

# Methodology in a Time of Crackdown

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by Alder Keleman, MEM 2005

## The Scenario

It's 11:00 am on your first day of summer research in rural Sonora, Mexico. Full of energy, your thoughts are on your intended research target: crop diversity on local dryland farms. You've stopped to speak to a friendly old man sitting on a rocking chair in front of a restaurant when the racket of a low-flying helicopter interrupts the conversation.

"What's that?" you ask when the noise subsides.

"It's the *militares*" – the Mexican military – the old man replies. "They arrived yesterday. They say there are several hundred of them, all federal troops. The state and federal governments recently agreed to come down hard on the drug trade in Sonora, and these guys have come to get rid of all of the *gente mala* [bad people] in the region." He then launches into a tirade about the pervasiveness of the drug trade in nearby farming communities.

Eventually, the conversation wanders to other topics, and you cordially extract yourself. Walking away, you ponder the violent history of military action in Latin America, and the stories of hapless foreigners caught in these incidents. You think about your research objectives, which involve traveling by public transportation

to distant ranch communities. And with an uneasy feeling in the pit of your stomach, you wonder, "Have I come to the wrong place?"

## Where and Why

My summer Master's research was a study of the persistence of crop diversity on small-scale dryland farms in southern Sonora, Mexico. The research objectives were to generate a baseline assessment of the persistence or loss of crop diversity in the region, and to frame this assessment in the context of drought, free trade, and trends toward mechanized, large-scale commercial production. Methodologically, the research would be carried out using both quantitative methods and qualitative methods, including structured surveys, informal interviews, and participant observation. Institutional support for the endeavor was provided by Native Seeds/SEARCH (NS/S), a Tucson-based seed bank with a 25-year history of collecting diverse crop varieties in the American Southwest and Northwest Mexico. However, since NS/S had no institutional partners in Mexico, I arrived in Sonora with the intention of undertaking the research through contacts of my own making, or, failing that, completely on my own.

I knew before arriving that illegal activity in my field site was an important consideration. Friends and family repeatedly reminded me that my destination had a reputation for drug and human trafficking, observations to which I responded that these issues were far removed from my research topics. Within a few weeks in Mexico, however, it became apparent that this was an unrealistic approach on my part, especially in light of local household economics. Sesame, the most lucrative legal commercial

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crop in the region, is sold to local buyers at seven pesos (~70 cents) per kilo, and the traditional crops that my research targeted garner even less.<sup>1</sup> Wage laborers – agricultural or non – are typically paid between 45 and 100 pesos per day. In contrast, the conversations I engaged in regarding the economics of “the other crop” suggest that day laborers in mountain marijuana fields may be paid as much as 200 pesos per day, with food and other expenses included. The harvested crop is said to garner up to 1000 pesos per kilo.<sup>2</sup> In terms of household economics, these figures leave little room for doubt that income from the drug trade merits serious consideration.<sup>3</sup>

According to long-term observers, local material culture reflects these economic changes. For instance, author David Yetman (1996) makes much of the increased visibility of flashy pickups in rural areas, distinguishing them as a marker of increased income from drug money. Another long-term resident of the region pointed out that luxury clothing, such as gold chains and silk shirts, has become much more common among young men in the last decade. In this context, trends toward greater disposable income also imply a trend toward new patterns of economic decision making, raising a question relevant to my research objectives: in the context of more disposable income, what new decisions are being made about traditional crops?

## What to Do?

The questions spurred by the realization that the drug trade was a pervasive influence in the region were many. Do I stay or go? If I stay, how do I stay safe? How do I pursue my research methodology as planned? Do I acknowledge the drug trade in my methodology and data collection?

Addressing these questions proved to be a process of tradeoffs. Initially, I decided to stay long enough to get the lay of the land and came to feel that, within the boundaries necessary to

maintain safety, I could still pursue research on local crop diversity. For support, I hired a 54-year old farmer from a nearby ranch community, who had connections with NS/S from earlier years, as my field assistant. I never visited the ranch communities without his company or that of another local. I also gave up on original thoughts of living on the ranches themselves and stayed instead in the more urban county seat, where I rented a room from an elderly grandmother with a respected family name. Having a local family association seemed to lend an added measure of security and credibility.

