is achieved with relatively little law enforcement efforts. On the other hand when the two types of norms differ significantly, law enforcement becomes difficult because it has to go up against informal norms. One can formalize the problem represented by anybody who confronts the possibility of violating the law as a cost-benefit decision in which the person evaluates the expected benefits of the illegal action and compares those to the costs it would generate. These include not just the expected discounted value of the possible sanctions imposed by the state but also the value the individual attaches to the social sanctions imposed by his or her family, peers, religion, etc., and the value of the internal sanctions that the individual feels (self controls).

As discussed more fully in Thoumi (2003, chapter 3), the social and internal sanctions could prevent or encourage the illegal action. When there is no gap or a small one between social and formal norms, the social sanctions are an obstacle to illegal activities but when there is a large gap, they encourage them. For example, family and friends might praise a successful tax evader or smuggler.<sup>61</sup> In the United States some young ghetto males have considered going to jail as a rite of passage into adulthood. In these cases the formal and informal norms work in opposite directions.

Every society has bad apples. It may be posited that in every society children at birth have a distribution of propensities towards violating the law, that is, because of personality or unknown factors, some would be more prone than others to break norms. Criminology does not fully explain why this is so, but one can observe that this happens. While there is no reason to believe that some countries have more or less children that at birth would be prone to break norms, it is clear that crime rates vary greatly across countries and communities. It cannot be denied that the socializing process molds people and in some societies adults are more prone to law breaking than others. When there is a large norms' gap the interaction of anti-crime policies and formal and informal norms can at times produce highly

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<sup>61</sup> Guissarri (1988) found that tax evaders in Argentina bragged about their success. In Medellín the "crowning" (safe arrival) of a cocaine shipment to the U.S. was openly celebrated with big parties, firing of shots into the air and great fanfare.

counterproductive results. The conflict and confusion among norms tends to produce people with low self control because first, people realize that formal norms could be easily broken. Second, it creates uncertainty about what the norms are. Third, it weakens the possibility of sanctions.

Anti-crime policies must be implemented by individuals who are part of the society and who have been socialized in it. In Colombia a significant number of law enforcement agents and government bureaucrats have low self-control and confront social norms that are conflictive and that might encourage violating the law. The “false positives” mentioned above are an extreme and sad example of how when there is a large conflict of norms, anti-crime policy incentives may produce abhorrent results.

It should be pointed out that a norms’ gap may lead to violations of the law but not necessarily to crime for individual economic benefit. For organized crime to develop, one of two other conditions is necessary. First, the informal social norms of behavior should allow individuals to disregard the effect of their actions on other people. In other words, the negative effects that drugs may have on consumers and society at large should not be an obstacle for an individual to engage in illicit production or trafficking. That is, people should be individualistic and selfish. An ethnically divided society may have a marginalized group and can exhibit a gap between formal and informal norms. But if within the marginalized group there is a strong social cohesion, solidarity, dignity and respect for human life, it would not produce or traffic in a product or service that is perceived as damaging to fellow humans. In Nepal, for instance, there is a large gap between the country’s laws and the behavior norms of Buddhist monks. Nepal might have appropriate land and weather for the production of opium and heroin, but it does not produce them. Second, individuals or social groups should feel justified producing drugs because they can be a weapon against other groups or a foreign country. This would be the case of an alienated group that takes arms or uses drugs to fight for what they consider a superior goal such as overthrowing the government or liberating the country.<sup>62</sup>

It is useful to point out that this model is consistent with Mockus (1994) who argues that Colombians are “culturally amphibious”, that is individuals who live with “three behavior regulatory systems that are relatively autonomous. This autonomy expresses itself in the possibility to distinguish in the same argumentative plane what is morally valid, what is legally permitted and what is acceptable culturally, even in cases in which the three coincide”. According to Mockus, the law defines what is legally permitted, social mores what is morally acceptable and the culture what individuals themselves consider valid behaviors.<sup>63</sup>

The norms’ conflict has dire consequences on a society as it leads to significant differences between legality and legitimacy. The coincidence between legality and legitimacy reinforces not only general law compliance but also property rights. When there is a significant gap, individuals become ambivalent towards the law and activities and actions can be legal and legitimate, legal and illegitimate, illegal and legitimate, and illegal and illegitimate. In this environment laws are perceived by many as imposed from above without much input from social groups. Some will attempt to change the law, but many will try to

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<sup>62</sup> As the elders of a tribal village in Pakistan’s Northwest Frontier Province once told me: “yes, we know that opium is ‘haram’, and that is why we do not consume it; it is only for Infidels”.

<sup>63</sup> The model is also consistent with Elster (1984, 1998) who argues that most human decisions are made in response to interests (money, power, status, etc.), reasons (determined by mores) and emotions (triggered by beliefs). There are other decisions made in response to other factors: “Emotions differ from other “visceral factors” (Loewenstein 1996) such as pain, hunger and drowsiness in that they are triggered by beliefs. Although some emotions may be triggered by sensory signals rather than by cognitions (Le Doux 1996), and pain as well as hunger may be influenced by beliefs, the contrast remains broadly valid” (Elster, 1998: 49). Similarly, the model is consistent with legal theories about norms. See for example Bobbio (1987).

influence law makers to formulate laws that would reflect the norms and values of special groups. When this happens, disrespect for the law deepens.

The problems of segmented societies, that is, those with several groups that have different social norms, if they persist, become aggravated over time. This problem is aggravated when there are technological changes, infrastructure development and population displacements. For many, it becomes clear that particular norms are valid within a group or tribe and but not to others. Not surprisingly, at least some individuals will lose respect for the socially imposed norms. If the state has a low capacity to enforce its norms, and social norms weaken, many individuals' self-control would also weaken. This would result in what may be called an "amoral individualism" which provides a fertile ground for the development of organized crime.<sup>64</sup>

### **III. Colombian Institutions and Crime**

There is no consensus about the concept of institutions. North (1990) makes a useful separation between formal and informal norms (which he defines as institutions) and the organisms engaged in enforcing those norms (the state and its agencies, religions, schools, social clubs, etc.) which are considered by many others as institutions. This separation is useful to understand the difficulties found by efforts to strengthen law enforcement agencies in the presence of conflicting norms. Well known and respected Colombian scholars have argued that Colombia has strong institutions: that some government and private sector agencies are well organized and strive to enforce the laws. The best example of this position is the book edited by Cepeda-Ulloa (2004) which highlights the civilest military tradition (Deas, 2004), the long electoral tradition (Posada-Carbó, 2004), the persistent freedom of the press (Melo, 2004), the defense of the Constitution by the courts (Cepeda-Espinosa, 2004), the stable parties and Congress (Pachón, 2004), a foreign policy that consistently has upheld international agreements (Pardo García-Peña, 2004), the strong environmental regime (Rodríguez-Becerra, 2004), the continuity of the economic policies and their achievements (Caballero-Argáez, 2004), the strong and equitable Coffee Federation (Silva-Luján, 2004), the large numbers of women who have important managerial positions (Cárdenas de Santamaría, 2004), the cultural vigor of various regions (Bell-Lemus, 2004), the important modernization of Bogotá's government (Dávila, 2004) and the significant successes of anti-corruption efforts as shown by the large numbers of congressmen and women who have lost their investiture (Cepeda Ulloa, 2004). One may add other recent successes like the dramatic security and accountability improvements in Medellín, the large number of congressmen and women currently indicted and the more than 700 drug traffickers extradited to date to the United States.

No doubt that Colombia has state and private sector organisms that strive to modernize the country and fight gallantly against crime. The problem is that whatever strong organisms there are must attempt to enforce the law in an environment in which there is no consensus about what the law should be and in which there is a great conflict between formal and informal norms. Using North's terms, the problem is one of conflicting norms (institutions), not necessarily one of weak state and private sector organisms (although there is no question that many government organisms are weak, particularly in regions far from the center of power).

### **IV. Criminal Profiles and Vulnerable Individuals**

To explain crime, criminologists have developed models that identify the characteristics of individuals prone to commit crimes. These can be tested statistically. These models have emphasized various types of

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<sup>64</sup> In the words of Francisco De Roux, the current Provincial (head) of the Colombian Jesuit community: "Colombia had more religion than state. The Catholic Church lost its grip on society and now many people do anything they well please" (Interview with the author, Bogotá, September, 2008).



factors. Those that focus on sociology emphasize social strain (Agnew, 1992, 2005, 2006), social learning (Akers, 1997), low self control (Gottfredson and Hirschi, 1990, Tittle, 1995, Britt and Gottfredson, 1993, Goode (Ed.) 2008), social disorganization (changes such as increases in single parent homes and in neighborhood structures), labeling at school or in peer groups, social coercion (Colvin, 2000) among other factors that induce crime. Biological based models have looked at gender, gene-environment interactions, and have searched for genetic propensity for violence. Some have mixed sociological and biological elements (Milovanovic and Schwartz, 1999). Other factors have also been identified as contributors to crime such as the opportunity provided by someone's careless behavior (i. e. leaving a parked car unlocked). Similarly, empirical studies focus on the protective factors that lower the probability that someone will commit a crime. These studies go a long way to explain crime statistically as most criminals fit into the profiles derived from the theories. Individuals that have those characteristics or that experience a "contributory" event (such as a decline in income) have a higher probability to commit a crime than the rest of the population. Those characteristics and conditions identify vulnerable populations. Yet, most individuals in those populations are not criminals, and most criminals do not engage in illegal activities most of the time.

All factors identified in these studies are associated to crime but none is a necessary, much less a sufficient, condition for people to commit crimes. In other words, these factors contribute to or prevent crime in as much as they increase or lower the incidence of it in a community, but they are not a requirement to commit a crime or a guarantee that a person will not do so. Studies that test those theories are, however, useful to draft policies that could decrease the incidence of crime. Anti-crime policies aim to do so, but since most do not pretend to attack any necessary reasons or factors for crime, they cannot guarantee that they will eliminate crime. Indeed, the most they can achieve is to lower crime to socially acceptable levels.

## **V. Necessary Factors for Organized Crime and Vulnerable Societies**

The approach used to identify factors that increase the probability that a person engages in illegal activities can be applied to a country. In Colombia many have attributed the development of the illegal drug industry to several factors. Among them one may highlight its geopolitical location "Strategically located between the coca producing nations of Peru and Bolivia and the routes through the Caribbean and Central America that lead to the lucrative North American and European Markets" (MacDonald, 1988: 28).<sup>65</sup> Unemployment and economic crisis are mentioned by Arango and Child (1987) and Arango (1988). The large migration of Colombians to the United States from the 1960s on facilitated the development of the illegal distribution networks (Krauthausen and Sarmiento, 1991, Thoumi, 1992); the lack of State presence in large parts of the country (Dombois, 1990); the historical and widespread smuggling experience (Craig, 1991), and corruption ("capacity to bribe and intimidate, and above all, to mobilize the [economic] surplus" Sarmiento, 1990: 33). Journalistic discourses have stressed other factors such as poverty, inequality, experiences with periods of high violence levels, large population displacements as contributing to the growth of the illegal drug industry.

In Colombia the illegal drug industry started cultivating marijuana and then processing coca paste and cocaine base imported from Bolivia and Peru into cocaine that was then exported. Colombia today is the largest producer of coca in the world. This cultivation, however, developed as a "backward linkage" of the demand for coca paste. Some analysts have argued that the appearance of Vietnamese competition in the international coffee markets caused a crisis in the Colombian coffee growing regions and a large migration to areas where these crises displaced peasants started to cultivate coca (Trujillo-Restrepo, 1996).

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<sup>65</sup> Whynes (1992) concurs with MacDonald.

The nature of the political regime is also a contributing factor to the development of criminal activities and to anticrime policy effectiveness or failure. An authoritarian regime, for instance, can apply stronger repressive policies than a democracy that is concerned with the protection of human rights. It is questionable however, how successful an authoritarian repressive regime can be in the long run because it tends to fall prey to corruption. Furthermore a regime that generates feelings of exclusion among some groups also may be a contributing factor to crime.

All these factors may contribute to crime but none is a cause of crime in the sense that if they occur, organized crime will develop. They are just contributory factors, neither necessary nor sufficient for the development of organized crime. There are however two obvious necessary factors: an illegal demand and an illegal supply. Indeed, this is why drug legalization appeals to many intellectuals: the elimination of a necessary condition eliminates drug trafficking.

Legalization of cocaine and other drugs requires drastic changes in the international control regime based on three United Nations Conventions that have been ratified by over 160 countries. Since drugs are not going to be legalized, at least in the foreseeable future, the question to answer is what is necessary for the appearance of the illegal supply in a particular society?

Looking for necessary factors for the illicit cocaine and heroin supply one finds some obvious ones related to the cocaine and heroin production, functions such as having the chemical skills to refine cocaine or heroin. These labor skills are, however, abundant in almost every country today and are easy to hire in markets outside the producing region or country. Appropriate land is also necessary: coca and poppy cannot grow in the Sahara or the arctic. There is however, another necessary condition: The ability to develop illicit networks and to link with international criminal ones. In other words, the capacity to develop criminal organizations that can operate internationally is also required. This is why having smuggling organizations that have strong links with the outside world and the international economy increases the probability for illegal industry growth. Without these neither chemical precursors nor cocaine or heroin could be smuggled.

These necessary factors can be easily developed but there is another one of a structural nature: a large formal and informal norms gap as described above. Without that, obeying the law will be the social norm, and law enforcement agencies would prevent the illegal industry's development or eliminate it when it appears.

These necessary conditions can be summarized in a nutshell as illegal demand, wide gaps between legal-informal norms, disregard of externalities or the will to commit crime to achieve a higher goal, ability to develop illegal networks and links and availability of natural resources and labor skills used to produce the illegal product.

It is important to stress that there are not sufficient factors for the development of organized crime or the illicit cocaine industry. This has important consequences as a society may have the necessary conditions for the development of those activities and **not have them**. As noted, the appearance of illicit economic activities is not a Newtonian phenomenon of the  $Y=f(X)$  type such that X values determine Y values. This is an evolutionary phenomenon. Illicit economic activities and organized crime appear in vulnerable societies, that is, in those that have the necessary conditions for their development, but as it is the case at the individual level, not all vulnerable societies develop it. This phenomenon is similar to those frequently found in biology and medicine in which some people who are vulnerable to a disease develop it, but not all vulnerable individuals do. As with medicine, the best policy to prevent the disease is to raise the body's defenses. This is why the big challenge for Colombian society is not to legalize drugs but to legalize Colombia, that is, to eliminate the norms gap and establish the rule of law. This is a huge task that looks impossible to many and that is not popular among the political and economic elites: it requires them to think about how to build a sensible nation which would force them to consider some social

reforms. Instead, the main discourses about drugs in the country are exculpatory and discriminatory. These are discussed in the following section.

## **VI. Reasons Used to Explain why Colombia is a Principal Illegal Drug Producer**

Most authors assert that the illegal cocaine demand abroad, mainly in the United States, is the main reason why Colombia produces cocaine. Colombia is seen as a victim of the “insatiable” international demand for illegal drugs. Critics can be classified in two groups: those who develop political economy and political arguments, and those who use mainstream economics arguments. Some of the critics present exculpatory arguments in that they agree that drug addiction needs to be controlled but argue that Colombia cannot stop production because its causes are exogenous. Other critics go beyond that and are justificatory. These imply that it is fine for Colombia to be producing and exporting drugs in an unfair world. Some argue that most large capitalists around the world made money breaking laws and imply that it is unfair not to allow Colombians to do the same. Most analysts take for granted that Colombia produces illegal drugs and do not look at the internal factors that account for the country’s vulnerability and response to an illegal international demand.

### **A. The exculpatory and justificatory political economy arguments**

Writers like the popular columnist Antonio Caballero portray Colombia as a victim of American prohibitionist policies designed to generate large wealth in that country and of other policies that block legal Colombian economic development. The following quotes from his widely read weekly columns clearly show this position: “Far from generating any wealth in Colombia [illegal drugs] have drowned the country in corruption and violence. They increase Gross National Product in the United States and destroy it in Colombia” (Caballero, 1996: 139); “The war (our war) is fed by what the country produces: the only thing we are allowed to produce profitably, that is coca” (Caballero, 2004a); “the ‘drug trafficking links’ are taken for granted. All Colombians have them, like we have amoebas. Even those pious Medellín women called ‘las peinaditas’ mentioned here a few days ago by Héctor Abad have them. Even our two Papal candidates Cardinals Monsignor Darío Castrillón and Monsignor Alfonso López Trujillo have them. These links are perhaps not as strong as those of the Americans that consume and pay all the drugs produced in Colombia” (Caballero, 2004b); “A government (of the United States) that realizes that it is incapable to make its citizens obey its laws that prohibit drug consumption and transfers the costs to the producing countries and keeps the benefits for itself” (Caballero, 2006)<sup>66</sup>.

Guerrero-Albán (2005:18) presents a similar although more academic position: “In the case of coca, the combated alkaloid, has irrigated with exuberant profits the Colombian and world economies. Its magic supply and demand market has involved the purest defenders of private enterprise and double morals. Let’s not forget that when the return on capital exceeds 300%, no crime scares it, even when there is risk of ruin and death for those that attempt the adventure” and continues, “Colombia became the largest cocaine producer in the late seventies. This development was rooted in the social and economic policies imposed by the United States on the poor Latin American countries. This is the particular case of Colombia that for over a century has been forced to sacredly follow the decisions emanating in Washington” (ibid.)

Guerrero-Albán is a scholar born and raised in Putumayo. His book is a protest against the world’s injustice and an apology of illegal economic activities. He clamors for what he considers national sovereignty to confront the policies imposed by the International Monetary Fund, the World Bank, the

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<sup>66</sup> This assertion could of course be turned around by an American version of Antonio Caballero: “A government (of Colombia) that realizes that it is incapable to make its citizens obey its laws that prohibit drug production and trafficking, transfers the costs to the consuming countries and keeps the benefits for itself”.

Inter-American Development Bank, the World Trade Organization and other organizations controlled by the United States whose goal is to exploit the backward countries of the world.

Orejuela-Díaz (1997) plays a similar tune. He argues that the pressure that the U.S. government put on the Turbay administration (1978-1982) to aerially spray marijuana fields in the Sierra Nevada de Santa Marta was simply a protectionist effort by the United States: “It was all clear: the enemy to be attacked was not marijuana. It was Colombian marijuana aiming to benefit American marijuana. Its’ goal was to control a market that had retail revenues of close to \$25 billion” (p.29).

Works and statements like the ones mentioned promote and reflect the unquestioned facts about the illicit drug industry taken for granted by many Colombians. These are reinforced by cultural expressions like the “corridos prohibidos” that offer an apology for drug trafficking.<sup>67</sup> Songs like “No soy culpable”, “El rey de los capos”, “Corrido del cocalero”, “El cartel de Cali” and “El gran mafioso” that are played frequently in coca and poppy growing regions and in the low income neighborhoods of Colombian cities portray drug traffickers as heroes and role models, the police as corrupt, Pablo Escobar as a sadly missed benefactor, American society as dependent on drugs and the cause of the drug problem, drug traffickers as entrepreneurs that succeed because they have the cunning and guts to do what others can’t, and American justice system as biased against Colombians. In the 1980s many of these songs were commissioned by Colombian traffickers.

There is no question that these discourses and songs promote an imaginary that does not contribute to drug law enforcement. The following frequently made statements are part of the conventional wisdom of many (not all) Colombians that deserve to be analyzed. These can be grouped in three categories. One is based on drugs as a strictly market phenomena, another is based on the great benefits of drug prohibition for the American economy and the third one is based on the double moral of the American society.

### **1) Strictly market arguments: “When there is demand, there is supply”**

This is an assertion frequently accompanied by “there will always be someone that would produce.” The following sentence “Why then we should not produce is?” is normally left implicit. Granted, the existence of a demand tends to induce production, but producers also seek to open new markets, introduce new products, advertize, etc. Producers are not merely passive actors while consumers are the only active ones. Furthermore, the existence of an international cocaine industry does not explain why production and trafficking concentrated in Colombia. The market dynamics in the case of cocaine are particularly illustrative. In 1980 the wholesale price of cocaine in the United States was reported at around \$50,000 per kilo. Today it is around \$15,000 per kilo. The American Consumer Price Index for example, increased from 100 in 1980 to 237 in 2005. In real terms then, the wholesale price of cocaine at the American port of entry declined at least 90%. This enormous fall indicates that the “huge American market” has been saturated for a long time, and that the growth in supply has driven market prices down during the last quarter century. It cannot be argued then that cocaine supply has grown as a passive response to cocaine demand, but that both demand and supply interact as in any other market. Indeed, cocaine producers have sought new markets outside the United States and have also developed other products like crack in that country and “bazuco” or “paco” in Latin America.

