



Transnational Institute



Drug Policy Briefing



No. 14 – June 2005

The CICAD study on the impacts of glyphosate and the crop figures

The politics of glyphosate

When it comes to aerial spraying, it seems that everything has been said that can be said, both for and against. For some years now, both sides have simply been repeating themselves in word and deed. Narcotics officials in Colombia and the United States continue to carry out the same aerial spraying operations, and the critics of these operations — among them TNI — continue to argue that the chemical war on drugs is useless and has disastrous consequences. Every year, the supporters of aerial spraying publish papers, studies, articles, editorials and alleged reports with recent figures, brandishing them as signs of success. Similarly, every year those of us who criticize aerial spraying produce a certain number of papers, articles, etc., based on those same figures, among other things, demonstrating the failure of this policy. A Google search results in thousands of Internet pages about aerial spraying in Colombia.

This year is no exception. In recent months, new developments and publications have renewed the debate. First came the “successful” illicit crop statistics for 2004 presented by the U.S. Office of National Drug Control Policy and the CIA, which claimed that there were 114,000 hectares under cultivation at the beginning of 2004, 130,000 were sprayed during the year, and 114,000 hectares remained at the end of the year — the same as at the start. That was followed by the publication of a new scientific study that, although acknowledging that the field work necessary for drawing conclusions in certain areas had not been done, nevertheless concluded that the glyphosate sprayed in Colombia is harmless. Finally, the UN-SIMCI figures for illicit crops in 2005 established that there was a 7 percent

Recommendations

- The CICAD study of the impacts of glyphosate spraying has been the subject of much criticism. The researchers involved in the study should respond to this criticism and explain the shortcomings and omissions that have been pointed out by various experts.
- The Colombian Ombudsman’s Office has registered some 8,000 health-related complaints from people in the areas sprayed. By ignoring these complaints, the researchers demonstrated a lack of respect for the affected population, carrying out the study as if nothing had happened.
- The Colombian government should make public the new Round Up formula currently being used for spraying. No conclusion can be drawn about its harmlessness if the concentration of chemicals used in the spraying is unknown.
- Aside from the harm to human health and the environment, aerial spraying has created greater instability in the regions and has contributed to the displacement of crops. It therefore should not be proposed as a long-term solution and should be suspended.

reduction. These documents have generated, and will continue to generate throughout the year, a series of responses — of which this report is a good example — in support of or opposition to the glyphosate policy.

While authorities, public policy makers, scientists, analysts, editorial writers, etc., remain mired in a reiterative debate, each on its own side of the ring, in Colombia the spraying continues, poisoning one of the planet's most precious ecosystems and further jeopardizing the precarious living conditions of the people in the areas being sprayed. Unfortunately, critics cannot end the spraying policy, which would put an end to this reiterative debate. That action is exclusively in the hands of those who support the policy and whose economic and political interests are involved, which keeps them from acknowledging the questionable results of aerial spraying in terms of crop reduction, social and economic harm and damage to the people's health, as well as the environmental disaster of incalculable dimensions that they are causing.

The spraying program has been an important component of the anti-drug program that has been implemented in Colombia for decades. Nevertheless, Colombia continues to be the world's No. 1 coca producer and the source of drug shipments to consumer countries. Given the long practical experience with this strategy and its lack of results, if anti-drug authorities continue to ignore the facts and insist on this approach, during the next five years we will find ourselves repeating the same arguments, while peasant farmers' livelihoods and the environment continue to deteriorate.

One more study

A new scientific study has recently joined the large number of existing studies¹ that have been done of the possible health and environmental effects of *Round Up*, the glyphosate formula being sprayed on illicit crops. The *Study of the Effects of the Program of Eradication of Illicit Crops by Aerial Spraying with the Herbicide Glyphosate (PECIG) and of illicit crops on human health and the environment*² was sponsored by the Inter-American Drug Abuse Control Commission (CICAD), an agency affiliated with the OAS.

Because of the many complaints from people living in areas sprayed with glyphosate, particularly since widespread spraying began with the implementation of Plan Colombia in 2000, and because of the pressure brought by various national and international bodies, including the European Union, the Colombia government was forced to request an independent, impartial evaluation to determine possible damage from the aerial spraying program. The request was finalized in February 2004, with the signing of an agreement between the Colombian government and CICAD for a study.

