



## **Marginalizing a Vulnerable Cultural and Environmental Landscape**

Authors: Steinberg, Michael, and Taylor, Matthew

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Michael Steinberg  
Matthew Taylor

# Marginalizing a Vulnerable Cultural and Environmental Landscape

## Opium Poppy Production in Highland Guatemala

318



*Poppy production in Guatemala has been embraced by a growing number of people since the end of the civil war in 1996 as one avenue out of poverty. Most cultivation occurs in the department of San Marcos, one of the least developed regions with one of the highest rates of malnutrition and other health issues associated with poverty. While poppy production has led to increased profits for some farmers, there are many direct and indirect negative impacts on the health of local people as well as increased pollution associated with eradication efforts. Defoliant spray to eradicate poppies contaminates soil and water and destroys*

*intercropped licit crops. Illicit production causes deforestation and indirectly leads to a change in people's diet. Additionally, poppy production is accompanied by escalating violence. All these factors are increasing the vulnerability of the local people and jeopardizing their health and well-being. Increased poppy production has to be understood as a symptom of development failures. Only re-establishing faith in the long-term viability of licit development initiatives will encourage local farmers to abandon illicit poppy production and increase the overall security and well-being of the local population.*

### A clandestine contribution to livelihoods

Until the past decade Guatemala was categorized as a “minor” opium poppy producer compared with global centers such as Afghanistan and Colombia. A more militarized landscape during Guatemala's civil war (1960–1996) apparently limited the growth of this sector of the agricultural economy. Since the end of the civil war in 1996, however, opium production has increased in Guatemala, additionally boosted by the mal-distribution of land resources and recent population growth.

Over the last 50 years, Guatemala's population has grown from 3 to 12 million people. Rural residents account for two-thirds of the 12 million people. At the same time, the country suffers from extremely unequal distribution of land: 2% of the population own 65% of arable land. And among those rural farmers who do own land, many do not own enough to support themselves. In rural Guatemala, 54% of all farms are too small to support subsistence farming. In response to declining land resources, growing numbers of Maya farmers in the western highlands have turned to both licit and illicit non-traditional agricultural exports such as snow peas, cabbage, and opium poppies.

These new crops (illicit and licit) are also often more profitable than traditional crops. For example, according to Guatemalan anti-narcotics officials, some farmers involved in poppy production are reported to make around US\$ 6000 a

month during harvest periods. This is an astounding figure in a rural region where over 90% of the population live in deep poverty. Recent reports by drug interdiction groups (Figure 1) now identify Guatemala as anywhere from the fourth to the sixth largest producer of opium in the world, with around 2000 ha dedicated to poppy production. While this is a relatively small area overall, given the mountainous terrain, the agricultural importance of the area under poppy production should not be underestimated. Most cultivation occurs in the department of San Marcos, a rural department in western Guatemala dominated by volcanic highlands and poverty. This region, with fertile volcanic soils and moderate climate, is ideal for poppy production.

The authors' previous research in highland Guatemala focused on agro-ecological changes that followed the conclusion of the civil war, as development agencies and other global influences entered the landscape. While conducting fieldwork over the past decade (19 months of in-country fieldwork over the past 10 years), we became aware of the emerging poppy economy through conversations with farmers. Formal surveys were avoided to ensure the safety of the researchers and the informants—drug production is a volatile issue within Guatemala, one that does not lend itself to formal field investigations. Instead, we intensively interviewed 15 current or former farmers involved in poppy production who were made known to us through previous field contacts. In order

to assure anonymity, we interviewed farmers in San Marcos, the largest town near the poppy growing areas. We then met with 5 of these farmers a year later to pose follow-up questions. Conversations were carried out with farmers in 2005 and 2006.

### Poppy production increases the vulnerability of poor people

The health impacts of poppy production have not manifested themselves in increased local drug use or addiction. Local producers do not consume opium because it has too much value as an export crop. The health impacts and pollution associated with poppy production are more indirect.

#### Health and environmental problems

First, defoliant sprayed to eradicate poppies is one impact on the health of producers and their families. Spraying impacts local people when it is inhaled, or comes into contact with their eyes, and when its drift and residue enter water supplies or come in contact with livestock. These were concerns often repeated by local people in eradication zones. Although Glyphosate, the main defoliant used by the government, is considered relatively safe, it is unclear how careful government authorities are when spraying near households. During eradication efforts in 2006, Guatemalan officials were met with armed resistance from some of the residents in production zones, largely due to the fear associated with spraying.