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<sup>67</sup> “Corridos prohibidos” are popular songs that originally appeared in Mexico and tell the stories of drug traffickers, guerrillas, coca producing peasants and harvesters and other personalities associated to the illegal drug trade. They are an open apology of the illegal industry and are very popular in Colombian coca growing areas and some urban neighborhoods of Colombian cities like Ciudad Bolívar in Bogotá and the Communes in Medellín. Wald (2001) has undertaken a pioneer study of this phenomenon.

## 2) Benefits of Prohibition

“The lion share of the profits remains in the United States.”

This implies that there is an unjust distribution of the illegal profits that benefit the mostly consumer countries and that American crooks make a lot more money than Colombian ones. Those who argue this implicitly dismiss the argument that risks in the U.S. illegal markets are high and raise illegal profits there. Furthermore, they do not consider that those profits are U.S. value added generated in American markets. Curiously, those who complain about the underlining unfairness of the illegal cocaine market profit distribution do not express the same feelings about the legal coffee or flowers markets in which “most profits remain in the United States”.

“The United States prohibits cocaine because it cannot grow coca and keep the business”

This implies that the United States seeks to block Colombia’s comparative advantage. It fails to explain why it is that the United States does not prohibit imports of other goods it cannot produce to keep the business. If this assertion were true we would have a new and fascinating theory of development through illegality that would lead to the recommendation for Colombia to declare cigarettes illegal so that trafficking organizations would enrich themselves and develop the country. Besides, it is not true that in the United States there are no places where coca can grow. Granted, there are not many, but coca can grow at least in Puerto Rico, the Virgin Islands and Guam. Indeed, during World War II, when cocaine still had medical uses, Harry Anslinger, the famous head of the Federal Bureau of Narcotics, developed an experimental plantation in Puerto Rico (Jordan, 1999).

“Drugs contribute substantially to the U.S. economy that depends on them”.

The validity of this assertion requires several strong false assumptions: First, that it would be better for the United States to import an illegal product at a high price, without generating any tax revenues than the same legal product at a low price paying taxes. Second, that it would be better for the country to have an illegal industry in which traffickers make money rather than having a formal laboratory import, manufacture and distribute cocaine. Third, that drug traffickers have more influence on the policy making process than the large firms that would benefit from the legal market. Fourth, that the drug demand is an addition to aggregate demand, that is that addicts and drug users would have saved what they spend on drugs rather than spend it in legal goods and services. In reality, the growth of the illegal drug demand generates a displacement of legal to illegal demand. Besides, many addicts find it impossible to keep a job and/or support their illegal habit and resort to crime to finance it.

Those who believe that the American economy needs drugs appear to be stuck in Marxists arguments of capitalist overproduction, demand shortages and profits as the only source of savings available for investment. They do not acknowledge that workers in the United States do save and that during the last two decades the United States has been the main driver of the world economy and during the last five or six it has had a large current account deficit indicating that its absorption, that is consumption plus investment plus government expenditures, has exceeded what it has produced. It is then nonsense to sustain that the U.S. economy needs illegal drugs to keep aggregate demand high.

“The world’s financial sector depends on the huge drug traffickers’ deposits.”

This belief shared by many is false because:

It implies that drug traffickers’ deposits are a net increase in bank deposits which increase the banks capacity to lend. To prove this it is necessary to show that drug users and addicts would not have spent their cash otherwise. If someone spends at a supermarket, that cash is deposited at a bank. If that person buys cocaine, chances are that it will take longer for the cash to reach a bank. Traffickers would prefer to

deposit in off-shore centers rather than in their local banks. Increased use of illegal drugs then generates a shift of deposits away from local banks to off-shore banks.

Central banks have mechanisms to control loan expansion and circulating cash. If illegal drug consumption were the determinant of money expansion, one would have to accept that the central banks could not control loan expansion and that traffickers would de-facto set world monetary policy.

The illegal drugs industry generates significant costs to the banking system. Governments have created a long list of control measures like reports of cash deposits, internal auditing procedures and know your client requirements. Reuter and Truman (2004: 5) estimate these costs for the United States system and conclude that they are “substantial but not overwhelming –on the order of \$7 billion” per year.

The world illegal drug market is large relative to variables such as Colombian GNP. This, however, does not imply that it is large relative to international money flows or deposits. Data on the total revenue generated by illegal drugs are weak and tend to be overestimated (Reuter and Greenfield, 2001, Thoumi, 2005). If however, the figures of around \$60 billion for annual retail drug sales in the U.S are accepted, one concludes that the size of the drug revenues that enter the financial sector to be laundered are not large.<sup>68</sup> It is accepted that about 50 to 60 percent of the value added is generated in the last two transactions. Retail sellers tend to spend their income in cash in shopping centers, supermarkets and other shops. The rest is spent by traffickers also in cash or deposited in the banking system. It is then unlikely that more than \$30 billion would be available for money laundering. Even if one assumes (falsely) that this would be a net increase in bank deposits, the profits generated by these funds would not be large for the financial system.

There is another effect that has not been quantified that could be important. The growth of the illegal industry and for that matter of any informal economic activity increases cash transactions and the demand for cash. This leads to an increase in transactions that do not use the financial system which lowers total bank deposits and profits.

None of these points means that in the financial system there are no corrupt officials who benefit from money laundering or that there are no banks that also do so, particularly in off-shore centers. The point however is that the financial system as a whole does not depend on illegal drug industry deposits and that they do not increase its overall profits. Fallacies of composition are common in economics and what could benefit a particular actor does not necessarily benefit the whole. The assertions about the illegal drug benefits are good examples of this.

### **3) Arguments about American Double Moral Standards**

“The United States police do not pursue the American capos and discriminates against Colombian traffickers that receive much harder sentences than Americans” This is often accompanied by “the American plea bargaining system is unfair because it accepts de-facto paid testimonies given in a negotiation for lower sentences”.

These assertions are consistent with the beliefs that the large drug profits benefit the American economy and that the drug distributions networks in the U.S. are controlled by capos or large “cartels” like they were in Colombia in the 1980s. Colombians disregard or are unfamiliar with the Racketeer Influenced and

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<sup>68</sup> Figures on illegal drugs are very unreliable. The Office of National Drug Control Policy (ONDCP) periodically makes estimates. These show that there has been a significant decline from the highs of the late 1980s. Boyum and Reuter (2001: 29) report \$134 billion in 1988 and \$60 billion in 2000 “roughly one percent of personal consumption expenditures”. It is possible that the current level be somewhat higher. The point however is that many drug prices show a long term declining trend which account for lower total sales.

Corrupt Organization Act (RICO) against organized crime that resulted in most capos being indicted and sentenced. A significant number of them have died in prison.

Many Colombians simply assume that drug trafficking in the United States is controlled by large organizations similar to the Colombian cartels of the 1980s. They also disregard the harsh minimum sentences and asset forfeiture measures enacted in many states. They tend to discount the yearly 1,600,000 drug arrests and the over 600,000 people jailed for drug crimes as evidence that the U.S. goes after the small fry and does not attack the drug lords.

Colombian traffickers have been portrayed as victims of an unjust legal system. There have not been rigorous studies comparing sentences of Colombians and Americans accused of drug trafficking. In Colombia, however, the press highlighted the long sentences of some Colombians, but until recently there has not been a discussion of cases of Colombians that have negotiated successfully with American authorities. Téllez and Lesmes (2006) and Reyes (2007) have documented extensively how Colombian traffickers have negotiated with American authorities. It appears that the first extradited and other Colombian traffickers did not know how to confront the American judicial system. Others simply did not collaborate with the American authorities for fear of the cartels' leaders reprisals against their families in Colombia (Chepesiuk, 2005). Many traffickers now request to be extradited because they figured out how to handle the American justice system. Today the discrimination arguments against Colombians have faded but they remain in the imaginary of many Colombians.

Unfortunately, the United States government has not made efforts to inform the Colombian public about all it does to fight drugs within the United States. Many Colombians believe that the main burden of the war on drugs falls on Colombia.

“The United States prohibits drugs because the C.I.A. is involved in the illegal business”.

Many national security agencies and subversive groups around the world have used illegal drugs to fund some of their activities. What happens is simple: those that are fighting for a “superior” cause are willing to sacrifice some principles they consider less important. Spies and other security types develop links with the underworld and become friendly with arms and drug traffickers as part of their work. For some of them the struggle for regional or national freedom or for national security takes precedence over the fight against drugs. It is then not surprising that there are cases in which they use drug trafficking funds to support the fight for the “superior” goal.

There have been documented reports of C.I.A. participation in the drug trade in Nicaragua and other Central American countries (Scott and Marshall, 1991) and in the Golden Triangle (McCoy, 1991). The (in)famous Iran-Contra Affair of Coronel Oliver North is the best known case. The issue is whether these links were part of the overall policy of the CIA or just the result of decisions made by local operatives. In any case, even if these actions were approved at a high level, they could not have been official agency policy but the responsibility of an individual or a small group.

The links between drugs and national security organizations and freedom fighters are also common. The Sandinistas while in power used drugs to obtain funds to fight the contras (MacDonald, 1989: 34, Gugliotta and Leen, 1990, Ch, 16). Similar links have been documented between the illegal industry and the Taliban, Cuba, rebel Chechnyan, Kosovan, Chinese and other groups. Perhaps the most extreme case was the García-Meza government in Bolivia (July 17, 1980 – August 4, 1981) that constituted the closest “narco state” to date. During the PRI hegemony in Mexico the links between the federal police and drug traffickers in the 1980s and 1990s were so strong that some may talk about a symbiotic relationship. In Colombia, of course, both guerrillas and paramilitary have made drugs into a main source of funds.



“The United States did not tolerate alcohol prohibition, why then prohibit cocaine? This proves that they have double morals and that they benefit from the cocaine market”.

Assertions like this raise the expectation that the United States could be forced to liberalize the cocaine market when the costs of prohibition outweigh its benefits. Perhaps, if Colombia floods them with cocaine, they would be forced to legalize it.

It is true that the United States has been the prohibitionist leader in the world, but repressive antidrug policies are supported by most countries. Indeed, the world is prohibitionist, not just the United States. A world prohibitionist map shows that China and all Islamic countries, the former USSR and Eastern European countries, the Scandinavian Countries; all of Africa and most Latin America are prohibitionists. Policies in many of these countries are a lot more repressive than in the United States. The “liberal” countries like the Netherlands, Switzerland, Spain, Portugal, and the U.K. are also prohibitionist. They do not advocate a more liberal production of cocaine, heroin, amphetamines and other illegal drugs. Their policies simply are more lenient toward consumption that is treated as a health problem with social roots. The world prohibitionist sentiment has allowed for the development of the international prohibitionist drug control regime. Any drug liberalization effort will have to be negotiated at the United Nations, not just with the United States.

It is important to point out the differences between the political processes that led to the prohibition of alcohol on the one hand and cocaine, heroin, marijuana and other drugs on the other (Musto, 1999: 65-68, Murdock, 1998, Behr, 1996). The movement against alcohol was widespread, it had a strong rural, feminist, religious and anti immigrant base. It divided the country and the 18 Amendment was approved only at the end of the First World War in the midst of strong anti German and Bolshevik feelings. German immigrants were heavy beer drinkers and were repudiated by many native Americans. Heavy alcohol consumption was also perceived as weakening the United States when Communism inspired great fear. A large part of the population, however, considered that the moderate use of alcohol should have been tolerated. This social cleavage resulted in weak federal and local government effort to enforce prohibition. It is true that alcohol prohibition induced violence. It however, was limited to confrontations among mafias and between mafias and the police, mostly in a few large cities. The level of violence in Chicago during the 1930s,<sup>69</sup> for example, is not comparable with the homicide rate increase in Medellin from about 55 per 100,000 inhabitants in 1983 to a peak of 381 per 100,000 inhabitants in 1991. During the five year (1990-1994) period about 1.5% of the city’s population was a homicide victim. This figure exceeds that of many countries at war.

In contrast to alcohol, in the United States there is a wide social consensus to prohibit cocaine, heroin, amphetamines and other drugs.<sup>70</sup> Many Americans associated opium, morphine and heroin with Chinese immigrants, marijuana with Mexican migrant workers and cocaine with black workers (Musto, 1999, Falco, 1994). Users of these drugs were perceived as un-American and as deviants to be reformed or sanctioned. Support for drug prohibition continues to be widespread across the American mainstream as those drugs are perceived as a threat to the American Way of Life. To complicate matters, these drugs are now associated with terrorist groups.

As shown in detail by Escohotado (2002, chapters VIII, X and XII), Christianity domesticated alcohol. It ritualized its consumption, and developed social control systems to limit the negative social consequences of alcohol addiction. This has not happened with other drugs that in the Judeo-Christian cultures have been associated with the devil.

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<sup>69</sup> “Yet even during the twenties and thirties, Chicago’s levels of violence and vice were never especially high. Instead the city’s reputation was a matter of myth and symbol” (Chicago Historical Society, 2005).

<sup>70</sup> The consensus about marijuana prohibition is less widespread and might be breaking down.

“Colombia has applied the full anti-drugs prescription, all the recommended policies, and yet, the drug problem is not solved. Besides, in the drug war Colombia puts the dead bodies. This is why Colombia should demand a different anti drug strategy abroad”

There is no question that the Colombian government has attempted to implement repressive policies like massive aerial spraying of coca fields and traffickers extradition. However, it is not true that it had vigorously applied the full anti drug recipe. Colombian governments have not confronted the longstanding peasant problem. Despite Colombia being almost 80 percent urban, traditional land tenure issues persists and are at the heart of the coca and poppy cultivation problems. Anti money laundering laws have been enacted and a large number of drug traffickers’ assets have been seized, mainly land. Expropriations, however, have been sparse. The National Drugs Directorate that manages seized assets has had few resources and has not been managed effectively. It has expropriated 60,000 hectares but traffickers have succeeded to have over 1,300,000 hectares returned to them or to their front men. In other words, the government has not “gone after the money”.<sup>71</sup>

It is true that in Colombia a large share of the dead resulting from the war on drugs have been Colombians. But complaining that the dead bodies in the war on drugs are Colombian implies that it is “natural” for people to kill each other when there are large illegal profits. It is true that illegal economics activities tend to increase violence levels, but the homicides associated with the illegal drug industry in Bolivia, Peru, Afghanistan, Myanmar, Laos and other countries have been much lower than in Colombia.<sup>72</sup> The exception is the recent Mexican experience. Not surprisingly, Mexico exhibits some characteristics similar to those present in Colombia and discussed below. The relevant question, however, for Colombia is why the illegal drug industry increased violence levels so much more than in other countries that also are involved in drug trafficking. There is no doubt that homicide rates like the ones sustained in Colombia in the late 1980s and 1990s are terrible, but from a social point of view it is worse that the assassins are Colombian. Relevant issues are: how come such a large number of *sicarios* appeared in Colombia? Can Colombia blame the outside world for that?

### Summary Remarks

All the beliefs and arguments discussed above are exculpatory and justificatory of Colombians who participate in the illegal drug industry. They might be the understandable reaction of those who have to live and prosper in an extremely selfish individualistic society in a complex and hard to understand world. Some of these positions implicitly assume that a large proportion of individual wealth in capitalist societies has been acquired through illegal processes, and that the only thing Colombian traffickers are doing is fighting to have the opportunity to do the same. Under this perspective, in an unfair world, it is “natural” for those who feel wronged to break the law. This sentiment of unfairness is general, but it is stronger in reference to coca and poppy growing peasants. Tovar (1999: 70), for example, refers to coca and cocaine as having been declared “illegal” in quotations. The recent WOLA report on aerial spraying (Walsh, Sánchez-Garzoli and Salinas, 2008) never mentions illicit crops. In the title and throughout the report they are referred to as “illicitly used crops”. For them it is clear that coca growing peasants should not be expected to respect the law since crops are not illicit or if they are, their prohibition is unfair and should not be respected.

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<sup>71</sup> To add insult to injury, Panama has requested the extradition of a former head of the National Drugs Directorate appointed by President Uribe during his first term for money laundering!

<sup>72</sup> Anecdotes are the singular of data. In late 2002 after Evo Morales was ejected from Congress in Bolivia, I had a long interview with him in which he asserted that “the situation in Chapare is intolerable; in the last year 4 peasants were killed”. As a Colombian I could only give him a big hug and tell him how much I envied him.

It should be pointed out that the arguments commented above are advanced by academics, journalists and politicians who are more activists than scientists, that is, by people who are more concerned in advancing a cause than in learning about a social phenomenon.

Finally, the United States government has not considered it important to keep the Colombian public informed about what it does domestically to fight drugs. In Colombia the perception is widespread that the U.S. does not contribute its fair share in the fight against illicit drugs. This contributes to common erroneous beliefs about the costs and benefits of illicit drug production, trafficking and consumption.

## **B. The Mainstream Economists Explanations and Exculpatory Arguments**

### **1) External shock explanations**

Some prominent economists explain the development of the illegal drug industry as a response to an external shock suffered by the Colombian economy: the large growth in the illegal marijuana and cocaine demand in the United States and Western Europe during the 1960s and 1970s coupled with the recession in the Antioqueño textile industry, also caused by external factors, that generated a large Antioqueño migration to the United States that allowed for the development of trafficking networks (Gaviria, 2000, 2008, Robinson 2007).<sup>73</sup>

The “external shock” explanation attributes the cause of the development of the illegal drug industry to “a set of fortuitous and non-repeatable events” (Gaviria, 2008: 95). Curiously, the increase in the illegal international demand was for a product that Colombia never exported while it was legal. The Antioqueño textile industry recession was a non-necessary, contributing factor as the industry was pressured by foreign imports, an unknown but large amount of which came into the country as contraband. A significant migration of Antioqueños to the United States was one of the consequences of the recession and of the large population growth that started in the post war. The role of Colombian migrants was identified long ago as an important contributor to the illegal industry development (Krauthausen and Sarmiento, 1991, Thoumi, 1992).

This “external shock” theory is peculiar. External shocks occur when export prices decline or imports prices increase sharply, when debtor countries face large increases in international interest rates or when countries confront other changes that make it difficult for them to operate in international markets. External shocks affect all countries, not just one. For the external shock argument to be valid it would have been necessary to have an external shock whose negative effects were concentrated on one country but that did not depend on its structural and institutional characteristics.

### **2) External shock complemented by path dependency arguments**

The external shock theory fails to explain the long term persistence of the cocaine industry in Colombia. This is explained arguing that market forces created a path dependence that trapped the country in illegal production and trafficking.<sup>74</sup> According to this explanation, Colombians were the first ones to respond to the cocaine demand growth in the U.S. in the 1970s, because they were in the right place at the right time; or perhaps in the wrong place at the wrong time. Once they established distribution networks, other possible competitors were left out of the market.

This path dependence explanation is also peculiar. Path dependence is usually the result of high costs for shifting supply sources faced by producers and consumers. The classic case is Microsoft vs. Apple.

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<sup>73</sup> Robinson (2007: 662) is less explicit than Gaviria but: “In the first place, there has been a massive shock, the growth since the 1970s of the cocaine economy.” It is clear, however, that this is the result of an external shock.

<sup>74</sup> Andrés López’ presentation in the Jorge Eliécer Gaitán lecture series, León De Greiff auditorium, Universidad Nacional de Colombia, Bogotá, October 2, 2006.

Experts agree that Apple was technologically superior, but Microsoft became established first and since for most people learning the new system is quite costly, they continued using the inferior one. One can also conceive of path dependence when a factory or store is located in a sub optimal place but the costs of moving to the best location are sufficiently high to not make it feasible.

Cocaine trafficking from South America to the U.S. predated the large demand increase in the U.S. in the 1970s. Cuban, Chileans and Colombians exported cocaine to the New York market (Saénz-Rovner, 2007). Path dependence in the case of cocaine requires explaining why is it that despite the huge illegal market profits, Colombians were able to block all other competitors. Curiously though, the Colombian cocaine industry is continuously shifting. New routes appear all the time, illicit plantings move, new markets open up, new products are developed (crack is a case in point), and more importantly, new actors continuously come to the scene. The Colombian drug industry evolved in the last 20 years from one controlled by two large organizations and several smaller ones (drug lords), to one made up a large number of medium and small size trafficking organizations that ended up being dependent on large armed groups (warlords) (Thoumi, 2009). In the last couple of years as the warlord organizations have been weakened or eliminated many smaller armed bands have gained control of the production and some trafficking networks. Other small trafficking groups made up of educated, bilingual, savvy younger traffickers developed. These follow a low profile strategy and are difficult to detect. While the rise of the Mexican cartels indicate that Colombian traffickers have lost market share in the United States, it is clear that most competition for the Colombian traffickers has come from other Colombians. The issue is then, why different Colombians have controlled the coca-cocaine industry for such a long time and Cubans and Chileans could not be part of the illegal industry? To block competition it is necessary to have a willingness to use violence, intimidation and other illegal skills to a much greater degree than other possible competitors.

