Environment

Published: 01/09/2008 - 17:03

1.

"Illicit production of methamphetamine may involve hazardous materials that are toxic, corrosive, flammable, or explosive. Such materials include anhydrous ammonia, sulfuric acid, hydrochloric acid, red phosphorous, lithium metal, sodium metal, iodine, and toluene. Upon discovery, the hazardous materials contained at clandestine drug laboratory locations are classified and managed as hazardous wastes."

Source:

"Methamphetamine Initiative: Final Environmental Assessment," US Dept. of Justice Office of Community Oriented Policing Services, May 13, 2003, p. 4.

2.

"The incidence of clandestine drug laboratories has grown dramatically in the past 10 years. For example, in Fiscal Year 1992, the DEA's National Clandestine Laboratory Cleanup Program funded approximately 400 removal actions and by fiscal year 2001, the DEA Program funded more than 6,400 removal actions."

Source:

"Methamphetamine Initiative: Final Environmental Assessment," US Dept. of Justice Office of Community Oriented Policing Services, May 13, 2003, p. 6.

3.

"Further contributing to the threat posed by the trafficking and abuse of methamphetamine, some chemicals used to produce methamphetamine are flammable, and improper storage, use, or disposal of such chemicals often leads to clandestine laboratory fires and explosions. National Clandestine Laboratory Seizure System (NCLSS) 2003 data show that there were 529 reported methamphetamine laboratory fires or explosions nationwide, a slight decrease from 654 reported fires or explosions in 2002."

Source:

National Drug Threat Assessment 2004 (Johnstown, PA: National Drug Intelligence Center, April 2004), pp. 17-18.

4.

"Toxic chemicals used to produce methamphetamine often are discarded in rivers, fields, and forests, causing environmental damage that results in high cleanup costs. For example, DEA's annual cost for cleanup of clandestine laboratories (almost entirely methamphetamine laboratories) in the United States has increased steadily from FY1995 ($2 million), to FY1999 ($12.2 million), to FY 2002 ($23.8 million). Moreover, the Los Angeles County Regional Criminal Information Clearinghouse, a component of the Los Angeles HIDTA, reports that in 2002 methamphetamine laboratory cleanup costs in the combined Central Valley and Los Angeles HIDTA areas alone reached $3,909,809. Statewide, California spent $4,974,517 to remediate methamphetamine laboratories and dumpsites in 2002."

Source:

National Drug Threat Assessment 2004 (Johnstown, PA: National Drug Intelligence Center, April 2004), p. 18.

5.

"Guio (2003), in his study in Samaniego, Nariño (Colombia), reports that aerial fumigation of poppy crops also affect household crops and alternative crops promoted by UNODC. Intensification of fumigation has lead to an increase in complaints to the Defensoria del Pueblo regarding impacts on farmers' health, domestic animals, fishes and legal crops. Ortiz et al. (2004), in an essay about agriculture, illicit crops and the environment for the National Environmental Forum (Colombia), mentions that recent studies in Putumayo have concluded that more than 2,700 hectares of licit crops, including fruits, and more than 200,000 fish, were lost because of fumigations. These figures are for people that submitted their cases to local authorities."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 44.

6.

"Velaidez (2001) visited the Municipality of Cartagena de Chaira in the Department of Caquet between November 1998 and February 1999 to investigate the impact of aerial fumigation on farmers and their crops. This study reported unintended effects of aerial glyphosate spraying but no quantitative data, with affects on rubber and cocoa plantations and food crops such as plantain, maize, yucca, rice, vegetables and fruits. Cattle were reported to lose hair after eating pastures previously affected by the fumigation. The death of young chickens and farmed fish was reported as a result of related water contamination."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 44.

7.

"Solomon et al. (2005) conducted a study on the effects on human health and the environment of aerial spraying of glyphosate herbicide for the illicit crops eradication programme in Colombia, based on a review of literature. It was found the formulation of glyphosate used could produce temporary irritation in eyes and skin, but no effects on reproduction were observed. No ecological field data were collected from the region, but a review found that glyphosate had low toxicity to non-target organisms other than plants. The formulation used in the eradication programme in Colombia is of low toxicity for mammals and vertebrates, although some temporary impacts may occur. Amphibians are the group most sensitive to this formulation, and it has been suggested that other formulations be tested when eradication is conducted near to water bodies, in order to minimise impacts on amphibian populations (Solomon et al., 2005). Relyea (2005) tested the impacts of glyphosate on amphibians and concluded that it could cause high rates of mortality in larval stages and lead to population decline.