The production zone was once a stronghold of anti-government insurgency forces; thus there is great suspicion of the military among many local people. When we discussed the spraying with farmers, all expressed fear and outrage. While there have been no studies that quantify the impacts of spraying on local people, there is great fear that residues from the spraying have contaminated wells, soil, and the general landscape. This pollution and contamination are real in the minds of local people.

Besides soil and water contamination, local people expressed concerns about the effects of spraying and pollution on local forests. Some farmers are apparently moving their poppy fields into more remote

areas, where remnant forests still exist (Figure 2). Eradication efforts will undoubtedly follow them. Forests are important to local communities because they provide critical resources such as firewood, pine resins (*ocote*), and medicinal herbs. However, given the population growth over the past several decades, highland forests have been greatly reduced. Because of this reduction, remaining forests are considered extremely valuable by local communities.

Another impact of this spraying on human health is the eradication of licit crops. Because farmers often intercrop poppies with crops such as maize, licit crops are often destroyed. Any destruction of licit crops exasperates an already impoverished landscape. Malnutrition and undernourishment are pervasive problems in Guatemala, where more than half of the children under age 5 suffer from chronic malnutrition. Certainly malnutrition existed in Guatemala long before the recent expansion of poppy production, but as more cropland is destroyed via spraying, household food insecurity increases.

A secondary, but significant impact of increased poppy production on health is the fact that more and more land is being dedicated to non-food crops. Certainly household incomes have increased among many growers, but conversion to an export crop has led many families to rely on store-bought foods, with much of the newly purchased foods being heavily processed. Tortillas, the staff of life among most Maya families, are increasingly purchased out-

*"We are afraid to use the streams to wash our clothes, or bathe. We don't know what has been sprayed, but it is poison because it kills the plants." (A local resident)*

*"If the forests are destroyed, the community, especially the old people, will suffer. Where will fuel, the medicines, come from?" (A farmer)*

**FIGURE 1** Police destroying poppy fields in the San Marcos region in 1990. Since this time, poppy production has expanded due to the region's poverty and general lawlessness and corruption. Photo provided by CIRMA (Centro de Investigaciones Regionales de Mesoamérica)





**FIGURE 2** Typical agro-ecological landscape in the San Marcos region. Note the clearing of agricultural fields on steep slopes. (Photo by Susanne Schneeberger)



*“Yes, we made a little money, but again it feels like the violent times when we lived in fear [ie the early 1980s].” (An elderly woman, the wife of a grower)*

**FIGURE 3** Greenhouse construction was funded in an effort to motivate smallholders to grow more vegetables for home consumption, thus improving family nutrition. This is an example of a recent development project (which appeared to be successful a couple of years ago) in the highlands that began with good intentions but has since been abandoned by both the development agency and participants (Photo by Matthew Taylor).



side the home, a radical shift in household production. The popularity of certain store-bought foods such as soft drinks is increasingly apparent in villages. Tooth decay among children resulting from increased soft drink and candy consumption is now commonplace in many highland villages. Greater dependence on store-bought foods results in a generally poorer diet and less household food security.

### Violence

Perhaps the most immediate impact of expanding poppy production on health is increased violence. Growing militarization and the deepening entrenchment of drug interests have contributed to a surge in rural violence. Even some poppy growers who apparently benefit economically lament the heavy presence of the military and criminal activity. Kidnappings, assassinations, and disappearances are surging to new levels in Guatemala (the highest levels since the end of the civil war in 1996), with much of this violence being attributed to organized crime and gangs who have interests in the drug economy. While rural violence is a broad interpretation of “health impacts,” the physical and mental health of rural residents is being threatened as drug interests become more entrenched.

## Development failures and policy recommendations

While government crackdowns create an ebb-and-flow situation on the ground regarding exact amounts of poppy production, the longer-term trend in Guatemala appears to be toward increased production and as such increased impacts on broadly defined health issues. This trend is a symptom of larger-scale failure in the development landscape. The initial response to the growth in drug cultivation is increased rural militarization to reduce poppy production. However, greater militarization of the impoverished countryside will do little to mitigate the forces that led smallholders to participate in this dangerous harvest in the first place.

Events in Guatemala have important implications for other development landscapes for 2 reasons: first, illicit agricultural activities need to be thought of as development failures, not simply as illegal activities. When farmers turn to illicit activities wrought with risks, this indicates that “development” has failed. Farmers do not participate in illicit activities casually or simply out of greed. Instead, this is a sign of rural crisis. In Guatemala, farmers are forced to farm on ever-smaller plots owing to subdivision of land among offspring. At the same time, few other income generation opportunities exist in many rural villages. Thus farmers face a choice: choose crops that promise high returns (licit and illicit), or leave villages and towns in search of jobs.