### **3) Financial co-responsibility**

Others have argued that since prohibitionist policies are imposed from abroad and they generate large social costs in Colombia, it is only fair that predominately consuming countries should compensate the predominately producing countries. Fandiño (2005) even proposed a “retributive tax” that consuming countries should pay producing countries for the consequences of their mistaken repressive antidrug policies. The co-responsibility concept used is, however, an attempt to make one way a two way street. It implies that consumers have all the responsibility for the growth of the illegal drug industry: producers are only passive actors that should be exonerated. Furthermore, it also implies that such passive actors never profited from the illegal industry. Since the industry’s roots are not related to any domestic structural or institutional characteristic, producer countries should be compensated.

Summarizing, it is interesting that both political and mainstream economics arguments explain the development of the illegal drug industry in Colombia as the result of exogenous factors and present Colombia as a victim. These writings implicitly assume that the structural and institutional and cultural (beliefs, attitudes and values) characteristics of Colombia and their differences with other countries are irrelevant to the illegal industry’s development. Since the reasons why the illegal drug industry developed in Colombia were exogenous, all these works dismiss the possibility of Colombia eliminating the illegal drugs industry as long as the world’s prohibitionist policies persist. No wonder, to save Colombia, the world must legalize drugs!

## **VII. Why is there a wide formal-informal norms’ gap in Colombia?I**

The difficulty that central Colombian governments have had establishing the rule of law has geographical, cultural and social roots. The country’s geography has been a key determinant. It was the reason why for

centuries the Colombian central state was the poorest in Latin America. Until the 1920s coffee boom, Colombia had the lowest exports per capita and thus the taxes, of any Latin American and Caribbean country. Due to geography the poorest state had the greatest challenge to integrate markets and form a true nation. The result was a set of relatively isolated settlements with little trade and communications among them that were quite autonomous from Bogotá. These regions developed their own loyalties, accents and cultural traits. Many had little to do with the central state.

This was also true of the native communities that did not generate as in other Andean countries social behavioral constraints in the majority of the peasant population. In Colombia the largest native groups were organized enough to be exploited by the Spanish settlers, but weak enough to survive as a community. In addition, those communities experienced a fast process of *mestizaje*, blended into the mainstream and lost their identities (Jaramillo-Urbe, 1994, chap. 3). Most Colombian peasants are the result of *mestizaje* and have weak communal ties. Colombian native communities are the exception in rural Colombia.

Colombian whites and *mestizos* also differ from others in Latin America. In the region Colombia is the country that has had the most limited exposure to non-Spanish influences. It has had the fewest number of non-Spanish immigrants relative to the size of its population. Spanish settlers came from one of the most medieval regions of Europe shortly after seven centuries of warring with the Arabs. The regional isolation discussed above allowed them to maintain many of their traits. Their values have influenced Colombian society throughout its history. The 1886 Constitution that remained in force with some amendments until 1991, aimed at strengthening *Hispanidad* (Spanishness). This constitution gave the Catholic Church control over many civil procedures and education. Traditional pre-modern Spanish values were not conducive to respect of central government laws or authorities and the isolation of many of the descendants of the Conquistadores allowed them to remain fairly autonomous from the central government. In the early XX century, Colombia was a stratified society in which landlords retained a great deal of autonomy. Their local power was strong, and they could frequently abuse it. In other words, their societies did not impose strong behavioral constraints.

The central government weakness was compounded by its inability to borrow from abroad. Simon Bolívar's debt-funded campaign to free Ecuador, Peru and Bolivia, saddled Colombia with a non-payable foreign debt and blocked its access to fresh international funds until the 1920s.

Until recently Colombia has had abundant fertile land relative to its population. Until a couple of generations ago, large landlords faced a problem: how to tie peasants to the land. This led to limitations to peasants' movement and access to land. "Abundant unsettled lands offered opportunities for peasants, and run-away slaves to flee to isolated regions where they could subsist independently of the state. Tropical illnesses were probably the main obstacles to these movements. During the XVIII and XIX centuries "palenques" or settlements of run-away slaves were established out of the control of the state, church and other dominant social institutions. By the late XIX century population in the minifundia areas of Cundinamarca and Boyacá had increased beyond what those smallholdings could support, and peasants migrated mostly to the opening coffee growing regions where they settled" (Thoumi, 2005c). These migrations led "to the spontaneous formation of societies marginalized from the social, family, religious and political controls that characterized their original locations" (González, 1998: 151) which were quite independent from the central state.

Regional heterogeneity resulted in significant cultural diversity and what Yunis (2003) defined as regional "cultural endogamy" that reinforces local traits and loyalties. This has been an obstacle to the formation of a national identity that induces people to give up their individual benefits to achieve a common good.

The insertion of Colombia into the world economy also contributed to cultural diversity. The series of commodity boom and busts experienced in the XIX and part of the XX century (indigo, quinine, cocoa, rubber, and bananas) were short lived and in different regions and did not lead to the development of strong communities.

In this environment the two traditional parties, “Liberal and Conservative, became the source of personal identities that are normally associated with a nation. During the 1940s and 1950s, they fought an ambiguous war known as ‘La Violencia’ that killed about 200,000 people out of a population of some 11 million and in which local warlords were key figures. From the 1930s on the two parties had developed intolerant discourses that disqualified and condemned the adversaries as wrongdoers and in some cases as evil. They aimed to achieve victory and exclude the opposition from power to the point of denying the validity of the laws that contradicted their ideology.<sup>75</sup> Their rhetoric incensed and moved the masses of highly uneducated peasants. Despite their strong ideological discourses, a principal purpose of the war in many regions was to capture land, displacing opponents.

‘La Violencia’ ended in a political agreement, the National Front (1957) that contributed to the depoliticization of the parties. They became electoral machines that organized themselves at times of elections but achieved little beyond that. It is significant that until the late 1990s politics and economics remained separate. Many economic policies were relegated to highly trained professionals who formulated them and responded more to pressures of the economic elite than to the concerns of the majority. This allowed Colombia to avoid the populism that plagued other Latin American countries. The result was a stable macroeconomic environment and steady, although not high, economic growth (Urrutia, 1991). As pointed out by Robinson (2007), in contrast to other countries in the region Colombia developed a clientelistic system. Unfortunately, lower class grievances have not found channels to express themselves; significant needed reforms were frustrated and their supporters led to advocate the resort to violent non-political means. Furthermore, a populist regime tends to generate economic crises that force change. A clientelistic system turns the state into a bounty and undermines its legitimacy which is much worse in the long term.

After ‘La Violencia’, some former left-leaning fighters settled in isolated areas and developed their own protection systems. These peasants formed the original FARC core. Other guerrilla groups like ELN, M-19, and EPL also developed and sought haven in areas with little or no state control.

‘La Violencia’ and the population explosion generated a significant peasant migration both to cities and other rural areas.<sup>76</sup> The rural frontier has expanded greatly as many peasants migrated to unsettled areas. Most of the rural-rural migration was spontaneous and in most new settlements state presence was precarious. Most settlers were armed and many were displaced by rural violence in other regions. These settlements were violent and unstable. In many cases guerrilla organizations were welcome as they imposed order in the existing power vacuum (Thoumi, 2009, 2005c)

‘La Violencia’ also generated large rural-urban migrations to urban slums. One salient effect of violence-induced migration is the loss of links between migrants and their original communities, which are often destroyed. Many urban-rural migrants lost their social links and their social constraints. Their predicament caused them in turn to be extremely resentful. Furthermore, there was a significant rural-rural migration that

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<sup>75</sup> An example is provided by Augusto Ramírez-Moreno’s column in *El Siglo* on March 20, 1936 cited by Acevedo-Carmona (1995: 153): “The Liberal regime has declared civil war on Colombians.....There is a need to disobey. Citizens are relieved from obeying the wicked laws and the illegitimate authorities in power”. Of course, the reference was to a democratically elected government and congress. During “La Violencia” some Catholic priests like Monsignor Builes from Santa Rosa de Osos incited his flock preaching that killing Liberals was not sinful.

<sup>76</sup> From the end of post WW II to the mid 1970s Colombia had one of the highest population growth rates in Latin America. Since then it has had one of the sharpest declines. This was achieved through a quiet Government funded campaign after the Catholic Church agreed not to oppose it as long as the Government did not promote it openly. The effects of this decline on the labor force increase began to be felt only in the 1990s and were partially compensated by an increase in the female labor force participation rate.

went into the “empty lands” (terrenos baldíos) that established many settlements outside state control (Thoumi, 2005c).

The Colombian military and police are also atypical. They have been willing to accept civilian control and not prone to confront the political establishment. The armed forces have been traditionally weak, and they have not had the high status found in other Latin American countries. They have never controlled the territory and lacked a significant presence in large border areas. Service in the military could be an important generator of national loyalty and solidarity. In Colombia the armed forces have not done that.

Finally, Colombian citizens have had life long experience with violence and insecurity. Almost everyone has been a victim and many victimizers. Post trauma stress syndrome is rampant and untreated. One can only speculate about the implications that this may have on social development prospects (Thoumi, 2005c).

The above list of characteristics and developments that have contributed to the formal-informal norms gap is not exhaustive, but points out the main reasons why Colombia was a vulnerable society when the international illegal drugs’ demand increased.

## **VIII. Why anti-drug policies fail in Colombia?**

The resilience of the illegal drugs industry after over thirty years of persistent government efforts to eliminate it is prima facie evidence of overall policy failure. Indeed, the Colombian governments can point to some successes, but they have been temporary and limited in scope. One way to evaluate anti-drug policies is simply to focus on whether they attack contributing or necessary factors for the development and sustainability of the illicit drug industry. The effect of policies that attack contributing factors at most can achieve a decline in the industry. In most cases this decline is only short term as the industry tends to adapt to the policy. The only certain way to eliminate the illegal industry is eliminating a necessary factor, in this case, the illegal demand, the illegal supply, or an input required by the production function.

Most current policies aim to change incentives; to make it costly to engage in crime or to make it more attractive not to do so. The success of these policies depends on their dissuasive powers that nobody really knows for Colombia. However, the greater the formal-informal norms gap, the weaker the dissuasive effect the policies are likely to have.

Furthermore, illegal drug production, trafficking and consumption are complex phenomena influenced by economic, social, political, legal, historical, health, statistical, police, international, legal and other factors. To achieve policy success, it is important that a policy takes into account all those factors. This requires a high level of coordination among a large number of agencies and disciplines. Policies however, tend to be formulated from the perspective of one or a couple of disciplines without considering others that might be important. Attempts are made to coordinate policies, but the goals of many actors conflict with each other and turf battles are common. Not surprisingly, in many cases the effects of one policy oppose those sought by other policies.

In this section some of the main anti-drug policies are described and the reasons they tend to fail are discussed. The treatment among policies is uneven. The effects of jailing, extraditing or killing traffickers and the efforts at chemical precursor controls are not discussed in great detail. Alternative Development, Illicit Crop Eradication and Anti-Money Laundering Policies have been the subject of more detailed study and could be treated more profoundly with more abundant examples and references to Colombia.

### **A. Jailing, extraditing or killing traffickers.**

There is no question that traffickers should be punished. The issue is how. The inability of the Colombian judicial and penal system to keep them in effective jails and from managing the illegal business from



captivity has been a main problem. The case of Pablo Escobar in his custom made jail in the late 1980s is an obvious example. Today the Colombian government does not have the resources or power to prevent traffickers from building their quarters in jail and running their business from them. This has been a main reason why the government has resorted to extradition. As indicated above, however, traffickers have learned how to manage the American system and are using extradition cum negotiation to secure a reduced sentence in the United States, keep part of their illegal fortunes and lead good lives with their families in the U.S.

For the policies against the principal traffickers to succeed, it is necessary that they preclude their being replaced and that they block out the illegal industry's adaptation to the policies. Furthermore, killing or negotiating with trafficking leaders does not have a significant medium or long term effect on illicit drug supply as they are replaced, and as the industry takes new forms in response to the policies.

## **B. Chemical Precursor Control**

The control of chemicals used to refine cocaine and heroin is another important anti-drug policy. It however cannot be effective. The only inputs that do not have substitutes in the production of those drugs are coca and poppy or opium. All other chemical inputs have substitutes, are used widely in industry and agriculture, and are produced in many places. A simple example illustrates the difficulty in controlling those precursors. According to UNODC staff in Bogotá, cocaine refining uses about 60-100 tons of sulfuric acid per year in Colombia. This appears to be a large amount that could be controlled. According to the New World Encyclopedia world production in 2001 was 165 million tons. How can an effective control system be established to prevent illegal cocaine refiners from accessing 100 of 165,000,000 tons? And this is only one of several chemicals used. The most a control system can realistically achieve is to increase illegal production costs.

Besides, the control system may have negative environmental consequences. A tight control on a substance may lead to the use of a suboptimal substance that may leave more residues in the environment. Limestone, needed to produce cocaine, is a simple but good example. After it became a controlled substance cocaine manufacturers began to use cement from which they extract the limestone. This of course, generates large residues that are dumped on the ground. The first indication of this was a statistical anomaly that showed a suspect "real estate boom" in coca growing areas. This led to further controls on cement transported to those regions. Now trucks carrying cement to those places are required to also bring in other construction materials to convince the authorities that the cement will have licit uses.

Furthermore, law enforcement authorities have to make sure that confiscated controlled chemicals in isolated, difficult to get places are either destroyed or transported away from coca growing areas. Frequently it is difficult to remove them from the area and they are either burned or dumped which generate negative environmental effects.

## **C. Alternative Development (AD) and its Challenges**

### **1. Structural obstacles**

Alternative Development started as an attempt to find substitute crops or other revenue generating activities for coca and poppy. In many cases peasants did not have the knowhow to cultivate the prospective crops. In these cases agricultural, husbandry and other technical assistance is required.

It is clear that the new economic activities should be profitable but should they be as profitable as the illicit crops? The answer to this question depends on the particular situation. Most poppy and coca in the world is grown by small farmers that do not make much money. Indeed, many are subsistence farmers. There are few locations in which illicit crops are grown in larger plots by what may be considered as

agro-industrial enterprises that operate under conditions different from those of small farmers. AD programs, however, do not apply to these operations. It can be asserted that small farmers form the bulk of the peasant population engaged in illicit crops. For most peasants the certainty of being able to sell at the farm gate and the financing of the crop are more important than the size of their revenues as long as they can feed their families. In high violence environment like in Colombia, peasants are certainly willing to have a lower expected income from legal products as long as that isolates and protects them from the violence associated with illicit crops.

Crop financing is a big issue. Coca and poppy are cash crops that produce rapid returns. AD products like rubber may take as long as 8 years to generate revenues. Others like hearts of palm take four years. Furthermore, the initial investment of many AD products is much higher than those of coca and poppy which are frequently funded by the prospective purchaser. Legal AD products are riskier for many peasants than coca and poppy and require formal long term financing.

Many areas where illegal crops are planted are distant from markets; lack infrastructure that would link them with possible markets, and are isolated from the legal market economy. Indeed, illegal crops are in those regions precisely because they are difficult to access and have token or no State presence. Transportation costs from those regions to any possible market are frequently greater than the price of the alternative crops in those markets.

It can be argued that not all illicit crops are found in distant isolated areas. This is true, but in these cases crops need greater protection against government intervention. War lords and subversive organizations tend to control these areas and they are another significant obstacle to AD.

The nature of competition in the coca and poppy markets is different from that of legal markets and requires different skills to succeed. The skills to compete in these illegal markets require avoidance of the law, development of underground networks, links with organized crime, etc. Success in the legal market requires other skills: modern processing and marketing systems, financing from the banking system, packing, etc. These skills are developed in a region that is integrated into the modern market economy and many, if not most, coca and poppy peasants lack experience and know-how in these activities. Furthermore, competition in the illegal market is limited, while competition in the legal market comes from anywhere in the world. Coffee illustrates well this situation. AD coffee in Colombia, for instance, lost competitiveness when coffee plantings were successfully developed in Vietnam. Many AD crops face similar problems. For instance, if one had an interest in establishing a hearts of palm planting and a processing plant in Colombia, the Putumayo region where coca plantings were widespread was clearly not a first choice to locate the project. Putumayo has bad highway connections with the outside world, weak education, health and public utilities' infrastructure, and strong guerrilla and paramilitary presence.

AD projects must substitute a legal activity for an illegal one. To achieve this, they must successfully compete simultaneously against illegal and legal economic activities, a difficult task. They must compete against the profitability of illegal crops. The legal products that might be produced in poppy and coca growing areas are frequently at a disadvantage relative to the same products from other regions.

Even if AD projects or illegal crop eradication succeed in one region or country, their effectiveness as a global illicit crop reducing instrument is highly questionable. The so called "balloon" effect, that is, the displacement of crops to other locations in response to strong eradication or AD programs has been common and widely documented.

The balloon effect in Colombia has been clear. When intensive eradication under Plan Colombia started in 1999 coca plantings were found in 12 departments. By 2003 they had spread to 23 of the 32 departments (UNODC, 2004: 15). Simultaneously, the average plot size of the illegal crops has declined as peasants seek to avoid aerial spraying. Independent of whether the eradication program has led to a

decline in coca acreage, the point is that eliminating coca plantings in one region has been associated with the spread of crops around the country. Besides, during this period coca acreage in Bolivia and Peru has also increased indicating another possible crop displacement.

The Thailand AD program has been the most successful to date. Thailand, a large opium producer in 1970 is today virtually opium free. Thailand had a set of good conditions that made it “easy” to eliminate poppy. Land where poppy grew was fertile and could produce other good crops. The country’s economy grew at a fast pace for several decades, and infrastructure in poppy growing regions was developed and linked with the country’s main markets. Opium consumption was considered a problem in many poppy growing regions, a fact which facilitated ground roots support for AD. Finally, the King has is extremely well respected among the population, and he was strongly committed to poppy eradication. These factors were the key to the success of AD (Renard, 2001). Still, success was achieved only after a thirty year effort. Cultivation shifted to Myanmar. To achieve this positive result, Thailand experienced a long “learning while doing” process. It started with crop substitution that became increasingly more complex through time. It included programs to strengthen community structures, developing markets for new products, training peasants on new cultivation methods, establishing education and health systems as well as water, sewage, electricity services, etc.

Repressive antidrug policies can conflict with AD and have done so. Forced eradication and aerial spraying for instance, weaken the communities’ commitment to uphold the rule of law. Spraying mistakes have been fatal to some AD projects in the past.<sup>77</sup> Coordinating all antidrug policies to avoid conflicts among them is imperative but this has been a most difficult thing to do as there are many agencies in charge that fail to communicate and cooperate among themselves.

## **2. The need for comprehensive programs**

Original AD projects were formulated under two basic assumptions that proved insufficient to explain illegal crop development. First, poverty was considered the main cause behind illicit drugs’ growth and second, it was assumed that poor peasants will forgo the illicit crop profits if they found another licit crop that would allow them to have a “decent” income. There is no doubt that poverty plays a role in promoting illicit crops, but the relationship between drugs and poverty is complex and unclear. The fact is that most poor peasants that can grow coca or poppy do not do so and that many poor regions and countries where illicit crops can grow do not do so.

It is also true that as noted above, most peasants would prefer legal to illegal income. But in regions where there has not been significant State presence, where land titles do not exist, where contraband has been common, etc. the difference between legal and illegal income is blurred and at times even impossible to ascertain. In other words, where there is no rule of law, the difference between legal and legal income is not relevant.

As noted, AD has evolved through as a “learning while doing” process. The failure of the earlier crop substitution programs “led policy makers to argue for the need to develop coca and poppy growing regions. The reasoning behind this was simply that it was not enough to find alternative crops and that it was necessary to also provide education, infrastructure, and health services to make sure that coca and

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<sup>77</sup> Cosurca, an organic coffee project in Cauca department in Colombia is a case in point. This project of a peasant cooperative was aerielly fumigated and destroyed. USAID argued that they had coca mixed with coffee, a fact denied by the peasants (Witness for Peace, 2005). It was not possible to prove what the situation had been. The point, however, is that if the aerial spraying had been coordinated with the AD program, the spraying could have been avoided and the AD program staff could have verified the existence of coca. If they had found coca, it could have been eradicated manually and the AD project saved. The German Foreign Aid Agency (GTZ) also funded AD projects in this region that were also sprayed and destroyed. Today GTZ does not fund AD projects in Colombia.

poppy growing regions would attract and support other economic activities. Experience with these more comprehensive programs induced policy makers to focus on broader development problems, particularly in those regions that supplied migrants to illicit crop areas” (Thoumi, 2003: 316).

The learning process has been long. Finding alternative crops required experimental farms to identify the appropriate crops. Peasants had to be taught to handle the new crops. Markets for those crops had to be secured. This frequently required developing new skills in the communities involved and investments in warehouses, silos, processing plants, refrigerated transportation, highway building, etc.