"There appear to have been no systematic field studies on the possibility of loss of forest from unintended drift of glyphosate during aerial spraying."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 44.

8.

"Aerial fumigation and forced eradication of coca crops is one factor in the dynamics of coca cultivation and deforestation. Several studies report that in response to coca eradication measures farmers have been deforesting new plots in more remote areas. These new plots can be in the local region or in other parts of the country, since migration and displacement of people is widespread, especially in Colombia. It has also been suggested that farmers create more scattered plots of smaller size in response to fumigation. This further fragments the forest and increases the impact on biodiversity. The relative importance of this phenomenon compared to the other drivers of coca cultivation and deforestation have not been determined."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 46.

9.

"These data (Figure 11) estimate that over the four years from 2000 to 2004, a total of 97,622 hectares of primary forest was converted to coca cultivations in Colombia. The annual loss of primary forest was similar in 2000-2001 and 2001-2002 at about 34,000 hectares, but decreased by over 50% to 16,017 hectares converted in 2002-2003. This decrease continued in 2003-2004 to 13 202 hectares, which is only 39% of the area in 2000-2001. The high percentage of 20% of the converted land area that was classified as uncertain changes and corrections' in 2002-2003 should be noted.

"Over the four year period of 2000 to 2004 the annual percentages of coca cultivation on land cleared from primary forest were 25%, 37%, 20% and 20%, with an average of 26%. The percentage of coca cultivation on land cleared from secondary forest, grassland and crops was 43%, 38%, 45% and 37% respectively over the same period. Thus, the ratio of new coca plots established from primary forest compared to plots established from other land uses varied from 1:1.7 to 1:1.0 to 1:2.2 to 1:1.9 over these four years. New coca plots were as least as likely to be established on areas other than primary forest in 2001-2002, and much more likely to be on land other than primary forest in the other three years."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), pp. 23-24.

10.

"The data on total reduction of forest cover over Colombia and that on losses resulting from coca cultivation span different periods of time, so only rough comparisons of the two can be made. It is likely that several hundred thousand hectares of forest were cleared due to the direct and indirect effects of coca cultivation prior to 2000, before UNODC estimates from remote sensed data were available. Forest cover change in Colombia for the period 1990 2000 is estimated at 190,470 hectares per year. If this rate was assumed to have continued from 2000 to 2004, the total area deforested in those four years would have been 761,880 hectares, of which the 97,622 hectares of primary forest identified as converted to coca cultivations in this period would form 13%. As already noted, the actual of primary forest cleared due to coca cultivation is greater than the area being directly cultivated for this purpose, because of the other crops and activities of the farmers including the opening of roads and airstrips for transport of coca products."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), pp. 24-25.

11.

"The chemicals used in the processing of coca leaf to cocaine, and of opium latex to heroin, are thought to have a much greater impact on the environment than the agrochemicals used in their production. Each year millions of tons and litres of processing chemicals and materials are released into the environment, both as wastes from processing laboratories and from the destruction of confiscated chemicals. However, only one specific study on the environmental effects of these chemicals has been identified, that conducted in the Chapare region of Bolivia in 1992 (Southwest Research Associates, 1993, cited by Henkel, 1995). Here, chemical spills were quickly diluted by the high rainfall received in the region. Some loss of soil microorganisms was noted, but no damage to wildlife, vegetation, fish species or bird life was detected in areas near the processing laboratories.

"The discharge of chemicals from illicit drug processing undoubtedly has some environmental impact, but it is impossible to assess the scale of this impact due to the lack of data of almost any kind on soils, water supplies or biodiversity or the health of local people."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 45.

12.