It should be remembered that some years earlier, in 2001, the United Nations had proposed an evaluation of the spraying, but this was never done because at the time the Colombian government wanted no U.N. involvement in the issue of aerial

1. For a list of reports and scientific studies that have drawn conclusions about the harmlessness of or damage from glyphosate, see the TNI Drugs and Democracy program Web site, <http://www.tni.org/drugschembio-docs/chembio.htm>

2. Estudio de los efectos del Programa de Erradicación de Cultivos Ilícitos mediante la aspersión aérea con el herbicida Glifosato (PECIG) y de los cultivos ilícitos en la salud humana y en el medio ambiente, Informe preparado para la Comisión Interamericana para el Control del Abuso de Drogas (CICAD), División de la Organización de los Estados Americanos (OEA) Washington, D.C., Estados Unidos de América, 31 de marzo de 2005, <http://www.cicad.oas.org/es/glisfosatoInformeFinal.pdf>

spraying. The former UNDCP representative in Colombia, Klaus Nyholm, had explicitly stated that aerial spraying should not be used against small farmers who had no alternatives for subsistence besides coca and poppy crops. That recommendation was incompatible with the plans for indiscriminate spraying that were already under way. In addition, the United Nations and various governmental and non-governmental groups proposed at the time that an international oversight body be established to evaluate the effects of the spraying, with the participation of the World Health Organization (WHO). That request was never acted upon.

CICAD's investigation, under the direction of an international scientific team,³ concluded that the chemicals used in the spraying — glyphosate and Cosmo-Flux — do not affect human health or the environment, and that at most they could cause temporary skin and eye irritation.

In the highly politicised climate of the debate over aerial spraying, these conclusions sparked an avalanche of reactions, most of them negative. In an effort probably aimed at safeguarding their reputations, the researchers stated that their work was purely scientific and took no political stand. But while no one wants to question the researchers' purely scientific motivation, it is difficult to accept the fact that they paid no attention to the social and economic problem that is intrinsically related to the spraying and ignored the political significance of the subject of the study. There is no point in investigating the effects of glyphosate and other chemicals on crops enclosed in an ivory tower.

The social, political and economic consequences of the study are related to some of the most serious questions that have been raised to date. Certifying the formula used for the spraying as harmless represents benefits — political and economic — for those who produce it and those who defend its use, and is clearly damaging — politically, socially, economically and environmentally — to those who suffer from the spraying, including the environment.

Methodological weakness

In mid-May, the National University of Colombia's Environmental Studies Institute (*Instituto de Estudios Ambientales*, IDEA) published an analysis critical⁴ of the CICAD study, which considered technical aspects of the investigation, finding methodological shortcomings, as well as omissions and inconsistencies throughout the report. Those findings could point to a lack of impartiality in the CICAD study.

It is surprising, in a study of this nature, that the criteria for selection of areas, soil parameters, sample specification, dosage, types of crop, etc., are not explained, and that some of the conclusions are based on assumptions rather than real measurements done in the field. Of particular concern to IDEA was the fact that half of

3. The team consisted of Keith Solomon of Canada, coordinator of the group, Luz Helena Sanín of Mexico, Antonio Cerdeira of Brazil, Arturo Anadón of Spain and John Marshall of Great Britain. It lasted a year and cost US\$1 million, funded by Britain, the United States, Colombia and the OAS. The team worked in coordination with the Technical Mobile Monitoring Group, which carried out most of the fieldwork, which was done between September 2004 and March 2005. The study took as references the north-eastern part of the department of Boyacá, the northern part of the Sierra Nevada of Santa Marta, and the western regions of Valle del Cauca, Putumayo and Nariño. The samples were analysed in a laboratory in Canada.

4. "Observations about the study of the effects of the Program of Illicit Crop Eradication through Aerial Spraying with the Herbicide Glyphosate (PECIG) and of illicit crops on human health and the environment," Bogotá, May 11, 2005.

the data cited to support the study was taken from research done by Monsanto, the company that manufactures the herbicide. To judge the effects of the herbicide on human health, therefore, the study made extensive use of research that was clearly favourable, ignoring other studies that warn of risks. A scientific study based on such data could not take into account the 8,000 complaints about spraying that have been filed with the Colombian Ombudsman's Office.