This process led to increasingly complex AD projects that required the participation of the modern productive sector of the economy. For instance, UNODC now involves large supermarkets chains and other stores that guarantee the sale and prices of AD products. They also have developed programs to market AD products abroad. To achieve these goals quality control, appropriate packing and handling and the know how to handle export procedures are of outmost importance. These cannot be achieved without private sector involvement. AD now cannot be just a government project without private sector support.

Complexity as a requirement for success of AD is well accepted today. The Action Plan adopted by the United Nations General Assembly's Twentieth Special Session in 1998 defines Alternative Development: “as a process to prevent and eliminate the illicit cultivation of plants containing narcotic drugs and psychotropic substances through specifically designed rural development measures in the context of sustained national economic growth and sustainable development efforts in countries taking action against drugs, recognising the particular socio-cultural characteristics of the target communities and groups, within the framework of a comprehensive and permanent solution to the problem of illicit drugs.

AD success requires making coca and poppy peasants active participants in the modern economy. To achieve this, they must be consulted and made part of the AD formulation process. This need is acknowledged in most AD program documents but in reality it has not been taken into account in many programs. An international group of experts gathered in Feldafing, Germany in 2002 formulated the “Feldafing Declaration” in which they assert: “We express our concern, that the principles of self-determination, participation and empowerment of groups who have at present no power and no voice in the political debate, are stressed in official documents but not found everywhere in reality. We urge governments as well as implementing agencies to take these concepts seriously”.

Similarly, coordination among recipient country agencies, and donor countries and bilateral and multilateral agencies is also imperative. Unfortunately, differences in national policies and bureaucratic turf battles are frequent obstacles to this coordination. The Feldafing Declaration also stresses this point: “We are dissatisfied by noticing that in the international arena links between agencies responsible for development cooperation and those responsible for activities to control the abuse of drugs are weak. We want to encourage both types of institutions to establish stronger links for their mutual benefit and for the benefit of the overarching objective of a world less with problems resulting from the abuse of drugs and closer to the ideal of sustainable development”. Regarding recipient country governments the Declaration asserts: “We call on national governments in countries in which drug crops are grown – and in most cases also drugs are consumed – to develop a national drug policy. Drug control should be a cross cutting issue of all components of national policy. We consider it essential that social and economic development plans include AD as a major element. Regional development policy and agricultural policy, in particular policies on land tenure, infrastructure, markets and prices for agricultural commodities, rural institutions including credit etc. should be designed and implemented in a way that gives particular emphasis to their role in AD”.

It should be stressed that in order to succeed, AD should be part of a national development strategy that transcends fighting illicit drugs. This strategy should include programs in the rural sector, and consider

options for peasants that should include training and skill development, rural industrial development and even migration to urban areas.

The link between eradication and AD has been a source of debate during the last 30 years. The main issue is whether AD programs should be implemented before peasants eradicate (voluntarily or forcibly) or only after AD programs had been in place. USAID has an eradication first policy while other agencies including GTZ have been more flexible and argue that AD should be implemented as a way to induce peasants to eliminate their illegal plantings.

Peasant compensation has been a related issue. The question is whether peasants should be paid some compensation for each eradicated hectare of coca or poppy. Compensation payments have been tried in Bolivia as part of Law 1008 of 1988 that was drafted in cooperation with the U.S. government that funded the payments.

The main argument for AD before eradication is the need of to maintain peasants' income. This was the justification for compensation in Bolivia. The main argument for eradication first has been the difficulty to ascertain the size of the plantings of each peasant and the possibility that peasants continue planting even after AD is in place.<sup>78</sup>

In some contexts net eradication is easy to ascertain but there are locations where peasants may eradicate in one plot and plant in another one. This is possible in the low jungles of Bolivia, Peru and Colombia where there are no land titles, land is abundant and the forest thick and hard to access. In these cases the net effect of AD on illegal acreage is difficult and perhaps impossible to estimate given current resources.

The Bolivian experience with compensation for eradication proved to be inadequate to reduce illicit crops. In 1988 when Law 1008 established the compensation, Bolivia had 48,900 hectares of coca.<sup>79</sup> In 1997 it had 45,800 hectares (U.S. Department of State, 2003: II-16). Illegal crops fail to decline at a time when there was also significant investment in education, health services, electricity, road construction and other public services in Chapare, the main illegal coca growing area. These investments associated with AD programs resulted in Chapare having by far the best rural infrastructure and public services in Bolivia (Thoumi, 2003, Ch. 12). The perceived failure of this policy was a principal reason why the Banzer government formulated the "Dignity Plan" to forcibly eradicate coca without compensation (República de Bolivia, 1998).<sup>80</sup>

AD sustainability has also raised significant questions. As noted, legal markets are subject to stronger market pressures than illegal markets. These or a plague may make a particular AD crop unprofitable and require substantial adaptation capacity by peasants and their communities. This raises questions such as: how would peasants react to those events? Would they go back to illegal production?

Summarizing the lessons from the past, the addendum on eradication and AD to the report of the UNODC Executive Director presented in the last the last Commission of Narcotic Drugs in March 2008 (UNODC, 2008) asserts that AD programs cover only "23 per cent of farmers of illicit crops in the Andean countries and 5 per cent of such farmers in Asia" (p. 11). "Alternative Development is more effective and more sustainable as part of a wider development scheme" (p. 11). AD requires a long term commitment and focus to succeed. The case of Thailand is brought up as an example of this. "Alternative Development

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<sup>78</sup> As seen below, this is an argument of the Colombian Government for requiring eradication first in their Alternative Development and Forest Warden Programs.

<sup>79</sup> 12,000 of which produced legal coca for traditional uses.

<sup>80</sup> This plan was the brain child of Vice-President Jorge "Tuto" Quiroga who took over for Banzer on August 7, 2001 when Banzer's illness forced him to leave his office.

should follow an integrated approach that required a mixture of comprehensive activities including sustainable development efforts, demand reduction, interdiction and law enforcement measures in compliance with human rights obligations” (p.11-12). Interestingly, “there was little evidence that eradication reduces illicit cultivation in the long term – drug crops move, production technologies evolve, and total production decreases very slowly if at all” (p. 12).

The same document argues to “broaden the concept of alternative development to include preventive alternative development” (p. 12). This of course requires AD to be part of an aggressive development plan that includes all the areas from where possible workers and farmers might migrate to illegal fields and all areas where illegal crops can grow. There is no doubt that this is quite a huge task, above and beyond what the current resources allow and policy makers have considered feasible.

Not surprisingly, as agencies involved acknowledge the complexity of AD, there is now a tendency to talk about “alternative livelihoods programs” rather than AD. These imply a significant change in the peasants’ links with the market and society. Today many of the committed staff of governmental and international agencies explain that the main challenge of AD projects is to “create citizens” out of coca and poppy growing peasants. In other words, AD success requires these projects and programs to become governance projects and programs.

### **3. Alternative Development and its “Unintended” Consequences.**

The current literature has frequent references to “unintended consequences” of anti-drug policies.<sup>81</sup> “Unintended” consequences are debatable. Are they like collateral war damage that can be considered as unavoidable and as the price to fight an evil enemy? Or are they just the expected results of policies that do not take into account the full complexity of illegal drug production, marketing and consumption? In the opening speech of the 51th Session of the Commission on Narcotics Drugs on March 10, 2008, Antonio Maria Costa, UNODC’s Executive Director, referred to unintended consequences of anti drug policies that had to be dealt with and included the “balloon effect” as one of those: “Another consequence has been geographical displacement. Tighter controls in one region, or on one product, produce a swelling of activity elsewhere. As a result of this *balloon effect*, the problem is displaced, but not solved.”<sup>82</sup>

In the case of AD, the issue is whether successful AD generates crop displacement with its related environmental effects caused by the destruction of native tropical forests. These consequences are officially called “unintended” because AD and other anti drug policies are based on a paradigm that does not allow any non-medical use for the mind altering drugs included in the Single Convention Schedules. Thus, anti-drug policies must seek to completely eliminate non-medical drug use. If policies have unpleasant consequences, they are not attributed to imperfect policy formulation based on a simplification of a complex problem but as the result of the illicit drug consumption, trafficking and production that should be eliminated. Thus, they are “unintended”.

Unfortunately, if one asks: how can the unintended AD consequences be eliminated? The answer is plain: Making illicit crops unprofitable everywhere is the only way to make sure that there is no crop displacement. To achieve this either AD programs should be implemented in all locations where illicit crops may grow or illicit crops must be suppressed through force in all locations where they can grow. In both instances, the inadequacy of the resources devoted to AD or repression becomes apparent.

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<sup>81</sup> Perhaps the first reference is found in Tullis, (1995) who uses those words as the title of his book.

<sup>82</sup> It is interesting to point out that the Acción Social program of the Colombia Presidency officially denies that AD generates a “balloon effect” (author’s interview with Acción Social staff, December, 2008).

The balloon effect presents another dilemma. AD might incorporate a community into modern markets and may improve the quality of life of its members, but can it be justified if cultivation is simply displaced and illicit supply is not affected? Unfortunately, there is no good answer to this question.

The evidence supports the existence of a balloon effect, but there is no way to determine its strength. In Colombia, as noted, illicit coca cultivation spread throughout the country when aerial spraying intensified, but one cannot determine what would have happened if the government had not sprayed and had not implemented its AD and complementary Forest Warden Program.

A further “unintended” consequence may result when a country’s rural development policies do not support small peasants, but the government establishes an AD project to reduce illicit crops. In this case, government support to peasant communities implicitly might require the presence of illegal crops. As noted above, a good example of this is Chapare, the rural region in Bolivia that has received the most government support and investment in infrastructure and public services.

In as much as there is a balloon effect, the environment is another victim of the “unintended” consequences of eradication. Various estimates in Colombia and Bolivia indicate that for each hectare of coca planted beyond the agricultural frontier the peasants destroy 3 or 4 forest hectares. These estimates however, are also weak since there is no way to determine what would have happened in the absence of the eradication or AD programs. This is particularly the case in Colombia where the internal conflict has generated a huge number of displaced people some of whom moved to the uninhabited forest areas where coca can grow.<sup>83</sup>

#### **4. Alternative Development and the necessary conditions for the development of illegal activities**

AD programs can be evaluated against the necessary conditions to develop illegal economic activities: illegal demand, wide norms gaps, disregard for externalities, and network experience and links.

AD does not change demand but if successful, it lowers the supply of coca which raises its prices. Higher coca and poppy prices induce the displacement of cultivation and substantial investments in AD may become a strong incentive for peasants to grow coca or poppy to obtain benefits from the State.

AD can be an important instrument to change social norms that tolerate illicit activities and disregard the social consequences of individual behavior. To achieve this goal, however, a series of conditions should be met. To begin, trust in the government has to be built among the peasantry. This requires understanding the social structure and culture of the communities where AD is implemented to avoid mistakes and communication misunderstandings. Words mean different things in different cultures and making sure that all parties to an agreement understand it in a similar way is no easy task. Transparency in the decision making process is imperative. The process should be agreed on ahead of its implementation and it should be respected. The responsibilities of the donor agencies, implementing organizations and project beneficiaries must be clear to everyone. Coordination among all actors involved is imperative to achieve positive results.

The success of AD depends critically on the structure of the communities where it is implemented. In locations where there are strong community structures and community leaders, and they have the capacity to enforce their norms, it is feasible to negotiate successful AD programs. If communities are loosely or unorganized and their apparent leaders cannot enforce their own rules, negotiating an enforceable agreement is a lot harder, perhaps impossible. Not surprisingly, the Colombian experience indicates that AD and eradication programs can be more successful in regions where old Indian groups are settled than in areas of recent settlement.

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<sup>83</sup> In a recent study Quimbayo-Ruiz (2008) argues that the environmental effects of anti-drug policies due to the balloon effect and the use of chemicals in crop eradication are more important than those of the crops themselves.



Recognition of the importance of social structures is the main reason why current AD programs emphasize developing community strengths and building social capital in the regions where they are implemented.

AD programs have a marginal impact on trafficking networks. At best, they eliminate the links of the communities receiving benefits with the cocaine and heroin manufactures and trafficking organizations, but they do not attack them. These can seek other sources and continue their illegal business. This is why AD or eradication alone cannot have a significant medium and long term supply reducing effect on their own. To make a dent on the illegal supply AD and eradication require other policies that attack the rest of the illegal drug industry.

Summarizing, AD can strengthen communities but alone it is not an effective policy in the quest to eliminate three of the necessary conditions for the development of the illegal drug industry.

#### **D. Illicit Crop Eradication**

Illicit crop eradication has been a policy complementary to AD. Colombia started eradicating marijuana in the Sierra Nevada de Santa Marta during the Turbay administration (1978-1982). Aerial spraying of coca fields has been a main feature of anti-drug policies since 1994. It became a key component of “Plan Colombia” formulated during the Andrés Pastrana administration (1998-2002). During the Uribe presidency, spraying intensified reaching extremely high levels. Indeed, it is today a hallmark of anti-drug policies in Colombia. In 2004 the Uribe government began to complement the aerial spraying program with a manual eradication one.

Evaluating aerial spraying is not easy as the data are extremely contradictory. To begin, illicit planting estimates have substantial methodological problems that make it difficult to interpret them. The nature of the illegal crops of coca, poppy and marijuana makes any estimate difficult and complex. Crops tend to be located in isolated, difficult to reach areas distant from urban centers. Peasants seek to camouflage them. To minimize detection, illicit crops are frequently mixed with licit crops and at times are placed under large shadow providing trees. Others are located in jungle clearings away from roads and homes.

In Colombia the United Nations and the United States Government produce different estimates of the area cultivated with illicit crops. The United Nations figures are accepted as official by the Colombian government. The two series have differed dramatically in recent years and they are both inconsistent with official eradication data.

**Table 1. Estimates of Illicit Coca Plantings in Colombia**

Year	Coca Plantings: United Nations Estimates (Hectares) *	Coca Plantings: United States Government Estimates (hectares) **	Coca hectares eradicated	
			Total***	Manual**
1990	40.100	40.100		
1991	37.500	37.500		
1992	37.100	37.100		
1993	39.700	39.700		
1994	44.700	45.000	4.904	
1995	50.900	50.900	25.402	
1996	67.200	67.200	22.576	
1997	79.400	79.500	44.123	
1998	101.800	101.800	69.155	
1999	160.100	122.500	44.158	
2000	163.300	136.200	61.568	

2001	144.800	169.800	95.897	
2002	102.000	144.450	153.126	
2003	86.000	113.850	137.033	
2004	80.000	114.100	142.786	10.991
2005	86.000	144.000	170.752	31.285
2006	78.000	157.200	213.371	42.111
2007	99.000	167.000	219.529**	66.396

Sources: \* Data from several issues of the *World Drug Report* available in the UNODC web page. \*\*Data from several issues of the annual State Department *International Narcotics Strategy Report*. These data has some changes through time in response to what the State Department considers new better information. \*\*\* UNODC, *World Drug Report* (2007)

As shown in table 1, until 1998 their differences were marginal. Up to that year the United States Government produced the estimates and the Colombian Government adjusted them. In 1999 a joint program “Sistema Integrado de Monitoreo de Cultivos Ilícitos” (SIMCI) of UNODC and the Colombian Government was established to monitor illegal crops in Colombia. The American Government continued producing its own estimates. Since then both series have differed substantially.

Both estimates use satellite imaging complemented with information from the ground obtained by visits and interviews with residents. Despite the high level of technology used by satellites, their pictures are not as accurate as many believe. The estimates depend on the degree of resolution of pictures. Satellites that provide pictures over a larger area are less accurate but are cheaper. The quality of the pictures is also dependent on the cloud cover existing at the time when the satellite flies over.

In 1999 and 2000 the U.S. Government estimates were significantly lower than those of SIMCI. From 2001 on the opposite has been the case. The 2005, 2006 and 2007 differences are enormous: the American Government’s estimate for those years was 67%, 101% and 69% larger than SIMCI’s. The trends have also been contradictory: in 2001, 2004 and 2006 one series showed a decline while the other increased. More important, while SIMCI’s 2007 figure shows a decline of 39.4 percent on the area cultivated with coca from the maximum of the series, the American Government’s shows only a 1.2 percent decline. That is, according to one series, the strong aerial spraying and manual eradication policies followed by the Colombian government during the last few years achieved a significant decline in the size of the illegal plantings but according to the other series nothing has been accomplished.

Why are these estimates so different? Both sources use several satellites, some give better resolution than others. Both sources take a sample with the lower resolution satellites (more accurate and more expensive) and use the cheaper ones to cover the rest of the territory. In 2007 SIMCI increased the area covered to include the whole country, which explains in part the increased estimate for that year. The U.S. Government covers a smaller area. Both sources use the overlapping pictures to project the estimates for the areas in which they have the less accurate pictures.

Each final estimate requires a series of intermediate estimates to arrive at a result, in other words, the pictures have to be interpreted and a decision made whether there is an illicit planting. Satellite pictures for example, require a minimum amount of foliage to identify the type of plant viewed. Recently planted coca or poppy are difficult to identify. When illicit plants are mixed with other crops it is also difficult to identify them and to estimate the actual area of illegal cultivation (is one mixed hectare counted the same as a single crop hectare?). Estimates are done by experts which no doubt have adequate qualifications and are committed to do a good job. However, in these cases any rigorous estimate should provide a range (a minimum and a maximum value) rather than a single figure. Similarly, it would also be useful to do a “sensitivity” analysis, that is, to show how the final estimate would change if a particular assumption changes.

Unfortunately there is a conflict between what is scientifically rigorous and what is politically correct. Those who produce the estimates recognize in private that single figures are misleading but they are aware that politicians and bureaucrats involved in policy formulation and implementation do not like ranges that suggest that the data are weak. They demand single estimates that project an image of certitude.

Independent of their large differences, both series contradict the official eradication data. As noted, from 2000 on, eradication has been the main weapon in the fight against illicit drugs in Colombia. Aerial spraying has been intense in many parts of the country. Manual eradication has also been implemented in the last few years. The data on spraying, however, have been grossly misinterpreted. Official documents of the Colombian and American Governments and UNODC equate a sprayed hectare to an eradicated hectare. This produces a peculiar result: in each of the last six years coca eradication in Colombia has exceeded the estimates of the areas planted with coca. Taken these figures at face value, according to the U.N. and the Colombian Government, in 2006 the eradicated area was almost three times the size of the estimated coca plantings! In 2007 this figure was “only” a little more than double!

Coca plants can give a small first crop eight to ten months after planting. This crop is only about 20% of what a full- grown plant produces after 24 to 36 months of its planting. When plants are sprayed or eradicated manually, some peasants replant coca. The U.N. estimates that in 2007 this took place in about 67,000 hectares. Even if one acknowledges this large replanting, one cannot figure out where the coca used to produce cocaine is coming from. Taken at face value, the U.N. and Colombian Government data on coca planted and eradicated areas simply show that Colombia does not produce the coca required to produce cocaine. Using the U.S. Government data one arrives at the same conclusion although this contradiction is less startling.

Eradication figures are grossly overestimated. Manual eradication is effective when it is done well, that is, when the plants are uprooted and destroyed. In 2007 over 66,000 coca hectares were manually eradicated, about 85 percent of the total U.N.-Colombian Government estimated coca crop area. Manual eradication, however, has been less effective than what it might appear. It takes place in many regions with guerrilla presence and in mined fields. Eradication crews have to be accompanied by armed protection units. Because of security problems, in many cases crews leave before destroying uprooted plants which allows peasants to replant them.

Spraying effectiveness is also an issue. A sprayed hectare is not an eradicated hectare. Peasants have developed several ways to protect their crops against spraying. Quick drastic pruning after the spraying prevents the herbicide from reaching the roots, allows them to use the coca leaves and wait for the plants to sprout back. Some plants survive the spraying, and those are used to generate new cultivation. Plants can be manually sprayed with a mix of molasses and water that limit the herbicide’s absorption. In 2007 153,133 coca hectares were “eradicated” through aerial spraying. Spraying companies and pilots are aware that the spraying effectiveness may be low and they spray the same plot several times. This leads to a significant double and triple counting as every time a plot is sprayed it is counted as eradicated.

Summarizing, the data on the extent of eradication of coca crops are grossly inconsistent and contradictory. Off the record the U.N. officials involved recognize this inconsistency and complain that they cannot question the official government data that they are required to use.

To conclude, official data are confusing and misleading. Indeed, if the data were correct, Colombia would not be producing cocaine! Good data on the size of the illicit crops and on the effectiveness of spraying are important. The same applies to data on seizures of chemical precursors and manufactured drugs, on seized drug assets, etc. These data have important policy and political consequences and are frequently politicized.

To improve to improve the quality of the data it is important to highlight their contradictions and pressure data sources to at least produce data that are internally consistent. Crop' sizes, plant alkaloid content, seizures, and market prices should be checked against each other. If they are contradictory, the sources of those contradictions should be researched and attempts to correct the data should be made. Similarly, those sources should be pressured to estimate ranges, not just a single figure that could be a "best" estimate. The point is that a weak "best" estimate is not good enough. In the mean time, any analysis should proceed with great caution. Researchers should be aware that the data available might be highly deceiving.