Second, in drug-producing landscapes, licit development groups have been supplanted by illicit groups. Drug interests act as agricultural extension agents providing technical and material support, and as buyers and marketers for the finished product—from planting to purchase. If illicit activities are to be rejected, then licit development agencies must reconnect with the rural population in question and make long-term investments in economic infrastructure to provide viable long-term solutions for licit livelihoods (Figure 3). In landscapes where drug plants have been successfully replaced, such as in the hill country of northern Thailand, it has been the result of a long-term, intensive, and diverse

effort on the part of development groups (although this program has not been without problems, such as increased poverty).

One way in which the rural development landscape can be reconstructed is for development interests to make long-term commitments to projects. It is critical for local people to know that they will have access to technical and other forms of development support for an extended period of time (the amount of time obviously depends on the type of project). As “faith” in the long-term viability of licit development projects increases, drug interests will begin to be undermined. This replacement does not have to begin on a large scale.

According to our conversations with local people, commitment to a project and to a community is often viewed as more important than the amount of actual money thrown at a community. Farmers recognize the risks associated with poppy production. Many claimed to be willing to give up poppy production even for income-generating activities that did not produce the same levels of income, although all expressed an unwillingness to return to subsistence production (Figure 4).

Commodity chains must also be shortened so that stakeholders have closer connections with consumers and can thereby profit more directly. “Fair Trade” arrangements are one model that could be initiated in Guatemala where some high-end commodities such as world-class coffee are already produced. In southern Belize, for example, farmers shifted from marijuana to organic, fair-trade cacao. Although this was not a formal drug replacement program, many farmers that embraced the cacao economy turned away from marijuana production because of the long-term commitment to technical assistance and price guarantees for cacao, and because it was seen as a less risky endeavor. While Belize is non-mountain-

**FIGURE 4** Farmers loading cabbage on a truck for sale in town; such licit cash-crops have replaced subsistence crops since the end of the civil war, offering a way out of poverty and chronic food shortages. (Photo by Michael Steinberg)



ous, the lessons learned could be applied in vulnerable rural mountain areas—farmers who have confidence in licit economies because they know what to expect regarding prices and profits for their product are less likely to be drawn into illicit activities.

Along with gaining the trust of local people and promoting faith in licit development, the government must demonstrate that their target when spraying defoliant is the opium poppy and not local communities (ie poisoning people). The government must demonstrate that the chemicals used are safe, and that their intention is to eradicate only the poppy, not licit crops. There is a great deal of mistrust on the part of local people, and for eradication and subsequent development to succeed, bridges must be built. The desire for stability and profit is understandable given the great turnover of development projects and the history of boom-and-bust economic cycles in highland Guatemala (and elsewhere).

*“The [aid] workers arrive with great plans, but soon enough they disappear, along with their promises.” (A farmer)*

#### AUTHORS

##### Michael Steinberg

The New College, 107 Carmichael Hall, Box 870229, The University of Alabama, Tuscaloosa, AL 35487-0229, USA. mksteinberg@as.ua.edu

Michael Steinberg is an assistant professor at The New College and the Department of Geography at The University of Alabama. His research and teaching focus on globalization and indigenous cultures, agro-ecological diversity, and environmental conservation. His research is set in Central America and the US South.

##### Matthew Taylor

Department of Geography, University of Denver, Denver, CO 80208, USA. mtaylor7@du.edu

Matthew Taylor is an assistant professor of geography at the University of Denver. His research and teaching focus on human-environment relationships in Latin America. His recent research examines the impacts of rural electrification on firewood consumption, how migration to the United States changes land use practices and ownership patterns, and how war impacts the environment in Guatemala.

#### FURTHER READING

- Crooker RA.** 2005. Life after opium in the hills of Thailand. *Mountain Research and Development* 25(3):289–292.  
**Lovell WG.** 2001. *A Beauty that Hurts: Life and Death in Guatemala*. Austin, TX: University of Texas Press.  
**McCoy AW.** 1998. Lord of drug lords: One life as lesson

for US drug policy. *Crime, Law and Social Change* 30(4):301–331.

**McCoy AW.** 2003. *The Politics of Heroin: CIA Complicity in the Global Drug Trade*. New York: Lawrence Hill Books.

**Steinberg MK, Hobbs JJ, Mathewson K.** 2004. *Dangerous Harvest: Drug Plants and the Transformation of Indigenous Landscapes*. New York: Oxford University Press.