As Ricardo Vargas points out,⁵ CICAD's evaluation was in no way independent; rather, it was designed to reach the foregone conclusion that the *Round Up* used to spray illicit crops is harmless. In addition, by ignoring aspects closely related to the spraying, it ignored the serious problem of the displacement of crop areas, a consequence of the spraying that results in deforestation and the burning of fragile lands.

Not all of the study's conclusions leave the way open to spraying, however. The researchers note that they did not directly measure farmers' exposure to the substance, and they said another study would be needed to observe the effects of the herbicide on human reproduction. As a result, uncertainty remains about chronic health effects, genetic mutation and cancer as a result of contact with the substances. Because the study is inconclusive about the severe effects of spraying, it cannot be used as an argument to approve the plan and expand spraying to other areas, as officials are trying to do, citing the study as grounds for their decision.

Conclusion: a new study

This is not the first time that a scientific study of this nature has concluded that another scientific study is needed to clear up many of the questions that the first study was supposed to answer. In 2002, the U.S. Congress asked the State Department to certify that spraying with glyphosate was not harmful to the population or the environment. The State Department based its certification report on a study by the U.S. Environmental Protection Agency (EPA),⁶ which, like the new CICAD study, included no new information about the herbicide's potential impact on human health and the environment. Curiously, although these studies have been inconclusive, their sponsors seek to continue spraying glyphosate until perhaps someday a real, unquestionable study of the chemical is done.

According to Alberto Rueda, former adviser to the Colombian Ministry of the Interior and an expert on drug policy,⁷ a study of this type that rigorously examines the impact of a substance on health and the environment would be complicated in a country like Colombia, because of the conditions of the population to be studied and the difficult access to the places where the spray falls and where the chemicals end up. It would require extensive institutional capacity, extensive modern infrastructure, and significant time to monitor the chemical substances, identify the risk factors,

5. "Comments on the OAS-CICAD study on the impacts of glyphosate used in the Program of Eradication of Illicit Crops in Colombia," May 30, 2005. http://www.tni.org/detail_page.phtml?page=archives_vargas_cidad

6. Report on Issues Related to the Aerial Eradication of Illicit Coca in Colombia - Released by the Bureau for International Narcotics and Law Enforcement Affairs, September 2002 - <http://www.state.gov/g/inl/rls/rpt/aeicc/13232.htm>, and EPA Ecological Risk Assessment for the Use of Glyphosate Herbicide as Part of the US Supported Aerial Eradication Program of Coca in Colombia, <http://www.state.gov/g/inl/rls/rpt/aeicc/13237.htm>

7. Open letter from the former adviser to Interior and Justice Minister Sabas Pretelt de la Vega, on the "urgent matter of bringing down to earth the OAS report on the effects of spraying of illicit crops," May 2005. <http://www.tni.org/drogaschembio-docs/cidad-carta.pdf>

and detect and monitor health problems and chronic effects. This seriously undermines the credibility of studies like the CICAD report, making it difficult for the government to use them to justify its anti-drug policy. This was just another study.

Among the principal arguments presented by the U.S. government for years in response to complaints from local residents after a round of aerial spraying is that the problem is not the chemicals, but the malnutrition and endemic illnesses suffered by the rural population. This explanation is rather cynical, because while it acknowledges the precarious state of health and nutrition of the people being sprayed, it does not question the practice of continuing to target them, further eroding their scant resources. The population's poverty should be a clear argument for stopping the aerial spraying. These people are in no condition to withstand something that might be harmless to a farmer in California or Sweden.

National parks threatened again

Colombia's National Narcotics Council (*Consejo Nacional de Estupefacientes*) will soon make a decision about spraying in parks. Because of the increase in crops on national park land, the government will turn to Resolution 0013 of June 2003, which gave a green light to glyphosate spraying in natural reserves,⁸ as well as the CICAD study to justify chemical spraying in these areas.