In the mean time, any analysis using these data should be cautious and researchers should devote a lot of time and effort studying the methodologies used to collect the data to identify their weaknesses and true meaning.

## **E. Anti-Money Laundering Efforts**

### **1. General issues**

Anti-money laundering measures aim to seize and expropriate assets accumulated in the illegal drug industry. At an international level, the focus has been on the financial sector where dirty cash is deposited. In money laundering jargon, this is the first step: placement. Then a series of financial transactions, layering, are undertaken to hide the origin of the funds. Finally the funds whose origin is now disguised are used in the legal economy, that is, they are integrated. Anti-money laundering policies require banks to know their clients, to have internal auditing systems, to file reports of large cash deposits, to look for unusual banking patterns among their clients, etc. As noted above, these controls have a significant cost to the banking system (Reuter and Truman, 2004). However, the amount seized funds and forfeitures are a small portion of the estimated funds laundered. In the United States, where the government has developed a complex anti-money laundering system the results have not been encouraging. Reuter and Truman (2004: 114) use a low-range estimate for the total amount of dirty income generated and conclude that "the current level of penalties-seizures, forfeitures, fines and restitutions- is almost trivial, only four-tenths of 1 percent". But if one accepts that "the forms of money laundering of greater concern are only a few tens of billions-then the level of penalties might be 1 to 3 percent, perhaps enough to have a modest deterrent effect on those tempted to commit the predicate crimes."

Most of the Colombian traffickers' drug revenues are generated abroad. They bring these funds into the country using several systems: contraband of goods sold in the country, cash contraband, legal import under-invoicing, export over-invoicing, faked foreign investments and loans. A probably significant but unknown proportion of the contraband of goods is weapons and supplies for the armed subversive and counter subversive groups active in Colombia.

### **2. Anti-Money Laundering Legislation in Colombia**

Colombia enacted its first asset forfeiture law in 1996 (Law 133). It required a penal sentence for crimes against drug traffickers before seizures and forfeitures could take place. From 1996 to 2002 there were only 44 forfeiture sentences although some of them against large drug lords included many, even a couple of hundred, real estate properties (Reyes-Posada, Thoumi and Duica, 2007).

It should be noted that at that time "it was relatively easy to start forfeiture procedures because many traffickers bragged about their wealth and did not make many efforts to hide it. For example, many did not use "testaferros" (trusted front men and women) in whose name land deeds were made. The National Drug Directorate (DNE), the Judicial Police, the Comptroller, General Attorney and the State's Ombudsman offices could start money laundering and forfeiture procedures. The Security Police (DAS), the Attorney General, and DNE created financial analysis groups that focused on the leaders of the large cartels of the time. This was a learning-by-doing experience" (Ibidem).

During the Pastrana administration (1998-2002) there were no changes in the forfeiture laws. An important policy change, however, was the creation of the Financial Intelligence and Analysis Unit in the Finance Ministry. It follows international models in the fight against terrorism finance to identify suspicious transactions.

Dissatisfaction with the way asset forfeiture had advanced led to the Uribe administration to enact decree 175 of 2002 to correct the deficiencies of Law 333. After the Constitutional Court found it constitutional except for parts of two articles that did not significantly modify it, the government introduced a Bill that became Law 793 of 2002. This toughened the anti-money laundering legislation in several respects: First, it eliminated the requirement of a previous conviction for a predicate crime. Law 793 allows the government to go after assets independently of any criminal action. Second, a simple evidence of unjustified increase in personal wealth can be cause for action. Third, the weight of the proof is reversed, and the individual has to prove that the origin of the questioned assets is legal. Fourth, it requires the accused to be present, but the process can advance as long as the absence of the accused and the abandonment of the assets are not an obstacle to the action. Fifth, assets can be sequestered or frozen without the requirement of a final sentence. Sixth, if within three months the owner does not appear it is assumed that the asset is abandoned to the benefit of the State. (This has been challenged and might be declared unconstitutional). Seventh, the State can go after the assets of deceased citizens. Eight, those who denounce the illegal assets would receive 20 percent of their value.<sup>84</sup> Eight, the seizure-forfeiture procedures were streamlined and measures taken to prevent legal delays.

### **3. Traffickers' response**

In response to repressive policies including anti-money laundering legislation, traffickers adapted by projecting a low profile, living as legal entrepreneurs and attempting to go unnoticed. Their investments and asset hiding and money laundering practices have also become more sophisticated<sup>85</sup> Today testafellos continue to be used, but traffickers have developed increasingly complex ways to hide the origin of their assets. They have faked business, front companies, trusts, contracts to transfer assets, payments in kind, simulated garnishment, faked mortgages, auctions, asset purchases abroad, labor, civil and commercial faked suits and land partitions among others. These tactics are important obstacles to the investigations and have forced law enforcement agencies to become increasingly sophisticated in their methods to uncover the real owners of many assets (Ibidem). Guerrilla and paramilitary groups are current testafello users. Their ability to coerce allows them to keep testafellos on line.

Large land purchases in areas with weak State presence have been a favorite investment of drug traffickers and paramilitaries. In those regions paramilitary or guerrilla groups provide security. In some of these places they developed agro-industrial plantations and large cattle herds. Purchases are made in cash and are difficult to uncover and document. The new generation of traffickers also invests in commercial malls, car dealerships, general stores that sell cheap imports and in fiscal safe havens and neighboring countries. Red light districts have also attracted large drug investments. In these areas they invest in a variety of businesses. Traffickers develop social support and information networks among people who work in them (Duncan, 2006).

The process of judicial investigations that leads to forfeiture faces great difficulties that arise from State weaknesses like the deficient real estate registries as well as from the illegal industry's actions to hide and protect their assets. Corruption and violence are drug traffickers principal weapons to protect assets

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<sup>84</sup> Unfortunately, some have taken advantage of this norm to defraud the government (Interview with prosecuting attorney of the Money Laundering Unit of the Attorney General of the Nation, August 30, 2006).

<sup>85</sup> Semana (1996b) raises many doubts about Law 1996 effectiveness because of the anonymity of many traffickers.

although they have contradictory results. On the one hand, traffickers want to be included in mainstream society. Corruption helps them achieve an appearance of legality, but violence and the illegality of the origin of their assets increases their conflicts with the State.

The traffickers current goal of integration is supported by sophisticated political, legal, commercial and financial advisers and by their low profile and normal businessmen behavior. They build links with legal businesses and appear to contribute to economic and social development. The illegality of their principal businesses forces them, however, to maintain the use of violence as an option to protect their assets and solve business conflicts. They have generated a demand for security, intimidation and retaliation services provided by armed organizations and organized crime.

#### **4. The State Agencies' Resources and Forfeiture Problems<sup>86</sup>**

In 2006 the Attorney General's office (Fiscalía) had 15 prosecutors working on money laundering and 15 on forfeiture. Information came mainly from its Technical Investigation Branch (CTI), the Security Police (DAS), the Intelligence Division of the Judicial Police (DIJIN), the U.S. Embassy (DEA and other agencies), DNE and the Financial Intelligence Unit of the Finance Ministry. The armed forces contributed data based on their military operations. High personnel turnover is a problem in some of these agencies like DIJIN. This generated a continuous need for training. DAS had a good judicial analysis team and a good intelligence department. DAS has a Group Against Organized Crime Finances (GROFOG) that has 50 specialized analysts. They have taken advantage of the frequent conflicts among trafficking organizations to obtain information about their rivals.

DIJIN's intelligence division had 70 analysts working on money laundering and illicit enrichment and has good logistic support to move round the country and to collect evidence. CTI also has good technical support and its close coordination with forfeiture prosecutors assures their control of the evidence.

The Attorney General's office obtains real estate data from the cadastre managed by the Geographic Institute Agustín Codazzi that covers all the country except for Antioquia Department that has its own real estate register's office. The cadastre does not cover all the country because in many regions of recent settlement land property structures are still being formed. These sources are not systematized, and prosecutors have to go to various offices and dig out the data from the files. Assessed values of land are woefully low. A program to update the cadastre was started at the beginning of the decade, but it has not been implemented and those values remain grossly underestimated.

Corruption in the notaries and registry offices is another obstacle to the prosecutors. Traffickers, for example, purchase deed numbers that have been left empty and that are dated before the time the trafficking crimes were committed. Besides, forfeiture processes require personal notification to the accused. In many cases, it is difficult to comply with this requirement. In cases in which the accused has been captured in the U.S. or extradited to that country, it may take three years to notify the accused. In some cases when the accused is in the witness protection program of the U.S., it is simply impossible to do so. When it is not possible to locate the accused a curator ad litem is appointed.

Good faith owners of laundered assets are a problem for the implementation of the forfeiture law. These people are suspect of being testaferros, but prosecutors have found cases of real property purchased with mortgages from the formal system that to the surprise of their owners is seized by DNE. To continue using those properties the owners have to simultaneously pay rent to DNE and the mortgage to the banks. It is difficult for judges to deal quickly with those cases because it is difficult to differentiate good faith property holders from testaferros. Prosecutors believe that those good faith holders are frequently the

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<sup>86</sup> This and the following sections on money laundering are based on Reyes, Thoumi and Duica (2007) and do not cover developments in 2007 and 2008.

group most affected by a hard handed asset forfeiture policy. Traffickers take advantage of the existence of this and try to have testaferreros pass for good faith property holders. Obtaining legal mortgages is part of the drug traffickers' strategy to make it difficult for prosecutors to obtain evidence.

Rural properties where there are illicit crops or labs present other problems. According to the law these properties are subject to forfeiture which frequently presents grave human and legal dilemmas when these lands are used to grow illicit crops against the will of their owners or are located in areas where armed groups force the owners to grow them under the threat of death or displacement. The oil palm plantations in Nariño are an extreme example of these situations. There armed groups force owners to plant coca under the shade of their palms. In other prosecutors the seizure clause cannot be applied because the illegal crops and labs are in national lands ("baldíos").

In many other cases forfeiture processes advance but the properties cannot be taken over because of security reasons. This happens in areas where there are military operations against guerrillas and paramilitary or where traffickers have armed protection bands. In these cases it is costly to have a military operation just to seize a piece of land. In practice, forfeiture takes place and the property registry is cancelled, but the land remains in the hands of the traffickers.

It is also frequently the case to find land acquired with illicit funds that remains registered in the name of the previous owners, because the new owners do not register their titles or refuse to sign them. The title holders, even when they are in good faith, are suspect of testaferrato, and they become involved in penal processes. Besides great anguish, this causes them significant costs. The justice system faces the challenge to differentiate true testaferreros who work for a trafficker from those from who play this role against their will or without knowing it. There have been some extreme situations in which victims of plundering or who have been intimidated to sell at token prices continue figuring as owners and are at risk of being judged for testaferrato.

## **5. Rural Land Seizure and Forfeiture Results**

Despite the easy identification of the first generation large traffickers' assets, Law 333 had poor results. Between 1996 and 2002 there were 44 forfeiture sentences for real assets and 73 for movable property. 1,775 properties were seized and 792 forfeited (Contraloría General de la República, 2002: 21). The reforms of the Uribe administration resulted in significantly higher forfeiture sentences, 264 in 2003 and 2004. Herrera (2005) evaluates forfeiture up to 2004. By then, there had been 3,376 rural properties seized but there was no data on the size of 1,870 (55.4%). The total size of those that reported it (1,506) was 421,638 hectares. Forfeiture efficiency has been disappointing as 2,104 (62.3%) of the seized properties' legal status had not been defined; 986 (29.2%) had been returned to their owners because there was not enough evidence for forfeiture to proceed and in only 5 cases (0.15%) forfeiture had been secured, four of which have a total of 384 hectares. The rest (8.3%) were investigated or had been adjudicated by the initial judge. Similarly, 1,249 (82.9%) of those that reported size (388,576 hectares) had an undermined legal status (Herrera, 2005).

In September 2006 the Attorney General's office reported only 2,211 (65.9%) of the 3,354 properties seized in 288 municipalities had information about their size (207,868 hectares). This area is less than 50% of the reported by DNE. It was not possible to find the source of this difference.

The Attorney General's report was used to compare municipalities where there had been land seizures with those where an earlier study (Reyes, 1997) had found that drug traffickers had acquired land. It was found that ten years ago traffickers had land in 196 of the 288 municipalities where land was seized. There is no question that during the last decade traffickers purchases have expanded across the country. Land seizures data tend to overlap with data on traffickers earlier purchases, but the overlap is not exact. Land seizures are found across the Valle Department, the traditional coffee growing area ("Eje



Cafetero”), and Caquetá, Córdoba and Meta where there is knowledge of large traffickers purchases. The overlap is weaker in Antioquia where there have been seizures in only 35 of 88 municipalities, the Atlantic Coast department (except Córdoba), the Middle Magdalena Valley of Santander Department and in Vichada. In the latter department, it is not possible to confiscate many of the traffickers’ lands because they simply have de-facto possession of national lands (baldíos).

The data also show that seizures are more likely in areas near large urban concentrations which is to be expected since land values are higher and the State institutions are better organized and have better access to relevant evidence. Seizures are also more prevalent in regions where the first generation traffickers purchased land. In Antioquia, for example, they are concentrated in the area around Medellín, and in the Urabá and Middle Magdalena Valley areas of the department. In Córdoba a similar pattern around Montería and Valencia is found.

There are however, some areas where it is known that traffickers made large purchases such as Morrosquillo gulf and La Mojana in Sucre, Eastern Guajira, and Western Atlántico and in the distant Casanare and Vichada departments where there have been no seizures. The reasons why are not clear, but it is likely that land purchases in those regions have been made by new generation, low profile hard to identify traffickers or by traffickers with strong paramilitary links that have tight control on local governments.

## **6. Management and Use of Seized and Confiscated Properties**

The system adopted to manage and dispose of seized and confiscated assets has been notoriously inefficient. Seized assets are transferred to a special account of the DNE following policy guidelines set by the National Drug Council which is made up by several ministers and high level government officials. DNE is attached to the Interior ministry. Its organization was not designed to manage a large number of real estate properties and other assets, and its special account does not have budgetary autonomy. DNE is even less qualified to comply with the law that requires it to design and implement projects to use confiscated assets.

From its inception in 1990, DNE has had to register, manage and dispose of seized assets. Decree 0494 of 1990 requires DNE to: Keep an up to date inventory of all assets seized in drug trafficking related cases; appropriately dispose of those assets; make sure that the provisional use of those assets complies with the guidelines set by the National Drug Council; supervise the provisional users of the assets, and cooperate with judicial authorities that determine the final use of those assets or their return to previous owners.

DNE has to protect and manage profitably the seized assets to assure that if the forfeiture processes do not prosper and the assets are returned to owners the State is not liable to pay former owners damages and lost income. The lack of a clear policy to manage seized assets has placed the State at risk for substantial losses when assets are returned to prior owners.<sup>87</sup> A similar problem prevents the Colombian Rural Development Institute (INCODER) from distributing land to peasants seized lands. This is the main reason why INCODER does not take over lands provisionally seized. Provisional seizures are necessary to prevent traffickers from transferring property to testaferros, but they require well-defined policies and State agencies to implement them.

When INCODER buys or receives land it has to follow a set of procedures. First, it has to determine the quality of the land and its possible uses. Second, it has to ensure that displaced families would receive the land. Third, it has to determine which productive projects should be implemented taking into account the characteristics of the land and the families to be settled there. INCODER cannot take the risk of having to

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<sup>87</sup> Herrera (2002) provides several examples that illustrate this point.

turn down projects already in progress. Doing so would destroy any credibility and loyalty of the peasants to the government and the State.

In many cases, there are valid contracts affecting seized properties. Real estate taxes, utilities and mortgages have to be paid. Seized companies must be managed; their employees, suppliers, and bank loans have to be paid. Some properties are rented, and those contracts must be respected. To deal with these issues DNE should have strong managerial capabilities, but the law does not provide for this. It simply mentions the contractual forms that can be used to dispose of the assets and sets guidelines for a few cases such as rent and trust contracts.

Despite the recent advances in seizures and forfeitures, there is a consensus among public employees that seized asset management by DNE has been grossly deficient. Before 2002 it was difficult to achieve final asset forfeiture. After Law 793 was enacted, the increase in confiscated assets made DNE deficiencies more glaring.

Lack of personnel is a principal DNE problem. In 2006, DNE had only four professionals to visit seized rural properties. They had difficulty visiting all seized properties, but also they could not manage those properties, particularly in areas where security was lacking.

The Attorney General's Office asserts: "DNE assets' Sub-Directory has to manage 37,497 assets and has 21 employees: a director, an adviser, eight professionals, five technicians and five assistants. It does not have professionals specialized in managing different types of assets like farms, cattle, partnerships, airplanes and others. These managerial limitations result in a lack of knowledge, control, care and adequate follow up of productive activities. This leaves the State open to an unlimited number of complaints that could have unprecedented costs. Each of the fourteen employees that could manage seized assets had to handle 2,678 which is unmanageable" (Contraloría General de la República, 2002). Only four employees were charged with overseeing all rural properties.

DNE personnel interviewed consider that the agency has structural problems but that managerial problems are also important. There are no internal sanctions for employees that do not do a good job, for example, when properties returned to their owners are not dropped from their files. DNE employees do not have a strong institutional commitment. The director and other top positions are filled with political appointees some of whom know nothing about DNE and its functions. Every director has new ideas and agendas, but the directors are changed frequently, every two or three years on average.

DNE is a centralized agency that has offices only in Bogotá. This is also an obstacle to manage a diversity of assets across the country. Centralization makes it difficult to even have knowledge about all assets under the agency's purview and of their condition at the time of seizure.

DNE's problems are accentuated by failed inter-agency coordination. But the main problem arises from the fact that DNE was assigned substantial responsibilities without having an appropriate infrastructure and resources. Indeed, DNE became the largest and worse managed real estate agency of the country.

The lack of clear criteria to dispose of provisionally seized property is one of the main DNE failures. Former Deputy Comptroller General Luis B. Flórez asks: Are there any clear prerequisites to assign properties? There have been many negative experiences with cooperatives and community enterprises, but what are the criteria to choose them? (Flórez, 2005). These questions have not been answered. Law 793 allows DNE to assign properties to profit making individual organizations only in exceptional cases. The exception, however, has become the rule and most properties are rented cheaply to private individuals. This is facilitated by undervaluations at time of seizure. Frequently cattle heads are misidentified allowing for cheap cattle to substitute for expensive heads. At the end of rental contracts

many farms have been pillaged.<sup>88</sup> Many confiscated rural properties have ended in the hands of testaferros of the original owners. In many cases there are no records about who has received properties to manage or the quality and nature of movable assets. All these problems put DNE's credibility in jeopardy.

Some DNE employees believe that high positions in that agency, while part of a political bounty, are not coveted which results in instability at the top and does not allow for long term strategic development of the agency.

At the end of 2006, the political scandal generated by the confirmation of the widespread nexus between politicians and paramilitaries created a large outcry in the media. Confiscated properties are expected to contribute to solving some of the problems of displaced and poor peasants, but they appear to be the object of political corruption and profiteering. SEMANA (2006a) claimed that in 14 years DNE has sold only 8 properties, and that politicians have had strong influence in the disposal of rural properties which are used to grease their electoral machineries. In its editorial, EL TIEMPO pointed out that 20 years after Carlos Lehder's extradition, the legal status of his well known Posada Alemana was still undefined. In another editorials it warns that the demobilization of paramilitaries, and the uncovering of their links with politicians, many of whom are large land holders, will increase substantially the amount of land seized, confiscated and available for distribution to victims of the internal conflict and questions DNE's ability to handle that increased load. It insists that the government has an opportunity to use those assets in a credible way to contribute to deal with pressing issues, and that this should have the highest priority in the government's agenda.

On November 2006, Carlos Albornoz took over as DNE director. He appears to be more dynamic and a better manager than his predecessors. Soon after his appointment he revealed that DNE contracted a firm for about \$1.8 million to make an inventory of all assets under the responsibility of DNE. When the deadline arrived the firm had made an inventory of only 15% of the assets. In a press interview he confessed: "we do not know what we have and where we have it". Albornoz recognized DNE problems and has embarked on an ambitious reform program that aims to transform DNE into an industrial and commercial State enterprise. It is unclear however, how successful he has been. As noted above, DNE has managed to have 60,000 hectares forfeited and redistributed, but a much larger amount of over 1,300,000 hectares that were seized had to be returned to their nominal owners. The need to transform DNE into a stronger Anti-Money Laundering actor persists.