As luck would have it, living with this family provided an opportunity to talk to farmers in an in-town setting. My host rented office space to a local NGO, which administered government farm support programs. The volume of farmers frequenting the small office was high, and the administrator allowed me to install myself on a bench and interview the farmers who visited. These initial conversations provided information for designing the surveys that I administered later in the summer.

The drawback of these measures was that the time I spent with farmers was nearly always a short-term interaction mediated by another institution or individual. Spending no more than a few hours per day in the ranch communities meant that I was not present to hear stories that might have emerged during longer visits. Furthermore, many of my conversations were refereed by my field assistant or were held within earshot of the NGO administrator. Although I worried that their presence might influence survey respondents' answers, these seemed reasonable tradeoffs to make for safety.<sup>4</sup>

Wrangling with the ethical and methodological challenge of designing a framework for acknowledging the drug trade in data collection led me to establish a baseline rubric of principles.<sup>5</sup> First, in the interest of safety and reputation, I would ask no direct, public questions about the drug trade; such questions would be asked only in private to trusted individuals.



On Ejido La Higuera, an older farmer plows his soon-to-be maize field with mules. While many farmers in the region have taken to the practice of hiring a tractor, traditional, non-mechanized plowing methods remain a common method of cultivation. Photograph by Alder Keleman

Second, any information I recorded about the trade would be written in a way that disguised the individuals involved. I would record no information that could directly link a specific individual to a specific illegal act. Finally, any mention of illegal activity in a tape-recorded interview would be avoided or erased. These guidelines did not ward off uncomfortable situations, but they did give me confidence in my ability to navigate information on both legal and illegal activity.<sup>6</sup>

## Results (?)

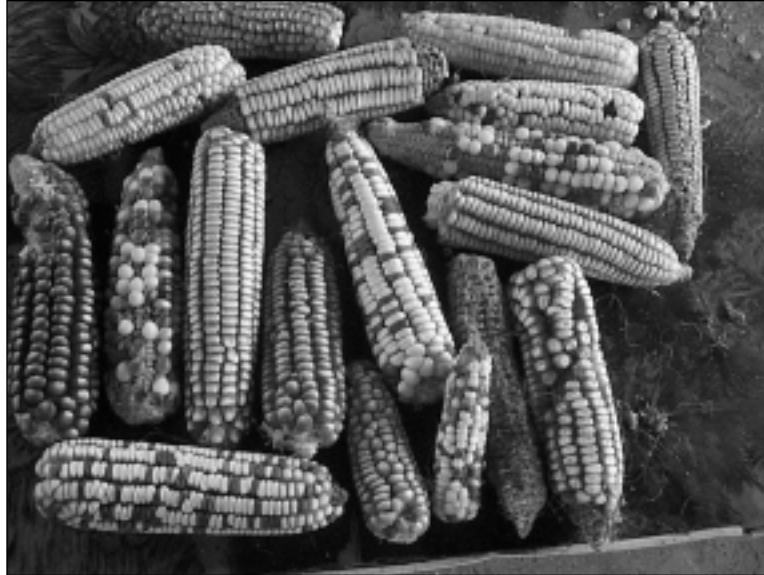
How do observations about the dynamics of the drug trade relate to the objectives of the research at hand? On an immediate scale, they pose the question of how the drug economy influences the persistence – or loss – of local crop diversity. This question, in turn, dovetails with queries about the changing economics and demographics of small-scale farming.

Two opposing explanations address the effects of the drug trade on local demographic and economic patterns.<sup>7</sup> One explanation holds that the increased household income generated by cultivating a group of illegal and legal cash crops, plus subsistence crops, should allow farmers to invest in their farms and to break out of cycles of debt and poverty. This theory predicts that children

will be more likely to remain in farm communities rather than seek wage employment elsewhere. The opposing explanation holds that those involved in drug cultivation do not reinvest their money in farming, but rather, spend it on other material goods, such as store-bought food, clothing, vehicles, firearms, and gasoline. These patterns should exacerbate the exodus of young people from farming communities, who leave either to escape violence or because disposable income allows them to move to an urban setting.