Because much of the funding for spraying comes from the United States, the U.S. Congress must approve spraying in parks. This is a small obstacle, as in 2003 Congress authorized spraying in reserves. If the spraying was not done then, it was because, faced with enormous national and international pressure against what would be considered an environmental crime, the Colombian government decided to delay the measure. Another strong argument at the time was the verification of the reduction of the number of hectares under cultivation in parks as a result of manual eradication.

This time, the outcome could be more serious. Figures from the CIA for 2004 show an increase in the area planted in parks, some 6,550 hectares in only six of the country's natural reserves. And while the Colombian government mainly uses data provided by the Illicit Crop Monitoring System, these also show an increase, especially in the Sierra de La Macarena. At the end of 2004, there may have been 5,400 hectares of illicit crops in 13 of the country's 50 national parks.

Given the example of the effectiveness of spraying in the rest of the country, what sense does it make to spray these natural reserves and risk exacerbating and expanding the problem in these areas? The existence of the crops, drug production and drug-trafficking operations shows that there is strong motivation, as well as a great capacity for mobility that soundly contradicts the effectiveness of the spraying policy. So why insist on implementing it in parks? Particularly when manual eradication has proven effective in parks. Spraying there would represent a violation of international treaties on biodiversity,⁹ as well as the Colombian Constitution, because it would be done without prior agreement with communities in these regions.

Of equal concern is the fact that this type of decision opts for force and destruction, as with the glyphosate policy, instead of prevention — not only through manual eradication — based on training and human development. The spraying in the Si-

⁸ See the article, *Glyphosate in Parks and Natural Reserves – Resolution 0013* on the TNI Web site: <http://www.tni.org/drugscolumbia-docs/thedebate-e.htm#19a>

⁹ Ibid.

erra Nevada and the Sierra de La Macarena jeopardizes programs and resources provided by donor countries, such as the projects sponsored by Holland in these two regions. There have been media reports recently of spraying in parts of the Sierra Nevada.

Limited reduction of crops in 2004

Colombian intelligence services recently struck a spectacular blow against drug traffickers, seizing 15 tons of pure cocaine in the department of Nariño. Although this was clearly a significant blow, it is also cause for concern, as it demonstrates the huge quantities of cocaine being produced and exported in Nariño,¹⁰ which is the area where the most spraying was done in 2003. According to the governor of the department, in Nariño alone there could be some 40,000 hectares of coca — more than in all of Bolivia. This figure differs substantially from that of the U.N. Office on Drugs and Crime,¹¹ which registered only 14,000 hectares. The difference could be explained by the U.N. monitoring system's failure to take into account replanting in young fields that were not yet in production in December 2004. Based on the size of the cocaine seizure, the amount of cocaine being produced in Nariño could be substantially greater than the U.N. calculations.

As in all years, the crop figures provided by the different agencies that carry out such studies could not be more distant from one another. The 114,000 hectares registered by the U.S. government in 2004 are far from the 80,000 reported by the United Nations. Unfortunately, this casts doubt on the credibility of both measurements and leaves the real figures a mystery, reinforced by specific cases such as that of Nariño, where the facts appear to belie official figures. Underestimation of the area under cultivation could result in underestimation of cocaine production, which could exceed the 390 metric tons reported by the United Nations in 2004.

The U.N. figures

The U.N. figures confirm the inefficiency of aerial spraying for eliminating illicit crops. Although nearly 140,000 hectares were sprayed, there was a reduction of only 6,000 hectares, a decrease of just 7 percent over the previous year. The U.N. document also demonstrates the mobility of coca crops and states that 62 percent of the plantings are new, which has significantly modified the crop geography in comparison to the previous year. In the new scenario, the reduction of the area under cultivation appears to have been offset by an increase in yield. The figures also demonstrate the great motivation of farmers to continue growing coca, an unmistakable sign of a lack of effective alternatives. And the 7 percent decrease in Colombia was accompanied by a 3 percent increase in the Andean region as a whole.

10. Alfredo Rangel Suárez, "Cifras preocupantes - Coca para rato," *El Tiempo*, June 13, 2005

11. Colombia Coca Cultivation Survey, UNODC/Government of Colombia, June 2005, http://www.unodc.org/pdf/andean/Part3_Colombia.pdf