## **IX. Reflections and Conclusions**

Colombia has been marked by the illegal cocaine industry for about 35 years. During this period illegal drugs have been associated with increases in violence, and the growth of organized criminal organizations, threats to the state first by trafficking groups and then by subversive groups. Drugs have funded both subversive and counter subversive armed groups. Narco-trafficking interests have deeply permeated the political system. Traffickers have contributed funding to presidential, congressional, gubernatorial, mayoral and other campaigns. Drug lobbies have been successful shaping policies.

There is no doubt that illegal drugs changed Colombia. The illegal industry fed contraband imports, real estate booms; it also lowered the exchange rate hurting legal international trade sectors of the economy. More important, it changed the way people perceive processes for accumulating wealth. It contributed to the entrenchment of a speculative capitalist mentality in which huge quick profits are considered normal and thus, people expect to get them. Besides, Colombian international relations have been "narcotized" as

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<sup>88</sup> INCODER employees interviewed assert that DNE signed contracts with drug traffickers, paramilitaries, guerrillas and testaferros. Two and three thousand hectare ranches in some excellent lands are rented for under \$1,000 a month.

drugs have been its main international relations issue for almost four decades. Drugs are associated with Colombians abroad and have been the reason why they are frequently stigmatized.

Many Colombians feel victimized by the development of the illegal drug industry. Most of them, however, buy contraband used to launder drug monies. On the other hand, Colombians of all social strata have participated directly or indirectly in the illegal industry.<sup>89</sup> Colombians implicitly assert that the participation of Colombians in the illegal industry is a natural reaction to the high illegal profits: “We cannot forget that when the return on capital exceeds 300% having to commit a crime is not an obstacle even when there is a risk of ruin or death” (Guerrero-Albán, 2005:18).

When looking for “causes” for the development of the illegal industry in Colombia, most find them to be external. Unfortunately, external reasons do not explain why Colombia is the center of the illegal cocaine industry. This can only be attributed to internal factors to Colombia. There is no question that it is psychologically difficult and politically incorrect for the country’s governments and elite to acknowledge this.

The consequences of recognizing that internal factors are responsible for the concentration of the illegal cocaine industry in Colombia are hard for many Colombians to take. To begin with, it makes it necessary to accept that once an easy to produce good (or bad) is declared globally illegal, it would tend to concentrate in the regions where it can be produced where it is less risky to do illegal things. In other words, the competitive advantage in cocaine is based on the ability to break the law rather than on the possibility to grow coca or to be near the main consuming markets. The point is simple: If Colombia is to develop and become a reasonable society with a high quality of life Colombians must learn to live in a world in which there are easy to produce goods and services that are illegal and should not be produced.

The acknowledgment of this reality has important consequences for policy making. First, as long as Colombia or some of its regions remain the best place to undertake illegal economic activities, common anti-drug and anti-crime policies will not eliminate drugs or crime. Common policies would at best have a short term impact, but in the medium and long term the illegal industry would adapt and survive. Even if there is success against illicit crops, the trafficking organizations will continue. Remember that as noted above, the illegal industry in Colombia first developed as processing and trafficking organizations that used imported coca paste and cocaine base. This structural limit of anti-drug policies explains why despite almost thirty years of intense fight against drugs the illegal industry remains strong in Colombia.

Second, this does not mean that anti-drug policies should not be continued. Colombia will have to continue fighting traffickers, eradicating illicit crops, confiscating chemical precursors, attacking money launderers, etc. These, however, must be coordinated to avoid some of the problems mentioned above. Some changes will strengthen those policies. If money laundering and the resulting rural land concentration are to be taken seriously by the government, it is necessary to strengthen the DNE to make it into an agency capable to effectively manage seized properties and to dispose of those forfeited. Updating the land values and increasing rural real estate taxes are another requirement to improve anti-money laundering policies. Only 20% of Colombia’s population is rural, and it contributes an even smaller percentage to GDP. Despite this, Colombia never solved the rural and peasant problem. Finding legal productive activities for the peasantry should be a key policy goal. Actions such as freezing the size of the rural frontier and contemplating a land reform program that is not primarily focused on land distribution should have the highest priority for the government. Other policy changes would include stronger contraband controls, establishing modern jails in which inmates’ rights are respected, but they are not allowed to continue running their illegal business. Alternative Development can be improved

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<sup>89</sup> In my lectures on drugs to Colombian audiences I like to ask those who have relatives or close friends who have been participated in the illegal industry to raise their hands. Very few do and frequently the only hand raised is mine.

involving more local mayors and authorities. The aerial spraying and manual eradication should be rigorously evaluated and coordinated to improve their effectiveness. This list of policy changes and improvements is clearly not exhaustive but illustrates ways to in which the current anti-drug system could be made more effective. While current anti-drug policies can be improved, it should be accepted that they are not going to “solve the drug problem”. While they may weaken the Colombian illegal drug industry, they are not going to eliminate it completely.

Third, the real solution to the “drug problem” requires closing the gap between formal and informal norms. To succeed, both sets of norms need to be brought into line with each other, that is, to establish the basis for the rule of law. To begin moving in that direction it is necessary to make changes in mores and in culture a policy goal. This would be a huge task that includes acknowledging that many commonly accepted behaviors must be changed, including those of the economic and political elite, not just those of guerrillas, paramilitaries, traffickers and other obvious criminals. This would require substantial social reforms.

Fourth, the system of formulating laws should also be questioned and revised. All Colombian Constitutions have been designed to change the country according to a particular ideology. They implicitly have recognized that social mores should be changed, and the Constitution has been expected to be an instrument of change. Many other laws have been enacted following the same criteria. Indeed, Colombians are prone to “solve” social problems by enacting laws that cannot be enforced. This has been an important contributor to the gap in norms. It is necessary to have laws that respond to some basic questions: What is Colombia? How do Colombians behave? Given what Colombians are and how they behave, what is feasible?

Fifth, since social norms vary substantially among various social groups and regions, this presents a further challenge. Social diversity is seen by many as a positive social trait, but when it makes the country more difficult to govern it becomes an enormous handicap. The conflict between social and formal norms in some regions may be so big that it could be necessary to contemplate substantial changes in regional organization. It might become necessary to have more autonomous regions. It is impossible for any researcher to provide a recipe for such a change, except to point out that studies are needed to identify points of cultural conflicts. Based on those studies, a decision should be made on how to handle basic differences.

Sixth, drug legalization, a favorite solution for some Colombians, will not solve Colombian problems. Any conceivable change in the international drug control regime will not lead to a completely free drug market. Colombia could advocate a more liberal regime with production and consumption regulations and controls, but in that case a black market would still exist, and Colombians would supply it. Even if the impossible takes place and mind altering drugs become totally free, Colombian trafficking organizations and the disdain for the law that many Colombians have will persist. These syndicates and people will seek other illegal lines of activity.

During the last century the Colombian political and economic elite have faced many domestic threats. They managed avoiding substantial social reforms many times. They have succeeded in co-opting a large number of Colombians. Indeed, the country has experienced significant social mobility, but an important proportion of the population feels excluded. The Colombian elites currently agree that drug traffickers, guerrillas, paramilitaries and other criminals must change behaviors or be destroyed. A true solution to the Colombian problems would also require changes in elite behaviors. As Wilde (1978) put it thirty years ago, rather than drastic reforms, Colombian policies have allowed the country to “muddle through” its problems without achieving sustained long term solutions. Colombian elites have a great challenge today: bite the bullet and once and for all resolve the country’s principal problems, that is, to make substantial reforms to establish the rule of law, not by force but by consensus, or to seek ways to continue muddling through.

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## **ANNEX 5: PERSONS INTERVIEWED**

### **USAID**

Susan Reichle, Mission Director  
Mark Silverman, Acting Deputy Mission Director  
Sean Jones, Director, Office of Alternative Development  
Jason Girard, Deputy Director, Office of Alternative Development  
Nathan Christie, Office of Alternative Development  
Matt Rees, Office of Alternative Development  
Mark Carrato, Office of Alternative Development  
Margaret Enis, Program Economist  
Francisco Gonzales, Economist  
Mauricio Villamizar  
Camilo Sanchez, Contracts Negotiator  
Miguel Reabold, OTI Country Representative  
Ileana Baca, USAID Demobilization & Reintegration Office Chief  
Chris Maness, USAID Washington OTI officer on TDY  
Lynn Vega, USAID IDP Office Chief  
Jene Thomas, Director, Office of Democracy and Governance  
Orlando Munoz, Office of Democracy and Governance

### **US Embassy:**

Perry Holloway, NAS Director  
Andrew Erickson, NAS Deputy Director  
Andrew Scherr, NAS Program Officer  
Andrea Cameron and Esperanza Nuñez, Complaints System, NAS  
Paul Vaky, Department of Justice  
Jay Bergman, Drug Enforcement Agency (DEA)  
LTC David Diaz, MILGRP, Chief, Civil Affairs  
COL Kevin Saderup, MILGRP Commander  
Elieane French, POL Section

### **Other US Government**

Christopher Barton, Chief Counsel, House Permanent Select Committee on Intelligence (1995-2003);  
Director, National Security Council, Western Hemisphere Affairs Directorate (2003-2005);  
Stuart Lippe, currently the Senior Desk Officer, Colombia, US Department of State.

### **Government of Colombia:**

Vice Minister of Defense, Sergio Jaramillo  
Mariana Pacheco, Colombia Embassy Washington, D.C.  
Daniel Rico, Senior Advisor, Ministry of Defense  
Victoria Eugenia Restrepo, Director of the Presidential Program against Illicit Crops (PCI), Acción Social  
Jimena Niño, Productive Projects coordinator, PCI, Acción Social  
Sandra Alzate Cifuentes, Director of International Cooperation, PCI, Acción Social;  
Juanita Acosta Giraldo, Advisor on International Cooperation, PCI, Acción Social;  
General Alvaro Caro, Director, Anti-Narcotics Directorate, National Police, DIRAN  
General Padilla, Commander, Colombian Armed Forces  
Mayor General (Ret) Jairo Pineda, Director General, Defensa Civil

Giovanna Fuentes, Advisor, Office of the President  
Julia Miranda Londoño, Director General, National Parks

### **Stakeholders:**

Rodolfo Llinas Rivera, Director SIMCI II, UNODC  
Leonardo Correa, Field Engineer, SIMCI-UNODC  
Diego Molano, ARD/MIDAS DCOP  
Jaime Niño, Senior Manager for Policy, ARD/MIDAS  
Briefing by the entire ARD/MIDAS Policy Team, including leaders for land, environment, agriculture, labor markets and capital markets  
Derald Smart, ARD/ADAM, Enterprise Restructuring  
Reubend Dario, ARD/ADAM, Rural Development Specialist  
Orlando Messen, ARD/ADAM, Rural Development Specialist  
Alvaro Balcazar, GOC Manager Macarena  
Creative Associates: Aidan Egan, Noy Villalobos, Gregorio Llano, Luis Eduardo Lopez and Lina Pulido  
Luis Alberto Cuéllar Gómez, ACIDI/VOCA COP  
Alfredo Rangel, Fundación de Seguridad (Security Foundation)  
Maria Victoria Llorente, Ideas Para la Paz (Ideas for Peace)  
Myriam Villegas, EU Development and Peace Director for Magdalena Medio  
Diego Peña, MSD  
Kelly Brooks, Acting COP, Cimientos  
Fernando Sacristan, PCIM Coordinator Macarena  
Carlos Gustavo Cano, Ex Minister of Agriculture  
María Victoria Llorente, Director, Fundación Ideas para la Paz (Ideas for Peace Foundation)  
Victor M. Uribe Uran, Associate Profesor, FIU, USAID Contractor  
Tony Santiago, Transcomm  
Demobilized FARC and paramilitary (anonymous)

### **San Martin de los Llanos (Meta):**

Luis Felipe Chavez, resident  
Eber Buendia Olaya, cattleman

### **Puerto Rico (Meta):**

Edgar Lizarazo, PCIM Puerto Rico coordinator  
Ruth Cubides, Familias Guardabosques coordinator Puerto Rico  
4 women Familias Guardabosques beneficiaries  
José Manuel Guerrero Aguirre, Mayor of Puerto Rico  
José Pachon, Council President

### **Granada (Meta):**

Creative Associates Colombia team Granada: Constanza Gomez, Bernardo Mejia, and Angela Bogota.

### **San Juan – Mesetas (Meta):**

Daisy Melo Novoa, Secretary of Government, Acting Mayor  
Gustavo Naranjo, PCIM Coordinator Mesetas

### **Vista Hermosa (Meta):**

Leonardo Miguel Cuesta, Legal Representative, ASOPROCAVICH

Tito Epifanio Garzon Gomez, Legal Representative, Asocaña - President Asojuntas  
Jose Alvarop Garcia, Treasurer, ASOPROCAVICH  
Patricia Medina, PCIM Coordinator, Vista Hermosa

## **Nariño**

Fernando Burbano & his staff: Programa FamiliasGuarda Bosques  
Plinio Perez & his staff: Office of the Governor of Nariño  
Antonio Navarro: Governor of Nariño  
Fabio Trujillo: Office of the Governor of Nariño  
Francisco del Castillo: ADAM Nariño  
Omar Suarez: MIDAS Nariño  
Carlos Santacruz, Maribel Albornoz y Robert Daza of the Asociación Supradepartamental de Municipios de la Región del Alto Patía, Asopatía, (Supradepartamental Municipal Association of the Region of Alto Patia)  
Members of focus groups—see case study for description of the composition of these groups  
Other farmers, cocaleros, ex-poppy farmers were interviewed, names not given

## **South of Bolivar**

Francisco Martínez, Acción Social  
Milburn Line, Chief of Party MSD  
Marco Romero, President, Consultoría para los Derechos Humanos y el Desplazamiento (Consultancy for Human Rights and Displacement) CODHES  
Members of focus groups—see case study for description of the composition of these groups  
Other farmers were interviewed, names not given

## ANNEX 6: REGRESSION ANALYSES

### Regression Analysis I: Impact of PC on the Coca Area

An econometric dynamic panel (Arellano and Bond, 1991), which combines time series and cross-sectional data, was used to estimate the significance of different factors in explaining the number of hectares devoted to coca production in different municipalities and the effectiveness of different programs in reducing the area devoted to coca.

The question of the relationship between coca areas and the mix of programs to reduce coca area should be analyzed through a complex spatial and temporal model. The response of coca areas over time and space can be estimated through the use of econometric panels, incorporating the dynamics of lagged relationships correcting the problems of endogeneity. Therefore the Arellano and Bond (1991) technique will be used, which is based on the Generalized Method of Moments GMM to determine the exogeneity of the explanatory variables (lack of serial correlation with lags in the independent variable). This allows for the adequate incorporation of present, past, and future information within a territorial dimension.

Therefore, the estimated change of coca area (in hectares) for a certain municipality ( $y_{it}$ ), will be a function of the coca area lagged one period ( $y_{it-1}$ ) and a set of explanatory variables ( $x_{it}$ ), including programs with lagged values and variables that control for lags in different regions and over time during the period 2000 to 2007. The three main programs to reduce coca cultivation are as follows: eradication (by aerial spraying, as well as manual eradication) alternative development (institutional strengthening, productive projects, and infrastructure) and interdiction (seizures, destroying laboratories, and operations). Additionally it includes programs to reduce rural poverty as measured by a vulnerability index for coca work. The parameters  $\alpha$   $\beta$  are semi-elastic,  $\eta_i$  is a municipal effect, and  $v_{it}$  is the error term.

$$y_{it} = \alpha y_{it-1} + \beta x_{it} + \eta_i + v_{it}$$

From a database covering 2000-2007, the description of variables, the sources of information and the expected signs of variables that were significant from a statistical point of view are as follows:

(+) Coca: Number of observed hectares in the current year. SIMCI, UNODC. Incorporates adjustments for manual eradication. From its lagged value, it is expected to have a negative sign to reflect the dynamics of clustering.

(-) Spraying: Dummy variable for the presence of spraying operations, National Narcotics Directorate of the National Police (DIRAN). Eradication defines its present focus based on past locations of the coca crop; its effects will vary over time depending on the response of the coca growers.

(-) Interdiction: Dummy variable for the presence of operations undertaken by the armed forces, Ministry of Defense. Interdiction also pertains to spraying, along with strategic considerations such as the persecution of illegal armed groups operating in crop growing areas, but also other territories that are logistical corridors of export supplies, where its intervention may impact other crop growing areas.

(+) Alternative Development: Dummy variable for the presence of alternative development projects implemented by the PLANTE, FIP, USAID and Acción Social. Alternative development, according to its expanded definition, has had different criteria for intervention in different regions. Due to the heterogeneity of the programs, one can expect different patterns of results. In general, these are projects of slow maturation with externalities whose effects expand over time and spread to neighboring areas.



Furthermore, when they are conditioned upon the eradication or absence of coca, their effects only appear after considerable time has elapsed and without a close relationship to the clustering of coca growers.

(+) Vulnerability: Percentage of the population that is vulnerable to work in coca production. The figure is reached by comparing the living conditions of coca growers, excluding the income from coca, with those of the rest of the population using a matching methodology (see the Section entitled Families vulnerable to the cultivation of coca).

The estimated results are summarized in Table 2. At first glance, the estimates of the panel without lagged variables offer counterintuitive results, with the exception of the variable of vulnerability that appears with the expected sign and has an adequate statistical significance. However these results are not surprising, because by leaving out the dynamic considerations of coca and program mix, the problems of endogeneity are distorting the results. This problem of endogeneity was resolved by running a dynamic panel that will identify and eventually correct itself. (Arellano and Bond, 1991).

The Table 2 dynamic panel estimations, which use lagged data, show more accurate results than standard panels. The interpretation of the coefficients that are associated with the variables, show in all cases expected signs and high statistical significance. The values in the table in parentheses correspond to p-values, which is a measure of how much evidence we have with respect to an explanatory variable. One minus the p-value is equal to its statistical significance. Thus, coca area lagged one period has a p-value of 0.013 and therefore a significance level of 98.7%. Similarly, interdiction has a statistical significance of 99.9%, spraying lagged one period has a statistical significance of 99.3%, vulnerability 99.99% and Alternative Development lagged three periods, 92%. These results are very satisfactory, especially if we are working with non-parametric models, where it is common to find lower p-values.

As stated above, the choice between current and lagged data using the Generalized Method of Moments (GMM) avoids biases related to endogeneity. In addition, the negative sign of the lagged variable for coca area is a result of the shift of coca cultivation where it tends to spread into new areas at a rate of 7% (This rate is not a result of this regression analysis; it comes from the section discussing the Balloon Effect). Interdiction, which is a measure of the presence of the armed forces in an area, resulted in a reduction of 0.48 hectares. The presence of spraying reduced coca area by 46 hectares, with a lag of one year. The introduction of alternative development programs reduced coca area by 25 hectares, after three years of its implementation. An increase of one percentage point in the population that is vulnerable to work in coca increased the area devoted to coca by 0.03 hectares. The interpretation of these coefficients is a result of the mathematical interaction between different scales of variables. Coca area is in hectares, vulnerability is measured by the percentage of the population that is vulnerable, and the remaining variables are dummy variables which take a value of 1 if they are present and 0 if they are absent.

**Table 2: Econometric Estimates of the coca hectares**

Panel without Lagged Variables		Dynamic Panel (Arellano & Bond)	
Variable	Coefficient	Variable	Coefficient
Constant	-117.0494 (0.150)	Has de Coca (t-1)	-0.0698344 (0.013)
Interdiction	6.450782 (0.000)	Interdiction	-0.4833231 (0.001)
Alternative Development	68.57383 (0.355)	Alternative Development (t-3)	-25.36445 (0.080)
Spraying	50.30903 (0.363)	Spraying (t-1)	-46.46591 (0.003)

Panel without Lagged Variables		Dynamic Panel (Arellano & Bond)	
Vulnerability	0.0015616	Vulnerability	0.0278059
	(0.053)		(0.000)
N	5306	N	3183

Source: Authors

The coefficients for each variable cannot be interpreted as a direct measure of the effectiveness of each program, since they are average values that interact with explanatory values at the municipal level. To have an approximation of the effectiveness of each of the programs at an aggregate level, it is necessary to simulate the changes that could have happened in 2007. Using the coefficients from Table 2, new values were introduced for each of the explanatory variables in order to carry out these simulations. The scenarios involved increasing the intensity of each program by 10% per year (10% accumulated over 4 years or 46%) leaving the other programs constant and then a final scenario in which all programs are increased simultaneously.

The simulations that were carried out show that increasing each one of the programs would reduce coca production. The major individual effects correspond to programs that are aimed at reducing the population's vulnerability and alternative development with 72% and 69% respectively. Increasing spraying and interdiction offer reductions of 62%. If all programs are increased cumulatively by 46% over the next four years, the area of coca production will be reduced by 82%.