Empirical evidence to directly support these theories would be difficult to acquire without asking direct and systematic questions to individuals involved in the drug trade. However, a visit I made to one community, a number of whose residents had recently moved from the remote mountain regions, shed light on the complexities that the two explanations above may mask. Few of these individuals commented on their decision to move, but one woman indicated that her family had traded secure, stable land tenure in the hills for unstable tenure in the community they currently inhabited. She suggested that, although her husband continued to cultivate a plot of land near their former residence, drug-related violence in the community was too great a risk to justify living there.<sup>8</sup> These families' choice to migrate sug-

A colorful array of San Juan corn awaits planting in the summer rainy season. Some families in Southern Sonora continue to select and perpetuate multi-colored varieties of corn, but the practice is not widespread, due perhaps in part to a local preference for white and yellow tortillas. *Photograph by Alder Keleman.*



gests that the drug economy did not make farming in their former home more tenable. However, the fact that they moved from one farming community to another implies no clear conclusions about the drug economy's influence on farming in general.<sup>9</sup>

The socioeconomic effects of drug income are also ambiguous. According to informal conversations, local perceptions disagree with the idea that drug profits may support agriculture. Area residents suggested that drug money is seldom reinvested in livestock, farm equipment, or other farm-related goods, but is instead dedicated to basic household needs, or frivolous expenditures.<sup>10</sup> However, the picture painted by information on the dynamics of household economic decision-making is less clear. An in-depth survey in one ranch community included qualitative queries about individuals' spending preferences given hypothetical disposable income. As a general rule, respondents in the community indicated a desire to invest in livestock or to cover basic household subsistence.<sup>11</sup> These answers conflict with other residents' informal observations about spending preferences.

There is also grey area in the question of how (or if) the drug economy affects farmers' decision to cultivate traditional crops. Survey and interview questions about corn cultivation indicated that,

while some native varieties continued to be cultivated extensively in the region, other native varieties had all but disappeared. Some respondents cited environmental reasons for this shift, stating that the varieties which were still planted persisted because of greater drought resistance. However, a less frequent – but repeated – answer was that even some of the drought-resistant varieties had been neglected because “the women found them too hard to grind.”

Dietary preferences reflect this change as well. Many households in the region now make tortillas from pre-ground, purchased corn flour. Assuming that the hardness of the neglected varieties has not increased significantly over the years, the prevalence of pre-ground corn flour in local diets would seem to point to an increased orientation toward commercial products. Given that other economic opportunities in the immediate vicinity, such as the availability of wage labor in agriculture or industry, have not changed markedly over the 10-15 year-period in which the loss of these varieties is reported to have occurred, it is possible that the combination of changes brought about by the drug economy and the drought has shifted food preferences from native home-grown corn varieties towards industrially produced commercial products.<sup>12</sup>

## Conclusions

In the context of this project's research objectives, these observations raise more questions than they answer. As the preceding section suggests, few firm conclusions can be drawn about the direct influence of the drug trade on local agricultural patterns. Indirect information presents conflicting and tenuous conclusions, and the safety and ethical issues surrounding data collection make ground-truthing unfeasible. The data available paints an ambiguous picture, suggesting that an intermediate explanation, accounting for the interaction of the drug economy with other environmental and social influences, may be most appropriate. Nevertheless, if the drug trade had been completely ignored in my research methodology and data collection, it might be impossible to suggest even this intermediate explanation.

What does my experience suggest for methodology in future studies? A primary question is whether or not any methodology is appropriate for approaching these issues. It is possible that a longer period of fieldwork than that discussed here (some two months) would yield a more thorough understanding, but the opposite might also be true. I sensed that people were willing to speak to me about the drug trade at the beginning of my fieldwork in part because they saw me as an outsider, disconnected from the social and political networks that influenced them.<sup>13</sup> Conversations on this subject were far fewer as the research period progressed, a fact which could be explained partly by local political conditions,<sup>14</sup> but which could also be due to individuals' increasing ability to place me as a non-neutral actor in the context of local social and political networks.

One firm conclusion that I draw from this experience is the importance of using a combination of quantitative and qualitative methodologies in environmental social science research. My research objectives required me to make a quantitative assessment of native crop persistence and

the influences that surrounded it. However, without employing a variety of qualitative methods, ranging from non-quantitative interviews to listening to gossip, I would have had difficulty generating appropriate survey questions, let alone gathering information on the influences of the drug economy. In other words, had I attempted to continue my conversations over the sound of a low-flying helicopter, I might simply have heard nothing at all.