"Damage to soils resulting from cultivation and elimination of the natural vegetation is widely reported in reference to the environmental impacts of illicit drug cultivation, as are the likely effects of the discharge of the chemical wastes from coca processing to soils and waterways. However, very little field assessment on the quantity of discharges and their effects on the environment (soils, fauna, flora or water) has been carried out by government agencies or universities. The only analysis found by this study was conducted in Chapare (Bolivia) in 1992 (Southwest Research Associates, 1993, quoted by Henkel, 1995). Here, a study of three cocaineprocessing laboratories found that pollution was concentrated in a small area at the processing site. Most chemicals were disposed of in holding ponds constructed for the purpose and were not dumped into nearby streams. Chemical spills at the site were quickly diluted by the high rainfall received in the region. Because coca processing sites are widely scattered in the Chapare, pollution is widely dispersed rather than concentrated at a few large sites. Some loss of soil microorganisms was noted, but no damage to wildlife, vegetation, fish species or bird life was detected near the processing laboratories. However, the study did not assess the long-term effects of pollution.

"For Colombia, DNE (2002) states that the agrochemicals used in coca processing are capable of polluting freshwater sources for human consumption, but no specific cases of this are given."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 31.

13.

"Critics note that the spraying has not prevented the tripling of the area under coca cultivation since Pastrana's inauguration, and that the spraying simply destroys the means of livelihood of subsistence farmers and displaces the crops deeper into the jungle. The coca producers have also adapted by developing new varieties of the coca plant, such as the Tingo Maria, which produces three times as much coca as the traditional varieties."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), p. 66, from the web at http://www.rand.org/publications/MR/MR1339/ last accessed May 21, 2007.

14.

"From December 2000 to February 2001, US-backed antidrug drives resulted in the destruction of more than 29,000 hectares of coca fields (enough to produce 200-250 tons of cocaine annually)."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), p. 69, from the web at http://www.rand.org/publications/MR/MR1339/ last accessed August 11, 2002.

15.

When aerially sprayed, the herbicide Glyphosate can drift for up to about half of a mile. In Colombia, where the herbicide Glyphosate is sprayed from airplanes, children have lost hair and suffered diarrhea as a result of its application.

Source:

Cox, C., "Glyphosate, Part 2: Human Exposure and Ecological Effects," Journal of Pesticide Reform, Vol. 15 (Eugene, OR: Northwest Coalition for Alternatives to Pesticides, 1995); Lloyd, R., "Publisher Warns about Impacts of Drug War," World Rainforest Report 37, (Lismore, NSW: Australia, 1997); Drug Enforcement Agency, Draft Supplement to the Environmental Impact Statements for Cannabis Eradication in the Contiguous United States and Hawaii (Washington DC: U.S. Government Printing Office, April 1998).

16.

"Current projections call for 80,000 hectares to be sprayed (largely in Putumayo), which, if achieved, will bring the annual total to roughly 65 percent of the area currently thought to be under cultivation. Fifteen specially designed fumigation aircraft are due to be transferred to Colombia in 2001, augmenting the eight planes already in action."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), pp. 21-2, from the web at http://www.rand.org/publications/MR/MR1339/ last accessed May 21, 2007.

17.

"Aerial spraying of a marijuana field near a Rarámuri village carried out by the Federal Attorney General's Office Procuraduría General de la República, PGR) left 300 sick and injured and may have killed a two-year old girl according to the Chihuahua State Human Rights Office (Comisión Estatal de Derechos Humanos, CEDH)."

Source:

Macias Medina, Silvia, "PGR Allegedly Sprays Marijuana Field, Killing Child and Injuring 300", reprinted in Frontera NorteSur, originally published in El Diaro, August 5, 2000. Available on the web at http://www.nmsu.edu/~frontera/jul_aug00/today.html , accessed May 21, 2007.

18.

In July 2000, the Colombian government agreed to work with the UN Drug Control Program on research into the use of a fungicide called fusarium oxysporum. Tests have yet to show that use of the fungus is feasible, and methods to produce the fungicide in sufficient quantities as well as a delivery mechanism have yet to be developed.

Source:

George Gedda, Associated Press, "Colombia Tries New Drug Eradication", July 7, 2000.

19.

The US Department of Agriculture reports "A pathogenic strain of Fusarium oxysporum, causes Fusarium wilt, a disease that afflicts many crops such as watermelon, muskmelon, and basil but is a bigger problem for tomato growers."

Source:

"USDA, Canada Collaborate on Fusarium Wilt", Methyl Bromide Alternatives Newsletter (Beltsville, MD: USDA Agricultural Research Service, April 2000), Vol. 6, No. 2.

Related Chapters:

- Cocaine & Crack
- Hemp
- Methamphetamine