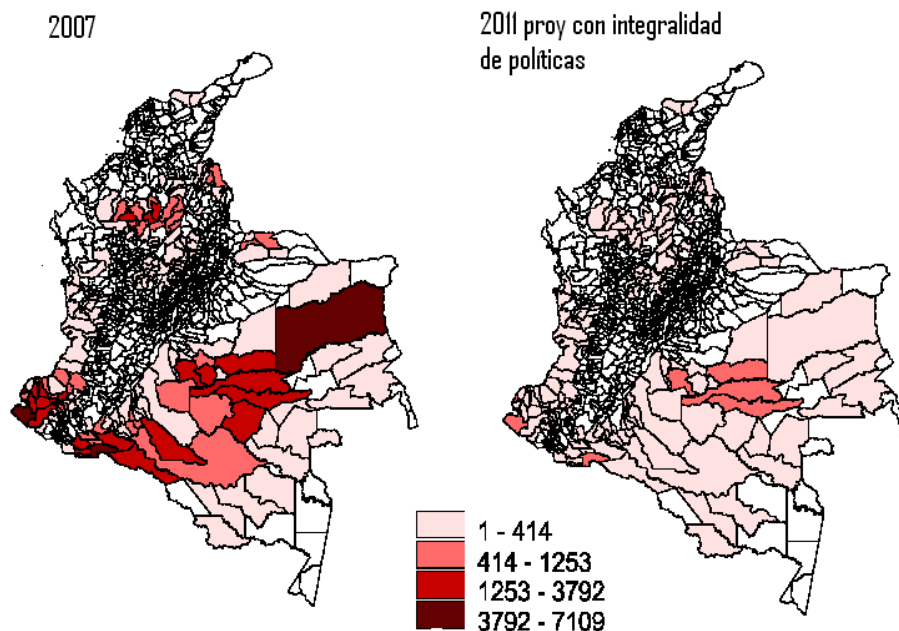
The reader should note that the outcomes of a simulation are not predictions of what will happen in reality. The simulation is built upon existing observed relationships among all the measured variables. When the order of magnitude of change in the final outcome is as large as it is in this simulation, the underlying relationships among the variables are less likely to remain stable. Nonetheless, the simulation provides a measure of the relative effectiveness of each type of program and compares these outcomes with that of a combined program.

Applying this analysis, by the end of 2011 with the implementation of a strategy that includes all of the different programs, the area devoted to coca will shrink to 17 thousand hectares. The municipalities of San Jose del Guaviare, Puerto Asís, Mapiripán, and Vista Hermosa will be the main producers of coca, and the coca area in all other municipalities will fall to below 400 hectares (Map 1).

In contrast, if you only apply programs to reduce the vulnerability of the population to work in the coca fields, by taking them out of poverty, the coca area would be reduced to 27 thousand hectares. The main coca producing centers would be in Meta, Guaviare, Caquetá, and Putumayo, along with several communities in Antioquia and Cauca. For its part the simulation with only intensive alternative development programs will reduce the area to 30 thousand hectares and it would add to the other municipalities Vichada and Nariño. Finally to augment its efforts in spraying and interdiction and leaving all other programs at 2007 levels, would reduce the coca area to 37 thousand hectares, without many visible differences (Map2)

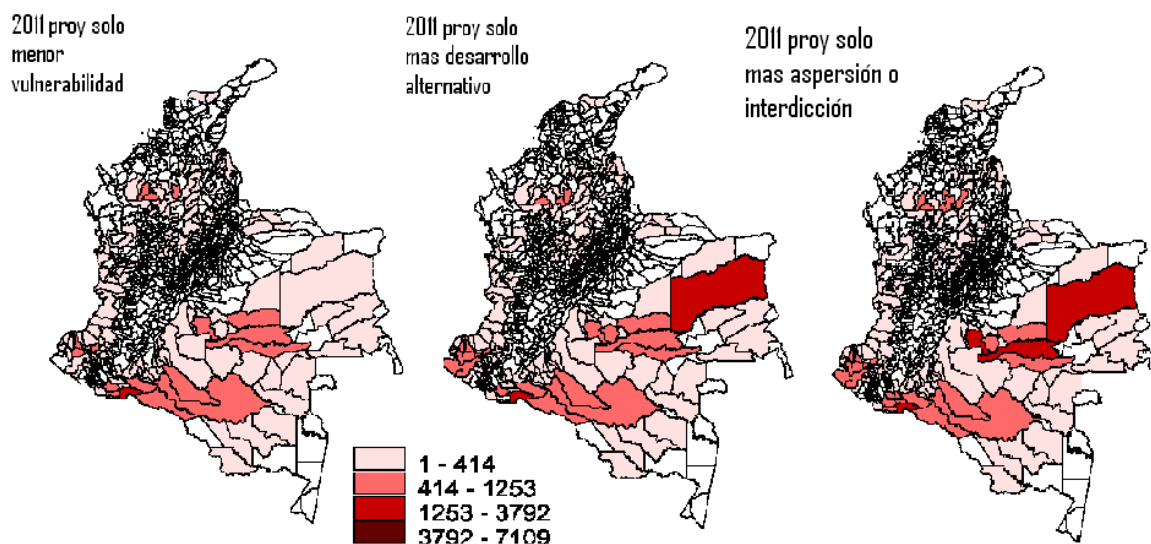
These simulations show that it is very difficult to establish that there are superior individual program approaches. An integrated program creates synergies that contribute to controlling illegal crops. The positive effect of these synergies is lost once the focus is on a single program.

**Map 1: Area of coca en 2007 and projection for 2011 with the implementation of policies.**



Source: Authors

**Map 2: 2011 Projections of the coca area while increasing specific programs**



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## **Regression Analysis II: Families vulnerable to the cultivation of coca**

We estimated the demand for labor, taking into account cost structures, the average size of lots, and coca planted areas. Recently, for the 98,899 hectares detected in 2007, it has been estimated that 80,000 households and 382,559 people were involved in the cultivation of coca (SIMCI, 2008). In that same year, it was estimated that the number of households in Colombia reached ten million; and projecting from the 2005 population census results, the population of Colombia reached 43.9 million in 2007.

Considering the socio-economic dimension and assuming that the previous estimate is valid, we can use the matching technique to answer the above. Since the Quality of Life and Living Conditions Survey of 2005 (ECV) does not allow us to identify coca growers, it is necessary to resort to an estimate based on the assumption that it is possible to infer randomly for the ECV control group from survey results of Operation Breakthrough (EOB) on coca farmers. This survey was conducted by the GOC with financial support from the Department of Justice, Drug Enforcement Administration. This matching technique will allow the identification of similar characteristics between the two survey groups using econometric techniques (Heckman, Lalonde and Smith, 2000; Sianesi, 2001).

Following Imbens (2004), the definition would be:  $N$  equals population size, which can be characterized by  $i = 1 \dots N$  as the random variable for a large population. In this case, 163 municipalities are considered suitable for coca farming due to suitable altitude and precipitation characteristics (Rocha and Ramírez, 2005).

For our analysis,  $Y_i$  is equivalent to household expenditures in the ECV as well as food expenditures from the EOB.  $W_i = 0$  if it is not a coca producing household,  $W_i = 1$  if it is a coca producing household,  $X_i$  has the characteristics of the survey respondents such as education, age and marital status. The following illustrates each unit of the triplet ( $W_i$ ,  $Y_i$ ,  $X_i$ ), when the result is  $Y_i$ :

$$Y_i \equiv Y_i(W_i) = \begin{cases} Y_i(0) & \text{if } W_i = 0, \\ Y_i(1) & \text{if } W_i = 1. \end{cases}$$

With this information we proceeded to find individuals that belong to the (ECV) control Group, which in fact could be the most comparable to the (EOB) treated group according to the likelihood of receiving Propensity Score treatment formally defined as:

$$e(x) \equiv \Pr(W = 1|X = x) = \mathbb{E}[W|X = x].$$

After obtaining in the ECV (control group closest to that of the coca farmers), the difference in consumption was estimated through treatment, which according to Imbens (2004) is:

$$\tau^P = \mathbb{E}[Y(1) - Y(0)].$$

In order to consider the characteristics of  $X_i$  we used the methodology of Abadie and Imbens (2002). This way, the approximate Matching rate was calculated in accordance to  $\tau$  for every “i” following the equation (1). That is, finding the group that most resembles to ECV in a given year, and which best represented the treatment of the (EOB) group in order to compare the level of consumption to one another<sup>90</sup>.

$$\overline{\tau(X)} = \frac{1}{N} \sum_{i=1}^N \mathbb{E}[Y_i(1) - Y_i(0)|X_i], \quad (1)$$

In summary, we generated a Logit Model to estimate the probabilities of becoming a coca farmer. The dependent variable has a value of one (zero if otherwise), which is explained by independent variables: sex, age, marital status, number of dependent children, and education. The previous variables are introduced as categorical variables, divided into groups, with the exception of the dependent continuous variables.

$$Y_i = \alpha + \tau \cdot W_i + X_i' \beta + \varepsilon_i. \quad (2)$$

Similarly, by using the Propensity Score method, we obtained the probabilities of being part of cocalero groups and the consumption average for both groups.

The outcomes found in Table 4 are analyzed in accordance to a reference group. For instance, the reference group for the gender variable is masculine; age intervals for the age variable; diverse alternatives for the civil status variable; and levels of education for the education variable. Similarly, it is noted that the variables used to select a random control group have a high statistical significance.

---

<sup>90</sup> The propensity score values were calculated with a logic function followed by a Stata Routine.

**Table 4. Logit Model for the Matching of the coca population with other municipalities suitable for coca production**

Logistic regression	Number of obs	=	8509
	LR chi2(13)	=	1508.05
	Prob > chi2	=	0.0000
Log likelihood = -3194.8087	Pseudo R2	=	0.1909

dep	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sexo1	.4682315	.0652506	7.18	0.000	.3403426	.5961204
zedad11	-1.236222	.1258989	-9.82	0.000	-1.482979	-.9894648
zedad12	-.6727561	.1364082	-4.93	0.000	-.9401112	-.405401
zedad13	-.0842493	.1323708	-0.64	0.524	-.3436913	.1751928
zedad15	.5024966	.1226818	4.10	0.000	.2620446	.7429485
zedad16	1.149827	.1280557	8.98	0.000	.8988427	1.400812
zedad17	.8738572	.1421454	6.15	0.000	.5952574	1.152457
edu1	2.829184	.122388	23.12	0.000	2.589308	3.06906
edu4	.9195909	.1077049	8.54	0.000	.7084932	1.130689
ecivil2	1.760853	.0850793	20.70	0.000	1.594101	1.927606
ecivil3	-.2312584	.1377199	-1.68	0.093	-.5011845	.0386677
ecivil4	-1.011346	.3205172	-3.16	0.002	-1.639549	-.3831444
alfab1	-1.800707	.1425276	-12.63	0.000	-2.080056	-1.521358
_cons	-2.222994	.158109	-14.06	0.000	-2.532882	-1.913107

Subsequently, the homogeneity between the two groups was verified through consumption measures and the Imbens methodology (2006)<sup>91</sup>. The average monthly consumption of the coca households is 1.4 million pesos, and 350 thousand pesos for the most comparable population in coca-producing municipalities (matching method). It is important to notice that without the Matching this will increase to 464 thousand pesos. The difference between both populations is explained by methodological factors. The goal of the surveys of coca farmers is to identify their performance (output, yield per hectare, etc.) and use of technology. Similarly, surveys tend to be carried out in the epicenter of coca production where local prices are elevated due to high levels of monoculture and accessibility.

<sup>91</sup> The results were obtained by using the Stata routines and by following Imbens (2006) "Implementing Matching Estimators for Average Treatment Effects in STATA" Harvard University. Stata User Group Meeting, Boston. July 26, 2006.

**Table 5. Average consumption of the coca population in relation to the total population**

Variable	Sample	Treated	Controls	Difference	S.E.	T-
toth	Unmatched	1406983.01	350384.978	1056598.03	21793.295	4
	ATT	1406983.01	464512.423	942470.591	133627.781	

Note: S.E. for ATT does not take into account that the propensity score is estimated

psmatch2:	psmatch2:	
Treatment	Common	
assignment	support	
	On support	Total
Untreated	7,018	7,018
Treated	1,491	1,491
Total	8,509	8,509

Previously, we attributed characteristics of coca farmers to the control group, and followed with the estimation of the number of people vulnerable to coca by using the calculated probability through propensity score. Then, the result was multiplied by the 2005 Census results for coca municipalities. The final results show that out of a total of 5.1 million people, 794 thousand are vulnerable to coca. This is equivalent to 15% of the total population of the coca municipalities.

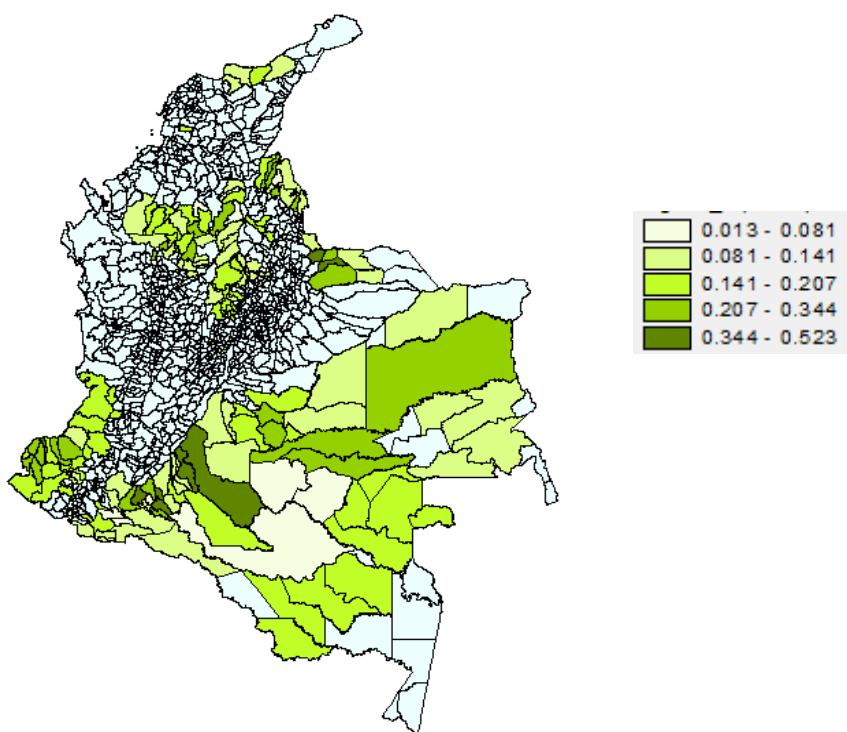
Half of the population vulnerable to the production of coca resides in 70 municipalities of Caquetá, Nariño, Norte De Santander, Antioquia and Valle Del Cauca (Table 6).

**Table 6. Population vulnerable to the production of coca**

Municipios	Poblacion	Vulnerables	Vulnerables/ Poblacion	Distribucion de vulnerable
Amazonas	4	11.729	1.965	17%
Antioquia	21	507.519	79.372	16%
Arauca	5	152.900	39.289	26%
Bolívar	8	163.844	23.053	14%
Boyacá	9	119.785	18.862	16%
Caquetá	16	420.337	95.976	23%
Cauca	7	155.878	28.828	18%
Córdoba	3	187.203	28.295	15%
Cundinamarca	2	79.637	8.489	11%
Guainía	4	28.227	3.784	13%
Guaviare	4	95.551	20.454	21%
La Guajira	2	189.663	25.890	14%
Magdalena	2	517.255	64.302	12%
Meta	11	173.489	27.669	16%
Nariño	18	546.885	95.148	17%
Norte De San	12	777.695	90.901	12%
Putumayo	10	284.888	31.902	11%
Santander	15	190.659	26.373	14%
Valle Del Cau	3	461.057	69.653	15%
Vaupés	5	38.231	5.972	16%
Vichada	2	39.334	7.712	20%
Total	163	5.141.766	793.889	15%

The departments with municipalities most vulnerable to coca (18-26%) are, in order of intensity: Arauca, Caquetá, Guaviare, Vichada, Cauca, Nariño and Amazonas (Map 1). While those least vulnerable (11-14%) are Bolívar, Santander, La Guajira, Guainía, Magdalena, Norte De Santander, Putumayo and Cundinamarca.

**Map 3. Vulnerability Index for populations vulnerable to coca**



### Reducing vulnerability through better living conditions

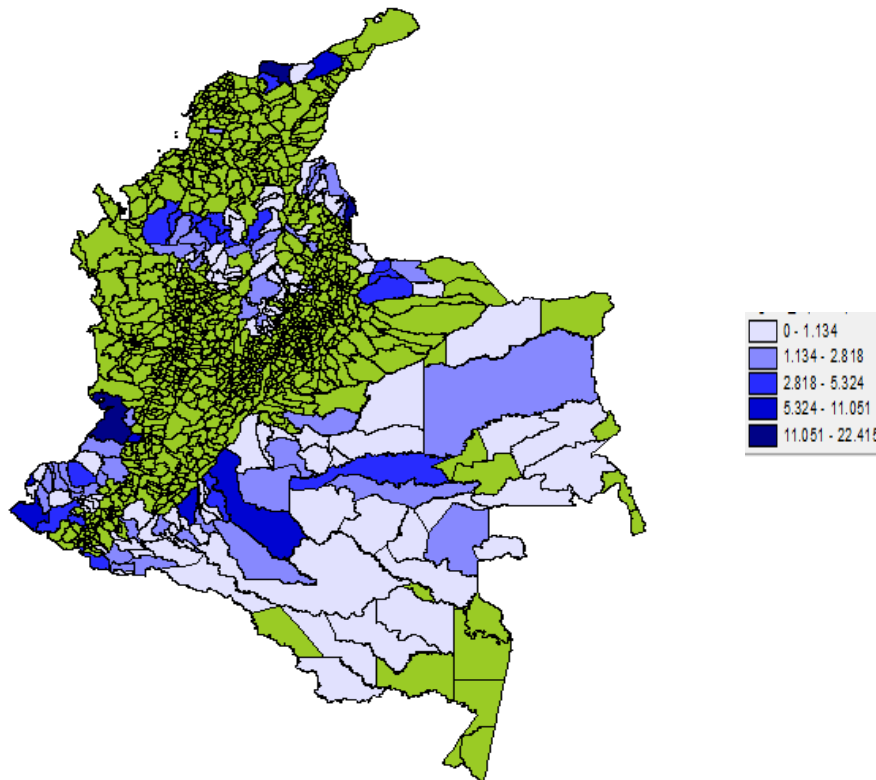
One way to reduce the vulnerability of families to get involved in coca would be to work on improving overall living standards. In the short-term, this would involve closing the gap between the consumption levels of vulnerable families and the minimum level needed for subsistence. In the medium-term, its sustainability could be ensured by further raising vulnerable household consumption from subsistence levels to the average levels of consumption in the coca cultivating municipalities.

Accordingly, reducing vulnerability to coca would imply increasing the consumption levels for 179,000 families in the equivalent of USD \$292 million annually in the short-term, and USD \$460 million in the long-term. In order to strengthen results, efforts to increase consumption levels should vary in intensity by region; different regions have different needs in terms of necessary increases in consumption (Map 2). The consumption levels in a few coca-producing municipalities are already above the minimum subsistence level. However, this does not apply to the majority of municipalities. For example, the 10 municipalities that require the greatest increase in consumption would be: Cúcuta, Santa Marta, Buenaventura, San Vicente del Caguán, San Andrés de Tumaco, Jamundí, Riohacha, Florencia, San José del Guaviare and Guapí, which have approximately 60,000 vulnerable families that account for a third of the population. By contrast, the two thirds of vulnerable families who reside in the remaining municipalities could become less vulnerable to coca with smaller increases in consumption. The necessary increases in consumption of vulnerable households shown in Map 2 below are in thousands of



U.S. dollars per year. In other words, it is the amount by which their current consumption levels would need to be increased in order to reach minimum subsistence levels. In the green areas of the map, either the area is not suitable for coca production or potentially vulnerable households already surpass minimum subsistence levels. In the lightest blue (almost white) areas, consumption would need to be increased in a range from 0 (no increase needed) to \$1,134. In the next darkest blue, increases of from \$1,134 to \$2,818 in the annual consumption levels of vulnerable households are required. The next two darkest blue areas require increases from \$2,818 to \$5,324 for vulnerable households, and then all the way up to \$11,051 for vulnerable households who survive on far less than what Colombia considers to be a minimum subsistence level.