## Acknowledgements

Many thanks are due to José Banda Valenzuela and the community of La Higuera for their cooperation and support during my fieldwork. Michael Dove, John Tuxill, Amity Doolittle, Stephanie Meyer, Suzanne Nelson, and the staff of Native Seeds/SEARCH also provided key insights and helping hands in this undertaking. Finally, I am grateful to my family who, rather demanding that I come home immediately upon hearing about the conditions described in this article, offered unwavering emotional and intellectual support.

## Endnotes

<sup>1</sup> For instance, corn sold in 2003 at two pesos (~ 20 cents) per kilo, while the native beans and squash that families still plant sold for five to ten pesos per several-kilo crate.

<sup>2</sup> Weinberg (1998) recorded the price of crops in Tarahumara communities in Chihuahua as 200 pesos per kilo. The disparity between these two figures could be explained by a number of factors, including the different distances from markets in Sonora and Chihuahua and changes in the value of the peso from 1998 to 2004. Despite these discrepancies, however, it remains clear that the value of marijuana as a cash crop is overwhelmingly higher than the value of any other commercial crop alternative.

<sup>3</sup> For a masterful overview of the costs, benefits, and community-scale effects of illegal drug cultivation and processing in the Bolivian Yungas region, see Leons (1993). Goodhand (2000) provides a similarly insightful outline of the shift towards drugs in both agriculture and trade in the

north-eastern Afghanistan border region.

<sup>4</sup> Preliminary statistical analyses suggest that there are no significant differences between crop diversity answers given in the presence of my field assistant or the presence of the NGO employee. This does not eliminate the possibility that both of them might have skewed answers in the same direction, but this is highly unlikely given that they held very different social positions and types of influence over the farmers I spoke with.

<sup>5</sup> Thanks are due to John Tuxill and Michael Dove for their insights and guidance on this issue.

<sup>6</sup> Goodhand (2000) notes similar complexities and approaches to addressing them in his study of the opium economy of north-eastern Afghanistan.

<sup>7</sup> These explanations are my synthesis of observations from literature, testimonies from individuals in Sonora, and conversations with NS/S employees.

<sup>8</sup> It should be acknowledged, however, that while the migration suggests a movement away from former homes associated with the drug trade, it may be that these individuals were not directly involved in the trade. This possibility limits the conclusions that can be drawn about demographic patterns of those families who are directly involved in drug cultivation.

<sup>9</sup> No information is available on the proportion of individuals choosing to migrate to urban areas and forgo cultivation altogether, as opposed to those migrants who seek another plot of land.

<sup>10</sup> Weinberg's (1998) observations suggested similar destinations for drug-related income in Chihuahua.

<sup>11</sup> Further analysis of these responses is necessary to verify that they do not vary significantly by age or by gender. It is also possible that, since the community in which this survey was carried out was located quite far from the major drug-producing areas and the residents were not, to my understanding, heavily involved in the trade, these individuals may have been self-selected for spending preferences that did not lead them to participate in illegal activities.

<sup>12</sup> Nabhan (1989, 2002) notes a shift away from native crops towards hybrid crops and commercial foods in small-scale farming. In the US, these changes are associated with the broader shift away from small-scale agriculture among rural populations

and, more specifically, with a decline in the number of Native American landowners and farmers (1989: 66-85). Among Native Americans in the Southwest US and Northern Mexico, the rise in dietary prevalence of store-bought, high-sugar, low-fiber foods is also associated with rapidly rising rates of diabetes (Nabhan 2002). The reasons why individuals choose to shift from home-grown to store-bought foods most likely include a combination of environmental, social, and economic factors that vary from community to community, but there remains little doubt that this shift is occurring.

<sup>13</sup> It may also have been assumed at the beginning that I didn't speak or understand Spanish well enough to understand the discussions that were going on around me. I had the impression more than once that people thought they were talking over my head when they were speaking about sensitive issues.

<sup>14</sup> The military left one month into my stay in the region and, around the time of their departure, the nature and frequency of conversations about the drug trade seemed to shift; without the visual reminder of the military's presence, the issue of drugs and their eradication seemed to weigh less strongly on individuals' minds.

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