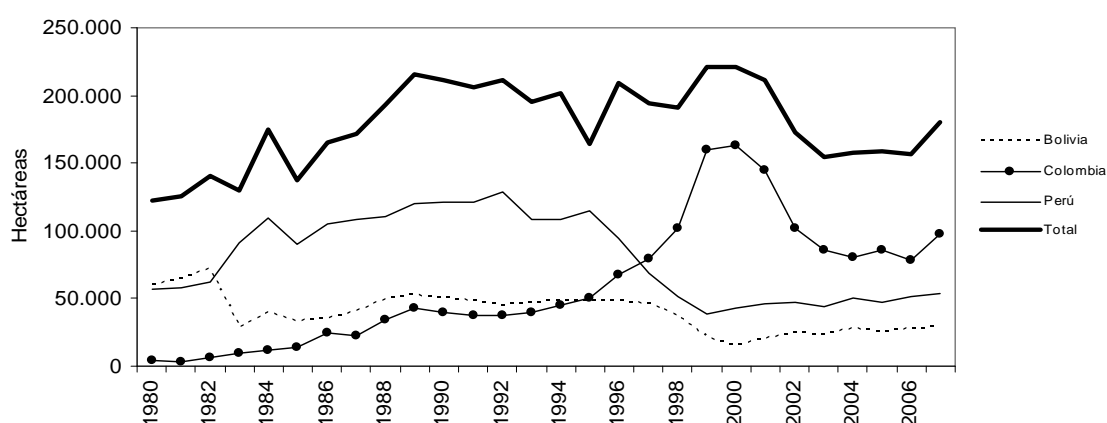
**Map 4. Necessary increases in household consumption to reach minimum subsistence levels for populations vulnerable to coca (000's of U.S. dollars per year)**



### Regression Analysis III: The Balloon Effect

The spatial dynamics of coca cultivation simulate a so-called “balloon effect”; when coca production is suppressed in one location, it moves to another. In the 1990s the term “balloon effect” was coined to describe the migration of coca cultivation from Peru and Bolivia to Colombia (Figure 1). This effect is typically attributed to the policy of crop eradication, but in practice the successful elimination of coca cultivation is usually the result of a combination of instruments used. For example: investments in infrastructure facilitate interdiction; security improvements may displace illegally armed groups (GAI); productive projects could introduce a cultural shift in favor of legality; and coca production could move away to more favorable sites. Programs can sometimes also have adverse side effects that planners need to be aware of, such as farmers growing coca to become eligible for programs (interviews and focus groups reported this occurring for the first crop substitution programs in the southern portion of Colombia), or farmers increasing the area planted in coca to mitigate the risks and effects of crop spraying.

**Graph 7. Hectares of coca in the Andean Region**

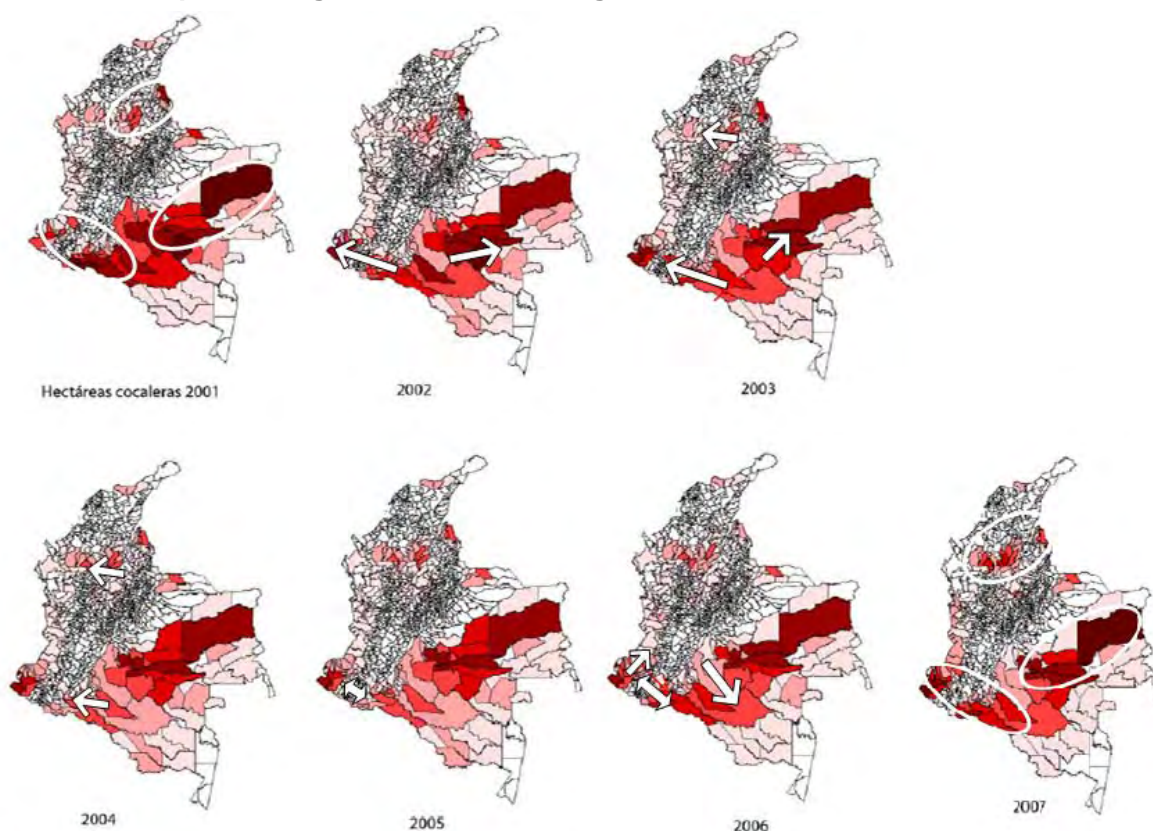


Source: UNODC (2008b). Elaborated by the authors.

In Colombia, the dynamics of coca cultivation reflect a trend that combines spatial clustering and spread effects, including the use and abandonment of native forests, and deforestation from cultivation in new settlements (Map 1). In 2007, 36% of the country's 99,000 hectares of coca crops were located in 10 municipalities, 4% were located in national parks, and 49% were in newly cleared areas (UNODC, 2008). Moreover, over the last decade, coca cultivation has affected an area close to half a million hectares, of which 21% involved the destruction of primary forests, and the remaining 79% is on land opened up by settlement. If the proximity of other plots were taken into consideration, the area affected by coca would reach close to 12 million hectares (UNODC, 2008).

The spatial dynamics of coca production in Colombian is clearly depicted by comparing municipal-level maps from 2001 to 2007 (Map 1). According to the municipal-level maps, the most important clusters of coca crops in 2001 were in Putumayo, Guaviare, Caquetá, Meta, Los Santanderes, Nariño, Vichada and Bolívar. While the majority of these departments continued to be important coca clusters in 2007, there have been changes in the distribution of coca crops, including the rise of coca cultivation in Antioquia and Córdoba from 2003 onwards, and the refocusing of coca growing efforts in Nariño and Vichada due to the migration of cultivation from Putumayo and Meta-Guaviare respectively.

**Map 5. Change in coca cultivating areas in Colombia, 2001-2007**



Source: UNODC (2008b). Assembled by the authors

In order to more adequately explain the above-mentioned trends, an equation has been devised using municipal-level econometric data for 2005 through 2007, to calculate the impact of Plan Colombia programs on the spread and intensity of coca cultivation.

The magnitude of the intensity of the spatial dynamics, and its direction (spread / clustering), can be calculated through the summation to the right side of the regression model below (Anselin, et al., 2004), which consists of the product of the matrix 'W', assembled using the distances between the municipalities according to a spatial lag 'ρ' and the respective explanatory variable.

$$y = rWy + bx + u ; u \sim N(0, s^2I)$$

A previously calculated Moran Index value of 0.011 with a level of significance under 1% validates the appropriateness of the equation previously provided. The result was similar across the different regions.

For the 2005-2007 database, the following variables were employed:

- Coca: Number of hectares observed in the current year. SIMCI, UNODC. Incorporates adjustments made for manual eradication.
- Crop Spraying: Dummy for hectares sprayed, National Narcotics Directorate of the National Police (DIRAN).

- **Interdiction:** Dummy for operations undertaken by the armed forces, Ministry of Defense (MOD). The variable takes on the value “1” where the MOD reports an operation in the area, “0” where there is no reported operation.
- **Alternative Development:** Dummy of establishment of alternative projects developed by the PLANTE, FIP, USAID and Acción Social. Alternative development refers to its expanded definition. The dummy variable is equal to 1 where there are AD projects, 0 where there are none.
- **Vulnerability:** % of the population that is vulnerable to work in coca production. The figure is reached by comparing the living conditions of coca growers (not counting their income from coca) with those of the rest of the population using a matching methodology (for a more complete explanation, please refer to the section “Families vulnerable to the cultivation of coca”).

Table 7 below summarizes the results of models prepared for the country as a whole and unbundled into five regions. In each one, the rho ( $\rho$ ) is calculated based on a descriptive variable. When this indicator is calculated based on the ( $\rho^*$ ) function, a positive (negative) value reflects the existence of a spreading (concentration) of the crops to (from) neighboring municipalities.

On the other hand, when calculated based on programs of spraying, interdiction, alternative development, reduction of rural poverty (vulnerability) and/or all others (a comprehensive set of programs); if the resulting  $\rho$  is less than the  $\rho^*$ , one can infer that the program helps to mitigate the dynamics of the process. If the contrary occurs, it is not advisable to make use of that program exclusively; which does not necessarily rule it out since it could still be exercised in different combinations with other programs.

Consequently, at a national scale where  $\rho^*$  equals 0.84, the dynamics of spreading predominate. The spread effect dominates as well, but with somewhat less intensity, in the central (0.79) and southern regions (0.62). To the contrary, crops tend to cluster in the Pacific and Eastern regions with a  $\rho^*$  of -0.04 and -0.26 respectively.

In addition, the impact of programs on the spreading or clustering of production differ when applied exclusively or as part of a comprehensive approach. At a national level, the stand-alone implementation of programs does not seem to produce many differences in terms of  $\rho$  values, which are in fact similar to  $\rho^*$ . This means that favoring the exclusive use of one program over all other programs to control the cultivation of coca will not alter the pattern of spread. However,  $\rho$  decreases to 0.78 when programs are implemented jointly; therefore, offering advantages to deal with spreading. That said, these national-level values may be subject to estimation bias, thus requiring a review of the results at a regional level, as follows.

In the case of the Pacific region (Cauca, Valle and Chocó), the phenomenon of agglomeration or formation of coca clusters prevails, although this is in an early stage as seen by the reduced value of rho ( $\rho = 0.035$ ). This is the result of the recent introduction of crops and the geography where arable land is found across a wide strip of the coast. There, a stand-alone program to decrease vulnerability to working in coca would be the least effective way in which to combat the clustering of coca ( $\rho = -0.02$ ).

**Table 9. Estimated spatial  $\rho$  lags for coca crops and its policies in Colombia during 2005-2007**

Regions	Departments	$\rho^*$	$\rho$	N	Alternative Development	Vulnerability	All Variables	
		Coca Area	Spraying	Interdiction				
Pacific	Cauca Valley, Cauca and Chocó	-0.035*	-0.209**	-0.159**	-0.169**	-0.0262*	0.362*	102
South	Nariño, Putumayo and Caquetá	0.618*	0.535**	0.601*	0.597*	0.597*	0.508**	177
East	Meta, Guaviare, Vichada, Arauca, Vaupés and Guainía	-0.258*	-0.26*	-0.288*	-0.384*	-0.347*	-0.511**	93
Center	Total	0.787***	0.776***	0.785***	0.787***	0.783***	0.770***	363
	Center: Antioquia, Córdoba, Bolívar, Santander, Norte de Santander	0.434*	0.393*	0.435*	0,431*	0,492*	0,455*	279
	Rest: Boyacá, Cundinamarca, Caldas, Magdalena, and La Guajira	0.604**	0,604**	0,524*	0,607**	0,560*	0,554*	84
All	All	0.8363***	0.81***	0.80***	0.79***	0.83***	0.78***	735

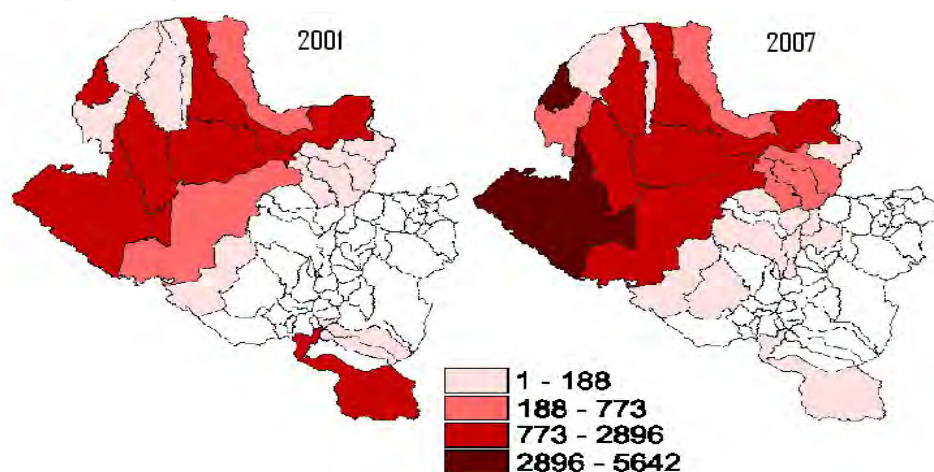
\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  Standard errors in parentheses

Source: UNODC (2008b). Assembled by the authors.

Something similar occurs for the results in the Eastern region, comprising the departments of Meta, Guaviare, Vichada, Arauca, Vaupés and Guainía, but with greater intensity ( $\rho = -0.26$ ). There, interdiction and spraying programs would contribute the least to clustering while a comprehensive set of programs would exacerbate it.

On the other hand, the South Region (Nariño, Putumayo and Caquetá) shows a clear trend towards crop dispersion or spreading, rather than clustering, with a  $\rho$  of 0.62, the highest of the regional values for  $\rho$  in absolute terms. There, any strategy tends to worsen the spreading of coca, except for the comprehensive set of programs ( $\rho$  0.5). As an example of this, according to interviews and focus group reports, the earliest pioneering AD efforts in Nariño had the perverse effect of increasing the spread of coca cultivation as people attempted to qualify as beneficiaries of AD programs. In addition, Nariño has recently experienced a migration of crops as a result of the program in Putumayo that relied primarily on spraying.

**Map 6. Map of the 2 areas of coca cultivation in Nariño in 2001 and 2007**



Source: UNODC. Assembled by the authors.

The eastern and southern regions certainly offer advantages for the cultivation of coca due to their biophysical state (soils, climate and hydrography), isolation, size and lack of state presence (infrastructure and security). In addition, most municipalities in these regions are located in fragile ecosystems subject to economic exploitation and intense migration of rural populations expelled due to conflict and marginalization from economic and social progress. These fragile ecosystems are also affected by the environmental degradation that accompanies cocaine production—e.g. the spill-off of chemicals used to process the coca into cocaine as well as the destruction of forest reserves.

The unique conditions of the agricultural frontier make program implementation difficult, lessening their effectiveness and occasionally causing perverse results. For example, alternative development and the reduction of rural poverty could encourage the consolidation of coca settlements; spraying could increase rejection of the state, and increase sympathy for the insurgency.

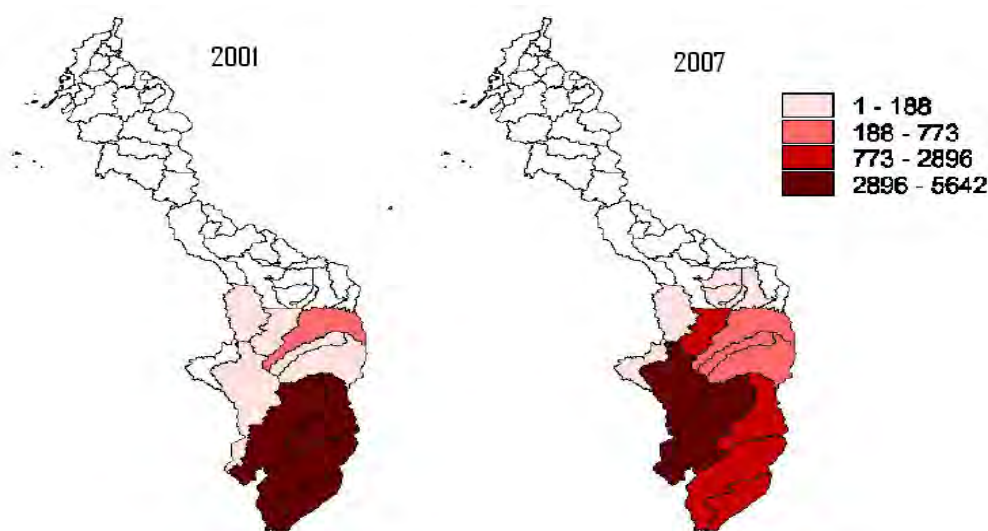
The considerations cited above have weighed heavily on the implementation of PC programs targeting illegal crops. In fact, while MIDAS and ADAM operate in Nariño and the northern part of Putumayo, they do not operate in the rest of the southern region or in the eastern region due to the adverse security conditions and unfavorable business environment. At the same time, Acción Social's alternative development programs have also intervened only marginally due to the presence of coca (which must be eradicated by a community before Acción Social will intervene) and environmental concerns (DNP, 2003). These regions, along with the existing nature reserves, could constitute an extensive environmental reserve area with substantial economic potential from the sales of C02 allowances to international green markets (Carbon Dioxide Capture) (Cano, 2002).

Most of the central region, the most extensive and diverse, lies in the Andean region, locations that are considered to be part of the internal agricultural frontier. The results are similar to those of the aggregate national results; and the tendency for the spread of coca cultivation diminishes when it is split into two sub-regions: Middle Center ( $\rho = 0.4$ ) and the Remaining Center ( $\rho = 0.6$ ). There, a program made up of interdiction and spraying would appear to be more effective than one that is exclusively based on alternative development and reduction of poverty. For example, the case study of coca in the south of Bolivar shows how the “balloon effect” results in the spreading of coca to neighboring municipalities even with the simultaneous implementation of all programs, without it being obvious how these programs could have contributed to controlling the spread.



The preceding paragraph underlines the conclusion that we cannot identify *a priori* a single optimum program or set of programs to best halt the phenomena of spreading and clustering of coca. Instead, the decision about the combination of programs to be applied must take into account local conditions, as well as assessing the possibility of producing unintended perverse results..

**Map 7. Map of the 3 areas of coca cultivation in Bolívar in 2001 and 2007**



Source: UNODC. Assembled by the authors.

## Conclusions

The migration of coca throughout the national territory is dominated by a pattern of spreading, which when analyzed at a regional level, is the pattern observed in the south and center regions, albeit at a lower intensity than nationally. Similarly, it is possible to see the beginnings of a clustering phenomenon in the Pacific region and also, with greater intensity, clustering in the Eastern region.

Up until now, programs have had an impact on the dynamics of spreading and clustering, but without establishing any clear national trends. A comprehensive set of programs appears to contribute least to spreading, as seen most obviously in the southern region. However, this result cannot be generalized, since the reduction of poverty in the Pacific appears to mitigate clustering there, whereas spraying and interdiction do so in the East. On the other hand, when the Central region is broken down into two subregions, the results no longer favor a comprehensive set of programs to combat spreading and instead point to interdiction and spraying. This reinforces the conclusion that the spatial dynamics of coca are a local phenomenon and there is no generalized pattern.

Programs to alter the spatial dynamics of coca will depend for their success on extensive planning and close coordination of program implementation as opposed to simultaneous, but uncoordinated programs. The case study for Nariño showed the unintended consequences of eradicating coca in Putumayo and the subsequent spread of coca cultivation in the Pacific. Similarly, the case study in Bolívar, showed how uncoordinated programs can produce the unintended effect of the spread of coca to neighboring areas in the region.

Nonetheless, the planned and synchronized implementation of a CN strategy at the local level requires an infrastructure and a set of logistics much more complex and in place over a longer period of time than the CN strategy being carried out by PC calls for. Many lessons can be learned from the joint ventures of

USAID- Acción Social and from production projects that rely upon voluntary eradication. In fact, the departmental governments should be called upon to lead a new wave of regional initiatives, such as Nariño is planning on doing; and in a way that Bolívar has never done.

In the future, a strategy based on a more comprehensive, coordinated and mutually supportive set of programs could eventually reduce coca cultivation in Colombia to its much smaller scale of the 1980's. However, the persistent increase of global demand without regional coordination of policies and programs could still make coca producing countries vulnerable to rebounds in production. Eventually, this could reverse the spreading that resulted from the initial successes of Peru and Bolivia, but with unwanted consequences such as social and economic destabilization in those two countries.

Regarding the above, it is already possible to notice some symptoms. The coca areas of Peru and Bolivia have rebounded by 21 thousand hectares since the beginning of PC. Furthermore, confiscation of illegal drugs has increased in transit and neighboring countries, as well as incidents of associated violence. At the same time, diplomatic friction has grown between Colombia and its neighboring countries due to the search for illegally armed groups' sanctuaries and drug traffickers in the fight against the internal persecution, intimidation and corruption fomented by both groups. Looking to the future, the GOC and USG face formidable diplomatic challenges in promoting more effective coordination of regional policies.